FROM *DOER* TO *STAYER*: DISPOSITIONAL AND ORGANISATIONAL FACTORS AFFECTING SUSTAINED VOLUNTEERING IN COMMUNITY SERVICE ORGANISATIONS

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Statement of Authorship and Sources

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

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Michael F. Ryan

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Dedication

This work is dedicated to the many volunteers who selflessly donate their time and efforts to make a difference in the lives of others and in their communities.

Acknowledgements

Abstract

Sustained volunteering – the continued service of a volunteer with a particular organisation – is a critical issue for organisations that depend on the contribution of volunteers for the continuation of their programs and the achievement of their goals. The purpose of this research was to determine the extent to which selected dispositional and organisational factors influence a volunteer's sustained involvement with a community service organisation.

A conceptual model of sustained volunteering was developed based on Omoto and Snyder's Volunteer Process Model (Omoto & Snyder, 1995, 2002) and on perspectives drawn from the theory of planned behaviour and psychological contract theory. This model included the following dispositional and organisational variables: motivation to volunteer, benefits of volunteering, motivation-benefit match, self-efficacy for volunteering, collective efficacy of the organisation, satisfaction with the volunteering experience, affective organisational commitment and intention to continue volunteering. Demographic and contextual variables were included as potentially explanatory variables. The questionnaire which surveyed these variables comprised original scales and established psychosocial scales. A cross-sectional survey design was used. Responses were received from 454 volunteers, which represents an overall response rate of 71%, from three community service organisations: the St Vincent de Paul Society (NSW & ACT), the NSW Rural Fire Service and the Benevolent Society. The statistical analysis of the data included correlational as well as path analysis to build a structural equation model that fits the data with high reliability. The resultant empirical model has high explanatory power of sustained volunteering within this sample group.

Affective commitment and collective efficacy emerged as the strongest predictors of sustained volunteering; other significant influences included self-efficacy in handling volunteering tasks, social motivation, and the matching of benefits to motivation based on personal values. Satisfaction, self-efficacy, and matching of benefits to values and social motivations were significant direct influences on affective commitment and, hence, indirect influences on sustained volunteering.

This research contributes significantly to knowledge of volunteering. This research builds on and extends prior models of volunteering by testing a new model of sustained volunteering which includes multiple dispositional and organisational variables and, critically, uses a large sample and diverse population. The diversity of this sample argues for the generalisability of the model across sectors and organisations that rely on volunteers and are concerned to sustain continuity of service of volunteers. The use of this model, as well as the inclusion of self-efficacy and collective efficacy measures, adds to methodological and conceptual development in volunteer research. The findings of this study further advance the discourse in research on volunteers by focusing on the individual within the context of the organisation – the sustained

involvement of the volunteer – rather than focusing on the perspective of the organisation – volunteer retention. Moreover, the model focusses on a volunteer's continued volunteering with a particular organisation rather than their continuation as a volunteer *per se* based on volunteer role identity.

This study further adds to the knowledge of volunteers' motivations, their perceived effectiveness as a volunteer, and their perceptions of the volunteering experience, and provides organisations with important information and insights to assist them in managing their volunteer resource. The findings of this study indicate also that organisations would benefit from viewing the volunteer's involvement from the perspective of the volunteer, not only from the organisation's perspective.

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Chapter One - Introduction and Overview

1.1   Introduction

The importance of voluntary work to national life is increasingly being recognised in Australia. Most states and territories are encouraging engagement in voluntary work in their strategic plans for social development (Volunteering Australia, 2012). The Australian Government has developed a National Volunteering Strategy which emphasises the value of volunteering and its contribution to social inclusion and the sustainability of communities (Australian Government, 2011). Voluntary work meets identified community needs, expands opportunities for democratic participation, personal development and recreation within a community, and helps to develop and reinforce social networks and cohesion. In 2010, 6.1 million people, 36% of the Australian population aged 18 years and over, participated in voluntary work; up from 34% in 2006 (ABS, 2010a, 2010b). These volunteers were involved in many different activities and in organisations and groups with a diverse range of interests. Overall, 34% of men and 38% of women were volunteers (ABS, 2010a). In 2006, 5.2 million people contributed 713 million hours to the community (ABS, 2006); corresponding figures are not available for 2010, however, the increase in volunteering rates from 2006 to 2010 suggests an overall volunteering effort in excess of 800 million hours.

Voluntary work is an important issue, not only nationally, but for community service organisations which depend on the contribution of volunteers for service delivery, the continuation of their programs and the achievement of their goals. The recruitment and training of volunteers represents a significant investment for these organisations and the turnover of volunteers can be costly for an organisation in terms of lost labour and time taken to recruit and train new volunteers (Mesch, Tschirhart, Perry, & Lee, 1998).

Attrition can pose a more serious problem where there is a need for volunteers with special skills. When volunteer attrition is high, problems, may arise in volunteer settings where intensive training is required (e.g. voluntary ambulance officers and paramedics; firefighters; telephone or crisis counsellors), where a high level of organisation-specific knowledge is required, and where there is a shortage of qualified volunteers (Wymer & Starnes, 2001). Difficulties are also experienced where jobs require long-term commitments or when changes can be disruptive to clients (e.g. carers and companions for persons with physical or intellectual disabilities; advocates for disadvantaged persons) (Fischer & Schaffer, 1993). In all of these situations, the continued involvement of volunteers is of particular importance to the organisation. In the present study, the continued involvement of a person, or persons, as a volunteer with a particular organisation is referred to as sustained volunteering.

1.2 Rationale

Sustained volunteering is important for organisations which depend on the contribution of volunteers for the continuation of their programs and the achievement of their goals. By encouraging and facilitating the sustained involvement of their volunteers, organisations are able to retain a skilled and experienced volunteer workforce.

The sustained involvement of volunteers is especially important where organisations have invested significant resources in recruiting, training and equipping their volunteers and where the effectiveness of the organisation's programs depends on continuity of contact between the volunteer and the client. The more we know and understand about the factors which influence sustained volunteer involvement, the better informed we can be about developing and improving structures and processes that encourage or support volunteers and volunteering in the future.

This study investigates factors which influence the sustained involvement of volunteers in community service organisations. The findings of this study will directly inform the literature on sustained volunteering and will contribute indirectly to the knowledge available to support the more effective management of volunteers and to optimise the retention of their services by the organisation.

This chapter describes the study in more detail under the following headings:

1.3 Volunteers and volunteering defined
1.4 The transition of the volunteer from "doer" to "stayer"
1.5 Sustained volunteering and volunteer retention
1.6 Factors that influence sustained volunteering: dispositional and organisational variables
1.7 Research question
1.8 Significance of the study
1.9 Definition of terms
1.10 Chapter summary and conclusion

1.3 Volunteers and volunteering defined

The term "volunteer" and the related concept "volunteering" are variously defined in different contexts. The theoretical context of volunteering, as it relates to this study, is examined in detail in Chapter 2. For present purposes, definitions of "volunteer" and "volunteering" are needed to delineate the nature and scope of the volunteering examined in this study – volunteering in community service organisations.

Volunteering which occurs in an organisational setting, such as community service organisations, is often referred to as "formal volunteering" to distinguish it from helping behaviour and bystander assistance which does not occur in an organisational setting (Omoto &

Snyder, 1995; Penner, 2002). Penner (2002, p. 448) defines volunteering as "long-term, planned prosocial behaviours that benefit strangers and occur within an organizational setting." While there are certainly individuals who, on their own initiative, engage in ongoing, non-obligated helping of virtual strangers, most volunteers work as part of an organisation (Penner, 2002).

In the context of this study, a volunteer is "someone who willingly gives unpaid help, in the form of time, service or skills, through an organisation or group" (ABS, 2006, p. 3); and "volunteering" refers to formal volunteering, excluding informal helping activities, such as care giving for family or friends, and isolated altruistic acts, such as intervening in emergencies.

Volunteering Australia defines formal volunteering as "an activity which takes place through *not-for-profit* organisations or projects" [emphasis added], "to be of benefit to the community and the volunteer" and is undertaken "without coercion" (Volunteering Australia, 2005, p. 1). Given this definition, one might assume that formal volunteering is limited to the not-for-profit sector, the "third sector". However, this is not the case. While volunteers make an essential contribution to third sector organisations and are involved in the arts, health and welfare, and sport and recreation, as well as community services, they are also an integral part of many government departments, contributing significantly to emergency services, transport, environmental protection and even education and policing (Conroy, 2002; Lucas & Williams, 2000). Although volunteers in government technically fall outside Volunteering Australia's definition of "formal volunteers" (due to the fact that they are not volunteering in a not-for-profit organisation), they have been studied by numerous international researchers who have inherently classified them as volunteers (Brudney & Kellough, 2000; Byron & Curtis, 2002; Cnaan & Amrofell, 1994; Conroy, 2002; Rehnborg, 2005; Templeman, 2001); therefore they are included in "volunteers" and "volunteering" as defined in this study: a *volunteer* is "someone who willingly gives unpaid help, in the form of time, service or skills, through an organisation or group". Volunteering, as examined in this study, takes place in a formal setting, through a non-profit organisation or government agency, and is often referred to as *formal volunteering*. It is undertaken: of the volunteer's own free will and without coercion; for no financial payment; and to be of benefit to the clients of the organisation or agency, or the community generally, and the volunteer (Adapted fromVolunteering Australia, 2009, p. 1). Chapter 2, Section 2.1 examines in more detail the range of definitions of *volunteer* and *volunteering*, and the rationale for adopting the definitions used in this study.

This research concerns formal volunteering in community service organisations. Community service organisations include both non-profit organisations and government organisations or agencies which involve volunteers in the delivery of community services, such as emergency services, firefighting services and ambulance services. The volunteer activity is intended to benefit the clients of the organisation or agency, or the community generally.

Given the crucial contribution that volunteers make across multiple domains, an organisation's ability to retain its volunteer workforce assumes particular importance, especially as recruiting and training of replacement volunteers can be a costly exercise (Cuskelly & Brosnan, 2001, p. 104). On the other hand, the decision to stay on as a volunteer, to continue, or sustain, volunteering effort in the organisation, rests with each volunteer.

1.4 The transition of the volunteer from "doer" to "stayer"

Volunteers may be characterised as "starters", "doers" or "stayers" depending on where they are in the volunteer lifecycle: the "starter" has entered volunteering by making an enquiry or application; the "doer" has committed to being a volunteer and has begun volunteering; the "stayer" persists as a long-term volunteer (Gaskin, 2003). From a similar perspective, the Volunteer Stages and Transitions Model (VSTM) proposed by Haski-Leventhal and Bargal (2008) identifies five phases in volunteers' socialisation: nominee, newcomer, emotional involvement, established volunteering and retiring.

From the volunteer's perspective, the transition from a "doer" to a "stayer" entails his or her continued or sustained involvement with the organisation. From the organisation's perspective, this transition involves the retention of the volunteer's services by the organisation. If organisations want to facilitate this transition, they need to consider it initially from the volunteer's perspective: what factors or variables influence the volunteer to sustain involvement with the organisation?

The next section examines the relationship between sustained volunteering and volunteer retention in more detail. A subsequent section discusses factors or variables which influence sustained volunteering.

1.5 Sustained volunteering and volunteer retention

The terms "sustained volunteering" and "volunteer retention" view the same phenomenon, the continued involvement of the volunteer, but from different perspectives. Sustained volunteering denotes the continued involvement of a person, or persons, as a volunteer with a particular organisation. Thus the volunteer is the actor or agent who sustains or continues involvement. The approach taken in this study is that research which seeks to identify factors that influence an individual's decision to continue volunteering is more appropriately referred to as sustained volunteering research rather than volunteer retention research.

The term "volunteer retention", strictly speaking, refers to the retaining of a volunteer's services by the organisation. As such, the term appears to cast the organisation in the role of agent. In fact, the decision to continue volunteering rests with the volunteer as agent while the role of the organisation is limited to influencing that decision, except where the organisation decides to

terminate the volunteer's engagement. The entry under "Volunteer Retention" in Energize Inc.'s Resource Library states: "Although it is very common to talk about 'recruiting and retaining' volunteers, retention is an awkward category that does not stand alone. Retention is an *outcome*, not a *task*." (Energize Inc., 2011).

The literature on volunteering does not further define volunteer retention from the organisation's perspective. However, much of the research-based literature on "volunteer retention" aims "to identify factors that influence an individual's decision to continue volunteering and to look at the aspects of policy and practice that may affect them." (M. Locke, Ellis, & Smith, 2003, p.81). On this assessment, much of the literature on volunteer retention looks at continued volunteering from the volunteer's perspective and is about the sustained involvement of the volunteer rather than the retention of the volunteer by the organisation.

 On the other hand, research which looks at "the aspects of policy and practice that may affect [the factors influencing continued volunteering]" (M. Locke et al., 2003, p. 81) views volunteer retention from the organisation's perspective. In this case, the organisation is the actor or agent responsible for the policies and practices which are intended to influence volunteer retention.

This study seeks a better understanding of the factors which contribute to sustained volunteering - that is, the volunteer's decision to continue volunteering with the organisation - by investigating psychological factors that influence an individual's decision to continue volunteering, as distinct from the policies and practices which organisations may adopt to influence those factors, and hence increase volunteer retention. A better understanding of these factors will subsequently inform the organisation's volunteer retention initiatives.

The long-term, planned character of volunteering suggests that, among the psychological elements affecting volunteering, both dispositional and organisational factors are important (Costa & McCrae, 1992; Omoto & Snyder, 1995; Penner, 2002; Rioux & Penner, 2001).

1.6 Factors that influence sustained volunteering: dispositional and organisational variables

The literature on volunteering has provided support for the importance of dispositional factors (Omoto & Snyder, 1995; Penner, Fritzsche, Craiger, & Freifeld, 1995). Dispositional factors include the range of personal characteristics, motivations, interests and abilities which volunteers bring to the situation. According to Penner, due to the long-term nature of volunteering behaviour, dispositional factors are more likely to manifest as salient influences of volunteer behaviour than situational factors (Penner, 2002). Penner and Finkelstein (1998) and Penner (2002) suggest that volunteers whose predispositions are strongly other-oriented are more likely to have longer lengths of service and higher levels of participation.

The transition from "doer" to "stayer" must take account of dispositional factors. Dispositional factors may affect the individual's choice of organisation and decision to continue volunteering, but are likely to be independent of direct organisational control. For example, a person who joined an organisation for self-enhancement reasons may continue volunteering because of the social benefits accrued with greater participation. While these changes can only occur at the individual's discretion, organisations may make considerable efforts to increase the volunteer's integration into, or identification with, the organisation to bind them into continued service. Organisations must accommodate these dispositional factors over which they may have relatively little control. The evidence suggests, however, that being fully aware of these dispositional factors can help organisations to exert a positive influence, likely to encourage or prolong a volunteer's involvement (M. Locke et al., 2003).

Organisational factors or variables, on the other hand, are affective responses that the organisation can more directly influence (e.g. perceived benefits of volunteering, satisfaction with the volunteering experience, affective commitment to the organisation). In Gaskin's model, the transition from "doer" to "stayer" concentrates on the experience of volunteering and what volunteer-involving organisations can do to facilitate and encourage the sustained participation of the volunteer. Organisations can provide effective management, support and supervision, and ongoing training, and develop a culture which is welcoming and inclusive, and which values the contribution of the volunteer (Gaskin, 2003). For the volunteer, these policies and practices might be expected to influence organisational factors such as: the perceived benefits of volunteering; satisfaction with the volunteering experience; and affective commitment to the organisation. In turn, these organisational factors may influence the volunteer's continued involvement with the organisation (Omoto & Snyder, 1995). Research by Tidwell (2005) lends support to this, suggesting that, in addition to antecedent dispositions, the individual's perception of the organisation is highly relevant. In the light of these studies, it seems reasonable to assume that a volunteer's perception of the organisation and commitment to the organisation's objectives would have a positive effect on continued involvement.

To facilitate the transition from "doer" to "stayer", organisations need to consider both dispositional and organisational factors. The present study will examine selected dispositional and organisational factors and their influence on a volunteer's intention to continue volunteering with the current organisation.

1.7   Research Question

The ongoing involvement of volunteers is important for community service organisations which depend on skilled and experienced volunteers for the continuity of their programs. Dispositional and organisational factors are important influences on a volunteer's decision to sustain their

volunteering effort. While the decision to continue volunteering rests with the volunteer, organisations can encourage and facilitate this ongoing involvement through understanding and, where possible, influencing the factors which determine the volunteer's decision to continue their involvement. The research question which shapes this investigation is:

How do dispositional and organisational factors influence sustained volunteering; that is, a volunteer's continued involvement with a community service organisation?

The purpose of the research is to determine the extent to which dispositional and organisational factors, directly or indirectly, individually or in combination, influence a volunteer's sustained involvement with a community service organisation. In particular, to what extent do motivation, self-efficacy, perceived benefits, satisfaction, collective efficacy and affective commitment to the organisation, taken individually or in combination, influence the sustained involvement of the volunteer? A number of subquestions have been identified. These subquestions are:

RQ1: How does a volunteer's motivation for volunteering influence their sustained volunteering? Are volunteers who are motivated by a particular function(s) more likely to continue their volunteering with the organisation? (cf. Chapter 4, Section 4.7.1.1)

RQ2: How does a volunteer's belief in his/her ability to be an effective volunteer (self-efficacy for volunteering) influence their sustained volunteering? (cf. Chapter 4, Section 4.7.1.2)

RQ3: How do the benefits received from volunteering influence a volunteer's sustained volunteering? (cf. Chapter 4, Section 4.7.2.3)

RQ4: How does satisfaction with the volunteering experience influence a volunteer's sustained volunteering? (cf. Chapter 4, Section 4.7.2.2)

RQ5: How does a volunteer's perception of the collective efficacy of the organisation influence a volunteer's sustained volunteering? (cf. Chapter 4, Section 4.7.2.4)

RQ6: How does a volunteer's affective commitment to the organisation influence a volunteer's sustained volunteering? (cf. Chapter 4, Section 4.7.2.1)

RQ7: How does the "match" between a volunteer's motivation and the benefits received influence a volunteer's sustained volunteering? (cf. Chapter 4, Section 4.9.2.2)

Research subquestions RQ1 to RQ7 address the influence of each of the identified dispositional and organisational variables on sustained volunteering. A further question, RQ8, also investigates the combined influence of these variables.

RQ8: How do motivation, self-efficacy, benefits, satisfaction, collective efficacy, affective commitment to the organisation, and motivation-benefit "match" collectively influence sustained volunteering, either directly or indirectly? (cf. Chapter 4, Section 4.9)

1.8   Significance of the study

This study will directly inform the literature on sustained volunteering and contribute indirectly to the knowledge available to support the more effective management of volunteers and to optimise the retention of their services by the organisation.

The research, as a study which attempts to address the complexity of sustained volunteering through the use of multiple independent variables, will make an important contribution to the volunteering literature. By utilising a large sample size and multiple organisations, it also avoids the limitations of much of the previous research. Most studies of sustained volunteering have looked at the influence of only two or three factors, and overall this research has been largely inconclusive (M. Locke et al., 2003). Research needs to acknowledge the complexity of sustained volunteering and examine multiple factors or variables and the interactions between them. Moreover, most previous studies have involved small sample sizes and a single organisation or program (M. Locke et al., 2003). This study attempts to address the complexity of sustained volunteering and the low generalisability of previous studies by considering the collective influence of several dispositional and organisational factors assumed to affect sustained volunteering. The study seeks to avoid the limitations of previous studies by using a large sample size, across three community service organisations.

A significant feature of this study is the diversity of social and organisational contexts represented by the three organisations participating in this study. They provide a wide variety of services across diverse social contexts in all parts of the Sydney metropolitan area, and in regional and rural areas of NSW, and they represent a continuum of organisational dependence on volunteers that ranges from almost total dependence at one extreme, to use of volunteers to extend and enhance the services provided by paid staff at the other. The St Vincent de Paul Society (SVDP) operates as a charity with more than 21,000 volunteers and 2000 paid staff in NSW and ACT. Its most important activity is providing support and material help to people in crisis in their home (which includes nursing homes, prisons, hospitals and on the street). The NSW Rural Fire Service (RFS) is a statutory body with approximately 70,000 volunteers formed into more than 2,000 volunteer brigades, and 680 salaried staff employed to manage the day-to-day operations of the Service. The role of volunteer rural fire brigades encompasses not only fighting and preventing bushfires but also attending road accidents and assisting in search and rescue operations. The Benevolent Society (TBS) is a non-profit organisation, operating as a company limited by guarantee, with a voluntary board, more than 800 volunteers and approximately 700 paid staff. The Society's core programs focus on older people, children and families, women's health and social leadership.

This study also examines volunteers' functional motivations and their impact on continued, or sustained, volunteering. Clary and Snyder conducted several studies to examine how continued volunteering is influenced by the match between functional motives and perceived benefits of volunteering (Clary & Snyder, 1999; Clary, Snyder, & Ridge, 1992; Clary, Snyder, & Stukas, 1996). Each study was based on data from a single organisation in the USA. The present study seeks to extend Clary and Snyder's work in this area by extending their studies to the Australian context, collecting data across three organisations, and placing their approach within an extended conceptual framework which includes further variables related to sustained volunteering.

This is one of the first studies to investigate the influence of self-efficacy on sustained volunteering, and one of the few to include the variable collective efficacy (Barbaranelli, Caprara, Capanna, & Imbimbo, 2003; Thomas, 2005). This inclusion will provide new insights into the role of efficacy in sustaining volunteer involvement.

Sustained volunteering is an important issue for community service organisations that depend on the contribution of volunteers for the continuation of their programs and the achievement of their goals. This continuity of service is especially important where those organisations have invested significant resources in recruiting, training and equipping their volunteers and where the effectiveness of the organisation's programs depends on continuity of contact between the volunteer and the client. This study will help the participating organisations, and community service organisations generally, to better understand how dispositional and organisational factors influence a volunteer's sustained efforts on behalf of the organisation. Better understanding will enable the organisations to maximise volunteer retention by taking these factors into account in managing their volunteers.

1.9   Definition of terms

This section defines some of the key terms as used in this research.

Affective organisation commitment refers to the volunteer's emotional attachment to, identification with, and involvement in the organisation, or the "strength of feeling" of an individual towards the organisation (Meyer & Allen, 1991).

Collective efficacy refers to "people's shared beliefs that they can work together to produce effects" (Bandura, 1997, p. 7). Perceived collective efficacy is defined as "a group's shared belief in its conjoint capabilities to organise and execute the courses of action required to produce given levels of attainments" (Bandura, 1997, p. 477). Simply stated, collective efficacy is the extent to which people believe that they can work together effectively to accomplish their shared goals (Zaccaro, Blair, Peterson, & Zazanis, 1995).

Community service organisations are non-profit organisations which promote, provide or carry out activities, facilities or projects for the benefit or welfare of the community or any members who have a particular need by reason of youth, age, infirmity or disablement, poverty or social or economic circumstances. They include government agencies which involve volunteers in the delivery of community services, such as health and welfare, emergency services, firefighting services and ambulance services.

Motivation to volunteer refers to a person's reasons for volunteering or the needs and aspirations that they seek to satisfy by volunteering.

Self-efficacy is defined as "belief in one's capacity to organise and execute the courses of action required to produce given attainments." (Bandura, 1997, p. 3).

Self-efficacy for volunteering is the belief that one is capable of doing the actions needed to perform effectively in a volunteering role, or at least of learning how to do so.

Sustained volunteering denotes the continued involvement of a person, or persons, as a volunteer with a particular organisation.

Volunteer – "someone who willingly gives unpaid help, in the form of time, service or skills, through an organisation or group" (ABS, 2006, p. 2; cf. also Section 1.3, and Chapter 2, Section 2.1).

Volunteering, as examined in this study, takes place in a formal setting, that is, through a non-profit organisation or government agency, and is undertaken:
- of the volunteer's own free will and without coercion;
- for no financial payment; and
- to be of benefit to the clients of the organisation or agency, or the community generally, and the volunteer. (Adapted from Volunteering Australia, 2009, p. 1; cf. also Section 1.3, and Chapter 2, Section 2.1).

1.10   Chapter summary and conclusion

This chapter has outlined the nature and importance of sustained volunteering in the context of formal community service organisations. Volunteers and volunteering were defined and the relationship between sustained volunteering and volunteer retention was examined. The purpose and significance of the study have been presented together with definitions of key terms.

The remainder of this thesis is organised as follows. Chapter 2 describes in more detail the context of the present study. Chapter 3 reviews the research-based literature to identify factors that influence an individual's decision to continue volunteering. Theoretical perspectives are identified to provide a basis for selecting the variables to be studied and hypothesising the relationships between them. These hypothesised relationships are presented as a conceptual

model of sustained volunteering. Chapter 4 presents the research design and methodology for the study. Chapter 5 reports data preparation and screening, presents sample characteristics, examines the validity and reliability of measurement scales used in the study, and culminates with the description of the measurement model based on the conceptual model developed for this study. Chapter 6 reports the results of testing the measurement model using structural equation modelling (SEM). Chapter 7 presents a discussion of the findings, and Chapter 8 draws conclusions from the findings, acknowledges limitations of the study, and suggests opportunities for further research.

Chapter Two - Context of the Study

2.0   Introduction

The terms "volunteer" and "volunteering" mean different things to different people. Studies of volunteers and volunteering do not always delineate the specific activities involved and the different types of volunteers. Studies that report on volunteers without being specific on their characteristics cannot be generalised from one setting to another because of the ambiguity and variety of interpretations of "who is a volunteer" (Cnaan & Amrofell, 1994; Cnaan, Handy, & Wadsworth, 1996)

In Chapter 1 the empirical context of volunteering was described. The empirical context situates volunteering generally and the present study within its social and economic environments. The present chapter examines the theoretical context of volunteering as it relates to this study, which provides a basis for identifying relevant research literature and determining the applicability of generalisations arising from this study's findings.

This chapter begins with a more detailed examination of the varying definitions of volunteer and volunteering discussed in Chapter 1 (Section 1.3) and proposed typologies of volunteering. Definitions of volunteer and volunteering in use in Australia are then examined in terms of these typologies. The social and economic context of volunteering is described, both globally and nationally. The remainder of the chapter discusses the [empirical] context of the study in detail; in particular, volunteering in Australia and volunteering in community service organisations. The three community service organisations which participated in the study are then profiled.

2.1   Definitions of volunteer and volunteering

Although the terms "volunteer" and "volunteering" are in common use in many aspects of our lives, many issues arise when people report their own "volunteering" or attempt to define the term "volunteer". For example, when asked if they have volunteered in the past 12 months, some may report that they have; while others who performed the same task side-by-side with this person may not regard the activity as "volunteering". Volunteering is not limited to a specific activity or activities, and there is no clear-cut definition of volunteering that encompasses all activities and situations to which the term is commonly applied. Often, many different activities and situations are aggregated into this concept (Cnaan et al., 1996; Scheier, 1980; D. H. Smith, 1994; Tremper, Seidman, & Tufts, 1994; Vineyard, 1993). Similarly, there are many and varied understandings of who is a volunteer. The literature on volunteers does not always differentiate between the volunteer who sits on the board of the non-profit organisation, the one who delivers meals-on-wheels on a regular basis, and the one who provides support

services at a national or international sporting event, such as the Olympic Games. Studies of volunteers and volunteering need to delineate the types of activities involved and the different types of volunteers.

Cnaan and his colleagues (Cnaan & Amrofell, 1994; Cnaan et al., 1996) have advanced the study of volunteering by documenting the scope and variability of the concept. Arai argued that for "theory and practice to continue to be relevant, we must continue to redefine the concept of volunteering and the frameworks we use to understand this unique form of human action." (Arai, 1997, p. 19). For the purposes of this study, detailed definitions of "volunteer" and "volunteering" are needed to delineate the nature and scope of the volunteering examined in this study – volunteering in community service organisations.

2.1.1   National and international differences

Handy, Cnaan, Brudney et al. (2000) found widespread differences between countries in public perceptions of what constitutes a voluntary activity. In some countries giving blood was seen as volunteering, in others being involved in a political party or trade union was counted. For some people the defining characteristic of volunteering was the absence of financial reward; for others lack of coercion was the main identifier. Volunteering takes on different forms and meanings in different settings. It is strongly influenced by the history, politics, religion and culture of a region. What may be seen as volunteering in one country may be dismissed as low paid or labour intensive work (or even forced labour) in another.

More than two decades ago, Cnaan and Amrofell reviewed more than 300 articles and reports and concluded that "although most scholars agree on the importance of volunteerism, there is little consensus as to what is, and is not, volunteerism" (Cnaan & Amrofell, 1994, p. 337). More recent studies have reached a similar conclusion (Petriwskyj & Warburton, 2007). In any discussion or study of volunteering, it is important that the boundaries of volunteering, a key element of the context of that discussion or study, be explicitly and clearly defined.

With every government or institutional proposal relating to the provision of "community service", especially those which include the term "volunteering", the question arises "But is that really 'volunteering'?" In Australia in recent times this question has arisen in relation to a number of issues including: a government proposal to allow reduction of Higher Education Contribution Scheme (HECS) debt through community service (Australian Government, 2008, p. 11); "service learning" arrangements such as Macquarie University's Global Futures Program which requires students to compulsorily volunteer as part of their degree (Macquarie University, 2008); and mutual obligation schemes such as "work for the dole". Similarly, a proposal that the Australian government reimburse out-of-pocket expenses incurred by volunteers (Volunteering Australia, 2007) has met with suggestions that reimbursement might diminish the "voluntary" nature of the activity, despite the fact that many organisations and agencies already reimburse

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volunteers' out-of-pocket expenses. Such is the variety of meanings attributed to the term "volunteering." Without some shared understanding of the common elements of volunteering, the term would be meaningless and this would confound any attempts by government to promote it.

In order to give more coherence and clarity to the operational frameworks employed in this study and others it is possible, indeed necessary, to identify some core characteristics of what constitutes a voluntary activity. Although it is clearly not possible to articulate an unequivocal definition of volunteering that takes into account the variety of contexts in which it operates, researchers have developed broad conceptual frameworks or typologies which allow for significant differences in interpretation within clearly delineated boundaries (Cnaan et al., 1996; J. D. Smith, 1998). Such typologies can provide a basis for defining the context of volunteering within the present study and identifying possible limitations to the generalisability of the findings of this study.

2.2   Typologies of volunteering

Based on a comprehensive literature review, US researchers Cnaan et al. (1996) showed that most definitions of volunteers are based on four key dimensions: free choice, remuneration, organisational setting, and intended beneficiaries. They proposed a conceptual framework for classifying voluntary work which incorporated these four dimensions. In the UK, J. D. Smith (1999) proposed a typology of volunteering comprising five key elements. Four of these key elements corresponded closely with Cnaan et al.'s four dimensions, to which Smith added a fifth, the commitment of volunteers. These typologies of volunteering are reviewed in the following sections.

2.2.1   Cnaan's four dimensions of volunteering

In their extensive analysis of volunteering research, Cnaan et al. (1996) identified four principal dimensions that underlie the definition of the volunteer and volunteering concepts and the key categories associated with each dimension. These dimensions and their relevant categories are discussed in this section and summarised in Table 2.1. Cnaan et al. contend that these dimensions and categories "are useful in understanding how the public at large defines volunteering" (Cnaan et al., 1996, p. 371).

The first dimension is "free choice", or the degree to which the decision to volunteer is free or uncoerced. The decision to volunteer may be obviated, for example, by a court order mandating "community service", by welfare programs which require community-service activities based on the principle of "mutual obligation", or by educational programs which require the completion of community-service experiences for graduation (Cnaan et al., 1996, p. 369).

The second dimension is the nature of the remuneration received by the volunteer, which can range from none at all, through reimbursement of expenses, to payment of a stipend or low pay. Low pay refers to remuneration at a level which is less than the value of the work or service provided (Cnaan et al., 1996, pp. 370-371).

The third dimension, "structure", refers to the organisational setting in which the volunteer activity takes place. Volunteering may occur in a formal, organised setting, which may be a non-profit organisation or government agency, or it may be informal and outside of an organisation (Cnaan et al., 1996, p. 370). Wilson and Musick (1997) also distinguished between formal and informal volunteering, with formal volunteering being typically carried out in the context of organisations, while informal volunteering was defined as "helping" and noted that these activities; for example, assisting friends, neighbours and relatives, were more private and unorganised in nature.

The fourth and final dimension of volunteering identified by Cnaan et al. relates to the intended beneficiaries of the activity. The aim of volunteers may be to benefit or help strangers, friends, relatives, themselves, or some combination of these beneficiaries (Cnaan et al., 1996, p. 370).

These dimensions for classifying volunteer activity illustrate the breadth of the concept and the need to delineate the nature of volunteering under consideration. Each combination of dimensions yields a distinct conception of volunteering with important implications for both theory and practice: the design of research projects and the generalisability of research findings; and the design and management of volunteer programs. Rather than summarily combine all forms of volunteering as if they were identical, or nearly so, Cnaan and Amrofell maintain that "only the combination of all facets forms a volunteer profile that is distinctive enough to warrant generalizations." (Cnaan & Amrofell, 1994, p. 349).

2.2.2   Smith's five key elements of volunteering

Smith presents the five key elements of his framework in the following order: reward, free will, nature of the benefit, organisational setting, and level of commitment (J. D. Smith, 1999). The range or scope envisaged for each element follows.

The first element, reward, is intended to accommodate definitions of volunteering which range from those that include only purely altruistic behaviour to those that contend that there is no such thing as pure altruism and that all volunteering contains an element of exchange and reciprocity. Thus, some definitions would allow for volunteers to be rewarded in some way, either non-materially through the provision of training or accreditation, or materially through the reimbursement of expenses or the payment of an honorarium. For Smith, the key cut-off point drawing the distinction between volunteering and paid employment is that the volunteer

should not be undertaking the activity primarily for financial gain and that any financial reimbursement should be less than the value of the work provided (J. D. Smith, 1999, p. 3).

With the element of free will, as with the notion of reward, there are grey areas. Most definitions concede that volunteering and compulsion are incompatible. How should we view university community service or "service learning" schemes which encourage, and sometimes require, students to get involved in voluntary work? Indeed, while participation in some such schemes is "optional", that is, voluntary, course credits are available on completion of certain requirements. This clearly impacts on the "reward" dimension of volunteering also. Smith's broad conceptual framework accepts that it may be difficult to uphold the pure notion of free will in any volunteering interaction; people's motivation to volunteer will perhaps always include a mix of reasons including peer pressure and social obligation. However, it would draw the boundary around any overt attempt by government or other authorities to force people to participate (J. D. Smith, 1999, p. 3).

The third element in Smith's framework relates to the nature of the benefit received from the activity in question. Smith draws a distinction between volunteering and a purely voluntary leisure activity, by requiring that there must be a beneficiary to the activity other than (or in addition to) the volunteer. However, the boundaries within which a beneficiary is defined may be open to interpretation. Some authors would argue that the beneficiary has to be a stranger to the volunteer; others would allow for neighbours, friends and extended relations to be included; while others would include the notion of self-help or mutual aid where the dividing line between personal and third party benefit is particularly blurred. Smith recognises the need to allow for a variety of interpretations, while insisting that there be:

> an identifiable beneficiary or group of beneficiaries (which might include such abstract notions as the environment or society itself) other than (or in addition to) the volunteer's immediate family or friends. This would allow for self-help and mutual aid to be included but would rule out caring for dependent relatives. (J. D. Smith, 1999, p. 4).

Organisational setting, Smith's fourth key element, refers to the environment in which volunteering occurs. Such settings may be defined broadly and can encompass both formal, organised, and informal, one-to-one volunteering as well as volunteering carried out in the different sectors, non-profit, public and corporate (J. D. Smith, 1999, p. 4).

The fifth and final element in Smith's conceptual framework is the level of commitment by which volunteer activity can be defined. Some definitions allow for one-off volunteer activities, while other definitions demand a certain level of commitment and exclude occasional acts. Harrison was one of the first to acknowledge that volunteer participation can be "discrete or episodic, rather than continuous or successive" (1995, p. 372). Interestingly, while claiming that his conceptual framework is broad enough to encompass a range of different levels of activity

from high commitment to sporadic involvement, Smith contends that "it seems fair to assume that most volunteering would carry with it some degree of sustained commitment" (J. D. Smith, 1999, p. 4). Indeed, an underlying assumption of the present study is that 'some degree of sustained commitment' is a desirable, if not essential, requirement for the effectiveness of volunteering efforts associated with particular types of volunteering activity: those which require special knowledge and skills; where intensive training is required; or where a program depends on continuity of contact between the volunteer and the client.

A comparison of Cnaan et al.'s and Smith's classifications is presented in summary form in Table 2.1.

Table 2.1   Comparison of classification frameworks for volunteering

Dimension/Element	Cnaan et al.'s Categories	Smith's Range/Scope
Free choice	• free will (ability to voluntarily choose) • relatively uncoerced • obligation to volunteer	• no compulsion – voluntary/optional • peer pressure • social obligation to volunteer
Reward or remuneration	• none at all • none expected • expenses reimbursed • stipend/low pay	• none at all • non-material (e.g. training or accreditation) • reimbursement of expenses • payment of an honorarium • financial reimbursement - but less than the value of the work performed
Organisational setting	• formal • informal	• formal (organised) - non-profit, public and corporate sectors • informal (one-to-one)
Intended beneficiaries	• benefit/help others/strangers • benefit/help friends/relatives • benefit oneself (as well)	• benefit/help others/strangers • benefit/help neighbours/friends/ relatives • may benefit oneself (as well) • self help/mutual aid
Level of commitment	[Not mentioned.]	• some degree of sustained commitment (continuous or successive) • one-off or occasional (discrete or episodic)

Sources: Cnaan, R.A., Handy, F., & Wadsworth, M. (1996*). Defining Who Is a Volunteer: Conceptual and Empirical Considerations.* Nonprofit and Voluntary Sector Quarterly*, 25(3): 364-383.*

Smith, J.D. (1999. *Volunteering and Social Development: A Background Paper for Discussion at an Expert Group Meeting New York, November 29-30, 1999*. New York: United Nations Volunteers.

2.3   Definitions of volunteer and volunteering in Australia

Cnaan et al.'s four dimensions and Smith's five key elements are reflected in definitions of volunteering in the Australian context, although they have received varying interpretations and different emphases. In 1988, the Australian Bureau of Statistics (ABS) defined a volunteer as follows:

> A volunteer is an individual who freely contributes their services without remuneration (other than reimbursement of expenses incurred while working) to a variety of community activities. These services can be provided through and/or outside of organisations (ABS, 1988, p. 77).

In 1995, just seven years later, in the first national survey of volunteering conducted by the ABS, the definition of "volunteering" was limited to activities carried out through an organisation or group. A volunteer was defined as "someone who willingly gives unpaid help, in the form of time, service or skills, through an organisation or group" (ABS, 1996, p. iii). An organisation or group was defined as "any body with a formal structure" (ABS, 1996, p. 31). Note that this definition is often referred to as "formal volunteering"; it excludes those who organise their volunteering individually or through family or community networks. The reimbursement of expenses (in full or part) or the provision of small gifts did not preclude people receiving such benefits from being considered as volunteers. These definitional aspects relating to the absence of financial gain and the reimbursement of expenses (to a value less than the work provided) help to distinguish between paid employees and volunteers. This definition was retained in the second national survey conducted in 2001 (ABS, 2002).

In 1996, Volunteering Australia, the peak body for the voluntary sector, conducted an extensive national consultation process involving the voluntary sector, the unions and government, which resulted in "formal volunteering" being defined as "an activity that takes place in not for profit organisations or projects and is of benefit to the community and undertaken of the volunteer's own free will and without coercion; for no financial payment; and in designated volunteer positions only." (Cordingley, 2000, p. 73). With reference to the organisational setting of volunteering, Cordingley, then CEO of Volunteering Australia, wrote:

> There are compelling reasons for volunteer work to be undertaken only in non-profit organisations. Non-profit organisations, variously known as the third sector, non-profit, charitable, benevolent, voluntary, or nongovernment organisations are separate from both the state and the for-profit sector (2000, p. 74).

However, this perspective of volunteer work does not encompass the variety and extent of roles filled by volunteers within the public sector including firefighting, emergency services, environmental protection, policing and education (Conroy, 2002, p. 5). Although volunteers in government departments and agencies are not included in the predominant Australian definitions, they have been accepted as volunteers by numerous researchers and included in studies of volunteering both in Australia and abroad (Brudney & Kellough, 2000; Conroy, 2002; Rehnborg, 2005; Templeman, 2001).

By 2003, Volunteering Australia had modified their definition of formal volunteering to include the volunteer as a beneficiary:

> Formal volunteering is an activity that takes place through not-for-profit organisations or projects and is undertaken: to be of benefit to the community *and the volunteer*; of the volunteer's own free will and without coercion; for no financial payment; and in designated volunteer positions only. [Emphasis added] (Volunteering Australia, 2003, p. 1).

The 2006 ABS *Voluntary Work* survey (ABS, 2006) retained the definition of voluntary work adopted in the previous two surveys but specifically excluded any activity carried out "as a result of legal or institutional direction" (ABS, 2006, p. 72). The most recent survey (ABS, 2010b) retained the definition and exclusions from the 2006 survey. The definition of voluntary work used for all four ABS surveys has four criteria for unpaid work in the community to be regarded as voluntary work, namely that it be:

1. willingly undertaken, (not as the result of a legal or institutional direction);
2. unpaid, (reimbursement of costs or an honorarium are not considered as payment);
3. help in the form of time, service or skills (it does not include assistance in the form of money, goods or biological donation such as blood or organs – these are seen as other forms of altruism in their own right);
4. formal, as determined by its being carried out for, or through, an organisation or group.

Informal help, given to relatives, friends, neighbours or others, is not included in voluntary work, but this type of assistance is recognised as unpaid community work and participation in this type of work is separately measured in the 2010 General Social Survey (ABS, 2010a).

Three of these four criteria reflect the dimensions and elements identified by Cnaan and Smith: free choice, reward or remuneration, and organisational setting. The definitions of volunteering proposed by the Australian government and Volunteering Australia, and their development over time, are summarised in Table 2.2 and mapped against Cnaan's and Smith's dimensions and elements (cf. Table 2.1).

Table 2.2 Australian definitions of volunteering: Federal Government and Volunteering Australia (Peak Body)

Dimension/Element	ABS (1988)	ABS (1995, 2001)	ABS (2006, 2010a)	VolAust (1996)	VolAust (2003)	VolAust (2005)
	Volunteering	Volunteering	Volunteering	Formal volunteering	Formal volunteering	Formal volunteering
Free choice [a]	✓	✓	✓[b]	✓	✓	✓
No payment [a]	✓	✓	✓	✓	✓	✓
Scope: Activity [time, service, or skills]	services	time, service or skills	time, service or skills	activity	activity	activity
Organisational setting [a]	through and/or outside an organisation	through an organisation or group	through an organisation or group	through not-for-profit organisations or projects	through not-for-profit organisations or projects	through not-for-profit organisations or projects
Beneficiaries [a]	Community			Community	Community <u>and</u> volunteer	Community <u>and</u> volunteer
Designated volunteer positions only	✗	✗	✗	✓	✓	✓
Level of commitment [a]	✗	✗	✗	✗	✗	✗

[a] Dimension/element identified by Cnaan and/or Smith.

[b] Not as a result of legal or institutional direction.

Excludes money, goods, organs, blood.

Excludes government agencies.

May include reimbursement of expenses or honorariums.

2.4   *Volunteering as defined in this study*

In any discussion of volunteering, it is important to delineate the nature of the volunteering under consideration (cf. Chapter 1, Section 1.3). In this study, the focus is on formal volunteering in community service organisations. Volunteering, as examined in this study, has the following characteristics:

- The volunteer's time is given freely, rather than mandated or coerced.
- The volunteers do not receive remuneration for their donations of time and labour, although they may receive reimbursement for out-of-pocket expenses incurred in their volunteer activity, such as transport, meals and parking.
- The volunteer activity takes place in a formal setting, that is, in an organisational context, through a non-profit organisation or government agency.
- The volunteer activity is intended to benefit the clients of the organisation or agency, or the community generally, and the volunteer.

Volunteering, as defined in this study, is assumed to benefit the volunteer as well as the direct beneficiaries of the volunteering activity. J. D. Smith (1999) contends that all volunteering contains an element of exchange and reciprocity. Volunteering Australia asserts that "formal volunteering ... is undertaken to be of benefit to the community *and the volunteer*" [emphasis added] (2003, p. 1), and Unger (1991) found that most definitions of formal volunteering demonstrate that there is an element of exchange between the volunteer and the organisation. Volunteers contribute their services and in return expect the volunteering experience to meet the

personal needs or expectations that prompt their volunteering. These personal needs or expectations are deemed to be met when the volunteer perceives that the benefits of volunteering are related to, or match, their reasons or motives for volunteering. This motivation-benefit match is important for sustained volunteering since, if volunteers' expectations are not met, their most likely response is to limit, or even cease, their involvement with the organisation. (Clary & Miller, 1996; Clary et al., 1996).

The following chapter, Chapter 3, presents a review of the literature pertinent to this study. The literature reviewed in Chapter 3 is limited to studies which involve volunteers or volunteering as defined above. It excludes forms of unpaid helping activity which do not meet the definition or characteristics of volunteering as discussed above; for example:

- studies which involve university students who are required to engage in community service as a requirement for completion of their degrees ("service learning");
- studies where the "volunteers" are involved in unpaid helping activities as a result of a community service order or other court-imposed sanction; and
- studies where the unpaid, helping activity is a requirement under a "mutual obligation" arrangement (such as "work for the dole").

2.5   The social and economic context of volunteering

National surveys on volunteering in Australia, the United States and Canada provide detailed data that demonstrates the relevance of ongoing measuring of volunteering. In 2008, the United Nations Secretary-General noted 15 country-specific studies in developing countries (United Nations General Assembly (UNGA), 2008). In 2010 United Nations Volunteers identified 14 new developing country studies and reports on volunteering (United Nations Volunteers (UNV), 2010). In general, these studies aim to increase public recognition and awareness of volunteering and its contributions, and to assess volunteering as a part of community needs. These studies also aid resource mapping to support national development planning and programming.

According to the Gallup World Poll (2011), people in Australia, New Zealand and North America were the most likely to volunteer, followed by those in South-East Asia (specifically Cambodia, Indonesia and the Philippines) and Africa. The lowest levels of volunteering were in the Middle East, North Africa and East Asia (i.e. China, Japan and South Korea).

Volunteers make a valuable contribution to society in social and economic terms (Volunteering Australia, 2004). Volunteering is a significant way through which people participate in society and develop social capital (Lyons, 2001). Volunteering is vital for our social, political, and economic systems (Ironmonger, 2000), and might be considered to be at the heart of participatory democracy (Fitzgerald, 2000).

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Volunteering occurs across a range of social activities including education, health, community services, human services, religion, arts and culture, sport and recreation, economic cooperation, and philanthropy (ABS, 2010b; Lyons, 2001). Volunteers provide services which would otherwise have to be paid for or left undone, allowing organisations to allocate their often limited finances elsewhere.

Volunteering is an important contributor to social capital, the measure of the connectedness and functionality of our communities (Onyx, Leonard, & Hayward-Brown, 2003), and plays an important role in social inclusion in Australian society (Volunteering Australia, 2010). Volunteering can help reduce feelings of personal isolation, offer people skills and social contacts, support a greater sense of self-worth, and challenge stereotypes about different groups (Volunteering Australia, 2010).

Voluntary work meets identified community needs, expands opportunities for democratic participation, personal development and recreation within a community, and helps to develop and reinforce social networks and cohesion

2.6   Volunteering in Australia

Volunteering is an activity that delivers significant social and economic benefits. The importance of this contribution to Australian society is increasingly being recognised. Most states and territories are encouraging engagement in voluntary work in their strategic plans for social development, with ministers and departments having specific portfolio responsibilities for volunteers and volunteering. The Australian Government developed a National Volunteering Strategy to mark the 10-year anniversary of the United Nations Year of Volunteering, celebrated in 2001 (Australian Government, 2011).

The National Volunteering Strategy emphasises the value of volunteering to Australia, in particular the role of volunteering:

- in contributing to the Australian Government's vision of a socially inclusive society in which all Australian people feel valued and have opportunities to fully participate in community life;
- in creating social cohesion, facilitating networks to build social capital and engendering a sense of belonging;
- as it embodies active citizenship and community participation and in its contribution towards building the sustainability of communities;
- in responding to the needs of disadvantaged Australians and communities;
- in building community resilience and its critical contribution to emergency services and disaster mitigation and recovery in Australia; and
- in its contribution to the economy (Australian Government, 2011).

2.6.1   The social value of volunteering in Australia

The effect of volunteering on the functioning and connectedness of communities is increasingly being recognised. Through their contribution to a wide range of organisations, volunteers help to build social networks, shared values and social cohesion (ABS, 2004).

Volunteering delivers a number of key social benefits including:

- creating social cohesion;
- contributing to community capacity and resilience and supporting services that meet the needs of Australian communities; and
- a critical contribution to emergency services and disaster recovery (Australian Government, 2009; Volunteering Australia, 2012).

The 2010 National Survey of Volunteering in Australia, conducted by the peak body Volunteering Australia, found that 83 per cent of volunteers say that volunteering has increased their sense of belonging to their community (Volunteering Australia, 2010, p. 12).

The 2010 National Survey of Volunteering also highlights the important role that volunteering plays in providing opportunities for people to learn, with 26 per cent saying that the training received as part of their volunteer work has helped them to acquire an accreditation or qualification (Volunteering Australia, 2010, p. 12).

The 2011 National Survey of Volunteering reaffirms the contribution volunteering makes to social inclusion in Australia: "Volunteers in Australia most commonly volunteer because of the difference they make to the community and the sense of purpose their volunteering gives them." (Volunteering Australia, 2011, p. 2)

2.6.2   The economic value of volunteering in Australia

Volunteers contribute substantially to Australia's economic viability. The value of volunteering to the Australian economy can be measured in the tens of billions of dollars per annum. In 2000 (excluding volunteers at the Olympic and Paralympic Games), 4.4 million volunteers contributed 558 million hours to non-profit institutions, equating to 285,000 full-time equivalent jobs. Overall, non-profit institutions contributed a total of $30 billion or 4.7% to Australia's GDP. Within this total contribution of non-profit institutions, the economic value of services provided by volunteers was estimated to be $8.9 billion, or 1.4% of GDP (ABS, 2000).

In 2006, 5.2 million people, 34% of the population aged 18 years and over, participated in voluntary work. They contributed 713 million hours to the community (84% in non-profit institutions; 14% in the government sector). This contribution of the volunteer workforce was estimated to provide more than $14.6 billion of unpaid labour (ABS, 2006).

In 2010, 6.1 million people, 36% of the Australian population aged 18 years and over, participated in voluntary work, up from 34% in 2006 (ABS, 2010a). These volunteers were involved in many different activities and in organisations and groups with a diverse range of

interests. Overall, 34% of men and 38% of women were volunteers (ABS, 2010a). Figures are not available for total hours volunteered in 2010, but the increase in volunteering rates from 2006 to 2010 suggests an overall volunteering effort in excess of 800 million hours. A revised national figure for the economic contribution of volunteers has not yet been released by the Australian Government (Volunteering Australia, 2012).

2.6.3 Nature and extent of formal volunteering in Australia

This section describes the activities that volunteers perform in different organisational settings, and how much time they devote to these activities.

2.6.3.1 Volunteering organisations and activities

The four most common types of organisation for which people volunteer are: sport and physical recreation, community/welfare, education and training, and religious groups. Fifty-eight per cent of volunteers work for one organisation only, 23% for two, and 19% for three or more organisations (ABS, 2010b).

The four most common volunteering activities in 2006 were: fundraising (48%), preparing and serving food (31%), teaching/providing information (28%), and administration (26%) (ABS, 2006). Corresponding data were not available in the 2010 survey. Activities most commonly engaged in by volunteers in the present study are reported in Chapter 5, Section 5.3.2).

2.6.3.2 Extent (quantum) of formal volunteering

In 2006, volunteers contributed 713 million hours of voluntary work, which equated to 392,000 [estimated] full-time equivalent positions (ABS, 2006). This was an increase on the 2000 figure of 704 million and the 512 million hours worked in 1995; however, much of this increase was due to population growth. The annual number of hours contributed on an individual basis was substantially lower in 2006, with median hours falling from 74 hours in 1995 to 72 hours in 2000 and to 56 hours in 2006. The median number of hours volunteered per month fell from 6.2 hours in 1995 to 4.7 hours in 2006. Lower hours were contributed by both men and women (ABS, 2006).

In 2010, 6.1 million people, 36% of the Australian population aged 18 years and over, participated in voluntary work, up from 34% in 2006 (ABS, 2010a). These volunteers were involved in many different activities and in organisations and groups with a diverse range of interests. Overall, 34% of men and 38% of women were volunteers (ABS, 2010a). Figures are not available for total hours volunteered in 2010, but the increase in volunteering rates from 2006 to 2010 suggests an overall volunteering effort in excess of 800 million hours. Hours contributed by volunteers in the present study and the frequency of their volunteering are reported in Chapter 5, Section 5.3.2).

2.7 Volunteering in community service organisations

The present research concerns formal volunteering in community service organisations. Community service organisations are non-profit organisations which promote, provide or carry out activities, facilities or projects for the benefit or welfare of the community or any members who have a particular need by reason of youth, age, infirmity or disablement, poverty or social or economic circumstances. They include government organisations or agencies which involve volunteers in the delivery of community services, such as health and welfare, emergency services, firefighting services and ambulance services. The volunteer activity is intended to benefit the clients of the organisation or agency, or the community generally.

2.8 The organisational context of this study

Volunteering as studied in the current research is formal volunteering, "an activity which takes place through not-for-profit organisations or projects" (Volunteering Australia, 2005, p.1). This section describes the not-for-profit organisations which participated in the study.

2.8.1 The V21 volunteering research project

The data for this study was collected, in addition to the V21 data, in a survey of volunteers conducted for the research project *V21: Enhancing volunteering for the 21st century* (Butcher & Ryan, 2006). With the agreement of the participating organisations, additional items related to the variables investigated in this study but not in the V21 project were incorporated in the V21 questionnaire (V21Q). The partners in this three-year project were three community organisations: the St Vincent de Paul Society (SVDP), the NSW Rural Fire Service (RFS) and the Benevolent Society (TBS), together with the Australian Catholic University (ACU). The aim of the project was to help the community organisations maximise their volunteer resource by enhancing both individual and collective volunteer capacity. The V21 project was funded by contributions from the four partner organisations and by a Linkage – Projects grant from the Australian Research Council (ARC) (Linkage Grant #LP0454377). The full title of the project was: *Enhancing volunteer capacity to maximise the volunteer resources for contextually diverse community organisations*.

2.8.2 The participating organisations

The community service organisations participating in this study represent a diversity of social and organisational contexts. They provide a wide variety of services across diverse social contexts in all parts of the Sydney metropolitan area, and in regional and rural areas of NSW. They represent a continuum of dependence on volunteers that ranges from almost total dependence at one extreme, to use of volunteers to extend and enhance the services provided by paid staff at the other extreme.

The St Vincent de Paul Society (SVDP) operates as a charity with more than 21,000 volunteers and 2000 paid staff in NSW and ACT. The Society is one of Australia's largest charitable providers, involved in every area of human need. Its most important activity is providing support and material help to people in crisis, in their home (which includes nursing homes, prisons, hospitals and on the street). This home visitation and support is provided through conferences (the name given to the local parish-based groups of Society members). In NSW and ACT the Society has over 600 Conferences and has grown to include 270 Centres (retail stores), and 113 Special Works/Services (such as hostels, aged care programs and refuges).

The NSW Rural Fire Service (RFS) is a statutory body with approximately 70,000 volunteers formed into over 2,000 volunteer brigades. The role of volunteer rural fire brigades encompasses far more than fighting and preventing bushfires, the role for which they are best known. Volunteers are regularly called upon to attend building and structural fires, road accidents, assist in search and rescue operations and storm and flood recovery. The service is responsible for the structural firefighting in more than 1,200 towns and villages across NSW. Some 680 salaried staff are employed to manage the day-to-day operations of the Service, which include operational management, administration, finance, planning, training, hazard reduction management and engineering.

The Benevolent Society (TBS) is a non-profit organisation operating as a company limited by guarantee with a voluntary board, more than 800 volunteers and approximately 700 paid staff. The Society's purpose is to create caring and inclusive communities and a just society. The Society believes that building stronger communities is the best way to reduce social and economic disadvantage. The Society's core programs focus on older people, children and families, women's health and social leadership, and provide services to more than 11,000 clients per year.

2.9   Chapter summary and conclusion

This chapter has examined the complexity of the concept of volunteering and the consequent multidimensional nature of frameworks proposed for classifying volunteering. Within each dimension of these frameworks, characteristics of different types of voluntary activity were identified. The volunteering investigated in this study – formal volunteering in community service organisations – was defined in terms of these characteristics. The social and economic value of volunteering was detailed, and the specific organisational context of this study was described, profiling the three participant organisations. Chapter 3 reviews research on sustained volunteering in this context.

Chapter Three - Review of the Literature

3.1 Introduction

Chapter 2 defined volunteers and volunteering in the context of the present study and discussed the significance of volunteering within this context. This chapter reviews the research-based literature which pertains to this context to identify factors that influence sustained volunteering with an organisation; that is, an individual's decision to continue volunteering with that organisation. Initially, theoretical perspectives which facilitate the study of volunteering generally and sustained volunteering in particular are discussed. These perspectives provide a basis for selecting the factors or variables to be studied. Dispositional and organisational factors are identified. The conclusion is drawn that research on the factors that influence sustained volunteering has been largely inconclusive and that further research needs to acknowledge the complexity of sustained volunteering and examine multiple factors or variables and the interactions between them. Models of sustained volunteering are reviewed and a conceptual model of sustained volunteering is then proposed which includes multiple variables and the interactions between them. The variables in this model are selected on the basis of their empirical support in the literature, their theoretical relevance and their relevance to the context of the present study.

Definitions of volunteers and volunteering

This literature review is limited to studies which involve volunteers and volunteering as defined in Chapter 2. It excludes forms of unpaid helping activity which do not meet the definition or characteristics of volunteering adopted for this study, as discussed in Chapter 2, Section 2.4; for example:

- studies which involve university students who are required to engage in community service as a requirement for completion of their degrees ("service learning");
- studies where the "volunteers" are involved in unpaid helping activities as a result of a community service order or other court-imposed sanction; and
- studies where the unpaid, helping activity is a requirement under a "mutual obligation" arrangement (such as "work for the dole").

3.2 Theoretical perspectives on volunteering

This section describes two perspectives on volunteering which inform this study: volunteering as a long-term planned prosocial behaviour and volunteering as an exchange. Summarising the different theoretical approaches to volunteering, Wilson (2000, p. 215) suggested that "theories that explain volunteering by pointing to individual attributes can be grouped into those that emphasize motives or self-understandings ... and those that emphasize rational action and cost-

benefit analysis." In other words, explanations for volunteering tend to be either affective or instrumental in their approach. The current research seeks to contribute to both approaches, seeing them as complementary rather than dichotomous.

3.2.1   Volunteering as planned prosocial behaviour

Volunteering, as used in this study, refers to long-term, planned prosocial behaviour that occurs within an organisational setting (Penner, 2002). Volunteering is therefore distinct from spontaneous "one-off helping" in response to specific events or disasters. Such spontaneous help is undoubtedly one of humankind's greatest attributes. However, the calculated aid offered by those individuals who plan to help before the emergency or who plan to assist those whose day-to-day circumstances place them at considerable disadvantage from the general populace is, by contrast, planned prosocial behaviour. Volunteering is very different from spontaneous helping. Volunteering provides time for the helpers to decide whether and how to help and, in some cases, seek out opportunities to help (Clary & Snyder, 1991).

Volunteering as prosocial behaviour

Chapter 2 examined a number of issues which arise when attempting to define volunteering. A further debate that has contributed to the lack of consensus in defining volunteering is whether only purely altruistic behaviours should be construed as volunteering or if an element of exchange exists in the volunteer relationship. In providing an overview of the relevant literature, Pearce (1993) suggested that a more appropriate term for use in the volunteer context might be "prosocial" rather than "altruistic", since altruism may involve a form of self-sacrifice on the part of the volunteer that may not be within their best interests. Reference to prosocial acts in relation to volunteering, however, may appropriately convey behaviours that assist others while not causing detriment or restriction to the person undertaking them.

Far from not excluding the possibility of an element of exchange, the definition of volunteering adopted in this study posits that all volunteering contains an element of exchange and reciprocity. The volunteer is a potential beneficiary along with the primary beneficiaries of the prosocial behaviour (J. D. Smith, 1999). This exchange aspect of volunteering is addressed in Section. 3.2.2.

Volunteering as planned behaviour

As defined, volunteering is a deliberate and planned behaviour. Volunteering frequently occurs continuously over an extended time period or at different times over an extended period, making it different from one-time spontaneous help (Benson, Dohority, Garman et al., 1980). These actions are premeditated – "planned behaviour" or "reasoned action", not some instinctual response.

The theory of planned behaviour (Ajzen, 2001, 2005; Ajzen & Fishbein, 2000) is a theory that links attitudes to behaviours through intentions. The theory of planned behaviour (TPB) hypothesises that a person's attitudes, subjective norms and perceived control influence their intention to engage in a particular behaviour and, in turn, to carry out the actual behaviour itself. It recognises that there may be alternative links between attitudes and behaviour that bypass intentions, but the major pathway is through intentions. Figure 3.1 provides a representation of this theory.
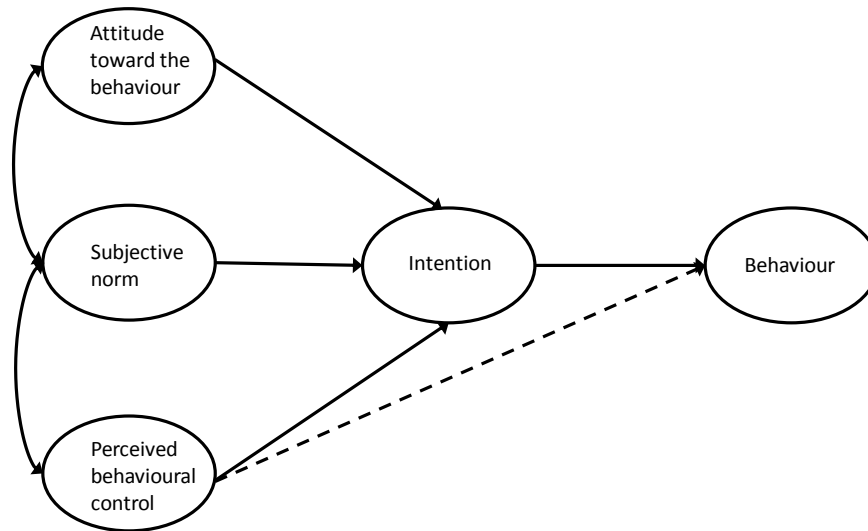
Figure 3.1   Theory of Planned Behaviour

Source: Ajzen (1991, p. 182)

The theory of planned behaviour (TPB) is an extension of the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980) which hypothesises that the causal antecedents of behaviour are a logical sequence of cognitions (Ajzen, 1991, 2005). According to TPB the immediate antecedent of a behaviour is postulated to be the person's intention to perform it (Ajzen, 1985, 1988). Intentions, in turn, are proposed to be a function of three independent determinants. The first is the person's attitude, their overall evaluation, either positive or negative, of performing the behaviour of interest (Ajzen, 1988) which is assumed to reflect their beliefs about the likely consequences of performing the behaviour. The second is subjective norm, which reflects perceived social pressure to perform or not perform the behaviour (Ajzen, 1988, 2002; Ajzen & Fishbein, 1980). The third is perceived behavioural control, or the extent to which the behaviour is under volitional control (Ajzen, 1985, 2005), and is seen as a reflection of the perceived ease or difficulty involved in performing a behaviour. The relationship of these antecedents to intentions and actual behaviour are represented in Figure 3.1.

A growing body of research supports the theory of planned behaviour (TPB) across a range of diverse behaviours, including studies of class attendance by college students, weight loss and voting, playing video games, election participation, giving gifts, exercising, and using condoms (cf. Ajzen, 1991). Tett and Meyer (1993) have shown that, in an organisational context, the intention to engage in a behaviour is the best predictor of actual behaviour.

Self-efficacy and perceived behavioural control

Whilst the theory of planned behaviour (TPB) has generated much support in a wide variety of settings, some concerns have been expressed regarding the conceptualisation of the control variable. Specifically, it has been suggested that a distinction should be made between the concepts of self-efficacy and perceived control since we cannot assume that an individual's perception of the extent to which behaviour may be impaired by external factors will necessarily correspond with their judgements as to how easy that behaviour would be to perform (Terry & O'Leary, 1995). Indeed, a person may perceive that there are few environmental constraints operating; that is, they may consider the behaviour to be under their control, but at the same time they may perceive that behaviour as difficult to carry out (Armitage & Conner, 2001; Manstead & Van Eekelen, 1998). Whilst there is no clear evidence as to which is the preferred measure of control within the TPB (Ajzen, 2002; Armitage & Conner, 2001) evidence is accumulating to suggest that self-efficacy is not only an important addition to the theory, but it frequently emerges as the most significant predictor of both intention and behaviour (Armitage & Conner, 2001; Giles, McClenahan, Cairns, & Mallet, 2004; Masser, White, Hyde, Terry, & Robinson, 2009). This issue is addressed in a later section, Section 3.6.1, in the context of the potential of self-efficacy to influence intention to engage in a particular behaviour, namely continued volunteering.

The long-term, planned nature of volunteering suggests that dispositional and organisational factors are important elements in volunteering (Costa & McCrae, 1992; Omoto & Snyder, 1995; Penner, 2002; Rioux & Penner, 2001).

3.2.2   *Volunteering as an exchange*

Volunteering is understood as a two-way process where the volunteer provides a service and in turn receives personal satisfaction and other benefits. Most definitions of formal volunteering demonstrate that there is an element of exchange between the volunteer and the organisation (Unger, 1991). In recent years, volunteering has been discussed in terms of reciprocity and partnerships between the organisation and the volunteer (Noble & Rogers, 1998). Volunteers contribute their services towards the organisation's achievement of its mission and purpose, and in return expect the volunteering experience to meet the personal needs or expectations that prompt their volunteering (cf. Section 3.8). Indeed, as detailed in Chapter 2, Section 2.4, recent definitions of formal volunteering, and volunteering as defined in this study, include the

volunteer as a beneficiary. Thinking about volunteering as a reciprocal arrangement requires volunteers to understand their own motivations for volunteering and acknowledge the benefits gained from the volunteering experience (Rosenberg-Russell, 1995).

Farmer and Fedor assert that, "like employees, volunteers labour on behalf of an organisation" (1999, p. 353). While volunteering is conceptualised as a type of work, it is distinct from paid work in that volunteering involves a choice to engage in work that goes above and beyond any economic or social necessity (Galindo-Kuhn & Guzley, 2001). Clearly, volunteers, although not expecting financial remuneration, still expect certain returns or "rewards" for their contributions (Clary & Miller, 1996; Clary et al., 1996); and these returns or rewards are important for sustained volunteering since, without them, the volunteers' most likely response is to limit, or even cease, their involvement with the organisation (Dunham, Grube, & Castaneda, 1994). What volunteers are looking for in the volunteering experience, and the expectations that the organisation has of its volunteers, are the basis of the relationship between the volunteer and the organisation. One way of understanding this volunteer-organisation relationship is to consider the concept of the "psychological contract", which is widely assumed to reflect an exchange process (Morrison & Robinson, 1997; Rousseau, 1995; Shore & Tetrick, 1994).

The psychological contract

Levinson, Price, Munden, Mandl, and Solley (1962) introduced the term psychological contract to describe the contractual relationship that develops between the individual and the organisation; it comprises the mutually accepted and legitimate expectations of the parties towards each other (Argyris, 1964; Schein, 1980). Referring to this relationship as "psychological" implies that it is an informal, unwritten contract, whose value is based on a mutual understanding and trust between the parties. Once formed, psychological contracts motivate individuals to fulfil commitments made to their organisation confident that the organisation in turn will fulfil its side of the bargain (Millward & Brewerton, 2000; Rousseau, 1995).

A psychological contract has been defined more broadly as "a set of beliefs about what each party is entitled to receive, and obligated to give, in exchange for another party's contributions" (Morrison & Robinson, 1997, p. 228). Further research reflects a growing interest in the nature of the psychological contract between the individual volunteer and the voluntary organisation (Farmer & Fedor, 1999; Nicholls, 2013; Starnes, 2004, 2007; Stirling, Kilpatrick, & Orpin, 2011). The volunteer-organisation relationship begins with a set of mutual expectations (with assumed obligations and responsibilities) just as do economic exchanges. Individuals' expectations about the volunteer experience with an agency are a function of past experience, motives and values (Farmer & Fedor, 1999). These expectations are ultimately compared to the actual volunteer experience. Volunteers then evaluate whether expectations have been met or

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not (Robinson & Morrison, 2000), particularly when they determine their level of participation (Starnes, 2007; Taylor, Darcy, Hoye, & Cuskelly, 2006).

The psychological contract provides a theoretical basis for the importance of the volunteer-organisation relationship and, in particular, the importance for the volunteer of job satisfaction and the congruence of the benefits received with the volunteer's expectations, and the potential of these factors to foster commitment to the organisation and continued service as a volunteer. Accordingly, satisfaction with the volunteering experience and congruence of benefits with expectations will be examined as influences on sustained volunteering in the research literature (cf. Sections 3.9 and 3.8.1 respectively) and in the present study.

3.3 Factors affecting sustained volunteering: dispositional and organisational variables

To achieve a better understanding of the factors which contribute to sustained volunteering, this study investigates psychological factors that influence an individual's decision to continue volunteering, as distinct from the policies and practices which organisations may adopt to influence those factors and so potentially increase volunteer retention. The psychological antecedents to intention and behaviour identified in the TPB (cf. Figure 3.1) suggest that both dispositional and organisational factors are important influences on the planned behaviour of long-term or sustained volunteering.

Research has investigated a number of dispositional and organisational variables assumed to affect sustained volunteering such as motivation, satisfaction and commitment. While one might expect levels of motivation, satisfaction and commitment to be correlated with continued volunteering, and even to cause it, M. Locke et al. (2003) suggest that many, if not most, of the studies which have looked at one or more of these variables have been inconclusive or have not demonstrated a strong influence of these variables on sustained volunteering.

Due to the long-term nature of volunteering behaviour, dispositional factors are more likely to influence volunteer behaviour than more immediate situational factors (Carlo, Eisenberg, Troyer, Switzer, & Speer, 1991; Omoto & Snyder, 1995; Penner, 2002; Penner & Finkelstein, 1998; Romer, Gruder, & Lizzardo, 1986).

Dispositional factors or variables describe the range of different enduring attributes of individuals. In the present context, these include the personal beliefs and values, personality traits, motives, interests and abilities which volunteers bring to the situation (Penner, 2002). Dispositional factors may affect the individual's decision to continue volunteering but are likely to be independent of direct organisational control. For example, a person who joined an organisation for self-enhancement reasons may continue volunteering because of the social

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benefits accrued with greater participation. However, these changes can only occur at the individual's discretion. Organisations may make considerable efforts to increase the volunteer's integration into or identification with the organisation to bind them into continued service; however, their attempts may have little impact on the volunteer's disposition towards continued participation. Organisational factors or variables, on the other hand, are affective responses that the organisation can more directly influence (e.g. perceived benefits of volunteering, satisfaction with the volunteering experience, commitment to the organisation) (Omoto & Snyder, 1995).

Whether volunteering continues depends largely on the relationship between the volunteer and the service organisation. Thus, Omoto and Snyder (1995) have proposed that the following variables all directly affect the length of time a person spends as a volunteer: the match between the volunteer experience and the individual's personal and social motives; positive feelings about being a volunteer; satisfaction with the organisation; and commitment to the organisation. When Omoto and Snyder (1995) studied a sample of 116 AIDS volunteers, they found that two of the variables, satisfaction with the organisation and positive feelings about being a volunteer, had direct and significant effects on the length of time people served as volunteers. Motives also predicted length of service. However, it was egoistic, self-interested motives, social interaction and existing friendships or the desire to make new friends, rather than altruistic or other-oriented motives that were positively associated with length of service.

Much of the research examining dispositional and organisational factors has been based on the Volunteer Process Model developed by Omoto and Snyder (1995). They identified dispositional variables (prosocial personality and motivations) and organisational variables (organisational satisfaction and organisational commitment) as antecedents of sustained volunteering. These studies, however, do not show how these antecedents interact (Penner & Finkelstein, 1998). Moreover, a broader review of the volunteer retention literature concludes that further studies need to acknowledge the complexity of sustained volunteering and investigate the effects of multiple variables or factors (M. Locke et al., 2003). The following sections of this chapter examine research relating to a number of dispositional and organisational variables and their influence on sustained volunteering. A subsequent section reviews models of sustained volunteering which hypothesise multiple factors as influencing sustained volunteering. M. Locke et al.'s (2003) call for further research on sustained volunteering remains pertinent.

3.4   Dispositional factors

As described in Section 3.3 and Chapter 1, Section 1.6, dispositional factors are individual personality characteristics that affect a person's behaviour. Dispositional factors include the range of motivations, interests and abilities which volunteers bring to the situation. Sections 3.5

and 3.6 review the literature related to the dispositional factors motivation to volunteer and self-efficacy for volunteering.

3.5   Motivation to volunteer (MTV)

The motivation to volunteer has been the subject of a wide range of literature, particularly in the USA. Understanding why individuals volunteer has been seen as the key to effective recruitment as well as the means of aligning specific kinds of volunteer activity to the aspirations of the volunteer.

Motivations for volunteering are diverse but can be classified into two types: altruistic and egoistic reasons. Altruistic reasons for volunteering are intrinsic and include a desire to help others, self-sacrifice, compassion for others less fortunate, or contributing to social justice (Rubin & Thorelli, 1984, p. 228). Egoistic or instrumental motives relate to the self-interest of the volunteer and include wanting to learn new skills in preparation for employment, the opportunity to socialise and meet others and to use leisure time constructively (Mesch et al., 1998, p. 6). Warburton and Mutch (2000) suggest a growing trend towards obtaining skills through volunteering that can be used in the workplace. However, Nave and do Paco (2013) identified Values as the most important motivational factor for volunteers to engage in corporate volunteering activities, while Career motivation was less important.

Commonly, people get involved in volunteering for a variety of reasons both altruistic and egoistic (Lucas & Williams, 2000; Mesch et al., 1998; Rubin & Thorelli, 1984). Such mixed motives are common at the level of the individual volunteer. Moreover, the mixture of motives that lead people to engage in volunteering may be very different from the factors that maintain their involvement. Volunteers who become involved in the office of a campaigning organisation in order to enhance their employability may become committed to the values and cause of the organisation and remain as volunteers long after they have achieved their initial purpose (Moore, 1996).

3.5.1   Motivation to volunteer (MTV) and sustained volunteering
Research into the relationship between motives and sustained volunteering has yielded some surprising and somewhat contradictory results. There is little consensus among the explanations offered (M. Locke et al., 2003). Early studies of sustained volunteering examined the correlations between a person's reasons or motives for volunteering and the subsequent period of time spent volunteering. Gidron concluded that "individuals remain in organizations when their expectations, which are derived from their motivations for volunteering, are met" (Gidron, 1985, cited in Mesch et al., 1998, p. 5). Volunteers will remain with organisations for longer periods of time when their volunteer experience fulfills their motivations. (Clary et al., 1992).

Section 3.8 will examine the benefits of volunteering for the volunteer and whether these benefits satisfy the volunteer's expectations and their motives for volunteering.

In some cases, egoistic motives are positively associated with continued service, whereas other studies have found that a volunteer's self-interest is negatively associated with their continued involvement. For example, Lammers (1991) and Mesch et al (1998) found that the egoistic or instrumental motives of wanting to learn new skills that could be used in paid work had a positive association with sustained volunteering. Their two studies of volunteers, one in a crisis telephone service and the other in AmeriCorp, showed career-related motives to be one reason why volunteers continue their service. Similarly, Omoto and Snyder (1995) found that egoistic, self-interested motives (e.g. social interaction – existing friendships or the desire to make new friends), rather than altruistic or other-oriented motives, were positively associated with the length of service of AIDS volunteers. On the other hand, an earlier study of egoistic motives and longevity of service by volunteers in a US Big Brother/Big Sister program had concluded that "longevity of participation is inversely related to the extent to which the service volunteer's entry was motivated by the need or expectation of egoistic benefits" (Rubin & Thorelli, 1984, p. 227). A study of hospice palliative care volunteers across nine programs in Canada reported the prevalence of altruistic motives; volunteers in all nine programs indicated that they continued to volunteer because it makes a difference, helps others, or meets a need in other people's lives (Claxton-Oldfield & Claxton-Oldfield, 2012). A subsequent study of British hospice volunteers also found that altruistic motives were the most influential reason to join the hospice and a significant predictor of volunteers' length of service to the hospice (Claxton-Oldfield, Claxton-Oldfield, Paulovic, & Wasylkiw, 2013).

Generally, volunteers need to feel as if they have contributed to a valued end (altruistic motivation) but having altruistic motives does not guarantee longevity of participation (Rubin & Thorelli, 1984, p. 233).

3.5.2   *Functional approach to motivation*

Research into why people volunteer has focused on the purposes or functions which volunteering serves for the individual. This rationale for research on the role of motives in volunteering generally, and in sustained volunteering in particular, comes from Snyder's functional approach to prosocial behaviours, which focuses on the function or purpose served by such behaviours (Clary & Snyder, 1991).

The functional perspective is a general approach used in social psychology to explain the individual's behavioural patterns. It provides a general explanatory framework referring to "the reasons and purposes, the needs and goals, the plans and motives that underlie and generate psychological phenomena" (Snyder & Omoto, 2000, p. 130). The functional perspective is an

applied approach, concerned with how attitudes and behaviour can be understood in light of the individual's interests and subjective concerns (MacNeela, 2004).

Volunteering is one application of the functional approach. This application is based on the premise that volunteering is a structured attempt to satisfy particular plans and motivations, thereby serving several functions valued by the volunteer. Snyder and Omoto (2000) state that "The questions of why people volunteer to help others and why they participate in society are most fundamentally questions about motivation" (p.130). They further propose that the functional approach explains how motivations are linked to actions, as it

> focuses on the ways in which people construct agendas for voluntary action, identify their own motivations for volunteering, seek out and pursue service opportunities that they believe have the potential to fulfil their motivations, and sustain and maintain their involvement in these volunteer activities. (Snyder & Omoto, 2000, p. 131).

A functional perspective on volunteering helps explain the case of people apparently doing something for nothing. People expect to satisfy a set of personal motivations through the volunteering work that they do, and an expectation of this is, at least partly, the reason why people begin volunteering. It also helps predict whether people will persist in volunteering, based on the extent to which desired benefits and outcomes are achieved. A functional model of volunteering implies a rational, cost-benefit analysis of initial and continued involvement. "Volunteers typically seek out their opportunities to help and may deliberate long and hard about the initiation, extent, and precise nature of their involvement" (Omoto & Snyder, 1995, p. 672).

This functional approach to understanding the motives and outcomes of volunteering suggests that different individuals may perform the same behaviour (in this case, volunteering) for very different psychological reasons (Clary, Snyder, Ridge et al., 1998). Thus, from a neutral observer's point of view, a particular volunteering activity may seem to appeal to the same motivations, and offer the same benefits, and yet may, in fact, be appealing to different motives, as well as be offering highly individualistic benefits to different individuals involved.

The functional approach to understanding volunteering behaviour would also suggest that individuals will be most satisfied when the motivations for their activity are reasonably well-aligned with their perceived benefits of participation, e.g. 'I wanted to feel needed by volunteering, and indeed, I did'. This functional approach can be used to investigate the matching of expectations and rewards as envisaged in the psychological contract. As earlier detailed in Section 3.1.2, volunteers do experience benefits through exchange in the volunteering process. Thinking about volunteering as a reciprocal arrangement requires volunteers to understand their own motivations for volunteering and acknowledge the benefits gained from the volunteering experience (Rosenberg-Russell, 1995).

The functional motivation approach is used in this research to investigate the matching of volunteer motivations and benefits and their relationship to sustained volunteering.

3.5.3 *Measures of functional motivation to volunteer*

Some researchers have posited one-dimensional and two-dimensional theories of motivation to volunteer (Cnaan & Goldberg-Glen, 1991; Frisch & Gerrard, 1981). The most prevalent view is that motivation to volunteer is a multidimensional construct (Clary et al., 1992; Okun, Barr, & Herzog, 1998; Omoto & Snyder, 1995). Two multidimensional measures have been developed to study functional motivations related to volunteering, with adequate reliability and support from factor analysis (Clary et al., 1998; Omoto & Snyder, 1995; Omoto, Snyder, & Martino, 2000). Both measures reflect the view that people volunteer for a variety of reasons, egoistic or self-interested as well as altruistic or expressive. Clary et al.'s scale, the Volunteer Functions Inventory (VFI), includes six factors (Clary et al., 1998). Omoto and Snyder's scale includes five factors (Omoto & Snyder, 1995). Three factors are common to both scales, as illustrated in Table 3.1. There is also some commonality between Clary et al.'s ego-protective and esteem-enhancement motives and "personal growth" – Omoto and Snyder's personal development motive.

Table 3.1   Motivation to volunteer – comparison of two multidimensional models

Motivation to Volunteer Scales	
Clary et al. (1998)	**Omoto & Snyder (1995)**
Values	Values
Understanding	Understanding
[Esteem] Enhancement	Enhancement
Career	
Social	
[Ego-]Protective	
	Community concern
	Personal development

Omoto and Snyder's (1995) scale was developed specifically in the context of AIDS-related voluntary organisations and is phrased accordingly. Clary et al.'s (1998) six-factor VFI scale of functional motives was developed as a general model and the scale items are phrased more generally. Clary et al.'s VFI scale is thus more widely applicable in its original form and is used in this study.

3.5.4 *The Volunteer Functions Inventory (VFI)*

The VFI consists of a series of 30 statements about reasons for volunteering. The respondent is invited to rate the extent to which each statement matches her or his own beliefs. The statements

are based on a classification of six kinds of psychological function with five statements for each function. These six functions are: Values, Understanding, Enhancement, Career, Social, and Protective. Clary et al. (1996) found that a volunteer will likely evidence some combination of these six motives, giving rise to a motivational profile for each individual rather than a single motive. The VFI generates a motivational profile for a particular volunteer and identifies the relative importance of each of these six motives for that volunteer.

The Values motive is recognised as an individual volunteer's altruistic sense to care for the regards of others; people volunteer as a means of acting on important beliefs such as helping those less fortunate than themselves. Clary et al. (1998) identify this particular motive as tending to be a strong characteristic of many volunteers. Understanding is a motive which views volunteering as an opportunity for personal learning and the development of skills; the volunteer is able to learn new skills and knowledge that might not be demonstrated in other contexts outside of the volunteering activity. The Enhancement motive has to do with boosting positive psychological states in the volunteer (e.g. increased self-esteem, personal growth); volunteering is seen as a way of feeling better about oneself.

Volunteering to better prepare or gain benefits for job-related work is related to Clary et al.'s (1998) Career motive; the volunteer wants to gain experiences which will enhance their employability. The Social motive has to do with seeking opportunities in a volunteering setting to form, build, and keep relationships with others; volunteers will tend to choose the behaviour which is valued by their peer group. The Protective motive suggests that certain individuals can avoid or eliminate unpleasant psychological states (e.g. guilt) through volunteering; volunteers embrace volunteering as a way of dealing with negative feelings about themselves. The Protective motive contrasts with the Enhancement motive which seeks to develop and boost positive psychological states.

The six functional motivations for volunteering identified by Clary et al. (1998) in their VFI and a typical item for each are presented in Table 3.2. Each scale comprises five Likert-type items.

Table 3.2   Functions served by volunteering – their definitions and their assessment on the Volunteer Functions Inventory (VFI)

Function	Conceptual definition	Sample VFI item
Values	The individual volunteers in order to express or act on important values like humanitarianism.	I feel it is important to help others.
Understanding	The volunteer is seeking to learn more about the world or exercise skills that are often unused.	Volunteering lets me learn things through direct, hands-on experience.
Enhancement	One can grow and develop psychologically through volunteer activities.	Volunteering makes me feel better about myself.
Career	The volunteer has the goal of gaining career-related experience through volunteering.	Volunteering will help me to succeed in my chosen profession.
Social	Volunteering allows an individual to strengthen his or her social relationships.	People I know share an interest in community service.
[Ego] Protective	The individual uses volunteering to reduce negative feelings, such as guilt, or to address personal problems.	Volunteering is a good escape from my own troubles.

Source: Adapted from Clary and Snyder (1999, p. 157).

The VFI is a well-tested instrument. Several factor analyses carried out on VFI data provide support for a six-factor correlated model of motivation to volunteer (Clary et al., 1998; Okun et al., 1998). VFI scale reliabilities obtained in two of these studies are presented in Table 3.3.

Table 3.3   Scale reliabilities for VFI functional scales

Function/scale	Cronbach's alpha			
	Clary et al. (1998)		Okun et al. (1998)	
	Study 1	Study 2	SMHSI*	RSVP+
Values	.80	.82	.81	.84
Understanding	.81	.84	.83	.82
Enhancement	.84	.85	.83	.83
Career	.89	.85	.84	.88
Social	.83	.83	.80	.83
Protective	.81	.82	.83	.79
All 30 items			.93	.92
Average interscale correlation	.34	.41		

* SMHSI = Scottsdale Memorial Health Systems Incorporated
+ RSVP = Retired and Senior Volunteer Program

When the items which comprise each of the six VFI functional scales are scored, they provide a rank order for the most salient motivations for the individual who completed the VFI and an overall profile of the motivations an individual has for volunteering. The VFI will be used in this study to determine what motives or combinations of motives are associated directly and indirectly with the continued involvement of volunteers on behalf of an organisation.

3.5.5   The Volunteer Functions Inventory (VFI) and volunteer satisfaction

The logical assumption of functional motivation theory is that those whose motives are met will be more satisfied, and therefore more active, volunteers. In a series of six studies, Clary, Snyder et al. (1998) found that volunteers who had received benefits that matched the functional dimensions of volunteering that were important to them reported greater satisfaction than volunteers who had received fewer benefits that matched the important functional dimensions, or benefits that matched functions that were of low importance (cf. Section 3.8.1).

The present study will examine the influence of volunteers' functional motives on their satisfaction with the volunteering experience.

3.5.6   The Volunteer Functions Inventory (VFI) and sustained volunteering

According to the motivational approach, whether volunteering persists depends on the extent to which the experience fulfills relevant motives (e.g. Clary, Snyder, Ridge, Miene, & Haugen, 1994; Clary et al., 1998; Davis, Hall, & Meyer, 2003; Van Dyne & Farmer, 2004).

The present study will investigate the influence of volunteers' motivations on their sustained volunteering. Both direct and indirect influences will be examined.

3.6   Self-efficacy for volunteering

An important dispositional variable in the motivation literature is self-efficacy. Self-efficacy is "belief in one's capacity to organise and execute the courses of action required to produce given attainments." (Bandura, 1997, p. 3). Self-efficacy beliefs influence choices of goal-directed activities, expenditure of effort, persistence in the face of challenge and obstacles, and reactions to perceived discrepancies between goals and current performance (Bandura, 1986; E. A. Locke & Latham, 1990). A number of studies confirm that individuals with high self-efficacy are more satisfied with their jobs than those with low self-efficacy (Brockner, 1988).

Self-efficacy is the belief that one is capable of doing the actions needed to achieve some desired goals, or at least of learning how to do so. Self-efficacy operates as a motivator both at points of task engagement and task persistence (Bandura, 1997) and is recognised within both organisational and educational research as a key factor in motivating and sustaining commitment to a task (Bandura, 1997; Labone, 2000). Self-efficacy has received little attention

to date in volunteering research. A study of 181 new hospice volunteers found no significant relationship between general self-efficacy and retention of active volunteers (Erb, 2001). However, a study of 508 volunteers in human service organisations found that the intention to continue to volunteer is positively affected by self-efficacy, as well as satisfaction, and integration into the organisation (Barbaranelli et al., 2003). Research on self-efficacy generally, and in particular its impact on the theory of planned behaviour (cf. Sections 3.2.1 and 3.6.1), suggest the utility of self-efficacy theory in relation to planned volunteering behaviour. The effectiveness of self-efficacy in predicting intentions and behaviour supports its relevance to this study.

3.6.1   *Self-efficacy and planned behaviour*

Research related to the theory of planned behaviour supports the relevance of self-efficacy to volunteering as planned behaviour, particularly in relation to intentions. Ajzen (1991) has argued that the perceived behavioural control (PBC) and self-efficacy constructs are interchangeable. However, Terry (1993) has suggested that self-efficacy and PBC are not entirely synonymous. Bandura (1986, 1992) has argued that control and self-efficacy are quite different concepts. Self-efficacy is more concerned with cognitive perceptions of control based on internal control factors, whereas PBC also reflects more general, external factors.

Researchers such as de Vries, Dijkstra, and Kuhlman (1988) have advocated the use of measures of self-efficacy, as opposed to PBC, in the prediction of intentions and behaviour. Dzewaltowski, Noble and Shaw (1990), in a comparison of the theories of reasoned action, planned behaviour and social cognitive theory, found that self-efficacy, rather than PBC, had a direct impact on behaviour. Examining the distinction between PBC and self-efficacy in relation to safer sex behaviours, White, Terry, and Hogg (1994), reported that PBC only had an effect on a behavioural measure of discussing the use of condoms with any new partner, while self-efficacy had a strong effect on both intentions to discuss and intentions to use condoms. On the other hand, Terry and O'Leary (1995) found that self-efficacy only predicted intentions to exercise, while PBC predicted exercise behaviour. While these results are not conclusive, they support the use of self-efficacy in TPB rather than PBC, particularly in relation to intention to continue volunteering behaviour.

This study will examine the role of self-efficacy in relation to the planned behaviour of volunteering and intentions to sustain this volunteering over time.

3.6.2   *Self-efficacy and sustained volunteering*

Self-efficacy is particularly relevant to sustained volunteering because it determines the goals people set for themselves; how much effort they expend; how long they persevere in the face of difficulties; and their resilience to failure (Bandura, 1986, 1994; E. A. Locke & Latham, 1990). These characteristics of engagement, effort and persistence are directly relevant to sustained

volunteering, that is, the volunteer's continued involvement on behalf of the organisation. This study investigates the role of self-efficacy in sustained volunteering.

This study will examine how self-efficacy, both directly and indirectly, influences volunteers to sustain their volunteering activities in the service of a particular organisation.

3.7 Organisational Factors

The prevalence of dispositional variables in studies of volunteering should not diminish the importance of organisational variables. Indeed, it is recognised that factors such as organisational practices and the individual's relationship with the organisation affect the dispositional variables examined in previous sections (Penner, 2002). Studies of sustained volunteering have indicated that the volunteer's expectations (their psychological contract) being met or not in the organisational setting, and the amount of satisfaction or dissatisfaction experienced by the volunteer, can play a role in determining their commitment to the organisation and ultimately their continued service with the organisation (Farmer & Fedor, 1999; Francis, 1983; Paull, 2000; Saxon & Sawyer, 1984).

Organisational factors discussed in the following sections include benefits of the volunteering experience to the volunteer, satisfaction with the volunteer experience, organisational commitment and collective efficacy. The potential influence of each of these factors on sustained volunteering is also examined.

3.8 Benefits of volunteering

The definition of volunteering adopted in this study posits that the volunteer is a potential beneficiary along with the primary beneficiaries of the volunteer activity (cf. Chapter 2, Section 2.3). This reciprocity or exchange aspect of volunteering was discussed in Section 3.2.2. The benefits experienced by volunteers may be related to their original reasons for involvement or may be unanticipated, such as enjoyment of the work, or experiencing a rewarding sense of commitment to the organisation. (cf. Section 3.5.2).

3.8.1 Motivation and benefits of volunteering

Volunteers are more likely to be satisfied with their volunteering experience if they believe they have received benefits which matched their initial motivations. In a series of six studies, Clary, Snyder et al. (1998) found that volunteers who had received benefits that matched the functional dimensions of volunteering that were important to them reported greater satisfaction than volunteers who had received fewer benefits that matched the important functional dimensions, or benefits that matched functions that were of low importance. This pattern was significant for the values (altruism) and enhancement (ego or esteem) functions of volunteering. The motives tested were stable over a four-week period.

3.8.2   *Motivation-benefit match and sustained volunteering*

Volunteers are more likely to remain with an organisation for a longer period where the experience fulfils their motivations (Clary et al., 1998; Dollard, Rogers, Cordingley, & Metzer, 1999; McCurley & Lynch, 1998; Mesch et al., 1998; Metzer, Dollard, Rogers, & Cordingley, 1997).

While participation may deliver rewards related to the original reasons for involvement, participation can also yield unanticipated benefits, such as enjoyment of the work, recognition of their efforts, high-status membership of a close-knit group, and experiencing a rewarding sense of commitment to the organisation (MacNeela, 2004).

Researchers of volunteer behaviour have studied volunteering that is planned and sustained over time (Cnaan & Goldberg-Glen, 1991; Omoto & Snyder, 1995; D. H. Smith, 1994). Clary, Snyder et al. (1998) examined volunteers in a variety of organisations and reported that volunteers who receive functionally relevant benefits were more likely to be satisfied with their volunteer experience and express stronger intention to continue volunteering in both the short and long term than those who do not receive benefits which aligned with their functional motives for volunteering.

Using a functional approach to volunteering (Snyder, Clary, & Stukas, 2000) found that individual outcomes, such as volunteer satisfaction and sustained volunteering, are more likely when volunteers are able to meet their important goals and motives for their volunteering through their actual activities. Volunteers are likely to be more satisfied and remain on the job longer when they perceive congruence or match between their volunteer role expectations and their actual experiences on the job (Clary et al., 1992; Gidron, 1985; E. S. Stevens, 1991). In a small survey of Australian volunteers using the VFI instrument, Stukas, Daly et al. (2005) found social capital outcomes, such as generalised trust in others and psychological sense of community, were similarly related to the matching of motivation and available benefits.

The present study will examine the "match" or congruence between volunteer motivations and benefits and how this match influences sustained volunteering.

3.9   *Volunteer satisfaction*

Another common factor found to affect sustained volunteering is satisfaction with the work. Job satisfaction, which is an overall evaluation of the job, is perhaps the most widely studied workplace attitude. The literature suggests that job satisfaction is a critical factor in determining whether an individual chooses to remain with or withdraw from an organisation. Most models of turnover include job satisfaction as an antecedent variable in predicting intention to quit (Carsten & Spector, 1987; Hom & Griffeth, 1991; Mobley, 1977; Mobley, Griffeth, Hand, &

Meglino, 1979; Price & Mueller, 1986). While volunteering is conceptualised as a type of work, it is distinct from paid work in that volunteering involves a choice to engage in work that is not determined by an economic or social necessity (Galindo-Kuhn & Guzley, 2001). In developing and testing their Volunteer Satisfaction Index (VSI), Galindo-Kuhn and Guzley found that people intend to remain as volunteers when they are satisfied with four dimensions of their volunteer experience: organisational support (the educational and emotional resources); participation efficacy (the expectation that participants will benefit someone other than the volunteer); information and task autonomy (getting enough information about the organisation and having the flexibility to decide how to carry out assignments); and group integration (the relationships that people develop with other volunteers and paid staff). This group integration dimension is addressed in the present study in two of the five dimensions of self-efficacy measured (cf. Chapter 4, Section 4.7.1.2).

Volunteers are free to quit their work, so their satisfaction with volunteering and commitment to the organisation have been emphasised as important considerations in any decision to continue volunteering with the organisation (Dailey, 1986; Jenner, 1984). Clary et al. (1992) found that volunteers who get more satisfaction from their work will continue longer in volunteering.

However, other investigations of the role of satisfaction in volunteering have produced mixed results (M. Locke et al., 2003). Omoto and Snyder (1995) found that satisfaction was significantly associated with length of service among AIDS volunteers, and Clary et al. (1998) reported a positive association between satisfaction and intention to continue volunteering across a number of organisations. Penner and Finkelstein (1998) found that satisfaction was associated with both length of service and the amount of time spent working as a volunteer, while Davis, Hall and Meyer (2003) found that satisfaction was only modestly related to time spent volunteering but was unrelated to length of service. Finkelstein and McIntyre (2005) and Finkelstein and Brannick (2007) also found that satisfaction was unrelated to length of service for hospice volunteers, but positively related to time spent volunteering.

Bang, Ross, and Reio Jr. (2013) examined the mediating role of satisfaction in the relationship between volunteers' motivation and affective commitment. They found that Values motivation had a significant direct impact on affective commitment while satisfaction partially mediated the relationship between Values and affective commitment.

The present study will examine the direct influence of satisfaction on sustained volunteering and indirect influences which are mediated by other variables included in the study.

3.9.1 *Influence of other factors on satisfaction*

While job satisfaction may influence sustained volunteering, various other factors may contribute to job satisfaction, and hence indirectly influence sustained volunteering. These additional factors

include the relationship with clients, the quality of the work (whether it is perceived as worthwhile), use of the volunteer's abilities and skills, the amount of helping and teaching, relationships with other volunteers, and supervision and professional staff (Gidron, 1983, 1985).

Motivation-Benefit "match" and satisfaction

As participation is an ongoing and sustained activity, functionalist theorising suggests that volunteers whose motivational concerns are served by their participation, who receive benefits related to their motivations for volunteering, would derive greater satisfaction than those whose concerns are not met (Clary & Snyder, 1999), (cf. Section 3.5.2). Clary et al. (1998) found that when the volunteer experience matched their motives for helping, individuals reported greater satisfaction and stronger intentions to continue than when their motives remained unmet or when unimportant motivations were fulfilled. This relationship was significant for the Values and Enhancement functions of volunteering (cf. Section 3.8.1). Davis et al. (2003) also found that motive fulfilment predicted satisfaction, while Finkelstein and Brannick (2007) found that motive fulfilment was positively related to satisfaction for Values, Social, Understanding and Enhancement functional motives. Bang and Ross (2009) studied the impact of motivations on volunteers' satisfaction in sporting events using a seven-factor measure of motivation and found that the motivation factors that best predict the level of volunteer satisfaction were Expressions of Values, Career Orientation and Love of Sport. However, do Paco and Nave (2013) found only a weak to moderate relation between volunteers' motivations and satisfaction in corporate volunteering activities.

The present study will examine how the match between volunteers' functional motives and related benefits influences their satisfaction with the volunteering experience.

Cumulative volunteering experience and satisfaction

Stevens (1991) found that service activity pattern, defined as the number of cumulative years of involvement in service associations during adult life, was associated with both volunteer satisfaction and sustained volunteering. Those volunteers who had a pattern of providing community service throughout adulthood were more likely to be satisfied and stay longer on the job. However, in studying retention among AIDS volunteers, Omoto and Snyder (1993) found no difference between the satisfaction level of those who quit volunteering and those who persevered in their volunteer work.

3.10 Organisational commitment

Organisational commitment is the attachment individuals feel toward their organisations, and volunteers' commitment to their organisations is a reflection of the sum total of their organisational experiences (Allen & Meyer, 1990). Volunteers usually are assumed to be very committed, since they are not compelled to work by financial need as are most employees. That

is, in the absence of compelling external explanations, society, as well as volunteers, attributes high levels of commitment to organisational volunteers.

Meyer and Allen (1991) noted the distinction in the commitment literature between attitudinal commitment and behavioural commitment. Their research on organisational commitment was focussed on attitudinal commitment, conceptualised as a psychological state that reflects an individual's relationship to the organisation (Meyer & Allen, 1991, p. 62). They proposed a three-component model of organisational commitment: affective, continuance and normative (Allen & Meyer, 1996; Meyer & Allen, 1991). Affective commitment embodies the notion that individuals become committed because they *want to*; continuance commitment develops as a result of *having to* become committed due to a lack of alternatives or the sacrifice of a high level of sunk costs that might be incurred in leaving an organisation; normative commitment is a sense of feeling *obligated to* be committed. Given the nature of volunteering, affective organisational commitment assumes particular importance.

Commitment to the organisation has been shown to be important in predicting intention to continue in a variety of organisational settings including voluntary organisations (Cuskelly & Boag, 2001; Meyer & Allen, 1997; Tett & Meyer, 1993). Yet commitment to the organisation cannot be assumed to be high for all members. Knoke and Prensky (1982) argued that volunteers may be strongly committed to the goals of their organisations but have weak ties to the particular institution, hence the possibility of abandonment is a real threat to volunteer-involving organisations. For example, volunteers who worked for a poverty-relief agency because of their commitment to assisting the poor could find many alternative ways to make this contribution outside their current organisation. Thus, the building of organisational commitment is of serious practical import to those concerned with volunteer organisational behaviour.

"On the whole, the research suggests that what we might loosely call 'strength of feeling' towards an organisation does not in fact lead to more volunteering. But the precise conclusions vary from one study to another." (M. Locke et al., 2003, p. 91). Cuskelly, McIntyre and Boag (1998) found that volunteer sport administrators who placed more emphasis on altruism and who felt they were contributing to the welfare and enjoyment of others, developed higher levels of organisational commitment. However, commitment and length of membership were not strongly related.

A study of volunteers in AIDS service organisations found a significant positive relationship between organisational commitment and the amount of time people reported working for the organisation (measured as hours per week), but commitment was not significantly associated with length of service (Penner & Finkelstein, 1998). Grube and Piliavin (2000) also found a significant positive relationship between organisational commitment and the amount of time

people reported working for a service organisation. Bang, Won, and Kim (2009) studied volunteers in sporting organisations using a seven-factor motivational scale; they found that motivation factors of Interpersonal Contacts, Love of Sport and Personal Growth had a significant influence on volunteers' commitment, while volunteers' commitment and motivations of Community Involvement and Extrinsic Rewards were important variables in predicting intentions to continue volunteering.

The influence of affective organisational commitment on sustained volunteering will be examined in the present study.

3.11 Collective efficacy: influence of the collective environment

Collective efficacy is an important and largely unexplored variable in volunteering (Thomas, 2005). Collective efficacy refers to volunteers' "shared beliefs that they can work together to produce effects" (Bandura, 1997, p. 7). Perceived collective efficacy is defined as "a group's shared belief in its conjoint capabilities to organise and execute the courses of action required to produce given levels of attainments" (Bandura, 1997, p. 477). Simply stated, collective efficacy is the extent to which people believe that they can work together effectively to accomplish their shared goals (Zaccaro et al., 1995).

Unlike individual efficacy, collective efficacy involves interactive, coordinative, and synergistic social dynamics. Perceived collective efficacy is, therefore, construed as an emergent group-level attribute rather than simply an aggregation of perceived individual efficacies (Bandura, 2000, 2001). Personal efficacy and collective efficacy go hand-in-hand. A "collection of inveterate self-doubters is not easily forged into a collectively efficacious force" (Bandura, 1997, p. 480). As such, collective efficacy affects the relationship between the individual and the group and/or organisation with which they volunteer. Finkelstein recommends incorporating constructs of individualism and collectivism were into a conceptual understanding of the volunteer process to provide a broader perspective on volunteer antecedents and experiences (Finkelstein, 2010, 2011).

Despite a lack of consensus on its measurement, collective efficacy has been found to be important to a number of "collectives" (Bandura, 1997; Maddux, 1999). The collective efficacy of an athletic team can be raised or lowered by false feedback about ability and can subsequently influence its success in competitions (Hodges & Carron, 1992). The individual and collective efficacy of teachers for effective instruction seems to affect the academic achievement of school children (Bandura, 1993, 1997). The effectiveness of self-managing work teams (B. L. Little & Madigan, 1994) and group "brainstorming" (Prussia & Kinicki, 1996) also seems to be related to a collective sense of efficacy.

Collective efficacy has been described as being built through extensive social networks, shared purposes and values that transcend diverse groups, and a successful experience of working together over time to achieve common goals (Kilpatrick & Abbott-Chapman, 2005). In a volunteer context the "feeling of the group" can be a factor influencing an individual to maintain their volunteer involvement.

3.11.1   *Collective efficacy and sustained volunteering*

Collective efficacy may affect whether an individual continues volunteering with a particular group or organisation. In one Australian study collective efficacy is described as being built through extensive social networks, shared purposes and values which transcend diverse groups, and a successful experience of working together over time to achieve common goals (Kilpatrick & Abbott-Chapman, 2005). One researcher notes that collective efficacy is an important and largely unexplored variable in volunteering (Thomas, 2005, p. 47). Thus the "feeling of the group" can be a factor which influences the volunteer to maintain their involvement with the organisation.

The present study will examine the influence, direct and indirect, of collective efficacy on a volunteer's continued efforts on behalf of the organisation.

3.12   *Demographic Factors*

The literature on volunteer retention also suggests that demographic factors can affect a volunteer's tenure, although M. Locke et al. (2003) report that the research findings have been inconclusive. These factors include: age; gender; level of education; and previous volunteering history. Some studies have found no relationship between motivations and age (cf. Hiatt & Jones, 2000; Nathanson & Eggleton, 1993; Omoto & Snyder, 1993), but Rohs (1986) found a positive correlation between age and length of volunteering in youth clubs while Alexander (Alexander, 2000; Gaston & Alexander, 2001) found that special constables who joined younger did not volunteer for as long.

Links have been demonstrated between other demographic factors (including level of education and the amount of time spent in the community where the volunteering took place) and a volunteer's commitment and service duration (Lammers, 1991; Rohs, 1986; E. S. Stevens, 1991). Gidron (1985) found that the best discriminators between "stayers" and "leavers by choice" included previous experience as a volunteer and length of this service. Continued education, level of education, and gender were significant predictors of volunteer service duration in Lammers' (1991) study, while Wilson and Musick (1999) found that higher levels of education were related to greater likelihood of remaining as a volunteer.

However, some studies have found motivational and organisational factors to be more important than demographic characteristics. E. S. Stevens (1991) concluded that continued service was significantly influenced by the "recognition and appreciation the volunteer received from the organisation" (E. S. Stevens, 1991, p. 38); while Lammers (1991) found that the "overall duration of volunteering seemed to depend on continued education and positive features of the volunteering experience: satisfying aspects of the task itself as well as relations with other volunteers" (Lammers, 1991, p. 139). The present study includes relations with other volunteers as a dimension of self-efficacy for volunteering and hence a possible influence on continued volunteering (cf. Chapter 4, Section 4.7.1.2).

Moreover, Omoto and Snyder (1995) regressed volunteer satisfaction, organisational integration, and duration of service on a set of demographic variables that included gender, age, income, and education. None of the individual beta coefficients, or the overall regression equations, was significant. Thus, the demographic variables did not appear to be important in predicting the variables at the experiences and consequences stages in the Volunteer Process Model. They also used hierarchical regression analyses to test all possible two-way interactions among the demographic variables as predictors of the endogenous constructs. Only one of the thirty interactions tested was significant. They concluded that the "preponderance of null effects gave us confidence that we could safely exclude the demographic variables from our model" (Omoto & Snyder, 1995, p. 679).

There is clearly some contradictory evidence regarding the influence of particular demographic and contextual factors on sustained volunteering. Accordingly, a range of demographic and contextual items were included in the survey developed for the V21 research project and the present study. These included: age, ethnicity, gender, level of education, location, time currently volunteered, frequency of volunteering, current volunteering with other organisations, and previous volunteering with other organisations. These demographic and contextual factors were incorporated in the conceptual model of sustained volunteering developed in this study (cf. Section 3.15.1, Figure 3.4). The influence of these factors was assessed separately before the analysis of the complete model to determine which factors should be included in the final analysis of the model (cf. Chapter 6, Section 6.2).

3.13   *Models of sustained volunteering*

There are three main theoretical models that have guided research into what factors sustain volunteering over an extended period of time: the volunteer process model [of sustained volunteering] (Omoto & Snyder, 1995, 2002) based on the volunteer process model developed by Snyder and Omoto (1992), the role identity model (Callero, Howard, & Piliavin, 1987; Grube & Piliavin, 2000; Piliavin, Grube, & Callero, 2002), and the sustained volunteerism

model (Penner, 2002; Penner & Finkelstein, 1998). The first two models agree on many points and are not necessarily competitors for the best explanation of sustained volunteer activities, but they diverge somewhat in both focus and emphasis. Penner (2002) combined aspects of functional analysis from the volunteer process model with role identity theory to posit a third, integrative model of the causes of sustained volunteerism, and others have recently expanded that for use in studies with informal volunteering (Finkelstein & Brannick, 2007). Each of these models is described in this section as a basis for comparison with the model of sustained volunteering which has been developed for investigation in the present study.

3.13.1 *The volunteer process model*

Seeking to understand the social and psychological aspects of volunteering, Omoto and Snyder (Omoto & Snyder, 1990; Snyder & Omoto, 1992) proposed a three-stage conceptual model of the volunteer process. The model was developed initially as a generic model of the volunteering process and was adapted to focus on duration of service or sustained volunteering. The model specifies psychological and behavioural features associated with each stage and addresses three levels of analysis: the individual volunteer, the organisational context, and the broader societal or community context. They later added a fourth level of analysis to address the interpersonal/social dimension of volunteering. A schematic of the model with the four levels of analysis and illustrative examples for each "cell" is shown in Figure 3.2.

Levels of Analysis	Stages of the Volunteer Process		
	Antecedents	Experiences	Consequences
Individual	Personality, motivation, life circumstances	Satisfaction, stigma, organizational integration	Knowledge and attitude change, health
Interpersonal/Social Group	Group memberships, norms	Helping relationship, collective esteem	Composition of social network, relationship development
Agency/Organization	Recruitment strategies, training	Organizational culture, volunteer placement	Volunteer retention, work evaluation
Societal/Cultural Context	Ideology, service programs and institutions	Service provision, program development	Social capital, economic savings

(Snyder & Omoto, 2008, p. 7)

Figure 3.2   Schematic of the volunteer process model

The volunteer process model focuses on psychological factors that comprise three stages in the volunteering process: antecedents to volunteering, the volunteer experience, and consequences of volunteering. The volunteer process model (Omoto & Snyder, 1990, 1995; Snyder & Omoto, 2008) considers both the antecedents of volunteering and what happens to volunteers over time.

The volunteer process model and sustained volunteering

The volunteer process model provides a useful theoretical perspective for looking at those factors which influence sustained volunteering, particularly at the individual and organisational levels of analysis. The present study focuses primarily on the individual level of analysis within an organisational context. In this context, the first stage involves antecedents to volunteering and addresses the questions "Who volunteers?" and "Why do they volunteer?" (Snyder & Omoto, 1992, p. 214). Among the important antecedent variables are the volunteer's prior personal experiences, current circumstances, and current personal motives and social needs. The conceptualisation of these motives is based on a functional analysis of prosocial behaviours (Clary & Snyder, 1991; Clary et al., 1992; Clary et al., 1998). This functional analysis proposes that volunteering serves different functions for different people (and perhaps multiple functions for the same person). To understand why a person offers to volunteer and continues to do so, it is necessary to understand what particular function(s) helping serves for her or him (Penner & Finkelstein, 1998).

The second stage of the model concerns experiences of volunteers and "the dynamics of the helping relationships that develop between volunteers and the recipients of their services" (Snyder & Omoto, 2008, p. 9). In this stage, people's experiences as they volunteer assume primary importance. The relationship between volunteers and the organisations they serve is determined by two elements: volunteer needs (motivations) and organisational needs. The point of contact between these two elements is the actual volunteer experience, which has the potential to satisfy the needs of both the volunteer and the organisation (Balenger, Sedlacek, & Guenzler, 1989). Whether volunteering continues depends largely on the relationship that develops between the volunteer and the service organisation, and the extent to which this relationship meets the needs of the volunteer and the organisation.

The third stage of the model focuses on the consequences of volunteering which result from the interplay of factors at the antecedents and experiences stages. These consequences may include commitment to volunteering, commitment to the organisation, and length of service. Table 3.4 illustrates the volunteer process model as it might apply to an analysis of sustained volunteering from the perspective of the individual volunteer.

Table 3.4   The volunteer process model and sustained volunteering

Antecedents (to volunteering)	The Volunteering Experience	Consequences (of volunteering)
This stage addresses the characteristics that volunteers bring with them to their volunteering. These include the volunteer's prior personal experiences, current circumstances, and current personal motives and social needs.	This stage focuses on: • the relationships that develop between volunteers and the recipients of their services; • the relationships that develop between volunteers and the organisations they serve; • volunteers' perceptions of other people's reactions to their being a volunteer; and • the extent to which volunteers feel that their work has met their expectations and fulfilled their needs.	Consequences result from the interplay of factors at the antecedents and experiences stages. These include: • identity development, • commitment to volunteering, • commitment to the organisation, and • length of service.

Based on Omoto and Snyder (1995) and Snyder et al.(1999).

Using a sample of 116 AIDS volunteers, Omoto and Snyder (1995) found support for several aspects of the model. They have proposed that the following organisational variables all directly affect the length of time a person spends as a volunteer: satisfaction with the organisation; positive feelings about being a volunteer; commitment to the organisation; and the match between the volunteer experience and the individual's personal and social motives.

The volunteer process model provides a useful framework for looking at those factors in the volunteering experience which influence sustained volunteering as a consequence - and the personal factors which are their antecedents. Consistent with this framework, personal motives, integration with the organisation, and satisfaction with the volunteer experience are significant factors in sustaining volunteer activity (Kiviniemi, Snyder, & Omoto, 2002; Penner & Finkelstein, 1998). Accordingly, this framework has been adopted as a basis for the model of sustained volunteering developed in the present study.

3.13.2   The role identity model

The role identity model asserts that individuals engage in voluntary actions because of a strong volunteer or service "identity" (Callero et al., 1987; Grube & Piliavin, 2000; Piliavin et al., 2002). This model is based on the identity theory developed by Stryker (1980) and Turner (1978), and derived from symbolic interaction theory, that an individual assumes multiple roles, one of which might be a volunteer (Thoits, 2012).

The role identity model posits that past volunteer service leads to the development of a "volunteer role identity" which, in turn, motivates future volunteer service (Penner & Finkelstein, 1998; Piliavin & Callero, 1991). The role identity model asserts that as people continue to be volunteers, commitment to the organisation increases and, with this increasing

commitment and continued volunteer activity, the volunteer's role becomes part of her or his identity. Consistent with this conceptualisation, research has shown that the strength of a person's role identity correlates with the voluntary donations of time, money, and even blood (Grube & Piliavin, 2000; Piliavin & Callero, 1991). It is this role identity that directly drives the volunteer's behaviour; hence this model is especially appropriate for examining processes that sustain volunteering once it has begun (Grube & Piliavin, 2000; Thoits, 2013).

The present study investigates the influence of self-efficacy on sustained volunteering rather than role identity. As discussed in Sections 3.2.1, 3.6.1 and 3.13.3, self-efficacy is preferred to role identity as the variable related to perceived behavioural control in the theory of planned behaviour (TPB).

3.13.3   Penner's integrated framework

Adopting an interactionist perspective or framework, Penner (2002) combined aspects of functional analysis and role identity theory into a single conceptual model and proposed a model in which dispositional and organisational variables are not independent of one another. Penner articulated two assumptions about these variables. "First, neither dispositional nor organizational variables can, by themselves, provide a full explanation of why people initially decide to volunteer and then continue to volunteer over an extended period of time. Second, the two classes of variables affect one another and interact to affect volunteerism" (Penner, 2002, p. 450). Penner's integrated framework is represented in Figure 3.3.

Finkelstein, Penner, and Brannick (2005) provided a preliminary empirical examination of Penner's (2002) integrated framework. They asserted that the volunteer dynamic may best be understood when organisational and individual characteristics are considered but they did not include relevant organisational variables that Penner (2002) suggested as reasonable to include – such as the relationship between the individual and the organisation.

The conceptual model developed for the present study includes both dispositional variables (motivation and self-efficacy) and organisational variables (satisfaction, collective efficacy, and organisational commitment) as recommended by Penner (2002). It uses self-efficacy for volunteering rather than volunteer role identity as the basis of perceived behavioural control in the theory of planned behaviour (TPB), as discussed in Section 3.13.2. Penner's (2002) model addresses the direct and indirect causes of sustained volunteering *per se* while the model developed for the present study emphasises sustained volunteering with a particular organisation, since its elements include the volunteer's (affective) commitment to the current organisation and perceptions of the collective efficacy of that organisation. This model is detailed further in Section 3.15.
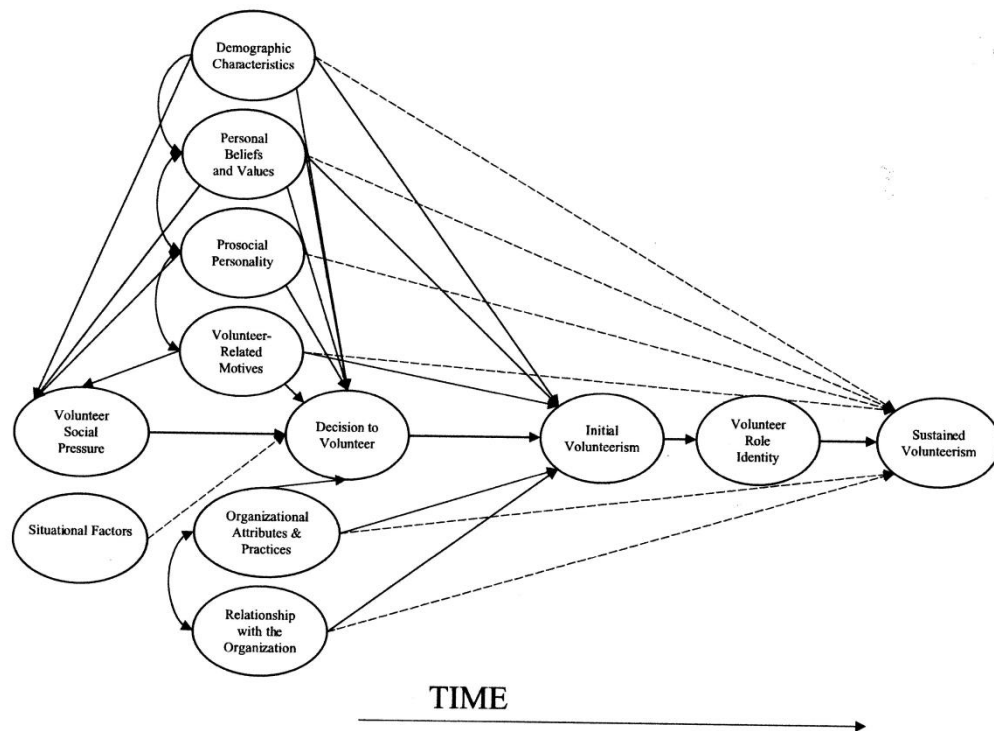
The figure represents a conceptual model of the direct and indirect influences on sustained volunteerism. The strongest causal relationships are represented by solid lines; the weaker ones by dashed lines. (Penner, 2002, p. 461)

Figure 3.3   The causes of sustained volunteerism.

3.14   Research questions

The principal question addressed in the present study is: How do dispositional and organisational factors, directly or indirectly, individually and collectively, influence a volunteer's sustained involvement with a particular community service organisation?

In particular, to what extent do the variables selected for this study – that is, motivation, self-efficacy, perceived benefits, satisfaction, collective efficacy and affective commitment to the organisation - taken individually or in combination, influence the sustained involvement of the volunteer?

Variables included in this study were selected on the basis of their empirical support in the literature, theoretical relevance, and relevance to the volunteering context studied.

3.15   Conceptual model of sustained volunteering

A conceptual model of sustained volunteering was developed for use in this study based on relevant theoretical frameworks and a review of the research on sustained volunteering. It takes its origin from the volunteer process model (Omoto & Snyder, 1995; Snyder et al., 1999), it

includes dispositional and organisational variables (Penner, 2002), and focuses on sustained volunteering with a particular organisation.

The volunteer process model was posited initially as a generic model of the volunteering process, while later applications of the model investigated, among other consequences, duration of service or sustained volunteering. The model used in the present study was developed to investigate sustained volunteering as its principal focus. It addresses the fulfilment of volunteers' motivations or expectations as the match or congruence between volunteers' motivations and the benefits they receive from their volunteering – as detailed in Section 3.8.

3.15.1   *Selected variables in the context of the volunteer process model*

Our conceptual model has its origins in Omoto and Snyder's volunteer process model. In this model, the volunteer process unfolds over time as antecedents-stage variables give way to experiences-stage variables, which, in turn, lead to the consequences of volunteering (Omoto & Snyder, 1995).

In this study, the dispositional variables, volunteer motivations and self-efficacy for volunteering, are antecedents-stage constructs that are hypothesised to influence constructs at the experiences and consequences stages. The organisational variables, benefits of volunteering, satisfaction, collective efficacy and affective organisational commitment, are experiences-stage constructs hypothesised to influence the consequences and, perhaps, in turn, the dispositional variables. Conceptualising volunteering as an exchange between the volunteer and the organisation, the study will include a measure of the match or congruence between the benefits of the volunteering experience and the functional motives of the volunteer. Sustained volunteering, operationalised as the intention to continue volunteering with the community service organisation, is the consequence of concern for this study.

The study also investigated the influence of a range of demographic variables (age, gender, level of education, and location), and various indicators of volunteer involvement (years of volunteering experience, hours volunteered per month, frequency of volunteering, other current volunteering and previous volunteering). These selected variables and the hypothesised relations between them are represented in the following conceptual model, Figure 3.4.

Figure 3.4 presents a conceptual model that focuses on the precise role of dispositional and organisational variables and whether they predict the sustained involvement of volunteers in community service organisations. Sustained volunteering is explained through the convergence of identified and measurable influences. Rather than each predictor variable explaining the variance of the criterion, independent of other influences, the nature of these predictors suggests that these variables do not operate independently, but interactively (Penner, 2002). That is, the

influence of dispositional variables may be moderated and/or mediated by organisational variables and vice versa (Penner, 2002).
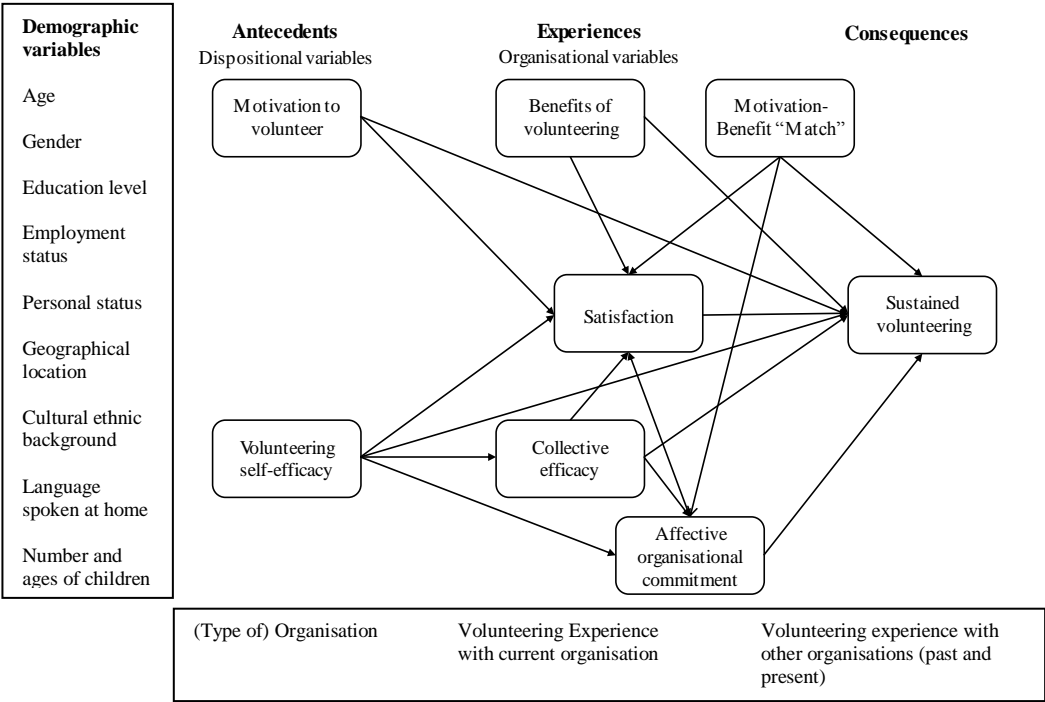
Figure 3.4   Conceptual model of sustained involvement of volunteers in community service organisations

The conceptual model represented in Figure 3.4 postulates influences between two constructs which are in one direction only, and the corresponding structural equation model is said to be recursive. While Figure 3.4 does not show any bidirectional links between the dispositional variables and the organisational variables, it is acknowledged that, based on the conceptual relationships between these variables, there may be reciprocal influences within and among the different classes of variables. These possible reciprocal influences would result in a non-recursive model whose identification is problematic in structural equation modelling particularly in relation to the use of cross-sectional data. (cf. Chapter 4, Section 4.9.3). Reciprocal influences between some variables may well be hypothesised based on the findings of the present study. Further research may investigate the benefits of studying this additional level of complexity in models of sustained volunteering.

It is instructive to determine the strength of each predictor variable, as have past studies. However, it is more relevant to investigate what combination of variables is most conducive to sustained volunteering. These analytical techniques to achieve the interactive effect of these variables include multivariate statistical techniques.

As reported earlier in this chapter, there is evidence that a number of demographic factors influence sustained volunteering. Accordingly, this study will investigate a number of demographic variables as potential moderators in the predictor-criterion relationships.

3.15.2   Hypotheses

In broad terms, the research questions that shape this investigation concern the strength and significance of the pathways that link the various factors or variables to each other and to the volunteer's continued involvement with the organisation. These pathways are represented in the conceptual model developed for this study (Figure 3.4).

The literature review has suggested a number of potential relationships leading to sustained volunteering.

As participation is an ongoing and sustained activity, functionalist theorising suggests that volunteers whose motivational concerns are served by their participation would derive greater satisfaction than those whose concerns are not met (Clary & Snyder, 1999) (cf. Section 3.5.6).

If volunteers' satisfaction with their volunteering experience is associated with receiving functionally relevant benefits, then it follows that their actual intentions to continue serving as volunteers will also be linked to the matching between experiences and motivations (Clary & Miller, 1996; Clary et al., 1998; Omoto & Snyder, 1995) (cf. Section 3.8.2).

It is hypothesised that consistent with the findings of Clary et al. (1998), those volunteers who experience more congruence between their own particular motives for volunteering and the benefits they perceive they have gained through their work will be more satisfied with the volunteer experience (cf. Section 3.9.1), be more committed to the organisation (cf. Section 3.10) and be more likely to continue their volunteering involvement in the future (cf. Section 3.8.2).

These potential relationships are testable within the present research model. The following hypotheses, linked to specific variables, allow the relationships, and their strengths, to be tested.

Motivation to Volunteer (MTV)

H1.   Volunteers' functional motivations are related to satisfaction with the volunteering experience.

H2.   Volunteers' functional motivations are related to sustained volunteering.

Benefits of Volunteering (BEN)

H3.   Volunteers' perceived benefits are related to satisfaction with the volunteering experience.

H4.   Volunteers' perceived benefits are related to sustained volunteering.

Motivation-Benefit Congruence (MTV-BEN Match – MBM)

H5.   Volunteers who receive functionally relevant benefits are more likely to be satisfied with the volunteer experience.

H6.   Volunteers who receive functionally relevant benefits are more likely to express affective commitment to the organisation.

H7.   Volunteers who receive functionally relevant benefits are more likely to continue volunteering with the organisation.

Satisfaction with the volunteering experience (SAT)

H8.   Volunteers who express satisfaction with their volunteering experience are more likely to express affective commitment to the organisation.

H9.   Volunteers who express satisfaction with their volunteering experience are more likely to continue volunteering with the organisation.

Affective Organisational Commitment (AOC)

H10. Affective organisational commitment is significantly related to sustained volunteering.

Self-efficacy for Volunteering (SEV)

H11. Self-efficacy for volunteering is related to the perceived collective efficacy of the organisation.

H12. Self-efficacy for volunteering is significantly related to volunteer satisfaction.

H13. Self-efficacy for volunteering is significantly related to affective organisational commitment.

H14. Self-efficacy for volunteering is significantly related to sustained volunteering.

Collective Efficacy of the Volunteer organisation (CEV)

H15. Perceived collective efficacy of the organisation is significantly related to volunteer satisfaction.

H16. Perceived collective efficacy of the organisation is significantly related to affective organisational commitment.

H17. Perceived collective efficacy of the organisation is significantly related to sustained volunteering.

Figure 3.5 reproduces the conceptual model for the present study indicating the pathways which correspond to each hypothesis.
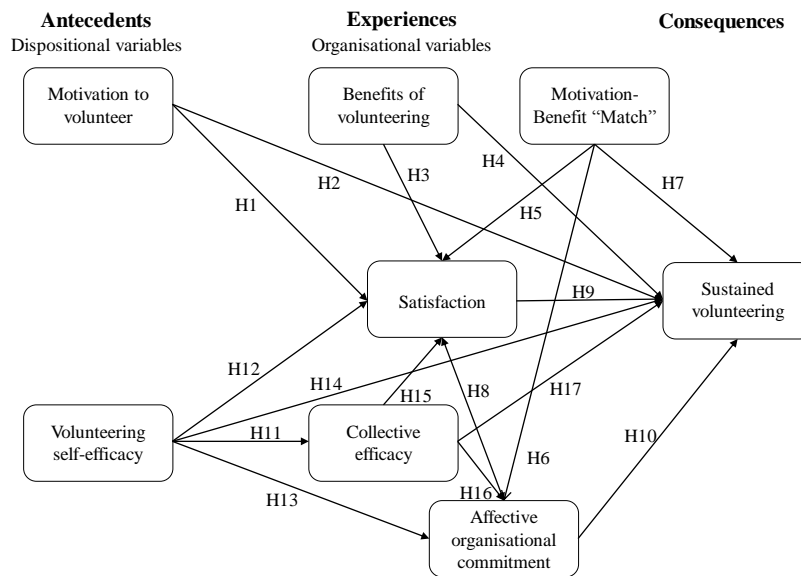
Figure 3.5   Model of sustained volunteering including hypotheses

3.16   Chapter summary and conclusion

This chapter has reviewed the research-based literature to identify factors that influence sustained volunteering with an organisation; that is, an individual's decision to continue volunteering with that organisation. Research on the factors that influence sustained volunteering has been largely inconclusive and that further research needs to acknowledge the complexity of sustained volunteering and examine multiple factors or variables and the interactions between them. Theoretical perspectives which facilitate the study of volunteering generally and sustained volunteering in particular were discussed. Based on these perspectives, dispositional and organisational factors were identified as influencing sustained volunteering, either directly or indirectly. Research questions and hypotheses were formulated based on the relationship between these variables. Models of sustained volunteering were reviewed and a conceptual model of sustained volunteering was proposed which includes multiple variables and the interactions between them.

Chapter 4 will discuss the approach adopted in investigating the research questions and hypotheses identified. The research design, research method, sampling, instrumentation, variables and constructs, and data analyses used in this study will be detailed. Ethical considerations, issues relating to validity, and methodological limitations are also addressed in Chapter 4.

Chapter Four - Methodology

4.1 Introduction

This chapter discusses the approach adopted in investigating the research questions which gave rise to this study. The research design, research method, sampling, instrumentation, variables and constructs, and data analyses used in this study are detailed. Ethical considerations, issues relating to validity, and methodological limitations are also addressed in this chapter.

The purpose of the research was to determine how dispositional and organisational factors influence a volunteer's sustained involvement with a community service organisation. The study sought to address the complexity of sustained volunteering through the use of multiple independent variables. Current volunteers in three community service organisations were surveyed regarding their continued involvement with these organisations. This research was a snapshot of intentions at a point in time and did not investigate whether this intended behaviour was actually demonstrated. Confirmation of PhD candidature was granted based on a series of research-in-progress seminars presented by the candidate between 2003 and 2006 as attested in Appendix 4A.

This study builds on and extends the ARC-funded research project *V21: Enhancing volunteering for the 21st century* (Butcher & Ryan, 2006). Volunteers in three community service organisations were surveyed using a range of established and original psychosocial scales to measure dispositional and organisational variables. As part of the ARC funding process, each of the participating organisations signed a formal agreement to participate in the V21 Research Project. An example of this agreement is included as Appendix 4C. The contextualisation of the current study within the focus of the V21 project is described in Chapter 2, Section 2.8. The data for this study was collected in a survey of volunteers conducted as part of the V21 project. With the agreement of the participating organisations, additional items related to the variables investigated in this study but not in the V21 project were incorporated in the V21 questionnaire (V21Q). These additional items included questions related to volunteers' perceptions of motivation to volunteer, benefits of volunteering, satisfaction with the volunteering experience, affective organisational commitment and intention to continue volunteering; items related to self-efficacy for volunteering and collective efficacy of the organisation were common to the V21 research and the present study. The conceptual model and related hypotheses presented in the present study, and the structural equation modelling, were not part of the V21 study.

Research questions

Dispositional and organisational factors are important influences on a volunteer's decision to sustain their volunteering effort (cf. Chapter 1, Section 1.6). Consideration of these factors gives rise to the research question and subquestions which shapes this investigation (Repeated here from Chapter 1, Section 1.7). The principal research question is:

How do dispositional and organisational factors influence sustained volunteering; that is, a volunteer's continued involvement with a community service organisation?

The nature and extent of this influence, either direct or indirect, each individual factor or combinations of factors, are examined by way of a series of subquestions:

RQ1: How does a volunteer's motivation for volunteering influence their sustained volunteering? Are volunteers who are motivated by a particular function(s) more likely to continue their volunteering with the organisation? (cf. Section 4.7.1.1)

RQ2: How does a volunteer's belief in his/her ability to be an effective volunteer (self-efficacy for volunteering) influence their sustained volunteering? (cf. Section 4.7.1.2)

RQ3: How do the benefits received from volunteering influence a volunteer's sustained volunteering? (cf. Section 4.7.2.3)

RQ4: How does satisfaction with the volunteering experience influence a volunteer's sustained volunteering? (cf. Section 4.7.2.2)

RQ5: How does a volunteer's perception of the collective efficacy of the organisation influence a volunteer's sustained volunteering? (cf. Section 4.7.2.4)

RQ6: How does a volunteer's affective commitment to the organisation influence a volunteer's sustained volunteering? (cf. Section 4.7.2.1)

RQ7: How does the "match" between a volunteer's motivation and the benefits received influence a volunteer's sustained volunteering? (cf. Section 4.9.2.2)

Research subquestions RQ1 to RQ7 address the influence of each of the identified dispositional and organisational variables on sustained volunteering. A further question, RQ8, also investigates the combined influence of these variables.

RQ8: How do motivation, self-efficacy, benefits, satisfaction, collective efficacy, affective commitment to the organisation, and motivation-benefit "match" collectively influence sustained volunteering, either directly or indirectly? (cf. Section 4.9)

In broad terms, the research questions that shape this investigation concern the strength and significance of the pathways that link the various factors or variables to a volunteer's continued involvement with the organisation. These pathways are represented in the conceptual model

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developed for this study in Chapter 3 as an outcome of a review of the relevant literature (cf. Section 3.15.1, Figure 3.4). This conceptual model is reproduced here as Figure 4.1.
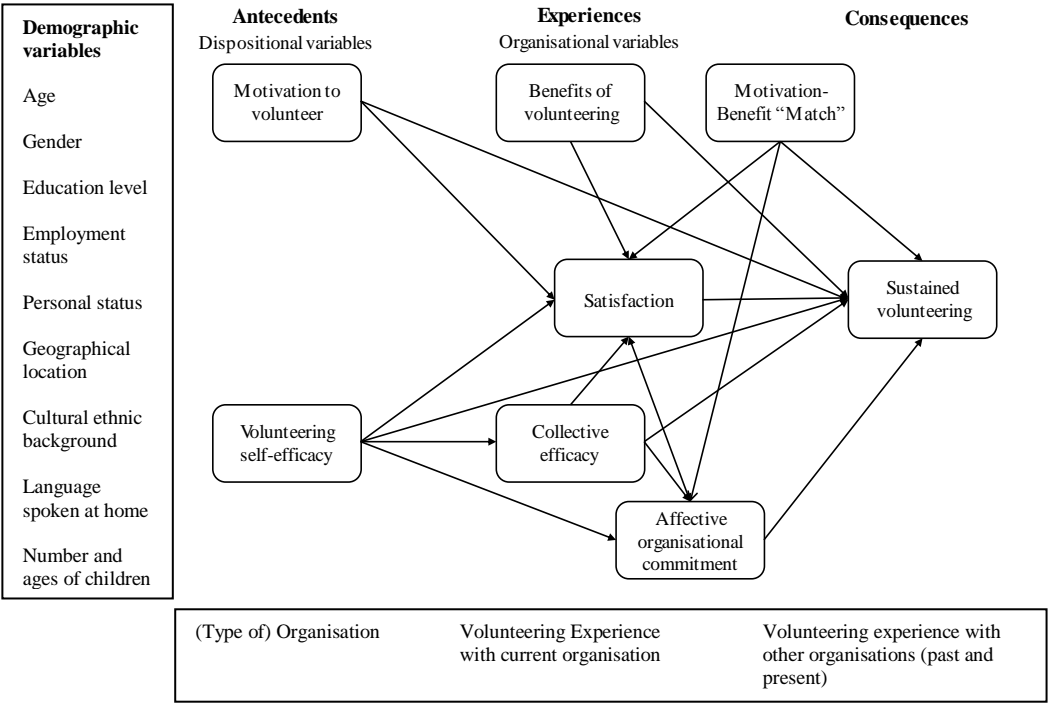
Figure 4.1   Conceptual model of influences on the sustained involvement of volunteers in community service organisations

With the agreement of the participating organisations (cf. Appendix 4D), additional items related to the variables investigated in this study but not in the V21 project were incorporated in the V21 questionnaire (V21Q), as detailed in Section 4.1. The conceptual model and related hypotheses presented in the present study, and the structural equation modelling, build on and extend the V21 research but were not part of the V21 study.

Figure 4.2 shows the model depicted in Figure 4.1 with the paths labelled RQ1, RQ2, and so on, to indicate the research subquestions they represent (as listed earlier in this section).
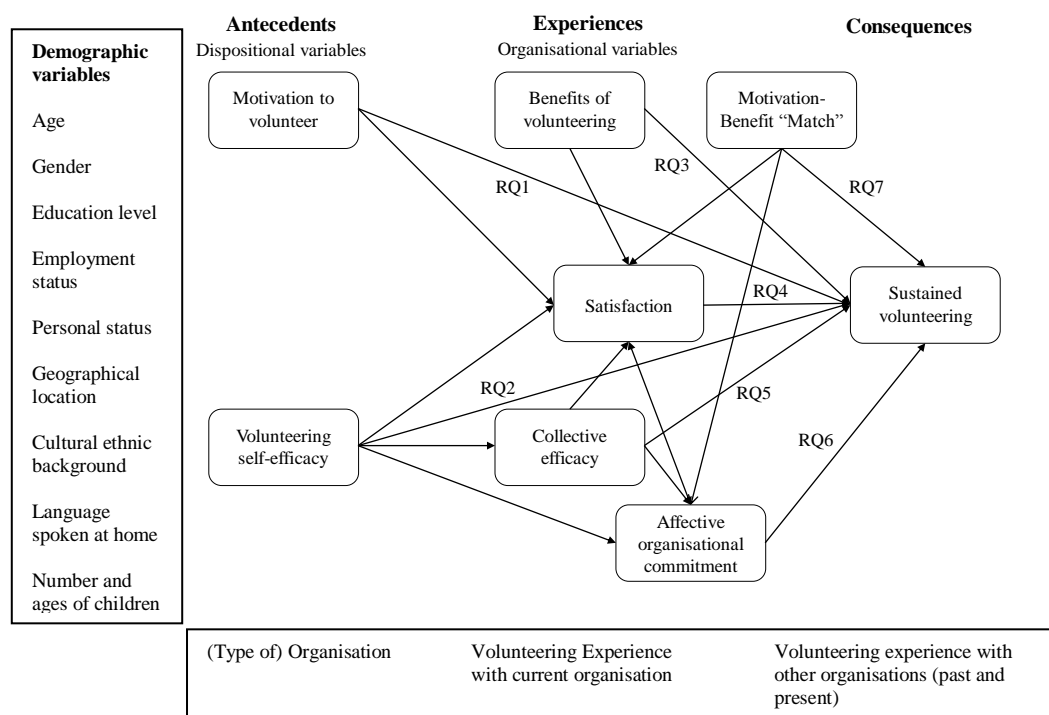
Figure 4.2   Conceptual model of sustained volunteering showing research questions

4.2   Quantitative research design

The quantitative research design of this study provides the logical framework upon which the research project is conducted and enables the gathering of evidence that will allow the research questions to be addressed. Obtaining relevant evidence entails specifying the type of evidence needed to answer a research question, to test a theory, to evaluate a program, or to accurately describe the phenomena (de Vaus, 2001). This quantitative research design is based within the positivist traditions of the natural sciences. In non-experimental social research, the quantitative research design ideally should maintain the logic of the experiment with its focus on analysing the relationships between characteristics. Data on a number of different characteristics, or variables, are collected and analysed to explore the possible relationships and associations between them. The main methods of collecting this data are the self-completion survey or structured interview. The self-completed survey was chosen as the main data collection instrument for this study as it was planned to involve a large number of volunteers across several geographical regions (cf. Section 4.4.2).

A non-experimental, cross-sectional design was adopted for this study to acknowledge the complexity of the concept of sustained volunteering and to examine multiple factors or variables and the interactions between them (M. Locke et al., 2003). This focus on the complexity of the

concept and the need to investigate multiple factors arises from the literature review and is reflected in the theoretical model adopted for this study (cf. Figure 4.1). The complexity of sustained volunteering is addressed by considering the collective influence of several dispositional and organisational factors assumed to affect sustained volunteering. Moreover, many previous studies of sustained volunteering have involved small sample sizes and a single organisation or program (Alexander, 2000; Clary & Snyder, 1999; Clary et al., 1992; Clary et al., 1996; Wilson & Musick, 1999) resulting in low generalisability of findings. This study seeks to avoid the limitations of previous studies by using a large sample size and including three organisations rather than one. Moreover, as described in Chapter 2 (cf. Section 2.8.2), these three organisations are quite diverse, adding a further dimension to the scope of this study.

Consideration of the need for generalisability and the desire to collect data on several variables from a large number of volunteers in geographically dispersed locations determined the use of a cross-sectional research design – a single-occasion snapshot of a system of variables and constructs, whose key feature is the concurrent measurement of variables. An exploratory approach using survey research enabled the collection of data on a range of variables from a large number of volunteers across three organisations located in metropolitan, regional and rural areas at a single point in time (David & Sutton, 2004). Research design is intrinsically linked with research method; whereas the purpose of a research design is to provide a framework for the collection and analysis of data, research method refers to the actual techniques of data collection, in this case, the social survey or self-completion questionnaire (David & Sutton, 2004).

4.3   Research method

This study builds on the basic structure of Clary and Snyder's Volunteer Process Model (Clary et al., 1992) as described in Chapter 3 (cf. Section 3.13.1), and identifies antecedents, experiences and consequences related to sustained volunteering. It uses survey data, and employs factor analysis, multiple regression analysis and structural equation modelling (SEM) to address the research questions. Structural equation modelling is used to investigate the extent to which dispositional and organisational variables, individually or in combination, predict the sustained involvement of the volunteer with the community service organisation. These techniques of data analysis are discussed in more detail in section 4.9.

4.3.1   Development of survey instrument

Based on the literature review and the theoretical model developed for this study, the identification of measures and item construction was begun. ACU's Human Research Ethics Committee (HREC) had granted approval for the V21 Project in September 2003 and separate approval for the present study was granted in September 2005. These HREC approval letters are

included at Appendix 4B, and ethical considerations are addressed in detail in Section 4.6. The V21 project had conducted focus groups with volunteers from each organisation in metropolitan, regional and rural locations. A survey instrument was developed which comprised original scales and established psychosocial scales (Allen & Meyer, 1990; Clary et al., 1998; Labone & Butcher, 2004; Omoto & Snyder, 1995; Penner & Finkelstein, 1998). The survey instrument included questions related to volunteers' perceptions of motivation to volunteer, benefits of volunteering, self-efficacy for volunteering, collective efficacy of the organisation, satisfaction with the volunteering experience, affective organisational commitment and intention to continue volunteering - as well as questions soliciting a range of demographic and contextual information. This process resulted in the construction of a draft questionnaire which included 72 items related to the variables in the conceptual model as well as items related to demographic characteristics and contextual information (Butcher & Ryan, 2006).

4.3.1.1 Quality assurance - Context and face validity

A rigorous examination of the structure, sequencing and language of the draft questionnaire was conducted and the questionnaire was modified as a result of this examination. Members of the V21 project team from each participating organisation reviewed the draft questionnaire based on their knowledge of the language and culture of their organisation. The V21 project team as a whole reviewed the transcripts of V21 focus groups to ensure a "match" between the language of volunteers in the focus groups and the language of the questionnaire.

This modified version of the draft survey was further scrutinised to enhance its context and face validity by maximising the intelligibility of language used and minimising potential ambiguities. Face validity was achieved by asking five experienced managers of volunteers to review its contents; one manager from each of the participating organisations and two from a New South Wales regional volunteer centre. These volunteer managers were asked to scrutinise the questionnaire for appropriate use of context-based terms, readability of items and ease of interpretation. Their feedback was used to produce a pilot version of the questionnaire for pre-testing. Further feedback on structure, sequence and language was sought from volunteers who completed the pilot version.

4.3.2 Pre-testing of survey instrument

A pilot version of the survey was distributed to a number of volunteers in each organisation in November 2004. For convenience, only metropolitan volunteers were included in the pilot. The targeted number of pilot participants for each partner organisation was: The Benevolent Society (TBS) - 15, the NSW Rural Fire Service (RFS) - 25, the St Vincent de Paul Society, NSW and ACT (SVDP) - 25. It was proposed that, where possible, the pilot participants for each partner organisation should include at least one person in each of the eight cells of the (metropolitan) survey sample. To establish the validity of the revised efficacy instrument, it was considered

important that the number of participants targeted for each partner organisation be achieved, even if some of the eight sample cells were not included. It was proposed that, where feasible, the pilot survey be completed with a member of the V21 Research Team present to capture feedback on the survey from the pilot participants. Volunteers who participated in the pilot survey were excluded from the sample for the main study.

A total of 65 surveys were distributed across the three participating organisations. An Information and Consent Letter was provided to each participant. In SVDP and TBS the surveys were distributed and collected by a V21 Research Team member from that organisation in a face-to-face situation; respondents were invited to return their completed survey in a sealed envelope and/or discuss any comments or feedback with the V21 team member. In RFS the survey was distributed by mail with a pre-paid envelope for return of the completed survey. Forty-four completed surveys were received. The distribution of completed pilot surveys for each organisation is shown in Table 4.1.

Table 4.1   Distribution of pilot survey respondents by organisation

	ALL		SVDP		RFS		TBS	
Age Group	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
15-18 years	5	2	5	2				
19-30 years	2	4	1	4	1			
31-55 years	3	4	2	1	1	2		1
55+ years	12	12	5	4	4	2	3	6
Totals	22	22	13	11	6	4	3	7
	44		24		10		10	
Target	65		25		25		15	

Respondents were invited to note, on the survey form, any queries or comments they might have on individual survey items, the appropriate use of context-based terms, the readability of items and ease of interpretation. Space to record this feedback was provided on the survey form. In the case of SVDP and TBS, the V21 team member present invited discussion of respondents' written comments and any additional feedback. Minor wording changes resulted from this advice; these changes are reflected in the final wording of survey items as presented in Section 4.5. Responses to the items related to self-efficacy for volunteering and volunteer motivation were factor analysed to validate the hypothesised dimensions in each case.

The pilot survey included the 30 items from the Volunteer Functions Inventory (VFI) instrument which measures the six functional motivations identified by Clary et al. (1998). The pilot data was a moderate fit to the established motivation scales which form the basis of the VFI. It was considered that this could be related to the diversity of organisations in the V21 project, the small number of respondents, or the limited age distribution of respondents (19 of the 44 respondents – 43% - were aged more than 60 years). However, given the small number of respondents and the desire to compare final survey data with previous VFI studies, it was decided to retain all 30 original VFI items in the final survey.

The pilot survey included 19 items related to self-efficacy (or personal efficacy) for volunteering. The pilot data on these items clustered well, but on four dimensions (or factors) rather than the five dimensions identified in previous research on self-efficacy for community engagement. Given the small pilot sample (N = 44), it was decided to retain these items in their present form while noting the importance of maximising the number of participants from each organisation in the final survey and achieving the broadest possible age distribution in the sampling.

4.3.3   *Format considerations*

Particular attention was paid to the formatting of the questionnaire. The scrutineers of the original draft and the pre-testers who participated in the pilot survey provided feedback on the formatting. The questionnaire was also reviewed against the formatting guidelines described by Borg and Gall (1983). Particular consideration was given to questionnaire attractiveness, utility, logic and ease of completion.

The introduction to the survey instrument included information on the purpose and scope of the survey, a guarantee of confidentiality and anonymity, and instructions for completing the survey and recording responses to scaled items. The survey was presented in five sections; each of the first four sections asked about a different aspect of the volunteering experience; the final section solicited a range of demographic information. Scale-response items were presented in tabular form to facilitate readability and accurate recording of responses. Particular attention was given to page layout and type fonts to enhance the attractiveness and legibility of each printed page. Separate versions of the questionnaire were produced for each organisation. The content and presentation of these versions were identical except that the name of the particular organisation was used, where appropriate, instead of a generic term such as "your organisation". The final survey instrument is included in Appendix 4E.

4.4   *Research population and sample framework*

This section describes the research population for the study and the sample framework developed for the study.

4.4.1   Research population

The population for this study comprised volunteers from diverse organisational and social contexts.

4.4.2   Sample framework

The three community service organisations involved in the study, the St Vincent de Paul Society (NSW & ACT) (SVDP), the NSW Rural Fire Service (RFS), and The Benevolent Society (TBS), represent a continuum of organisational dependence on volunteers that ranges from almost total dependence at one extreme, to use of volunteers to extend and enhance the services provided by paid staff at the other extreme. As a proportion of total staff, volunteers range from 99% (RFS) – 91% SDVP - to 56% (TBS) – but volunteers do not hold line management positions in TBS. The St Vincent de Paul Society (SVDP) operates as a charity with more than 21,000 volunteers and 2000 paid staff in NSW and ACT. The NSW Rural Fire Service (RFS) is a statutory body with approximately 70,000 volunteers and 640 salaried officers. The Benevolent Society (TBS) is a non-profit organisation operating as a company limited by guarantee with a voluntary board, more than 800 volunteers and 640 paid staff (cf. Table 4.2). These organisations provide a wide variety of services across diverse social and organisational contexts in all parts of the Sydney metropolitan area, and in regional and rural areas of NSW (cf. Chapter 2, Section 2.8.2) (Butcher & Ryan, 2006).

Table 4.2   Demographics of Target Organisations

Organisation	Type	No. paid staff	No. volunteers	% volunteers
SVDP	Charity	2 000	21 000	91
RFS	Statutory body	640	70 000	99
TBS	Non-profit company	640	800	56

A comprehensive sample frame was developed in consultation with the participating organisations to ensure that volunteer sample groups reflected the diversity of contexts across and within all organisations. The intention was to create a stratified sample, but because of the diverse nature of the organisations the resulting sample was not balanced. The age categories were chosen to cater for a cross-sectional study of differences in volunteer groups from school through to post-retirement. Gender was included to ensure that the samples were not biased on this basis. Location was included to allow the influence of geographical context to be examined. Metropolitan, regional and rural locations were identified based on government classifications (ABS, 2001), and respondents were classified as metropolitan, regional or rural based on the range of postcodes associated with each identified area.

Volunteers were sampled on the basis of the following four demographic variables:

- Organisation (3 categories): SVDP, RFS, and TBS
- Age (4 categories): 15-18 years (school age); 19-30 years (further study/early employment); 31-55 years (employment to retirement); and older than 55 years (post-retirement). (15-18 years for SVDP and RFS only; no 15-18 year old volunteers in TBS.)
- Gender (2 categories): male/female.
- Geographic area of service delivery (3 categories): metropolitan, regional and rural. (Metropolitan only for TBS.)

This resulted in a total matrix of 54 cells. Based on the requirements specified by the participating organisations for adequate coverage of age, gender and location in the V21 study, ten volunteers per cell were targeted from SVDP and RFS while TBS targets differed for each age group (19-30 years: 10M/20F; 31-55 years: 10M/40F; over 55 years: 20M/60F) making a total of 640 participants. The volunteer survey sample framework is presented in Table 4.3. Table 4.3 maps the stratification of the sample framework for each organisation. The numbers of age and gender cells are described. For TBS only metropolitan respondents were available.

Table 4.3   Volunteer Survey Sample Framework

Organisation	SVDP	RFS	TBS	Total
Metropolitan	80* = 10 x 4 x 2 [Age (4) x Gender+ (2)]	80* = 10 x 4 x 2 [Age (4) x Gender+ (2)]	160 19-30 yrs#: 10M/20F; 31-55 yrs: 10M/40F; 55+ yrs: 20M/60F	320
Regional	80* = 10 x 4 x 2 [Age (4) x Gender+ (2)]	80* = 10 x 4 x 2 [Age (4) x Gender+ (2)]	Metropolitan only for TBS	160
Rural	80* = 10 x 4 x 2 [Age (4) x Gender+ (2)]	80* = 10 x 4 x 2 [Age) x Gender+ (2)]		160
Total	240	240	160	640

*   from across different services or programs (within the one organisation).

+   10 males and 10 females in each age group (SVDP and RFS).

No 15-18 years age group for TBS.

The number of volunteers per organisation in the sample framework does not reflect the relative number of volunteers in each organisation as reported in Table 4.2. The size of the sample from each organisation was principally determined by the organisations themselves. Independently, each organisation was concerned to sample their volunteers rather than create the burden of requesting every volunteer to participate in the study. At the same time, organisations wanted to ensure that the survey data obtained would be useful in addressing their specific interests and purposes. Furthermore, the intent of this research is not to compare the participating organisations.

4.5 Data collection procedures

The data for the present study is drawn from the survey of volunteers conducted for the research project *V21: Enhancing volunteering for the 21st century* in February and March 2005. The V21 project methodology included both volunteers and employees of the participating organisations with separate focus group interviews and survey questionnaires for each group. Additional psychosocial scales and other items related to the variables investigated in this study but not in the V21 project were incorporated in the V21 volunteer survey with the agreement of the participating organisations. These additional scales and items are detailed in Section 4.1. This section reports the data collection procedures for the V21 volunteer survey. Each of the participating organisations agreed to the use of the V21 data in this study. An example of the letter of agreement is included as Appendix 4D.

4.5.1 Survey distribution and completion

Each organisation identified volunteers based on the sample cells and these were invited to complete the survey. To maximise response rates, procedures recommended by de Vaus (2002) were followed in compiling the survey pack and following-up with respondents. The survey pack consisted of a cover letter, a copy of the questionnaire for that organisation (cf. Section 4.3.3 Format considerations), a parent/guardian consent form for participants under 18 years, and a pre-paid envelope to return the survey. The survey was submitted anonymously and all versions of the survey stressed the confidential nature of the survey. (cf. Section 4.6.3 Ethical Considerations: Confidentiality and anonymity). The survey took approximately 30 minutes to complete.

In SVDP and TBS, the survey was distributed to participants by hand. Some participants completed the survey in a group session and handed in their completed surveys at the end of the session, while others were asked to complete the survey when convenient and return it by mail. In RFS, the survey was distributed and returned by mail. Addressed envelopes with prepaid postage were provided for all questionnaires to be returned by mail. A reminder letter was sent to all respondents who had been posted a copy of the survey.

On receipt, completed questionnaires were assigned a unique 4-digit case number for coding purposes, with the first digit identifying the organisation. SVDP responses were coded 1001, 1002, and so on, RFS responses 2001, 2002, and so on, and TBS responses 3001, 3002, and so on.

The final questionnaire yielded responses by 454 volunteers across all organisations; a response rate of 71%. Response rates varied from 64% to 82% across the three organisations. A more detailed analysis of responses is provided in Chapter 5, Section 5.3.

4.6   Ethical considerations

4.6.1   General

Research protocols required approval of the Australian Catholic University's Human Research Ethics Committee (HREC) prior to implementation of the research. Approval for the V21 Project was granted in September 2003 and separate approval for the present study was granted in September 2005. These HREC approval letters are included at Appendix 4B together with a letter to the Chair of HREC from Professor Jude Butcher documenting the relationship of the present study to the V21 Project as discussed with the Chair of the HREC. Each of the participating organisations agreed to the use of the V21 data in this study. An example of the letter of agreement is included as Appendix 4D. In this section, some of the significant ethical considerations in undertaking quantitative research design, survey administration, data security and reporting are discussed.

4.6.2   Informed consent

Three community service organisations were involved in the research. Each organisation had formally agreed to participate in the V21 research project and each organisation formally indicated approval of the final survey instrument before distribution.

The introduction to the survey informed participants of the purpose of the survey and emphasised that participation was voluntary. Participants were advised that by completing and returning the survey they were indicating their consent to participate in the research. A parent/guardian consent form was provided for participants less than 18 years. The researcher's contact details were provided so that participants could raise any queries or concerns.

4.6.3   Confidentiality and anonymity

Confidentiality refers to the researcher ensuring that no one outside the research team will be able to identify the participants in the study and that the responses of individuals are not directly reported to others. Anonymity refers to the practice of ensuring that no one will be able to identify the participants in the study. Anonymity is the more challenging ethical issue to address (David & Sutton, 2004).

The introduction to the survey stressed the confidential nature of the survey and all responses were submitted anonymously. Surveys completed in face-to-face sessions were handed directly to the researcher in an unmarked sealed envelope. Surveys distributed by mail included a pre-paid envelope addressed to the researcher. For participants under 18 years, a separate envelope was provided for return of the parent/guardian consent form; this was then included in the pre-paid envelope provided for return of the completed survey.

4.6.4   Data recording, security and disposal

The completed questionnaires were the only form of raw data used in this study. Responses were coded and only the raw data file was used in the analysis. In accordance with Australian Catholic University (ACU) research policy and procedures, the original data was stored in a locked filing cabinet in the researcher's office and will be held for a minimum of five years after completion of the study.

4.7   Research instrumentation and operational definitions

The survey was organised according to the volunteer process model (Clary et al., 1998), comprising sections on dispositional factors (antecedents), organisational factors (experiences) and consequences related to volunteering (cf. Figure 4.1). These sections comprised original scales and established psychosocial scales (Allen & Meyer, 1990; Clary et al., 1998; Labone & Butcher, 2004; Omoto & Snyder, 1995; Penner & Finkelstein, 1998). Formal validation and reliability of these scales are reported in Chapter 5. Descriptive information on each of these scales is provided in this section. Separate sections of the survey requested a range of contextual information and demographic characteristics. As the study was investigating the sustained involvement of volunteers with their current organisation, the wording of survey items was amended where appropriate to reflect the name of the organisation where the respondent volunteered.

4.7.1   Dispositional factors

Two dispositional factors related to volunteering – motivation to volunteer and self-efficacy for volunteering - were measured using the Volunteer Functions Inventory (Clary et al., 1998) and the Volunteering Self-Efficacy Scale (Labone & Butcher, 2004) respectively.

4.7.1.1   Motivation to Volunteer (MTV) – The Volunteer Functions Inventory (VFI)

As noted in Chapter 3, Review of the Literature, the Volunteer Functions Inventory (VFI) (Clary et al., 1998) is designed to assess the functional motivations of volunteers and consists of 30 Likert-type items divided equally into six subscales, each of which relates to a specific functional motivation served by volunteering (Values, Understanding, Enhancement, Career, Social, Protective). Table 4.4 presents definitions and sample items for each function. (The 30 VFI items, grouped by function, are listed in Appendix 4F; the complete questionnaire is available at Appendix 4E). Each function is represented by five items and participants were asked to indicate the importance of each item for them as a reason for volunteering. Responses are scored on a 1-7 scale (1 = *not at all important* – 7 = *extremely important*). Item responses on each scale were summed to give each respondent a score for each of the six functions. These composite scale scores ranged from 5 to 35, with higher scores indicating a strong motivation on that specific function. Thus, each participant's responses to the VFI generate a functional

motivation profile across all six functions. Based on their motivation to volunteer (MTV) profiles, one participant may be found to have higher relative *Social* motivations for their volunteering, while another may have higher relative *Career* motivations.

Table 4.4   Functions served by volunteering – Volunteer Functions Inventory (VFI)

Function	Conceptual definition	Sample VFI item
Values	The individual volunteers in order to express or act on important values like humanitarianism.	I feel it is important to help others.
Understanding	The volunteer is seeking to learn more about the world or exercise skills that are often unused.	Volunteering lets me learn things through direct, hands-on experience.
Enhancement	One can grow and develop psychologically through volunteer activities.	Volunteering makes me feel better about myself.
Career	The volunteer has the goal of gaining career-related experience through volunteering.	Volunteering will help me to succeed in my chosen profession.
Social	Volunteering allows an individual to strengthen his or her social relationships.	People I know share an interest in community service.
[Ego] Protective	The individual uses volunteering to reduce negative feelings, such as guilt, or to address personal problems.	Volunteering is a good escape from my own troubles.

Source: Adapted from Clary and Snyder (1999, p.157).

4.7.1.2   Self-efficacy for Volunteering (SEV)

Self-efficacy is defined as "belief in one's capacity to organise and execute the courses of action required to produce given attainments." (Bandura, 1997, p. 3). Self-efficacy for volunteering is defined as a volunteer's belief that she/he is capable of doing the actions needed to perform effectively in a volunteering role, or at least of learning how to do so (cf. Chapter 1, Section 1.9, and Chapter 3, Section 3.6).

A more differentiated understanding of volunteer self-efficacy was obtained through the use of a survey instrument which measures five dimensions of self-efficacy for volunteering (SEV). These five dimensions are:

- **relationships with clients or people the service supports** (building trust, being valued, establishing rapport and responding with sensitivity);
- **relationships with other volunteers as co-workers** (valuing, building good working relationships with and maintaining appropriate professionalism with other volunteers as co-workers);
- **work competence** (handling experiences out of one's comfort zone, making a positive contribution, participating successfully and with enjoyment);
- **empathetic action** (perceived capability to empathise with people's life situations); and

- **social awareness** (believing a little support and contribution makes a difference, that there are needs you can respond to and that your effectiveness as a volunteer has increased) (Labone, Butcher, & Bailey, 2005).

This instrument was developed initially to measure the volunteering self-efficacy of undergraduate students at Australian Catholic University (ACU) who had completed a community service placement as a volunteer. It was adapted to investigate volunteering more broadly in consultation with personnel from each of the organisations participating in the present study. This adapted instrument was used in the V21 research project and was trialled as part of the pilot survey for the present study.

Table 4.5   Dimensions of Self-efficacy for Volunteering (SEV)

Dimension: Efficacy for ...	Conceptual definition	Sample SEV item
Relationships with clients or people the service supports	This dimension is concerned with a person's perceived capability to establish relationships with the people that the service supports.	*While working as a volunteer with [PO*], how confident are you that you can:* Establish a rapport with the people the service supports.
Relationships with other volunteers as co-workers	This dimension is concerned with a person's perceived capability to establish relationships with other volunteers as co-workers.	*While working as a volunteer with [PO*], how confident are you that you can:* Build good working relationships with the other volunteers you work with.
Work competence	This dimension is concerned with a person's perception of his/her competence to participate effectively in the type of work s/he is engaged in.	*While working as a volunteer with [PO], how confident are you that you can:* Participate successfully in volunteer work.
Empathetic action	This dimension is concerned with a person's perceived capability to empathise with the varying life situations of the people and to respond appropriately to these situations.	*While working as a volunteer with [PO], how confident are you that you can:* Understand how frustrating life can be for some people.
Social awareness	This dimension is concerned with a person's perception of his/her understanding of social issues involved in the context they work within.	*How confident are you that:* There are needs in the community that I can respond to and make a difference.

Source: Based on Labone and Butcher (2004).
* PO = Partner Organisation

The adapted instrument consisted of 19 Likert-type items across the five dimensions: Relationships with clients or people the service supports (4 items); Relationships with other volunteers as co-workers (3 items); Work competence (4 items); Empathetic action (4 items); and Social awareness (4 items). Table 4.5 presents definitions and sample items for each of the dimensions. (All 19 items, grouped by dimension, are listed in Appendix 4G; the complete questionnaire is available at Appendix 4E). Participants were asked to indicate how confident they were about their capability in relation to each item while working as a volunteer for their organisation. Responses were scored on a 1-7 scale (*not confident – very confident*).

4.7.2   *Organisational factors*

Organisational factors (experience of volunteering variables) included in the model were: affective organisational commitment, volunteer satisfaction, benefits of volunteering and collective efficacy. These variables were measured using a set of individual items and established scales. Affective organisational commitment, volunteer satisfaction and benefits of volunteering were assessed on one compiled measure while the collective efficacy items were included with the self-efficacy scales.

4.7.2.1   Affective organisational commitment (AOC)

Affective organisational commitment refers to the volunteer's "identification with, involvement in, and emotional attachment to the organization" (Allen & Meyer, 1996, p. 253). Affective organisational commitment (AOC) was measured by means of a seven-item Likert-type scale following Allen and Meyer (1990). Allen and Meyer's original Affective Commitment Scale comprised eight items. Culpepper (2000) found that cumulative study results suggest that Allen and Meyer's Item 4 "is indeed an exceptionally and consistently poor affective scale item" (Culpepper, 2000, p. 608). Item four was dropped from the Affective Organisational Commitment scale used in this study, and the remaining seven items were used, as adapted by MacNeela (2004) to refer to volunteering where appropriate. One item (D8) was modified slightly (as indicated by strikethrough below) and the name of the relevant organisation was included where appropriate.

- The work I do as a volunteer with [organisation] has a great deal of personal meaning for me (D1).
- I feel a strong sense of belonging to [organisation] (D3).
- I would be happy to continue to volunteer with [organisation] (D7).
- I ~~really~~ feel that any problems faced by [organisation] are also my problems (D8).
- I do not feel like part of a family at [organisation] (D13). (reverse scored item)
- I feel emotionally attached to [organisation] (D14).
- I enjoy discussing [organisation] with appropriate people outside of it (D15).

Note: The alphanumeric code following each item, e.g. D3, indicates the number of that item in the V21 survey document. The complete questionnaire is available at Appendix 4E.

Participants were asked to indicate the extent to which they agreed with each statement using a five-point Likert-type scale to respond (*Disagree*, *Tend to disagree*, *Uncertain*, *Tend to agree*, *Agree*).

4.7.2.2   Satisfaction with volunteering (SAT)

Satisfaction with the volunteering experience has been found to be positively associated with time spent volunteering, longevity of service and intention to continue volunteering (cf. Chapter 3, Section 3.9).

Overall satisfaction with volunteering (SAT) was measured using three items used previously by Penner and Finkelstein (1998).

- I don't think I have got anything out of being a volunteer with [organisation] (D16). (reverse scored item).
- On the whole my volunteering with [organisation] has been positive for me (D17).
- I have been personally satisfied with the responsibilities given to me as a volunteer with [organisation] (D18).

Note: The alphanumeric code following each item, e.g. D16, indicates the number of that item in the V21 survey document. The complete questionnaire is available at Appendix 4E.

Participants were asked to indicate the extent to which they agreed with each statement using a five-point Likert-type scale to respond (*Disagree*, *Tend to disagree*, *Uncertain*, *Tend to agree*, *Agree*).

4.7.2.3   Benefits of volunteering (BEN)

In the context of the present study, benefits of volunteering refer to functional benefits; that is, benefits related to functional motivations for volunteering (cf. Chapter 3, Section 3.8).

Benefits of volunteering (BEN) were measured using one Likert-type item to measure benefits associated with each VFI motive following the approach adopted by Clary et al. (1998) in their Study 6. Clary used one item per function to study benefits arising from volunteering. Clary's 6-item scale referred to volunteering on a particular project at a particular site. For this study, these items were adapted to refer to volunteering generally with the organisation. The items are phrased in the past tense to refer to obtained benefits and satisfaction of functions.

Values
- I have been able to express my personal values through my volunteering work with [organisation] (D19).

Understanding
- I have learned more about the world through my volunteering experience with [organisation] (D20).

Esteem Enhancement
- I have grown and developed as a person through volunteering with [organisation] (D21).

Career
- By volunteering with [organisation] I have improved my career prospects (D22).

Social
- My work as a volunteer with [organisation] has been appreciated by my friends and acquaintances (D23).

Ego Protection
- When volunteering with [organisation] I think less about my own problems and concerns (D24).

Note: The alphanumeric code following each item, e.g. D19, indicates the number of that item in the V21 survey document. The complete questionnaire is available at Appendix 4E.

Participants were asked to indicate the extent to which they agreed with each statement using a five-point Likert response scale (*Disagree*, *Tend to disagree*, *Uncertain*, *Tend to agree*, *Agree*). Based on their responses to these items, one participant may perceive that they have received higher relative *Social* benefits from their volunteering, while another may perceive that they have received higher relative *Career* benefits.

4.7.2.4 Collective Efficacy for Volunteering (CEV)

Collective efficacy for volunteering (CEV) refers to volunteers' beliefs that they can work together effectively to achieve shared goals (Bandura, 1997). (cf. Chapter 1, Section 1.9, and Chapter 3, Section 3.11). Volunteers were asked about two aspects of collective efficacy: the effectiveness of their organisation and the impact of teamwork on their effectiveness as a volunteer. Collective efficacy was measured using two Likert-type items which were included with the self-efficacy items:

- The organisation I volunteer for is effective (D40).
- Volunteering within my team increases my effectiveness as a volunteer (D41).

Note: The alphanumeric code following each item, e.g. D40, indicates the number of that item in the V21 survey document. The complete questionnaire is available at Appendix 4E.

Participants were asked to indicate how confident they were about each item. Responses were scored on a 1-7 scale (*not confident – very confident*).

4.7.3 Consequences of volunteering

Consequences of volunteering are hypothesised to result from the interplay of factors at the antecedents and experiences stages. Sustained volunteering, operationalised as the intention to continue volunteering with the community service organisation is the consequence of concern for this study.

4.7.3.1 Sustained volunteering (SUV)

Sustained volunteering refers to an individual's continued involvement as a volunteer with a particular organisation. It has been shown that the intention to engage in a behaviour is the best predictor of actual behaviour (Tett & Meyer, 1993). Accordingly, sustained volunteering was operationalised as the intention to continue volunteering with the organisation while maintaining or increasing the amount and/or frequency of volunteering involvement. Three survey items addressed these issues.

- Intention to continue volunteering with the organisation
  How long do you think you will continue volunteering with [organisation]? (A14) (SUV1)
  (*Less than 6 months*, *6-12 months*, *1-2 years*, *2-5 years*, *more than 5 years*)
- Intention to maintain [or increase] the amount of time spent volunteering
  Would you like to be doing more, less or about the same hours of volunteer work with [organisation] as you do now? (A6) (SUV2)
  (*More hours*, *About the same*, *Less hours*)

- Intention to maintain [or increase] the frequency of volunteering involvement

    Would you like to volunteer with [organisation] more often, less often or about the same as you do at present? (A8) (SUV3)

    (*More often*, *About the same*, *Less often*)

Note: The alphanumeric code following each item, e.g. A14, indicates the number of that item in the V21 survey document. The complete questionnaire is available at Appendix 4E.

The survey was constructed assuming that the three variables SUV1, SUV2 and SUV3 would be informative of sustained volunteering. However, initial analysis indicated that SUV2 and SUV3 were highly correlated but neither was significantly correlated with SUV1. Consequently, SUV1 was used as the sole indicator of sustained volunteering.

4.7.4   Demographic and contextual information

It is common practice in social research to investigate the effects of demographic variables such as age, gender and education in moderating the relationship between the predictor and criterion variables (Cascio, 1991). Anastasi (1988) stresses the need to include only those variables for which there is evidence of moderating effects. As reported in Chapter 3, there is evidence that a number of demographic and contextual factors influence sustained volunteering. Accordingly, the instrument developed for this study included a number of items seeking demographic and contextual information.

4.7.4.1   Demographic characteristics

A few studies have found specific demographic characteristics to be important predictors of sustained volunteering (cf. Chapter 3, Section 3.12.). Links have been demonstrated between demographic factors (especially age and level of education) and a volunteer's commitment and service duration (Lammers, 1991; Rohs, 1986; E. S. Stevens, 1991). Rohs (1986) found that age had a positive influence on a volunteer leader's length of service. Level of education and gender were significant predictors of volunteer service duration in Lammers' (1991) study. However, as reported in Chapter 3, Section 3.12, Omoto and Snyder (1995) regressed volunteer satisfaction, organisational integration, and duration of service on a set of demographic variables that included gender, age, income, and education, and reported that the "preponderance of null effects gave us confidence that we could safely exclude the demographic variables from our model" (Omoto & Snyder, 1995, p. 679).

Demographic characteristics surveyed in this study included gender, age, country of birth, language spoken at home, cultural ethnic background, relationship status, number of children – and number under 18 years, level of education reached, employment status, present occupation (if employed), and postcode (to determine geographical location: metropolitan, regional or rural). Where possible, these demographic items used the Australian Bureau of Statistics (ABS) census categories to facilitate comparisons with other national data, especially the periodic

survey *Voluntary Work, Australia* conducted by the Australian Bureau of Statistics (ABS, 2006).

Additional survey items sought contextual information regarding the nature and extent of current and previous volunteering experience. The complete questionnaire is available at Appendix 4E.

4.7.4.2 Nature and extent of volunteering

Individual items asked about the nature and extent of the work performed by each volunteer in their organisation (response categories in parentheses):

- How long have you been volunteering with [organisation]? (years and months)
- Have you had a break from volunteering with [organisation] during this time? (*No / Yes*; if so, how long was your break?)
- How often do you volunteer with [organisation]? (*Weekly*, *fortnightly*, *monthly*, *less than once a month*)
- On average, how much time do you volunteer with [organisation] each month? (*8 hours or less*, *9-16*, *17-24*, *25-32*, *33-40*, *more than 40 hours*)
- Why did you choose to volunteer with [organisation]? (*I was asked by a friend*, *I was asked by a member of [organisation]*, *I was asked by a family member*, *I saw an advertisement*, *Other* - please specify briefly)
- What kind of activities do you carry out as a volunteer in [organisation]? (A number of categories were presented, based on the ABS classification of volunteering activities (ABS, 2000, p. 29), as well as "Other. Please specify.")
- Since you started to volunteer with [organisation], has the type of volunteering work you do changed? (*No, I have done much the same work since becoming involved as a volunteer / Yes, the work I have done has changed*. Please give brief details.)
- Does the time you spend volunteering with [organisation] vary from week to week? (*No. My time spent volunteering does not vary from week to week. / Yes*. Please indicate how much variation …7-point scale from *Little variation – A lot of variation*)

4.7.4.3 Volunteering experience with other organisations

Gidron (1985) found that the best discriminators between "stayers" and "leavers by choice" included previous experience as a volunteer and length of this service.

Two items asked about participants' volunteering experience with other organisations.

- Do you currently volunteer with organisations other than [organisation]? (*No / Yes*. Please give brief details.)
- Have you previously volunteered with other organisations? (*No / Yes*. Please give brief details.)

A summary of variables, factors, scales and measures is included as Appendix 4H. The complete questionnaire is available at Appendix 4E.

4.8 Methods of analysis

The hypothesised theoretical relationships among the selected dispositional and organisational variables, as illustrated in Figure 4.2, were analysed using structural equation modelling (SEM). SEM was selected as an appropriate statistical methodology; it incorporates path analysis and factor analysis and is used to test "complex" relationships between observed (measured) and unobserved (latent) variables and also relationships between two or more latent variables (Hair, Anderson, Tatham, & Black, 1998). SEM reveals the relative effects of each variable on the other variables (Schumacker & Lomax, 2004). In SEM models there are two types of variables: endogenous and exogenous (Kline, 2004). An endogenous variable has one or more arrows coming towards it in the model (Kline, 2004; Schumacker & Lomax, 2004). Sometimes an endogenous variable can be both a dependent and an independent variable, which is represented as the variable having both incoming and outgoing arrows in the model. Exogenous variables have no arrows coming towards them from other variables in the model; they are independent variables (Kline, 2004; Schumacker & Lomax, 2004).

In the structural model analysed for this study, motivation to volunteer (MTV), self-efficacy for volunteering (SEV), benefits of volunteering (BEN), and motivation-benefit match (MBM) are exogenous variables; satisfaction with Volunteering (SAT), collective efficacy for volunteering (CEV), Affective Organisation Commitment (AOC), and sustained volunteering (SUV) are endogenous variables.

The SEM analysis as applied in this study is detailed in Section 4.9. Initial data screening and missing value analysis were performed in preparation for this analysis (Tabachnick & Fidell, 2001, p. 85).

4.8.1 Data screening

On receipt, each questionnaire was inspected for any obvious problems such as non-completion of all or most of the survey, more than one response to individual items, or incorrectly marked responses (e.g. between valid options). Items with no responses were coded as "missing". Completed questionnaires were assigned a unique 4-digit case number for tracking purposes as detailed in Section 4.5. Responses were then coded numerically against this case number and imported into SPSS (Version 19) as a data file.

Univariate descriptive statistics were used to check the SPSS data file for accuracy of input looking for out-of-range values and checking that the codes for missing values were accurately coded for all variables, and that means and standard deviations reported were plausible. The data file was also inspected for outliers to identify any cases which exceeded ±3 z-scores (Tabachnick & Fidell, 2007).

In SEM, measured variables can be individual items from larger scales or scores obtained by summing across several response items. While continuous variables do not require any special model estimation procedures, the analysis of ordinal scores can be problematic. Ordinal variables with fewer than five scale points require special estimation procedures (Bagozzi, 1981). In the present study, all scale scores have five or seven scale points.

With multivariate statistics, the assumption is that the combination of variables follows a multivariate normal distribution. Since there is not a direct test for multivariate normality, the common approach is to test each variable individually and assume that they are multivariate normal if they are individually normal, though this is not necessarily the case. However, the General Linear Model (GLM), and Structural Equation Modelling (SEM) in particular, is quite robust in relation to deviations from normality. Univariate normality was assessed statistically using measures of skewness and kurtosis (cf. Chapter 5, Section 5.10.2). Common "rules of thumb" are used to assess whether the data is too far away from a normal distribution and needs to be corrected before applying tests that have assumptions of normality. As a rule of thumb, discrete data (categorical data, ordinal data with < 15 values) may be assumed to be normal if skewness and kurtosis are within range of +/- 2 (although some statisticians prefer stricter (+/-1) or looser (+/-3) restrictions) (Schumacker & Lomax, 2004, p. 69). A skewness value between -2 and +2 is considered satisfactory for most psychometric purposes (Schumacker & Lomax, 2004, p. 69). Similarly, kurtosis values acceptable for psychometric purposes are the same as for skewness (+/-2, or +/-1, or +/-3) (Schumacker & Lomax, 2004, p. 69). Skewness and kurtosis values of +/- 2 were used to assess normality of the data on each scale (cf. Chapter 5, Section 5.10.2).

Results of data screening are reported in Chapter 5, Section 5.2.1.

4.8.2 *Missing data*

Data were examined to identify and quantify missing values. SPSS's Missing Values Analysis module (SPSS, 2010a) was used to establish that data were not missing completely at random (MCAR). SPSS and LISREL missing values analysis outputs were compared – and were essentially the same (cf. Chapter 5, Section 5.2.2). There are basically three options for handling missing data: pairwise deletion, listwise deletion and imputation.

Pairwise deletion was rejected as an option since use of this method in SEM can result in correlations or covariances which are outside the range of the possible (Kline, 2004). This problem does not occur with listwise deletion. Given that SEM uses covariance matrices as input, listwise deletion (or complete case analysis) is recommended where the sample is fairly large, the number of cases to be dropped is small and the cases are missing completely at

random (MCAR). As the data for this study were not MCAR, listwise deletion was eliminated as a viable option and data imputation was adopted.

Missing values were imputed, avoiding the loss of usable data and maximising the data available for analysis (Kline, 2004). From the different forms of imputation available, LISREL's pattern matching imputation was selected: the missing data is replaced by the response to that variable on a case whose values on all other variables match the given case (Du Toit & Mels, 2002).

Missing values analysis and the examination of data imputation are reported in Chapter 5, Section 5.2.2.

4.8.3   Unit of analysis

An important issue in data analysis is the choice of an appropriate unit of analysis. The unit of analysis employed in this study was the individual volunteer (Neuman, 2003) with 454 volunteers from three community service organisations providing data through the completion of a questionnaire. The basis for this decision was that the research questions focus on the perceptions of volunteers as individuals.

4.9   Structural equation modelling

A structural equation modelling (SEM) analysis of sustained volunteering (SUV) was undertaken, using the LISREL statistical program (Version 8.80) (Jöreskog & Sörbom, 1997, 2006), to investigate the relationships between the selected dispositional and organisational variables and the extent to which these variables, jointly or severally, influence the sustained involvement of the volunteer with the community service organisation. SEM examines relationships between observed and latent variables and among latent variables. Latent variables are not measured directly. Observed variables act as indicators of these latent variables or constructs. The starting point is the specification of a model on the basis of theory; in this case, the model of sustained volunteering developed in Chapter 3 as an outcome of a review of the relevant research (cf. Figure 4.1).

Reporting SEM results varies widely among researchers (Boomsma, 2000; MacCallum & Austin, 2000), but standard reporting conventions developed by the American Psychological Association (APA, 2010) have been followed in this study, together with guidelines published by APA for creating tables to present SEM findings (Nicol & Pexman, 2010).

The SEM process essentially comprises two steps: validating the measurement model and fitting or testing the structural model (Anderson & Gerbing, 1988). The measurement model defines relations between observed variables and unobserved hypothetical constructs (latent variables) (cf. Figure 4.3). "In other words, it provides the link between item scores on an assessment

instrument and the underlying factors they were designed to measure. The measurement model, then, specifies the pattern by which each item loads onto a particular factor" (Byrne, 1995, p. 140).
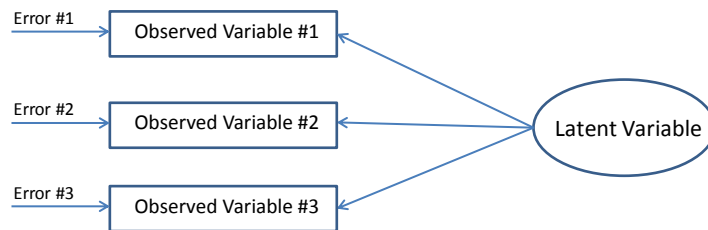
Figure 4.3   Generic measurement model for SEM

"The structural model is that component of the general model that prescribes relations between latent variables and observed variables that are not indicators of latent variables" (Hoyle, 1995a, p. 3). Fitting or testing the structural model is accomplished primarily through path analysis with latent variables (cf. Figure 4.4). When the measurement and structural components are combined, the result is a comprehensive statistical model that can be used to evaluate relations among variables.
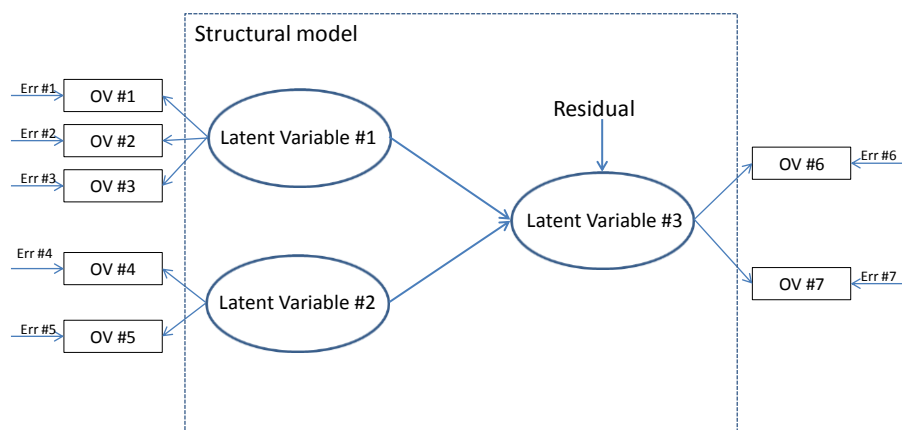
Figure 4.4   Generic structural model for SEM

Several researchers have proposed a two-step approach to estimation on the grounds that the two models are conceptually distinct and should be evaluated separately (Anderson & Gerbing, 1988; Mulaik, James, Alstine et al., 1989). Kline (2004) and Schumacker and Lomax (2010) also recommend a two-step modelling process in which the measurement model underlying the full structural model is tested first to establish a good fit of the measurement model before

proceeding to the second step of testing the structural model. This approach was adopted in the present study to provide a detailed, step-by-step report of the analysis, although SEM software makes it possible to test the measurement model and the structural model simultaneously. Hence there were two distinct components to the analyses conducted in the present study. First, measurement models for each of the variables were explored. The fit of each measurement model was evaluated, and the reliability, convergent validity and discriminant validity were assessed. While confirming the measurement of a particular variable, each of these models provided factor scores to be used in computing composite scale scores from scale items. Second, structural equation modelling was used to examine the relationships among latent variables. Composite scale scores were used as indicators of the latent variables instead of using individual items as indicators (Holmes-Smith & Rowe, 1994; Rowe & Hill, 1998).

The processes of validating the measurement model and fitting or testing the structural model are described in sections 4.9.1 and 4.9.3 respectively. The computation of composite scale scores is described in Section 4.9.2. Validation of the measurement model is reported in Chapter 5; testing of the structural model is reported in Chapter 6.

4.9.1   Validating the measurement model

Validation of the measurement model is conducted to verify the psychometric properties of the measurement model; this is accomplished primarily through confirmatory factor analysis (CFA). As a first step to validate the measurement model, each measurement scale was first examined to establish whether the items used to measure that variable could be regarded as a legitimate scale for the purposes of the proposed analysis. Theoretical and empirical construct validity was investigated along with unidimensionality, internal consistency reliability (convergent validity) and discriminant validity. Composite scale scores were then calculated for use as indicators of each construct in the postulated structural model.

4.9.1.1   Scale validity and reliability

Confirmatory factor analysis (CFA) was carried out using LISREL software to confirm the structure of scales with hypothesised factors or subscales, motivation to volunteer (MTV) and self-efficacy for volunteering (SEV), and to investigate the unidimensionality of variables with a single scale (Thompson, 2004). Confirmatory factor analysis in LISREL is equivalent to running the measurement model without the arrows linking the latent variables.

Convergent validity and discriminant validity were investigated as joint indicators of construct validity (Straub, Boudreau, & Gefen, 2004). In this context it is assumed that the measurement items are reflections or "reflective" of the construct, which means that all items should correlate highly with each other. Convergent validity is shown when each measurement item correlates strongly with its assumed theoretical construct, while discriminant validity is shown when each

measurement item correlates weakly with all other constructs except for the one to which it is theoretically associated (Carless, 2007; Gefen & Straub, 2005). Cronbach's coefficient alpha was used as the index of scale internal consistency, or convergent validity, while the mean correlation of a scale with the other scales (*MCOS*) was used as a convenient index of scale discriminant validity.

Cronbach's alpha (α), a reliability coefficient, was chosen to assess internal consistency reliability for the items making up each of the constructs based on the individual volunteer as the unit of analysis. This statistic is a measure of the intercorrelation of items; it provides an estimate of the internal consistency of items in a scale or index, measuring the extent to which item responses obtained at the same time correlate with each other. (Gall, Gall, & Borg, 2005). Higher internal consistency reliability, and therefore convergent or internal validity, is indicated by higher coefficient alphas. Cronbach's alpha ranges from 0 to 1.0. Cronbach's alpha scores above .70 generally suggest that the items in the group are measuring the same construct and may be combined in an index or scale (Hair et al., 1998; Holmes-Smith, 2000). This cut-off value of alpha, .70 or higher, is widely-accepted in the social sciences as the criterion for a set of items to be considered a scale, since when alpha is .70 the standard error of measurement will be more than half (.55) a standard deviation. Further evidence of convergent validity is obtained if the critical ratio (*t*-value) of every measurement item exceeds 1.96 ($p < .05$), indicating that the loadings (path coefficients or regression weights) from a latent construct to the corresponding measurement items are all significantly different from zero at the p < .05 level.

Discriminant validity is demonstrated when, in the presence of other scale items for other constructs, the scale items in constructs being compared do not move in the same direction (for reflective measures) and, thus, do not highly correlate (Campbell & Fiske, 1959). If the lack of correlation is as expected by the formulation of these constructs, then discriminant validity is established. The mean correlation of a scale with other scales (*MCOS*) was used in this study as a convenient index of discriminant validity. A "low" *MCOS* is evidence that each scale (or subscale) measures a separate dimension that is distinct from other scales (or subscales). The actual correlations between the scales or factors provide further evidence of discriminant validity if all correlations are lower than .80 (Brown, 2006, p. 32).

The construct validity of each measurement scale is confirmed by both the convergent validity and discriminant validity of that scale.

Convergent and discriminant validity of each scale or subscale are reported in Chapter 5, Sections 5.4 - 5.9.

4.9.1.2　　　　Measurement model fit

A unique feature of CFA is the capacity to quantify the degree of model fit to the data. For each of the confirmatory factor analyses, the fit of the data to the measurement model was assessed using established model fit indices. Thompson (2004) reports that four fit statistics are most commonly used in CFA: the χ^2 statistical significance test, the normed fit index (*NFI*), the comparative fit index (*CFI*), and the Root Mean Square Error of Approximation (*RMSEA*). These indices, together with the 90%-confidence interval for *RMSEA*, were used to assess the fit of the measurement model. Model fit in relation to the structural model is discussed in Section 4.9.5.

The χ^2 statistical significance test has been applied since the origins of CFA; however, this fit statistic is not very useful when sample size is large, as it usually should be in CFA, because with large sample sizes all models will tend to be rejected as not fitting (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993). Moreover, this test assumes multivariate normality and severe deviations from normality may result in model rejections even when the model is properly specified (McIntosh, 2007). While the χ^2 test is very useful in evaluating the comparative fits of nested models, it is not very useful in evaluating the fit of a single model (Thompson, 2004), but it is included here as it is the basis for the Normed Fit Index (NFI).

The Normed Fit Index (*NFI*) compares the χ^2 for the tested model against the χ^2 for the baseline model presuming that the measured variables are completely independent (Bentler & Bonnet, 1980). Values for the *NFI* range between 0 and 1 with Bentler and Bonnet (1980) recommending that values greater than .90 indicate a good fit. More recent suggestions state that the cut-off criteria should be $NFI \geq .95$: "Generally, models with *NFI*s of .95 or more may be deemed to fit reasonably well" (Thompson, 2004, p. 129).

The Comparative Fit Index (*CFI*) is one of a group of indices known as incremental or relative fit indices (McDonald & Ho, 2002). These indices do not use the chi-square in its raw form but compare the chi-square value to a null model which assumes that all latent variables are uncorrelated (McDonald & Ho, 2002). The *CFI* ranges between zero and 1.0 with values closer to 1.0 indicating good fit. A cut-off criterion of $CFI \geq .90$ is recommended to ensure that misspecified models are not accepted (Hu & Bentler, 1999), while a value of $CFI \geq .95$ is regarded as indicative of good fit (Hu & Bentler, 1999). This index is included in all SEM programs and is one of the most popularly reported fit indices as it is one of the measures least affected by sample size (Fan, Thompson, & Wang, 1999).

The Root Mean Square Error of Approximation (*RMSEA*) estimates how well the model parameters will reproduce the population covariances (Steiger, 1990). Unlike the *NFI* and the *CFI*, small values are desired for the *RMSEA*, and a model estimated to exactly reproduce the

population covariances would have an *RMSEA* of zero. An *RMSEA* between .08 and .10 is sometimes regarded as indicating a mediocre fit, with values below .08 indicating a good fit (MacCallum, Browne, & Sugawara, 1996). Thompson suggests that "Values of roughly .06 or less are taken to indicate reasonable model fit" (2004, p. 130), while Steiger (2007) advocates an upper limit of .07.

One significant advantage of the *RMSEA* as a fit index is its ability for a confidence interval to be calculated around its value (MacCallum et al., 1996). This is possible due to the known distribution values of the statistic and subsequently allows for the null hypothesis (poor fit) to be tested more precisely (McQuitty, 2004). A 90%-confidence interval is generally reported in conjunction with the *RMSEA* and in a well-fitting model the lower limit is close to 0 while the upper limit should be less than .08. The 90%-confidence interval for *RMSEA* is reported in this study.

These four fit indices (χ^2, *NFI*, *CFI*, and *RMSEA* with *CI*) are reported for all CFA models in Chapter 5, sections 5.4 - 5.9, and summarised in Appendix 5G.

4.9.2   *Computation of composite scale scores*

After establishing the construct validity and reliability of each measurement scale, composite scores were computed for each scale or factor to be used as the measure of that construct or variable in the postulated structural model. The need to consider using composites or scales instead of multiple indicators arises from the desire to simplify models that may be too complex to be useful (Holmes-Smith & Rowe, 1994; Liang, Lawrence, Bennett, & Whitelaw, 1990; Liem & Martin, 2013). In order to justify using the composites, two issues are central: obtaining estimates for the reliability of each composite involved, and evaluating the impact of such an approach on parameter estimates (Rowe & Hill, 1998).

While confirming the measurement of a particular variable, the measurement model for each variable provided factor scores to be used in generating composite factor scores from scale items. Throughout the General Linear Model (GLM), weights are applied to the scores on the measured, or observed, variables to obtain scores on the composite variables. In CFA and SEM, the weights applied to the measured variables to obtain scores on the factor analysis latent variables (called factor scores) are the pattern coefficients. These pattern coefficients, or weights, are analogous to the β weights in multiple regression (Thompson, 2004, p. 16). The reliability of composite and latent variables is maximised by computing scale scores as linear combinations of items where the weight on each item is the corresponding pattern coefficient rather than unity (Holmes-Smith & Rowe, 1994). The pattern matrix for each scale reports the pattern coefficient for each measured variable which contributes to a particular scale or factor.

The pattern matrix resulting from the CFA for each scale is reported in Chapter 5, Sections 5.4 - 5.9.

Composite scores were computed for each of the MTV-VFI subscales, SEV subscales, BEN, SAT, CEV, and AOC by applying the appropriate weight (pattern coefficient) to each variable, or item, on the scale and summing these weighted scores. The resulting congeneric measurement models, where each measure is associated with only one latent construct, maximised the reliability of composite and latent variables.

In general:
Composite X-scale score = β_1 x ItemX1 score + β_2 x ItemX2 score + β_3 x ItemX3 score ...

For example, for the 3-item SAT scale, the composite SAT score would be computed as:
Composite SAT score = .39 x SAT1 response + .81 x SAT2 response + .68 x SAT3 response

The distributions of these composite scores were then examined to assess reliability and normality. Descriptive statistics for all composite scale scores are reported in Chapter 5, Section 5.10.1. These computed composite variables were used subsequently in structural equation modelling that examined relationships among latent variables.

Computation and analysis of composite scale scores are reported in Chapter 5, Section 5.10.

4.9.2.1   Single indicator variables (SUV)

Although having multiple indicators for each construct is strongly advocated, sometimes in practice only a single indicator is available – as is the case with SUV1. As reported in Section 4.7.3.1, the survey was constructed assuming that the three variables SUV1, SUV2 and SUV3 would be informative of sustained volunteering. However, initial analysis indicated that SUV2 and SUV3 were highly correlated but neither was significantly correlated with SUV1. Consequently, SUV1 was used as the sole indicator of sustained volunteering. Using SUV1 as a single indicator variable of the sustained volunteering construct required values to be set for the error variance, theta-delta, ($\theta\delta$) and the lambda (λ) parameters (cf. Section 4.9.4). In the absence of an independent estimate of the error variance (e.g. drawn from prior research), the choice of values becomes arbitrary. One approach is to set the error variance ($\theta\delta$) for the single indicator at zero, effectively equating the variable with the factor (Mueller & Hancock, 2010, p. 375). Rather than make the unrealistic assumption that intention to continue volunteering (SUV) was measured without error (Fornell, 1983), the measurement error for this single indicator construct was set at .25, which is the mean error residual identified by Andrews (1984) in a review of social science research. The R^2 for intention to continue volunteering increases when its error residual is set to a higher value; however, the model fit statistics and path coefficients do not change with alterations to the value of this error residual.

4.9.2.2 Development of the Motivation-Benefit Match (MBM) scale

The conceptual model adopted for this study links both motivation and benefits to the dependent variables satisfaction, affective commitment and sustained volunteering. This study hypothesises that these dependent variables are influenced not only by motivation and benefits severally, but also by the match between the importance of a functional motivation and the achievement of the corresponding perceived benefit. To measure this match, a derived variable, motivation-benefit match (MBM) was calculated using the procedure outlined by Clary et al. (1998), resulting in an MBM scale for each of the six VFI factors and their associated benefits. The computation of these MBM scores and the properties of the resulting six MBM scales are reported in Chapter 5, Section 5.11. The computation of this derived variable assumes that the MTV-VFI data for this study reflect the six-factor structure of the VFI as proposed by Clary and Snyder. The correspondence between the MTV-VFI data for this study and Clary and Snyder's six-factor structure is examined in Chapter 5, Section 5.4.

4.9.3 Fitting the structural model

There are several different methods for determining the fit of the structural model, of which Maximum Likelihood (ML) estimation is the most common method (Albright & Park, 2009). Research has demonstrated that ML estimation produces efficient and reliable estimates (Hair, Black, Babin, & Anderson, 2010, p. 663). The Maximum Likelihood (ML) method of estimation was selected as appropriate for this study as item data had at least five response categories and ML, unlike some other methods, may be used for non-recursive as well as recursive models. As explained earlier in relation to the conceptual model (cf. Chapter 3, Section 3.15.1), a recursive model postulates influences between two constructs which are in one direction only, while models with bi-directional influences or feedback loops are non-recursive. However, given the additional problems associated with model identification for non-recursive models (Groenland & Stalpers, 2012), it was decided to eschew non-recursive models in the present study. Indeed, it is advised specifically to avoid the use of non-recursive models when using cross-sectional data, as used in this study (Groenland & Stalpers, 2012, p. 27). Reciprocal influences between some variables may well be hypothesised based on the findings of the present study. Further research may investigate the benefits of studying this additional level of complexity in models of sustained volunteering.

ML estimation often has lower variance than is found in other methods, so it is least affected by sampling error, and is the most robust approach to the violation of normality assumptions (Alkadry, 2000, cited in Brown Sr., Alkadry, & Resnick-Luetke, 2013). Boomsma and Hoogland (2001) reviewed the robustness of LISREL modelling and concluded that for large models, under a variety of nonnormal conditions, maximum likelihood estimators have relatively good statistical properties compared to other methods of estimation.

Structural equation modelling examines relationships among latent variables. Such variables are not measured directly. Observed variables act as indicators of these latent variables or constructs. For latent variables with a single scale, SAT, AOC, CEV, SUV, scores on individual scale items act as indicators; for example, in the present study, the latent variable satisfaction (with the volunteering experience) (SAT) was indicated by an observed variable computed from the three SAT items. For latent variables with multiple factors or subscales, MTV, SEV, BEN, composite scores on each subscale act as indicators for these variables.

Munck (1979) showed that loadings (λ) of paths from observed composite variables to latent variables and error variances (θ) of observed composite variables can be fixed in structural equation modelling and that, provided correlation matrices are analysed, they are related to reliability (r) by the formulae:

$$\lambda = \sqrt{r} \qquad \text{and} \qquad \theta = 1 - r.$$

These formulae allow for paths from observed composite variables to latent variables and error variances of observed composite variables to be fixed. The reliability coefficient, r, used in the present study is Cronbach's alpha (α) as discussed in Section 4.9.1.1. The advantage of this approach is that the number of parameters to be estimated by LISREL is significantly reduced with consequent improvement in model robustness (Loehlin, 2004; Schumacker & Lomax, 2004). As a possible disadvantage, Loehlin (2004, p. 216) mentions that "freezing" or "locking in" the measurement model in this way after it has been estimated means that it cannot react as a response to changes made in the structural model.

Holmes-Smith (2000) observes that these loadings (λ) can also be used to produce a model-based estimate of reliability. Researchers generally report at least one model-based estimate of reliability (Bollen, 1989). "Perhaps the most uncomplicated [model-based] measure of item reliability is the squared multiple correlation for a measure (observed variable). The squared multiple correlation (R^2) is simply the square of the indicator's standardised loading (λ)." (Holmes-Smith, 2000, p. 110). An advantage of this reliability estimate (R^2) is that it can be computed regardless of whether the observed variable is influenced by one or more latent constructs. As a rule of thumb, the squared multiple correlation (R^2) of an observed variable should exceed .50, which is roughly equivalent to a standardised loading of .70 (Byrne, 1998). If the standardised loading for an observed variable is .90, for instance, then the corresponding squared multiple correlation is .81 and the error variance (θ) is .19.

4.9.4 Sample size and SEM

As implied in earlier sections of this chapter, structural equation modelling is very much a large sample technique. Model estimation methods (e.g. maximum likelihood, weighted least squares) and tests of model fit (e.g. the χ^2 test) are based on the assumption of large samples. Several

authors have presented guidelines on the definition of "large". The 454 survey responses for this study exceeds the "appropriate minimum" of at least 200 observations suggested by Kelloway (1998, p. 20). From a different perspective, Bentler and Chou (1987) have suggested that the ratio of sample size to estimated parameters be between 5:1 and 10:1, similar to frequently cited guidelines for regression analysis (e.g. Tabachnick & Fidell, 2007). For the present study this ratio is 6.8:1, which meets Bentler and Chou's criterion.

4.9.5   *Assessing SEM model fit*

As with the assessment of measurement model fit (discussed in Section 4.9.1), there are many indices available to report structural model fit, model comparison and model parsimony in SEM. There is broad consensus that, when reporting SEM results, multiple measures rather than a single measure should be considered because different indices reflect different aspects of model fit. Although the chi-square statistic has many problems associated with it (cf. Section 4.9.1.2), it is still recommended that this statistic be reported, along with its degrees of freedom and associated *p* value (Hayduk, Cummings, Boadu, Pazderka-Robinson, & Boulianne, 2007; Kline, 2004). Hu and Bentler (1999) suggested a two-index presentation format including the Standardised Root Mean Square Residual (*SRMR*) with the Non-normed Fit Index (*NNFI*), the Root Mean Square Error of Approximation (*RMSEA*) or the Comparative Fit Index (*CFI*), while Kline (2004) advocates the use of the chi-square test, the *RMSEA*, the *CFI* and the *SRMR*. The *CFI* is a revised version of the Non-normed Fit Index (*NNFI*) also known as the Tucker-Lewis Index (*TLI*). The following goodness-of-fit statistics were selected to examine the fit of the structural model in this study: the chi-square statistical significance test, i.e. chi-square (χ^2) with its corresponding *p*-value; *RMSEA*; 90% confidence interval of the *RMSEA*; the *CFI*; and *SRMR*. Each of these statistics is discussed briefly in this section.

The chi-square statistic with its corresponding *p*-value is regarded as a reasonable measure of fit for models with less than 200 cases; however, as discussed in Section 4.9.1.2 Measurement model fit, for larger numbers of cases the chi-square value is almost always statistically significant and all models will tend to be rejected as not fitting (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993). Moreover, this test assumes multivariate normality and severe deviations from normality may result in model rejections even when the model is properly specified (McIntosh, 2007). While the use of chi-squared tests to report goodness of fit of the model to the data is acknowledged as problematic in SEM, it was used in the present study to report improvements in the overall model fit as post hoc adjustments were made on the basis of modification indices (cf. Chapter 6, Section 6.5).

The Root Mean Square Error of Approximation (*RMSEA*) and its 90% confidence interval were discussed in Section 4.9.1.2. The comparative fit index (*CFI*) was also discussed in Section 4.9.1.2. It assesses model fit relative to a baseline null or independence model. "Values

approaching 1.0 are desired, with statistics around .95 indicating reasonable model fit"
(Thompson, 2004, p. 130). These fit indices were also used to assess the structural model in this
study.

The Root Mean Square Residual (*RMR*) and the Standardised Root Mean Square Residual
(*SRMR*) are absolute fit indices and represent the square root of the difference between the
residuals of the sample covariance matrix and the hypothesised covariance model. The range of
the *RMR* is calculated based on the scales of each indicator; hence, if a questionnaire contains
survey items with varying levels or scales, the *RMR* becomes difficult to interpret (Kline,
2004).The standardised *RMR* (*SRMR*) resolves this problem and is therefore much more
meaningful to interpret. The *SRMR* was used in this study as the questionnaire contains both 5-
point and 7-point scales. Values for the *SRMR* range from zero to 1.0 with values less than .05
indicating well-fitting models (Byrne, 1998), however values as high as 0.08 are deemed
acceptable (Hu & Bentler, 1999).

In addition to the model fit indices described above, modelling statistics reported in this study
also include squared multiple correlation coefficients (R^2) for each structural equation and a
total coefficient of determination (Boomsma, 2000; Jöreskog & Sörbom, 1997). While R^2 is a
measure of the strength of a linear relationship, the total coefficient of determination is the
amount of variance in the set of dependent variables explained by the set of independent
variables. In addition to overall fit statistics, it is important to consider the strength and
statistical significance of individual parameters in the model. Each path was tested using a *t*-test
($p < .05$).

4.9.6   *Direct and indirect effects*
Path coefficients, represented by standardised regression coefficients, were calculated to provide
the degree and direction of effects that are postulated to exist among the variables in the model.
Effects may be direct, indirect or total. The direct effect of one variable on another indicates
whether the first variable uniquely impacts the second (dependent) variable after taking account
of the overlap with the variance that is shared between the other variables and the dependent
variable. An indirect effect represents the effect of one variable on another variable through
mediating variables. Indirect effect is estimated by summing the direct effect coefficients of all
possible routes of that variable through mediating variables. The total effect is the sum of the
direct and indirect effects (Schumacker & Lomax, 2010). Direct, indirect and total effects are
reported for each SEM analysis conducted in Chapter 6.

4.9.7   *Correlation and regression analyses – an empirical model*
In the context of the study's research questions and hypotheses, the relationships between the
measured variables were examined empirically, independently of the theoretical relationships

hypothesised in the conceptual model (cf. Chapter 6, Section 6.6). This examination proceeded from correlation analysis (non-directional relationships) through regression analysis (directional relationships) to structural equation modelling (identification of direct and indirect causal paths). Correlational analysis of survey data was used to examine the non-directional relationships or associations between pairs of variables which are linked in the conceptual model (cf. Chapter 6, Section 6.4). Significant relationships identified in the correlation analysis which were additional to the conceptual model were used to develop and test an augmented "correlational" model using structural equation modelling (SEM) (cf. Chapter 5, Section 6.6.1). Directional influences, as indicated in the conceptual model, were investigated using regression analysis (cf. Chapter 6, Section 6.6.2). Because there are potentially several relationships involving the different variables and sustained volunteering, multivariate analysis was used so that net effects (that is, the effect of one variable on another when other influences are taken into account) could be estimated. A sequence of regression analyses was conducted to build up a final model (cf. Chapter 6, Section 6.6.2). Following the procedures for SEM analysis of the conceptual model described earlier in this chapter, SEM was used to estimate simultaneously these regression analyses (cf. Chapter 6, Section 6.6.2). A comparison of the conceptual and empirical models is reported in Chapter 6, Section 6.7).

4.10   Issues related to validity

This section discusses issues of internal and external validity and threats to validity. Aspects of content validity and face validity were considered under the development of the instrument and under pre-testing in Section 4.2. Construct validity and reliability of the instrument are discussed in detail in Chapter 5.

Internal and external validity are crucial features of sound research design (Glass & Stanley, 1970). Internal validity refers to "the ability to eliminate alternative explanations of the dependent variables" since "variables, other than the treatment, that affect the dependent variable are threats to internal validity" (Neuman, 2003, p. 251). External validity refers to "the ability to generalize experimental findings to events and settings outside the experiment itself" (Neuman, 2003, p. 255). While external and internal validity are both important, Campbell and Stanley (1969) note that, in quantitative designs, features that increase internal validity may reduce external validity. While an experiment that was internally valid may or may not be externally valid, an experiment that lacks internal validity cannot be externally valid. For this reason, internal validity was seen as the more important of the two forms of validity.

4.10.1   Internal validity

Campbell and Stanley (1969) note eight possible threats to internal validity: history, maturation, statistical regression, testing, selection-maturation interaction, differential selection,

instrumentation, and subject attrition. These threats are briefly discussed as they relate to this study.

History, Maturation, Statistical regression, Testing, Selection-maturation interaction. Data for the pilot study were collected in November 2004 and data for the main study were collected in February-March 2005. Because the data from the pilot study were not included in the main study, and participants in the pilot study were excluded from the sample for the main study, these five threats to validity were not relevant to the present study.

Differential selection. Volunteers selected to take part in this study were drawn from the databases of active volunteers in three participating organisations. As detailed in Section 4.4.2, sample cells were established to provide for a cross-sectional study across organisations, age groups, gender and geographic location. A number of volunteers were targeted for each cell. Within each cell, each volunteer had an equal chance of being selected.

Instrumentation. A significant part of this study was the development of the questionnaire. Chapter 5 of this thesis details the strategies employed for instrument validation. Standard guidelines for scale development were followed in the development of the questionnaire including focus groups and piloting, resulting in the minimisation of threats to internal validity due to instrumentation deficiencies.

Subject attrition. All questionnaires were completed on a single occasion so there was no threat of subject attrition. Instructions provided were clear and easy to follow, as was the presentation of the questionnaire. An inspection of each returned questionnaire revealed that five subjects failed to complete the questionnaire fully – three omitted entire sections and two did not respond to any items beyond a certain page. These five questionnaires, approximately 1% of the sample, were excluded from the data analysed in this study.

4.10.2 External validity

Campbell and Stanley (1969) note that external validity is threatened by the lack of representativeness of the available and target population, failure to describe independent variables explicitly, Hawthorne effects, inadequate operationalising of dependent variables, and pre-test sensitisation. This section considers threats to the external validity of the research design of this study.

Lack of representativeness of the available and target population. This was not considered a threat to this aspect of the study since the 640 volunteers who were invited to complete the questionnaire were drawn at random from each of the sample cells identified for the study according to the number of responses targeted for each cell. Moreover, to establish the validity of the revised instrument, the pilot study – while restricted to metropolitan volunteers – targeted participants from each partner organisation in each of the eight cells of the (metropolitan)

survey sample, as detailed in Section 4.3.2, and volunteers who participated in the pilot survey were excluded from the sample for the main study.

Failure to describe independent variables explicitly. The study had 55 independent variables (cf. Appendix 4H). Independent variables were measured using scales validated in other studies. Each independent variable had a clear meaning and the quantitative component of the questionnaire could be replicated easily. Failure to describe independent variables explicitly could not be considered a serious threat to the validity of this study.

Hawthorne effects. The Hawthorne effect relates to any effect caused by the attention of a researcher (Neuman, 2003). In this study, such effects were assessed as minimal since survey respondents were assured of confidentiality and anonymity, and there was no direct interaction between the researcher and survey respondents.

Inadequate operationalising of dependent variables. The dependent variables for this study were: benefits of volunteering (BEN), motivation-benefit match (MBM), satisfaction with the volunteering experience (SAT), collective efficacy (CEV), affective organisational commitment (AOC), and sustained volunteering (SUV). The scales for each of these variables were selected or developed based on a review of the literature on volunteering generally and sustained volunteering in particular. Chapter 5 of this thesis documents the validation of these scales using standard psychometric procedures for instrument design. These variables were adequately operationalised.

Pre-test sensitisation. The pre-test, as noted by Neuman (2003, p. 228) is the "measurement of the dependent variables prior to the introduction of the treatment", and it may be possible for the test itself to impact on and influence the results of the main study. Pre-test sensitisation was not considered a threat to the research design of this study as the questionnaire was administered on one occasion only, and the volunteers who participated in the pilot survey were excluded from the sample for the main study.

4.11   *Methodological limitations*

Limitations are potential weaknesses of the study or other problems which may have affected the results. Section 4.10 acknowledged the importance of validity to sound research design and examined threats to internal and external validity as they might apply to the present study. These included possible weaknesses related to inadequate measures of variables, and loss or lack of participants. Other limitations may arise from small sample sizes, errors in measurement, and other factors typically related to data collection and analysis (Creswell, 2012, p. 199). This section considers further methodological limitations related to the cross-sectional survey design and the methods of analysis adopted in this study.

Cross-sectional survey design: In discussing the findings of this research, we should remain aware of the nature of the data set: all measures were obtained at the same point in time – cross-sectional survey design was used as the sole data collection instrument so responses needed to be taken at face value as there was no opportunity to verify/cross-check responses.

Self-reporting by participants: As with most survey research, respondents are reporting on their own activities, states, and characteristics. This self-reporting format requires willingness on the part of volunteers to complete the survey and to respond candidly to the statements contained in the various scales. It is not inconceivable that a number of volunteers who completed the survey may have based their answers on what they believed their organisation and the researcher wanted to read. Although the anonymity of the survey and wording of statements would have somewhat reduced this concern, it must be acknowledged as part of any self-reporting process.

Other potential sources of bias in self-reported responses should be considered as possible limitations; these include: (1) selective memory (remembering or not remembering experiences or events that occurred at some point in the past); (2) telescoping (recalling events that occurred at one time as if they occurred at another time); (3) attribution (the act of attributing positive events and outcomes to one's own agency but attributing negative events and outcomes to external forces); and, (4) exaggeration (the act of representing outcomes or embellishing events as more significant than is actually suggested from other data).

Generalisability of findings: The research is confined to volunteers based in New South Wales. Although a large sample is involved, there are no assurances that the findings will translate effectively to other Australian states or overseas countries. Indeed, conclusions may be limited to the particular sample, variables and timeframe represented by the design.

Selection effects in relation to SEM: Results using SEM are subject to selection effects with respect to at least two aspects of the study: individual, and measures (Nesselroade, 1991). Effects at the individual or observational level involve the population of interest; these effects are taken into account by means of sampling procedures and inferential statistics. As noted earlier, the generalisability of an SEM model beyond the population of interest may be uncertain. Selection effects are also inherent in the choice of the measured variables selected as indicators of the latent variables in the study. Each latent variable is effectively defined as that which its indicators have in common; hence, valid results and interpretation depend on having appropriate operationalisations of the latent variables under investigation (T. D. Little, Lindenberger, & Nesselroade, 1999). This requirement was addressed in Section 4.7 and recognised in relation to both independent and dependent variables as a threat to external validity in Section 4.9.2.

4.12   Chapter summary and conclusion

This chapter has outlined the research design of the study, the methods used to develop the survey instrument, and the structure of the instrument. Sampling was described and a profile of survey participants was presented. The analytical methods used in the study were explained. Ethical considerations were addressed and issues affecting validity were identified. In the next chapter, the results of data screening are reported, the validity and reliability of scales are examined, weighted composite scores are computed for each scale or factor, and the distributions of these composite scale scores are analysed to assess normality. Based on these analyses, the measurement model is presented as the basis for the structural model to be tested in Chapter 6.

Chapter Five - Data Analysis, Scale Validation and Model Specification

5.1   Introduction

This chapter presents descriptive statistics related to the characteristics of survey respondents, analyses and validates each measurement scale, and concludes with the measurement and structural model based on these scales. Section 5.2 reports the results of data screening and missing values analysis and the imputation of missing values. Descriptive statistics in Section 5.3 include demographic characteristics, such as age, education and gender, and contextual information related to the nature and extent of the volunteering performed by the respondents (cf. Section 4.7.4.). Together with the measurement scales for the dispositional and organisational variables, these data inform the measurement model identified in Section 5.12.

Scale analysis examines the validity and reliability of the measures used to operationalise each of the constructs in the postulated structural model. A new, derived variable, motivation-benefit match (MBM) is computed, and composite scores are calculated for all scales, including MBM. Based on these composite scores, the psychometric properties of scale responses are investigated to ensure that the data satisfies the assumptions of the selected data analysis techniques including regression analysis and structural equation modelling (SEM). These analysis techniques are described in Chapter 4 and the results of the analyses are reported in Chapter 6.

Sections 5.4 to 5.9 examine the construct validity of each of the measures used in the model. This involves using statistical methods to examine whether the items used to measure each of the theoretical constructs are in fact correlated and can therefore be recognised as legitimate scales that represent both theoretical and empirical construct validity. In order to carry out these statistical analyses and establish construct validity, unidimensionality, convergent validity and discriminant validity were studied. Confirmatory factor analysis (CFA) was used to confirm the structure of scales with hypothesised factors or subscales, and to investigate the unidimensionality of variables with a single scale (Thompson, 2004). Cronbach's coefficient alpha was used as the index of scale internal consistency, or convergent validity, while the mean correlation of a scale with the other scales (MCOS) was used as a convenient index of scale discriminant validity. These methods of analysis were discussed in Chapter 4 (cf. Section 4.8.4.2).

Section 5.10 describes the computation of composite scale scores, examines the distribution of these scores, and assesses the normality of these distributions. Section 5.11 reports the computation of the derived variable motivation-benefit match (MBM), and examines the

properties of the six MBM scales which result from the six VFI factors. Section 5.12 presents the measurement model constructed using composite scale scores as indicators of the latent variables, and which forms the basis of the structural model to be analysed in Chapter 6. Section 5.13 presents a summary of the chapter.

Unless stated otherwise, all descriptive and inferential statistical analyses were conducted using IBM SPSS Statistics Version 19, referred to as SPSS. CFA was conducted using LISREL 8.8 (Jöreskog & Sörbom, 2006). All data are reported to two decimal places, unless otherwise stated.

5.2 Data preparation and screening

5.2.1 Data screening

On receipt, each questionnaire was inspected for any obvious problems such as non-completion of all or most of the survey, more than one response to individual items, or incorrectly marked responses (e.g. between valid options). Three respondents omitted entire sections and two did not respond to any items beyond a certain page; these five questionnaires were excluded from the study. No multiple responses or "in-between" responses were identified in this initial inspection, although it was obvious that some questionnaires contained a number of items with no response. These "no response" items were coded as "missing". Completed questionnaires were assigned a unique 4-digit case number for tracking purposes as detailed in Section 4.5. Responses were then coded numerically against this case number and imported into SPSS (Version 19) as a data file.

Univariate descriptive statistics were used to check the SPSS data file for accuracy of input looking for out-of-range values and checking that the codes for missing values were accurately coded for all variables, and that means and standard deviations reported were plausible. Where out-of-range values were identified, these responses were checked against the original questionnaire; in all cases they were the result of incorrect coding of the initial response or the missing value code. The data file was inspected for outliers by comparing standard (z) scores and no cases were identified as exceeding ± 3 z-scores (Tabachnick & Fidell, 2007).

5.2.2 Missing values analysis and data imputation

Missing values analysis and data imputation processes were conducted as outlined in Chapter 4, Section 4.8.2. Missing Values Analysis using SPSS software determined that there were 176 (or 38.77 %) incomplete cases and 4.85% missing values as illustrated in Figure 5.1.

| | 0 | 0% |
| | 71 | 100% |

| | 176 | 38.77% |
| | 278 | 61.23% |

| | 1,565 | 4.855% |
| | 30,669 | 95.14% |

Complete Data
Incomplete Data

Variables   **Cases**   **Values**
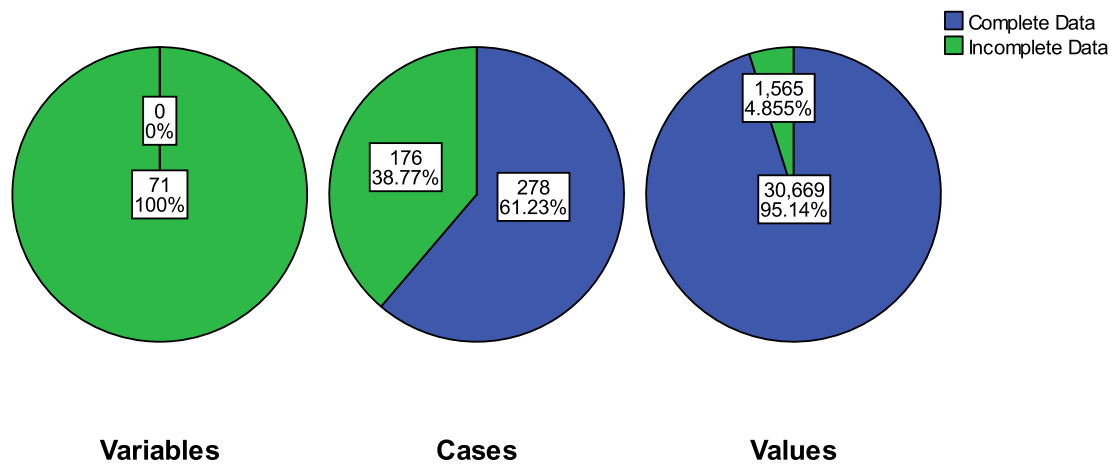
Figure 5.1   Overall Summary of Missing Values

As discussed in Chapter 4, Section 4.8.2, there are basically three options for dealing with
missing data: pairwise deletion, listwise deletion and data imputation. In SEM, if data are not
MCAR, missing values should be imputed, avoiding the loss of usable data and maximising the
data available for analysis (Kline, 2004). To determine if the data are missing completely at
random (MCAR), Little's MCAR test was used in SPSS's Missing Values Analysis (MVA)
option. For this test, the null hypothesis is that the data are MCAR, and the p value is significant
at the .05 level. If the p value for Little's MCAR test is <u>not</u> significant, then the data may be
assumed to be MCAR (Tabachnick & Fidell, 2001). Little's MCAR test (Chi-Square =
9167.165, df = 8432, Sig. = .000) was significant at the .05 level indicating that the data were
not MCAR, and indicating that missing values should be imputed. Moreover, listwise deletion
would result in 278 complete cases – a loss of 176 (38.8%) incomplete cases.

Tabachnick and Fidell (2001) recommend that analyses should be repeated with and without
missing data, especially if the data set is small, the proportion of missing data is high, or data
are not MCAR. "If the results are similar, you can have confidence in them. If they're
different, however, you must investigate the reasons for the difference, and either evaluate
which result better approximates 'reality' or report both sets of results" (Tabachnick & Fidell,
2001, p. 65). Following Tabachnick and Fidell's recommendation, analysis of MTV-VFI
scores was repeated both with and without missing data. Confirmatory factor analysis (CFA)
was conducted using Clary and Snyder's proposed six-factor structure. First, the initial data
file (with missing values) was analysed, and the analysis was then repeated using data files
with missing values imputed. Two imputed data files were used for comparison with the
missing data file: one data file with missing values imputed in SPSS using Expectation
Maximisation (EM method), and a second data file with missing values imputed in LISREL
using Multiple Imputation – EM method. The LISREL pattern matrix for each of these three
analyses is shown in Appendix 5H. In each case there was little difference in the factor

loadings on any given item with the smallest loadings being .54, .52 and .53 respectively on item MTV-V5. The fit statistics for each of the three analyses are detailed in Table 5.1, indicating comparable fit for the six-factor structure in each case.

Table 5.1   Summary of fit statistics for CFA of MTV-VFI with and without missing data (*N* = 454)

	χ^2	*df*	*NFI*	*CFI*	*RMSEA*	*RMSEA 90% CI*
MTV-VFI Initial scores (with missing data)	1385.67 [FIML]	399	NA	NA	.074	.070 <*CI* < .078
MTV-VFI (with missing values imputed in SPSS)	1578.61 [ML]	399	.94	.96	.081	.077 <*CI*< .085
MTV-VFI (with missing values imputed in LISREL)	1580.81 [ML]	399	.94	.96	.081	.077 <*CI*< .085
Threshold			≥ .90	≥ .90	≤ .08 ≤ .10 "mediocre"	.00 <*CI* < .08

FIML = Full Implementation Maximum Likelihood
ML = Maximum Likelihood
NA = Not available in LISREL output.
NFI = Normed Fit Index
CFI = Comparative Fit Index
RMSEA = Root Mean Square Error of Approximation
CI = Confidence Interval

Comparison of the initial (missing data) analysis with the analyses using imputed data indicated that the results were sufficiently similar to proceed confidently with either of the imputed data sets thus avoiding the loss of usable data and maximising the data available for analysis (Kline, 2004). For convenience, it was decided to use the data file with missing data imputed in LISREL (Multiple Imputation – EM method).

5.3   Profile of survey respondents

The final questionnaire was responded to by 454 volunteers across all organisations; a response rate of 71%. Response rates varied from 64% to 82% across the three organisations. The largest group of volunteers came from SVDP (N = 197). Volunteer responses by organisation are summarised in Table 5.2.

Table 5.2   Distribution of volunteer responses by organisation

	SVDP	RFS	TBS	Total
Responses	197	153	104	454
Sample	240	240	160	640
Response rate	82%	64%	65%	71%

5.3.1   Demographic characteristics

Of the 454 responses received; 41% were from the metropolitan area, 27% from regional NSW and 29% from rural NSW, while 4% did not indicate their postcode. Participants were 60% female and 40% male, with 22% aged 30 years or less and 51% more than 55 years. Eighty-four per cent of respondents were born in Australia, with 78% identifying their cultural/ethnic background as Anglo-Saxon. Forty-nine per cent were married, while 28% indicated they had never married. Sixty-six per cent of the volunteers had at least one child; 14% had children under 18 years at the time of the survey; this ranged from 24% for RFS to 6% for SVDP.

Sixty per cent of the sample had completed Year 12 at high school or a higher qualification. Forty per cent of the sample was employed, but a significant proportion of the sample was retired (37%). Fourteen per cent were working in the home, while 15% were studying (11% full-time; 4% part-time). A detailed summary of demographic characteristics and other descriptive statistics for the full sample and by organisation is provided at Appendix 5A.

5.3.2   Nature and extent of volunteering with current organisation

The nature and extent of volunteering with the organisation was measured by length of service as a volunteer, number of hours volunteered, the frequency of volunteering and the activities undertaken.

Length of volunteer service

Most survey respondents had already served five years or more with their current organisation and were thus experienced in volunteering with that organisation. Volunteers' length of service ranged from one month to 60 years with an average of 10 years (M = 9.6; SD = 11.58). Details of volunteer service for the full sample and by organisation are set out in Appendix 5B.

Hours volunteered

Seventy per cent of respondents volunteered, on average, more than eight hours per month, with almost 60% reporting service of less than 16 hours per month. TBS volunteer involvement usually is scheduled as a certain amount of time; hence more than 90% of TBS respondents volunteered less than 16 hours a month. SVDP and RFS were fairly evenly spread with about half their respondents volunteering less than 16 hours per month and about half volunteering more than 16 hours per month. One in five respondents volunteered more than 32 hours per month. Details of hours volunteered per month are set out in Appendix 5B.

Frequency of volunteering

All organisations showed a pattern of volunteering heavily weighted towards weekly or fortnightly involvement. Overall, more than 87% of respondents volunteered at least fortnightly;

across organisations this ranged from 79% to 92%. Four percent volunteered less than once a month. Details of frequency of volunteering are set out in Appendix 5B.

Activities undertaken by volunteers

Volunteers reported the different tasks in which they were involved with the option of listing more than one task. The activities in which volunteers were most commonly engaged with each organisation reflect the principal roles of that organisation. The majority of RFS volunteer work involves emergencies and special events and the training and support roles which accompany these tasks. For TBS and SVDP a major focus was social support. Almost half the SVDP volunteers were also involved in fundraising and/or retail activities, while more than half the RFS volunteers reported involvement in fundraising. Table 5.3 lists the six most common activities reported by volunteers from each organisation.

Table 5.3   Activities most commonly undertaken by volunteers

	SVDP	RFS	TBS
1	Fundraising/retail (49.2%)	Emergency/firefighting/ safety/rescue (75.8%)	Visiting/social support/ welfare support (49%)
2	Visiting/social support/ welfare support (48.2%)	Educational/training/ tutoring/mentoring (54.2%)	Food service/catering (32.7%)
3	Material relief (31%)	Fundraising/retail (51.6%)	Driving (16.3%)
4	Administrative/clerical (28.9%)	Radio communications/ logistics/aviation support (48.4%)	Recreational activities (11.5%)
5	Counselling/mediation/ advocacy (18%)	Driving (40.5%)	Fundraising (9.6%).
6	Educational/training/ tutoring/mentoring (18.3%)	Administrative/clerical (33.3%)	Educational/training/ tutoring/mentoring (2.9%) IT/computing (2.9%)

NOTE: Volunteers could list more than one task.

5.3.3   *Conclusion to this section*

The demographic and contextual data reported in this section will be analysed in Chapter 6 (cf. Section 6.2) to ascertain whether these data represent significant influences on sustained volunteering which should be included in the conceptual model as additional paths.

The measurement scales for the dispositional and organisational variables will be analysed in sections 5.4 to 5.9 and will form the basis of the measurement model to be identified in Section 5.12.

5.4   *Validation of Motivation to Volunteer (MTV-VFI) scales*

This section describes the motivation to volunteer scales and reports factor analysis and convergent validity of these scales.

5.4.1 Description of MTV-VFI scales

Motivation to volunteer (MTV) was assessed using the Volunteer Functions Inventory (VFI) (Clary et al., 1992) which consists of 30 Likert-type items divided equally into six subscales. Each of these six scales relates to a specific functional motivation served by volunteering (Values, Understanding, Enhancement, Career, Social, Protective) as detailed in Chapter 4 (cf. Section 4.7 Research instrumentation and operational definitions).

5.4.2 Factor Analysis of MTV-VFI scales

Confirmatory factor analysis (CFA) was conducted on the 30 MTV-VFI items as listed in Table 5.4. This analysis was considered important to confirm that the data from this study reflects the six-factor structure of Clary et al.'s (1998) VFI for three reasons: to validate the use of these six factors as latent variables in the structural model adopted for this study by confirming their unidimensionality (as a condition for construct validity); to validate the use of these six factors as the basis for six functional benefits measured in this study (and the match between these motives and the corresponding benefits); and to facilitate comparison of the results of this study with other studies which have used the VFI.

To assess the suitability of the MTV-VFI data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic using SPSS. The KMO measure of sampling adequacy compares the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients. The KMO statistics for each individual variable are summed to obtain the aggregate KMO, which should be .50 or higher to proceed with factor analysis. Kaiser suggests .50 as a cut-off value, with values of .80 or higher as desirable (Kaiser, 1970). The aggregate KMO for the 30 MTV-VFI variables was .92 indicating strong support for a factor analysis of the variables. Another indicator of the strength of the relationship among variables is Bartlett's Test of Sphericity which tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is appropriate. The null hypothesis tested by Bartlett's Test is that the variables in the population correlation matrix are uncorrelated (SPSS, 2010b). The observed significance level for Bartlett's Test for the MTV-VFI variables was .000 (Approx. χ^2 ($df = 435$, $N = 454$) = 6167). On this evidence the null hypothesis was rejected and the strength of the relationship among variables was considered strong enough to proceed to a factor analysis of the data.

For the present study, Clary and Snyder's proposed six-factor structure for the VFI was tested through confirmatory factor analysis (CFA) using the LISREL 8.8 software program (Jöreskog & Sörbom, 2006). LISREL analysis allows the building and testing of a factor model identical to that suggested by theory. A predetermined factor structure can be forced (unlike conventional factor analysis methods, which can force the number of factors but not the structure of these factors) offering a pattern matrix (i.e. the factor loading matrix) for the hypothesised structure

(Thompson, 2004). For this analysis, Clary and Snyder's proposed six-factor structure was tested. The pattern matrix from the LISREL analysis is reported in Table 5.4. As a rule of thumb, measurement variables are reliable when the loading (R^2) of each one is greater than .50 (Byrne, 1998; Holmes-Smith, 2000). In this case, the loadings were very acceptable with all items having values of .53 or greater.

Four fit statistics were used were used to assess the fit of the CFA models for each scale reported in this chapter (cf. sections 5.4 – 5.9): the χ^2 statistical significance test, the normed fit index (*NFI*), the comparative fit index (*CFI*), and the Root Mean Square Error of Approximation (*RMSEA*), together with the 90%-confidence interval for *RMSEA*. The choice of these fit indices was discussed in Chapter 4 (cf. Section 4.9.1.2).

These four fit indices for this CFA six-factor model indicate reasonable fit of the model to the data χ^2 = 1580.81 (*df* = 399), NFI = .94, *CFI* = .96, *RMSEA* = .081, *.077 < CI < .085*). These fit indices are reported in Appendix 5G together with fit indices for other CFA models.

This factor analysis of the MTV-VFI scales, together with the values of Cronbach's coefficient alpha for each of the six scales, reported in the following section, was considered sufficient to confirm the unidimensionality of each subscale (cf. Appendix 5C, Figure 5C.1).

Table 5.4   LISREL pattern matrix for CFA - 30 MTV-VFI items (*N* = 454)

Variable	Item description	V	U	E	C	S	P
Values							
MTV-V1	I feel compassion toward people in need. (B10)	.84					
MTV-V2	I am concerned about those less fortunate than myself. (B14)	.81					
MTV-V3	I feel it is important to help others. (B16)	.63					
MTV-V4	I can do something for a cause that is important to me. (B18)	.60					
MTV-V5	I am genuinely concerned about the particular group I am serving. (B32)	.53					
Understanding							
MTV-U1	Volunteering lets me learn things through direct, hands on experience. (B3)		.67				
MTV-U2	I can explore my own strengths. (B6)		.73				
MTV-U3	I can learn how to deal with a variety of people. (B12)		.79				
MTV-U4	I can learn more about t the cause for which I am working. (B17)		.65				
MTV-U5	Volunteering allows me to gain a new perspective on things. (B31)		.73				
Enhancement							
MTV-E1	Volunteering makes me feel needed. (B4)			.68			
MTV-E2	Volunteering increases my self-esteem. (B13)			.82			
MTV-E3	Volunteering makes me feel important. (B15)			.78			
MTV-E4	Volunteering makes me feel better about myself. (B22)			.82			
MTV-E5	Volunteering is a way to make new friends. (B30)			.62			
Career							
MTV-C1	Volunteering will help me to succeed in my chosen profession. (B7)				.80		
MTV-C2	Volunteering can help me to get my foot in the door at a place where I would like to work. (B23)				.88		
MTV-C3	Volunteering allows me to explore different career options. (B25)				.85		
MTV-C4	Volunteering experience will look good on my CV. (B26)				.76		
MTV-C5	I can make new contacts that might help my business or career. (B29)				.81		
Social							
MTV-S1	My friends volunteer. (B5)					.59	
MTV-S2	Volunteering is an important activity to the people I know best. (B9)					.79	
MTV-S3	People I know share an interest in community service. (B20)					.72	
MTV-S4	Others with whom I am close place a high value on community service. (B24)					.79	
MTV-S5	People I'm close to want me to volunteer. (B28)					.65	
Protective							
MTV-P1	Doing volunteer work relieves me of some of the guilt over being more fortunate than others. (B8)						.57
MTV-P2	Volunteering is a good escape from my own troubles. (B11)						.79
MTV-P3	No matter how bad I've been feeling, volunteering helps me to forget about it. (B19)						.73
MTV-P4	Volunteering helps me work through my own personal problems. (B21)						.83
MTV-P5	By volunteering I feel less lonely. (B27)						.78

5.4.3 Convergent validity of MTV-VFI scales

As noted in Section 5.1, Cronbach's coefficient alpha (α) was chosen to assess convergent validity (internal consistency reliability) for the items making up each of the constructs. Each 5-item MTV-VFI scale was subjected to reliability analysis using SPSS. As noted in Section 4.9.1 Scale validity and reliability, Cronbach's coefficient alpha $\geq$ .70 was considered sufficient to confirm scale reliability. Cronbach's coefficient alpha for the six MTV-VFI scales ranged from .81 to .91, as shown in Table 5.5, indicating strong internal consistency reliability and hence convergent validity. As further evidence of convergent validity, the critical ratio (*t*-value) of every measurement item exceeded 1.96 (values ranged from 10.81 to 21.53) (cf. Chapter 4, Section 4.9.1).

Table 5.5   Validation data and scale statistics for MTV-VFI (*N*=454)

MTV-VFI Scale	Scale Name	No. of items	α	*MCOS*
MTV - Values	MTV-V	5	.81	.38
MTV - Understanding	MTV-U	5	.84	.54
MTV - Enhancement	MTV-E	5	.86	.59
MTV - Career	MTV-C	5	.91	.39
MTV - Social	MTV-S	5	.84	.50
MTV - Protective	MTV-P	5	.86	.51
MTV – Total Score	MTV-Sum	30	.94	-

VFI = Volunteer Functions Inventory   MTV = Motivation to Volunteer
MCOS = Mean Correlation with Other Scales. The correlations of each scale with the other five scales are tabulated in Appendix 5C, Table 5C.2.

For the MTV-VFI overall, MTV-Sum, (α = .94) and for each of the six subscales, Cronbach's coefficient alpha exceeds .80. These results show that the items or statements making up each of the MTV-VFI scales are well suited to represent each of the six functional volunteer motivations identified by Clary, Snyder and Ridge (1992). These internal consistency coefficients are comparable to those reported by Clary, Snyder and Ridge of "greater than or equal to .80" (1992, p. 339).

Although the reliability coefficient for each scale was acceptable, item-total statistics for each scale were examined to see if reliability would be improved by removing one or more items from the scale. Item-total statistics for each scale are tabulated in Appendix 5C. These tables indicate the extent to which the Cronbach's coefficients alpha would be increased if a particular scale item was dropped. There was no instance in which the reliability of a MTV-VFI scale would be improved by the removal of one or more items. It was considered appropriate to retain all five items in each of the six VFI subscales, as defined by Clary and Snyder (1999).

5.4.4   Discriminant validity of MTV-VFI scales

As noted in Section 5.1, the mean correlation of a scale with the other scales (*MCOS*) was used as a convenient index of scale discriminant validity. Table 5.5 reports data about the discriminant validity of the MTV-VFI scales using the mean correlation of each scale with the other five scales (*MCOS*) as an index. The discriminant validity for the six MTV-VFI scales ranged from .38 to .59. These scores indicate that there is a degree of overlap between the scales, as might be expected, but the factor analysis attests to the independence of factor scores on the six MTV-VFI scales and their conceptual distinctiveness justifies their retention. As further evidence of discriminant validity, the correlations between factors were all lower than .80 (with the highest being .72 between the Enhancement and Protective motivations) (Brown, 2006, p. 32). The correlations of each scale with the other five scales are tabulated in Appendix 5C, Table 5C.2.

5.4.5   Conclusion to validation of Motivation (MTV-VFI) scales

These analyses have established the construct validity of the MTV-VFI scales by demonstrating their unidimensionality, convergent validity and discriminant validity. The results of these analyses of the MTV-VFI scales offer additional support for the six-factor structure of the VFI proposed by Clary and Snyder. The results of the factor analysis align with the six-factor VFI solution of Clary and Snyder (1999) - Values, Understanding, Enhancement, Career, Social, and Protective. All of the items offer acceptable estimates of the latent constructs they were designed to assess. Estimates of internal consistency were acceptable, being above the conventional criterion of .70 for all factors and a very acceptable .94 for the total VFI scale. This analysis supported the decision to retain Clary and Snyder's six-factor structure in the structural equation modelling (SEM) analysis of the postulated model for this study. This SEM analysis, using LISREL software, is reported in Chapter 6.

5.5   Validation of Self-Efficacy for Volunteering (SEV) scales

This section describes the Self-Efficacy for Volunteering scales and reports factor analysis and convergent validity of these scales.

5.5.1   Description of SEV scales

The self-efficacy instrument used in the V21 research and in this study comprised 19 Likert-type items and had been adapted from a 19-item, 5-factor instrument developed by Labone, Butcher and Bailey (2005), as detailed in Chapter 4 (cf. Section 4.7 Research instrumentation and operational definitions). The 19 items in the adapted instrument were intended to retain the 5-factor structure of the original.

5.5.2 *Factor analysis of SEV scales*

To assess the suitability of the SEV data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test of Sphericity. The aggregate KMO for the 19 SEV variables was .93 indicating strong support for a factor analysis of the variables. Bartlett's Test of Sphericity yielded an observed significance level of .000 (Approx. χ^2 (171, N=454) = 5454). This is strong evidence to reject the null hypothesis and conclude that the strength of the relationship among variables is sufficient to proceed to a factor analysis of the data. Detailed analyses of the SEV scales are presented in Appendix 5D.

Based on the five-factor structure revealed by the original self-efficacy instrument, a confirmatory factor analysis (CFA) of the SEV scale scores was conducted using LISREL 8.8 software. Five factors were specified and each of the 19 SEV items was associated with its hypothesised factor (Thompson, 2004), as discussed in Chapter 4 (cf. Section 4.8.4.2 Scale validity and reliability). The factor pattern matrix for this analysis of the SEV items is presented in Table 5.6. The loadings were very acceptable with all items having values of .57 or greater. The fit indices for this CFA five-factor model indicate reasonable fit of the model to the data (χ^2 = 832.79 (df = 147), *NFI* = .95, *CFI* = .96, *RMSEA* = .100, .095 < *CI* < .110). These fit indices are reported in Appendix 5G together with fit indices for other CFA models. This factor analysis of the SEV scales, together with the values of Cronbach's coefficients alpha for each of the SEV scales, reported in the following section, was considered sufficient to confirm the unidimensionality of each of the subscales.

Table 5.6   LISREL Pattern Matrix for CFA – 19 SEV items ($N = 454$)

Variable	Item description	Factors 1	2	3	4	5
Relationships with clients or people the service supports (SEV-RC)						
	While working as a volunteer with [PO], how confident are you that you can:					
SEV-RC1	Build trust with people the service supports. (D25)		.84			
SEV-RC2	Be valued by people the service supports. (D26)		.87			
SEV-RC3	Establish a rapport with the people the service supports. (D27)		.88			
SEV-RC4	Respond with sensitivity to people the service supports. (D28)		.75			
Relationships with other volunteers as co-workers (SEV-RV)						
	While working as a volunteer with [PO], how confident are you that you can:					
SEV-RV1	Value the volunteers you work with. (D29)					.64
SEV-RV2	Build good working relationships with the other volunteers you work with. (D30)					.72
SEV-RV3	Maintain appropriate professionalism. (D31)					.73
Work competence (SEV-WC)						
	While working as a volunteer with [PO], how confident are you that you can:					
SEV-WC1	Handle experiences that are out of your comfort zone. (D32)	.66				
SEV-WC2	Make a positive contribution by volunteering for the community. (D33)	.88				
SEV-WC3	Participate successfully in volunteer work. (D34)	.87				
SEV-WC4	Enjoy volunteer work. (D35)	.75				
Empathetic action (SEV-EA)						
	While working as a volunteer with [PO], how confident are you that you can:					
SEV-EA1	Respond appropriately to needs in the community. (D36)			.84		
SEV-EA2	See what the world looks like from different perspectives. (D37)			.62		
SEV-EA3	Understand how frustrating life can be for some people. (D38)			.61		
SEV-EA4	Understand how hard it is to let someone else help you. (D39)			.57		
Social awareness (SEV-SA)						
	How confident are you that:					
SEV-SA1	A little support from the community makes an enormous difference. (D42)				.70	
SEV-SA2	When volunteers contribute to the community it makes a difference. (D43)				.69	
SEV-SA3	There are needs in the community that I can respond to and make a difference. (D44)				.85	
SEV-SA4	My effectiveness as a volunteer has increased. (D45)				.75	

5.5.3 Convergent validity of SEV scales

Again, Cronbach's coefficient alpha (α) was chosen to assess convergent validity (internal consistency reliability) for the items making up each of the SEV scales. Each scale was subjected to reliability analysis using SPSS. As noted previously, Cronbach's coefficient alpha $\geq .70$ was considered sufficient to confirm scale reliability. Cronbach's coefficient alpha for the five SEV scales ranged from .74 to .90, as shown in Table 5.7, indicating strong internal consistency reliability and hence convergent validity. As further evidence of convergent validity, the critical ratio (*t*-value) of every measurement item exceeded 1.96 (values ranged from 12.29 to 23.25) (cf. Chapter 4, Section 4.9.1).

Table 5.7   Validation data and scale statistics for SEV (*N*=454)

SEV Scale	Scale Name	No. of items	*α*	*MCOS*
Relationships with clients	SEV-RC	4	.90	.56
Relationships with other volunteers	SEV-RV	3	.74	.61
Work competence	SEV-WC	4	.87	.66
Empathetic action	SEV-EA	4	.80	.63
Social awareness	SEV-SA	4	.83	.60
All SEV items	SEV-Sum	19	.94	-

SEV = Self-Efficacy for Volunteering

MCOS = Mean Correlation with Other Scales. The correlations of each scale with the other four scales are tabulated in Appendix 5D (Table 5D.2).

For the SEV overall, SEV-Sum, ($\alpha = .94$) and each of the five subscales, Cronbach's coefficient alpha exceeds the accepted criterion of .70. These results show that the items or statements making up each of the SEV scales are well suited to represent each of the five factors identified in previous studies of community service volunteers (Labone et al., 2005).

Although the reliability coefficient for each SEV scale was acceptable, item-total statistics for each scale were examined to see if reliability would be improved by removing one or more items from the scale. Item-total statistics for each SEV scale are tabulated in Appendix 5D (Table 5D.3). These tables indicate the extent to which the Cronbach's coefficients alpha would be increased if a particular scale item was dropped. With the exception of the SEV-WC scale, there was no instance in which the reliability of the scale would be improved by the removal of one or more items. For the SEV-WC scale, removal of the item SEV-WC1 would increase the scale reliability from .87 to .88. Again, given that the alpha level was already so high and that the possible increment was marginal, it was considered appropriate to retain item SEV-WC1 along with the other three items in the SEV-WC scale.

5.5.4   Discriminant validity of SEV scales

Again, the mean correlation of a scale with the other scales (*MCOS*) was used as a convenient index of scale discriminant validity. Table 5.7 reports data about the discriminant validity of the SEV scales using the mean correlation of each scale with the other four scales (*MCOS*) as an index. The discriminant validity for the five SEV scales ranged from .56 to .66. These scores indicate that there is some overlap between the scales, as might be expected, but the factor analysis attests to the independence of factor scores on the five SEV scales and their conceptual distinctiveness justifies their retention. As further evidence of discriminant validity, the correlations between factors were all lower than .80 (Brown, 2006, p. 32) (with the highest being .71 between the Relationships with clients and the Relationships with other volunteers dimensions). The correlations of each scale with the other four scales are tabulated in Appendix 5D, Table 5D. 2.

5.5.5   Conclusion to validation of SEV scales

These analyses have established the construct validity of the SEV scales by demonstrating their unidimensionality, convergent validity and discriminant validity. All of the 19 items offer acceptable estimates of the latent constructs they were designed to assess. Estimates of internal consistency were acceptable, being above the conventional criterion of .70 for all factors and a very acceptable .94 for the total SEV scale.

5.6   Validation of Benefits (BEN) scale

This section reports factor analysis and convergent validity of the Benefits of Volunteering scale. As this is a single scale with no hypothesised subscales, discriminant validity statistics are not reported.

5.6.1   Description of BEN scale

Benefits of volunteering were measured using six Likert-type items; one item to measure benefits associated with each of the six MTV-VFI motives, following the approach adopted by Clary et al. (1998) in their Study 6, as detailed in Chapter 4 (cf. Section 4.7 Research instrumentation and operational definitions).

5.6.2   Factor analysis of BEN scale

To assess the suitability of the BEN data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test of Sphericity. The aggregate KMO for the six BEN variables was .78, while Bartlett's Test yielded an observed significance level of .000 (Approx. χ^2 (15, *N*=454) = 588.65), indicating strong support for a factor analysis of the data.

Confirmatory factor analysis of the BEN scale items supported the unidimensionality of the scale (cf. Appendix 5E). All factor loadings were .41 or greater (Table 5.8). The fit indices for this CFA one-factor model indicate reasonable fit of the model to the data ($\chi^2 = 44.03$ ($df = 9$), $NFI = .95$, $CFI = .96$, $RMSEA = .093$, $.066 < CI < .120$). These fit indices are reported in Appendix 5G together with fit indices for other CFA models. This factor analysis, together with the value of Cronbach's coefficient alpha (.75), reported in the following section, was considered sufficient to confirm the unidimensionality of the BEN scale.

Table 5.8   LISREL Pattern Matrix for six BEN items ($N = 454$)

Item description	Factor 1
MTV_BEN-Values (D19)	.52
MTV_BEN-Understanding (D20)	.69
MTV_BEN-Enhancement (D21)	.80
MTV_BEN-Career (D22)	.41
MTV_BEN-Social (D23)	.55
MTV_BEN-Protective (D24)	.51

5.6.3   *Convergent validity of BEN scale*

Again, Cronbach's coefficient alpha (α) was chosen to assess convergent validity (internal consistency reliability) for the six items making up the BEN scale. Reliability analysis of this scale using SPSS yielded a Cronbach's coefficient alpha of .75, which exceeds the accepted criterion of .70 and indicates a strong internal consistency reliability and hence convergent validity. As further evidence of convergent validity, the critical ratio (*t*-value) of every measurement item exceeded 1.96 (values ranged from 8.21 to 17.74) (cf. Chapter 4, Section 4.9.1).

The reliability coefficient for the BEN scale was acceptable; however item-total statistics were examined to see if reliability would be improved by removing one or more items from the scale. Item-total statistics for the BEN scale are tabulated in Appendix 5F (Table 5F.1). Cronbach's coefficient alpha for the BEN scale is .75. The reliability of the scale would not be improved by removing any one (or more) items. All six items in the scale were retained and included in the composite benefits score (BEN-Sum) for use in the structural model (cf. Section 5.10.1 Computation and analysis of composite scale scores). Moreover, each separate item is required for computing the Motivation-Benefit Match (MBM) score (cf. Section 5.11 Development of the Motivation-Benefit Match (MBM) scale).

5.6.4   Conclusion to validation of BEN scale

The above analyses have established the construct validity of the BEN scale by demonstrating its unidimensionality and convergent validity. All six items offer acceptable estimates of the latent constructs they were designed to assess, with the internal consistency of the scale estimated at .75.

5.7   Validation of the Satisfaction with Volunteering (SAT) scale

This section reports factor analysis and convergent validity of the Satisfaction with Volunteering scale. As this is a single scale with no hypothesised subscales, discriminant validity statistics are not reported.

5.7.1   Description of SAT scale

Satisfaction with Volunteering (SAT) was measured using three Likert-type items used previously by Penner and Finkelstein (1998) as detailed in Chapter 4 (cf. Section 4.7 Research instrumentation and operational definitions). As the SAT items constitute a single scale, discriminant statistics are not reported.

5.7.2   Factor analysis of SAT scale

To assess the suitability of the SAT data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test of Sphericity. The aggregate KMO for the three SAT variables was .60, while Bartlett's Test yielded an observed significance level of .000 (Approx. χ^2 (3, N=454) = 217.60), supporting factor analysis of the data (cf. Appendix 5E).

Table 5.9   LISREL Pattern Matrix for three SAT items ($N = 454$)

Item description	Factor 1
SAT 1 (rev) (D16)	.39
SAT 2 (D17)	.81
SAT 3 (D18)	.68

Confirmatory factor analysis of the SAT scale items supported the unidimensionality of the scale. All factor loadings were .39 or greater (Table 5.9). As there are only three scale items, LISREL Goodness of Fit analysis indicates that the degrees of freedom equal zero. This factor analysis, together with the value of Cronbach's coefficient alpha (.65), reported in the following section, was considered sufficient to confirm the unidimensionality of the SAT scale.

5.7.3   Convergent validity of SAT scale

Again, Cronbach's coefficient alpha (α) was chosen to assess convergent validity (internal consistency reliability) for the three items making up the SAT scale. Although lower than

desired, the alpha value for the SAT scale, .65, was acceptable relative to the number of items, (Tabachnick & Fidell, 2007), suggesting that these items are well suited to represent the Satisfaction with Volunteering (SAT) construct. As further evidence of convergent validity, the critical ratio (*t*-value) of every measurement item exceeded 1.96 (values ranged from 6.75 to 10.57) (cf. Chapter 4, Section 4.9.1).

As the reliability coefficient for the SAT scale (.65) was below the criterion value of .70 adopted for internal consistency, item-total statistics for were examined to see if reliability would be improved by removing any item from the scale. Item-total statistics for the SAT scale are tabulated in Appendix 5F (Table 5F.2). The removal of the item SAT1 ('I don't think I have got anything out of being a volunteer with [Organisation]' – reverse scored) would improve the reliability of the scale to .71. As this new alpha would be > .70, which is often specified as a threshold value (Hair et al., 1998; Holmes-Smith, 2000), consideration was given to removing this item from the SAT scale. However, given the acceptability of the original alpha value for the small number of items in the scale, all three items were retained and included in the composite satisfaction score (SAT-Sum) for use in the structural model (cf. Section 5.10.1 Computation and analysis of composite scale scores).

5.7.4   Conclusion to validation of SAT scale

The above analyses have established the construct validity of the SAT scale by demonstrating its unidimensionality and convergent validity. Although lower than the criterion value of .70, the alpha value for the SAT scale, .65, was acceptable for a scale comprising only three items.

5.8   Validation of the Collective Efficacy for Volunteering (CEV) scale

This section reports factor analysis and convergent validity of the Collective Efficacy for Volunteering scale. As the CEV items constitute a single scale, discriminant statistics are not reported.

5.8.1   Description of CEV scale

Collective efficacy refers to volunteers' beliefs that they can work together effectively to achieve shared goals (Bandura, 1997). Collective efficacy was measured using two Likert-type items which were included with the self-efficacy items as detailed in Chapter 4 (cf. Section 4.7 Research instrumentation and operational definitions).

5.8.2   Factor analysis of CEV scale

To assess the suitability of the CEV data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test of Sphericity. The aggregate KMO for the two CEV variables was .50 indicating minimal support for factor

analysis of the variables, while Bartlett's Test yielded an observed significance level of .000 (Approx. χ^2 (1, N=454) = 178.44), supporting factor analysis of the data.

As LISREL is unable to run CFA on the two CEV items (The model does not converge as the degrees of freedom are negative.), principal axis factoring was employed using SPSS. This analysis of the two CEV scale items yielded one factor with eigenvalue greater than 1, explaining 79% of the total variance. The factor loading on each item was .76 (Table 5.10). This analysis confirmed the unidimensionality of the scale, while the convergent validity of the scale was confirmed by a Cronbach's coefficient alpha of .73.

Table 5.10   SPSS Factor Matrix for two CEV items ($N = 454$)

Item description	Factor 1
CEV1 (D40)	.76
CEV2 (D41)	.76

Extraction Method: Principal Axis Factoring.
1 factor extracted.   8 iterations required.

5.8.3   Conclusion to validation of CEV scale

The above analyses established the construct validity of the CEV scale by demonstrating its unidimensionality and convergent validity, with the internal consistency of the scale estimated at .73.

5.9   Validation of the Affective Organisational Commitment (AOC) scale

This section reports factor analysis and convergent validity of the Affective Organisational Commitment scale. As the AOC items constitute a single scale, discriminant statistics are not reported.

5.9.1   Description of AOC scale

Affective organisational commitment (AOC) was measured by means of a seven-item Likert-type scale following Allen and Meyer (1990). Seven of Allen and Meyer's original eight scale items were used as detailed in Chapter 4 (cf. Section 4.7 Research instrumentation and operational definitions).

5.9.2   Factor analysis of AOC scale

To assess the suitability of the AOC data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test of Sphericity. The aggregate KMO for the seven AOC variables was .78, while Bartlett's Test yielded an observed significance level of .000 (Approx. χ^2 (21, N=454) = 543.50), indicating strong support for factor analysis of the data.

Confirmatory factor analysis of the AOC scale items supported the unidimensionality of the scale (cf. Appendix 5E). Factor loadings ranged from .38 to .79 (Table 5.11) and fit indices for this CFA one-factor model indicate moderate fit of the model to the data ($\chi^2 = 64.37$ ($df = 14$), $NFI = .92$, $CFI = .94$, $RMSEA = .089$, $.068 < CI < .110$). These fit indices are reported in Appendix 5G together with fit indices for other CFA models. This factor analysis of the AOC scale, together with the value of Cronbach's coefficient alpha (.72), reported in the following section, was considered sufficient to confirm the unidimensionality of the scale.

Table 5.11   LISREL Pattern Matrix for seven AOC items ($N = 454$)

Item description	Factor 1
AOC1 (D1)	.59
AOC2 (D3)	.79
AOC3 (D7)	.47
AOC4 (D8)	.39
AOC7 (rev) (D13)	.38
AOC8 (D14)	.55
AOC9 (D15)	.48

5.9.3   Convergent validity of AOC scale

Cronbach's coefficient alpha for the AOC scale is .72, which exceeds the accepted criterion of .70 and indicates a strong internal consistency reliability and hence convergent validity.

Although the reliability coefficient for the AOC scale was acceptable, item-total statistics were examined to see if reliability would be improved by removing one or more items from the scale. Item-total statistics for the AOC scale are tabulated in Appendix 5G. The reliability of the scale would not be improved by removing any one (or more) items. All seven items in the scale were retained and included in the composite Affective Organisational Commitment score (AOC-Sum) for use in the structural model (cf. Section 5.10.1 Computation and analysis of composite scale scores).

5.9.4   Conclusion to validation of AOC scale

The above analyses have established the construct validity of the AOC scale by demonstrating its unidimensionality and convergent validity. All seven items offer acceptable estimates of the latent construct they were designed to assess, with the internal consistency of the scale estimated at .72.

5.10   Computation and analysis of composite scale scores

Having examined the scores on each hypothesised scale to confirm construct validity, the next step in the analysis was to compute a composite score for each scale or factor to be used as the measure of that construct or variable in the postulated structural model (cf. Section 5.10.1). The distributions of these composite scores were then examined to assess normality (cf. Section 5.10.2).

5.10.1   Computation of composite scale scores

Composite scores were computed for each of the MTV-VFI subscales, SEV subscales, BEN, SAT, CEV, and AOC by applying the appropriate pattern coefficient to each variable, or item, on the scale and summing these weighted scores (cf. 4.9.1.3 Computation of composite scale scores). The pattern matrix for each scale (sections 5.4 - 5.9) reports the pattern coefficient for each measured variable which contributes to a particular scale or factor. Descriptive statistics for these composite scale scores are reported in Table 5.12.

Throughout the General Linear Model (GLM), weights are applied to the scores on the measured, or observed, variables to obtain scores on the composite variables. In CFA and SEM, the weights applied to the measured variables to obtain scores on the factor analysis latent variables (called factor scores) are the pattern coefficients. These pattern coefficients, or weights, are analogous to the β weights in multiple regression (Thompson, 2004, p. 16).

Table 5.12   Descriptive statistics for composite scale scores ($N = 454$)

	Min	Max	*M*	*SD*	No. Items	Skew	*SE*	Kurt	*SE*
MTV-V	5.31	23.87	18.13	4.05	5	-.71	.12	.02	.23
MTV-U	3.57	24.99	16.21	5.05	5	-.36	.12	-.50	.23
MTV-E	3.72	26.04	13.94	5.73	5	.27	.12	-.84	.23
MTV-C	4.10	28.70	8.94	6.46	5	1.32	.12	.73	.23
MTV-S	3.54	24.78	11.40	5.38	5	.42	.12	-.66	.23
MTV-P	3.70	25.90	9.97	5.72	5	.91	.12	-.03	.23
MTV-Sum	25.64	148.36	78.57	24.61	30	.43	.12	-.31	.23
SEV-RC	4.18	23.38	18.81	3.92	4	-.92	.12	.82	.23
SEV-RV	5.53	14.63	12.98	1.74	3	-1.35	.12	2.03	.23
SEV-WC	6.40	22.12	19.21	2.90	4	-1.38	.12	2.03	.23
SEV-EA	5.01	18.48	15.36	2.50	4	-.76	.12	.45	.23
SEV-SA	2.99	20.93	18.17	2.91	4	-1.43	.12	2.43	.23
SEV-Sum	38.16	99.54	84.52	11.58	19	-1.14	.12	1.80	.23
BEN-Sum	3.48	17.40	12.50	2.84	6	-.58	.12	.08	.23
SAT-Sum	1.68	8.40	7.71	1.05	3	-2.18	.12	6.41	.23
CEV-Sum	1.50	10.50	8.98	1.59	2	-1.25	.12	1.70	.23
AOC-Sum	4.24	18.25	14.61	2.43	7	-.87	.12	.99	.23

5.10.2 Assessing normality

Descriptive statistics were examined to assess the normality of the distributions of the composite scale scores for each scale. This analysis was considered important since normality of scale scores is an underlying assumption of parametric tests of statistical inference used in this study. As noted in Chapter 4, Section 4.8.1, the General Linear Model (GLM) and Structural Equation Modelling (SEM) are quite robust in relation to deviations from normality.

Numerical estimates of skewness and kurtosis, together with their standard errors, were obtained using SPSS. These results are displayed in Table 5.12. Skewness and kurtosis values between -2 and +2 are considered satisfactory for most psychometric purposes as discussed in Chapter 4, Section 4.8.1 (Schumacker & Lomax, 2004, p. 69). All skewness values reported in Table 5.12 are between -2 and +2, except SAT-Sum (-2.177). All kurtosis values are between -2 and +2, except SEV-RV (2.028), SEV-WC (2.033), SEV-SA (2.432) and Sat-Sum (6.411). Given the "rule-of-thumb" criteria of values between -2 and +2, all distributions, except SEV-RV, SEV-WC, SEV-SA and SAT-Sum may be regarded as approximating sufficiently to normal distributions.

As discussed in Chapter 4 (cf. Section 4.9.3), the Maximum Likelihood (ML) method of estimation was used in this study as the appropriate method of model estimation as it is the most robust approach to the violation of normality assumptions (Alkadry, 2000 cited in; Brown Sr. et al., 2013). The deviations from normality in the composite scales reported above are few in number (4 scales out of 17) and the scale with the greatest deviation, SAT, has only three items. Based on the skewness and kurtosis values in Table 5.12, and the robustness of ML estimation, it was decided to regard the distributions for SEV-RV, SEV-WC, SEV-SA and SAT-Sum as approximating sufficiently to normal distributions also, following Curran et al.'s (1996) judgment that distributions whose skewness and kurtosis absolute values are not greater than 2 and 7 respectively are "moderately nonnormal". Indeed, Kline (2004) suggests that skewness values greater than the absolute value of 3 indicate non-normality, while kurtosis scores greater than 10 are problematic. Moreover, Tabachnick and Fidell (2007) indicate that larger samples may show significant skewness and/or kurtosis values, but often may not deviate enough from normal to make a meaningful difference in the analysis.

The composite scale scores for each of the MTV-VFI subscales, SEV subscales, BEN, SAT, CEV, and AOC reported in this section, together with the composite scale score for the MBM scale reported in Section 5.11.1, were used as indicators of the corresponding latent variables in constructing the measurement model presented in Section 5.12.

5.11   Development of the Motivation-Benefit Match (MBM) scale

The conceptual model adopted for this study links both motivation (MTV) and benefits (BEN) to the dependent variables satisfaction (SAT), affective organisational commitment (AOC) and sustained volunteering (SUV). This study hypothesises that these dependent variables are influenced by the match between the importance of a functional motivation and the achievement of the corresponding perceived benefit. This section reports how this motivation-benefit match (MBM) was operationalised for inclusion in the measurement model, and examines the properties of the six MBM scales which result from the six VFI factors. The computation of the derived variable motivation-benefit match (MBM) assumes that the MTV-VFI data for this study reflects the six-factor structure of the VFI as proposed by Clary and Snyder and makes use of composite scale scores for each of the MTV-VFI factors. The six-factor structure MTV-VFI data was confirmed earlier in this chapter (cf. Section 5.4) and the computation of composite scale scores was reported in Section 5.10.

5.11.1   Computation of Motivation-Benefit Match (MBM) scores

The data-analysis procedure outlined by Clary et al. (1998) was used to calculate the motivation-benefit match (MBM). Each participant's total or composite score on each MTV-VFI subscale was coded as "Above" or "Below" the mean for the entire sample indicating whether that particular motivation for each individual was of high or low importance. Thus, Participant A may be coded as "Above" the sample mean for *Social* motivations, indicating high importance, but "Below" the mean for *Career* motivations, indicating low importance, and so on for each factor. As a result of this procedure, each participant presents a profile of functional motivations as being of high or low importance, based on the six subscales of the VFI. Similarly, for each of the six items that assess the perceived benefits of volunteering, each participant's score on each Benefit item was coded as "Above" or "Below" the mean score on that item for the entire sample. Thus, Participant A may have perceived substantial (i.e., "Above the mean") relative *Values* benefit from their volunteer participation, and perceived little (i.e., "Below the mean") benefit in the area of *Understanding*. Again, each participant presents a profile of their achievement of functional outcomes (benefits) based on the six VFI subscales. Motivations were matched to their corresponding benefits, resulting in four dummy variables for each motivation-benefit combination or "match": high importance motivation with high achievement of benefit, high importance motivation with low achievement of benefit, low importance motivation with high achievement of benefit, and low importance motivation with low achievement of benefit.

To examine the "degree of match" of the six functional motivations and their corresponding benefits, a new variable motivation-benefit match (MBM) was calculated for each of the six VFI scales. A high importance-high achievement combination was assigned a score of 3

(indicating a "match"), and a high importance-low achievement combination was assigned a score of 1 (indicating a "mismatch"); a low importance-high achievement combination and a low importance-low achievement combination were each given a score of 2 (these combinations being regarded as indicating neither a "match" nor a "mismatch"). The four possible combinations of high/low motivation and high/low benefit for each of the VFI functional motivations are presented in matrix form in Table 5.13.

Table 5.13   Matrix for Motivation-Benefit Match for each VFI Functional Motivation

		Perceived Benefit	
		Low Benefit	High Benefit
VFI Motivation	High Motivation	(H, L) =1	(H, H) = 3
	Low Motivation	(L, L) = 2	(L, H) = 2

Descriptive statistics for each of the six new MBM variables are presented in Table 5.14.

Table 5.14   Descriptive statistics for six MBM scores and MBM-Sum scores (N = 454)

	Min	Max	*M*	*SD*	Skew	*SE*	Kurt	*SE*
MBM-Values	1	3	2.36	.67	-.56	.12	-.71	.23
MBM-Understanding	1	3	2.32	.66	-.45	.12	-.74	.23
MBM-Enhancement	1	3	2.33	.61	-.33	.12	-.65	.23
MBM-Career	1	3	2.23	.55	.05	.12	-.28	.23
MBM-Social	1	3	2.32	.61	-.31	.12	-.65	.23
MBM-Protective	1	3	2.27	.58	-.12	.12	-.51	.23
MBM-Sum	6	18	13.83	2.21	.19	.12	-.57	.23

To investigate the influence of the overall "match" of the six motivations and benefits, a new composite variable (MBM-Sum) was calculated by adding the scores for each of the six matches. Each match score has a range of 1 – 3; hence this "overall match" variable could range from 6 to 18. Descriptive statistics for MBM-Sum are also presented in Table 5.14.

5.11.2   *Validation of MBM scale*

To confirm the construct validity of the MBM scale, unidimensionality and convergent validity were investigated. While there are no hypothesised subscales, each MBM score is assumed to measure a discrete motivation-benefit match – a single-item scale, so discriminant validity of the MBM scores was also investigated.

Factor analysis of the MBM scale

To assess the suitability of the MBM data for factor analysis, sampling adequacy was first measured by the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test of Sphericity. The aggregate KMO for the six MBM variables was .74, while Bartlett's Test yielded an observed

significance level of .000 (Approx. χ^2 (15, N=454) = 303.40), indicating strong support for a factor analysis of the data.

Confirmatory factor analysis of the MBM scale items using LISREL 8.80 software supported the unidimensionality of the scale. Factor loadings ranged from .36 to .70 (Table 5.15) and fit indices indicate a very good fit to the data ($\chi^2 = 16.80$ ($df = 9$), $NFI = .96$, $CFI = .98$, $RMSEA = .044$, $.000 < CI < .076$). These fit indices are reported in Appendix 5G together with fit indices for other CFA models. This factor analysis of the MBM scale, together with the value of Cronbach's coefficient alpha (.64), reported in the following section, was considered sufficient to confirm the unidimensionality of the scale.

Table 5.15   LISREL Pattern Matrix for six MBM items (N = 454)

Item description	Factor 1
MBM-VALUES	.41
MBM-UNDERSTANDING	.63
MBM-ENHANCEMENT	.70
MBM-CAREER	.36
MBM-SOCIAL	.44
MBM-PROTECTIVE	.43

Convergent validity of MBM scale

As noted in Section 5.1, Cronbach's coefficient alpha (α) was chosen to assess convergent validity (internal consistency reliability) for the six scores comprising the MBM scale. The Cronbach's coefficient alpha for the MBM scale was .64. While this was below the criterion value of .70 as noted in Section 4.8.4.2 Scale validity and reliability, it was considered to indicate a sufficient degree of internal consistency reliability (Tabachnick & Fidell, 2007).

Although the reliability coefficient for the MBM scale was acceptable, item-total statistics were examined to see if reliability would be improved by removing one or more items from the scale. Item-total statistics for the MBM scale are tabulated in Appendix 5F (Table 5F.4). The reliability of the scale would be improved marginally (from .643 to .647) by removing the MBM-Career item, but this was considered negligible given that all six MBM scale items were required for use in the structural model so that the potential influence of all six motivation-benefit matches can be investigated. All six items in the scale were retained and included in the composite MBM score (MBM-Sum).

Discriminant validity of MBM scores

The relationships among the six MBM scores and the composite MBM score (MBM-Sum) were investigated using correlational analysis. The mean correlation of an MBM score with the other

MBM scores (*MCOS*) was used as a convenient index of scale discriminant validity. Table 5.16 reports the correlation of each MBM score with the other five scores and the composite MSM score (MBM-Sum). The significance of the correlations of the six MBM scores with each other indicates that there is some overlap between the MBM scores, as might be expected. And the significant relationships ($.51 < r < .70$) between each MBM score and the composite scale score (MBM-Sum) support the unidimensionality of the MBM scale. However, the discriminant validity for the six MBM scores, as indicated by *MCOS*, ranged from .19 to .30, supporting the use of the six MBM scores as indicators of discrete measures of motivation-benefit match, each corresponding to one of the six functional motivations measured by the VFI.

Table 5.16   Correlation of MBM scores and MBM scale ($N = 454$)

	MBMV	MBMU	MBME	MBMC	MBMS	MBMP	*MCOS*
MBM-Values	-	.23**	.26**	.06	.25**	.22**	.20
MBM-Understanding		-	.46**	.21**	.26**	.22**	.41
MBM-Enhancement			-	.24**	.27**	.27**	.30
MBM-Career			*	-	.09	.15**	.15
MBM-Social					-	.24**	.22
MBM-Protective						-	.22
MBM-Sum	.58**	.68**	.70**	.46**	.59**	.58**	-

** Correlation is significant at the 0.01 level (2-tailed).
MBM = Motivation-Benefit Match
MCOS = Mean Correlation with Other Scale Scores

Conclusion to validation of MBM scale

The above analyses have established the construct validity of the six-item MBM scale by demonstrating its unidimensionality and convergent validity. However, the evidence of discriminant validity for the six MBM scores supports the use of these scores as discrete measures of motivation-benefit match corresponding to the six functional motivations measured by the VFI.

5.11.3   Normality of MBM scores and MBM scale

To assess the normality of the MBM scores and the MBM scale, numerical estimates of skewness and kurtosis, together with their standard errors, were obtained using SPSS, as was done for other scales in Section 5.10.2. These results are displayed in Table 5.14. All skewness values and all kurtosis values are between -1 and +1. Given the criteria discussed in Section 5.10.2, each of the distributions of the scores on the six MBM scores and on the composite score MBM-Sum approximates, to a satisfactory degree, a normal distribution.

These MBM scores, in combination with the scales whose normality was examined in Section 5.10.2, meet the prerequisite for the multivariate analyses reported in later sections of this

chapter and Chapter 6, namely, that all of the variables must be univariate normal (J. P. Stevens, 2009).

5.12   Measurement model

As described in Chapter 4 (cf. Section 4.9.2) and reported in Section 5.10, composite scores were computed for each of the MTV-VFI subscales, SEV subscales, BEN, SAT, CEV, and AOC by applying the appropriate weight (pattern coefficient) to each variable, or item, on the scale and summing these weighted scores. A composite score was also computed for the derived variable MBM as reported in Section 5.11. These computed composite variables were used subsequently to construct congeneric measurement models, where each measure is associated with only one latent construct.

Following Munck (1979), as described in Chapter 4, Section 4.9.3, paths from observed composite variables to latent variables and error variances of observed composite variables were fixed using the formulae:

$$\lambda = \sqrt{\alpha} \qquad \text{and} \qquad \theta = 1 - \alpha.$$

where λ (lambda) is the loading of the path from the observed composite variable to the latent variable, α (Cronbach's alpha) is the reliability of the composite scale, and θ (theta) is the error variance of the observed composite variable. Table 5.17 reports the values of these variables for each of the composite indicator variables.

Table 5.17   Fixed path loadings (λ) and error variances (θ) for composite indicators

Construct/Variable	Label	α	λ (=$\sqrt{\alpha}$)	θ (=1-α)
MTV-VFI Values	Vsum	0.81	0.90	0.19
MTV-VFI Understanding	Usum	0.84	0.92	0.16
MTV-VFI Enhancement	Esum	0.86	0.93	0.14
MTV-VFI Career	Csum	0.91	0.95	0.09
MTV-VFI Social	Ssum	0.84	0.92	0.16
MTV-VFI Protective	Psum	0.86	0.93	0.14
MTV-VFI All VFI items	MTVsum	0.94	0.97	0.06
SE-RC	RCsum	0.90	0.95	0.10
SE-RV	RVsum	0.74	0.86	0.26
SE-WC	WCsum	0.87	0.93	0.13
SE-EA	EAsum	0.80	0.89	0.20
SE-SA	SAsum	0.83	0.91	0.17
Self-efficacy (SEV-Total)	SEVsum	0.94	0.97	0.06
Benefits (BEN)	BENsum	0.75	0.87	0.25
MTV-BEN Match (MBM)	MBMsum	0.64	0.80	0.36
Satisfaction (SAT)	SATsum	0.65	0.81	0.35
Collective efficacy (CEV)	CEVsum	0.73	0.85	0.27
Affective organisational commitment (AOC)	AOCsum	0.72	0.85	0.28

As reported in Chapter 4 (cf. Section 4.9.2.1), the measurement error, θ, for the single indicator (SV1_Yrs) of the construct intention to continue volunteering (SUV) was set at .25, which is the mean error residual identified by Andrews (1984) in a review of social science research. The R^2 for intention to continue volunteering increases when its error residual is set to a higher value, than when no measurement error is assumed ($\theta = .00$). However, the model fit statistics and path coefficients do not change with alterations to the value of this error residual.

The measurement model (for the hypothesised conceptual model) based on these composite scale indicators is represented in Figure 5.2; the X-model for the exogenous (independent) variables, and the Y-model for the endogenous (dependent) variables.

The measurement model was examined using the goodness-of-fit statistics selected in Chapter 4, Section 4.9.1 for assessing measurement models: the chi-square statistical significance test, i.e. chi-square (χ^2) with its corresponding *p*-value; the Normed Fit Index (*NFI*); the Root Mean Square Error of Approximation (*RMSEA*) with the 90% confidence interval for the *RMSEA*; and the Comparative Fit Index (*CFI*).

The initial RMSEA for the X-model was .096, and it was observed that "the Values, Understanding, Esteem, Career, Social and Protective components are correlated across MTV, BEN and MBM. Hence there is a case for adding correlated errors for those." (I. G. N. Darmawan, personal communication, e-mail, May 30, 2014). To improve the fit of the X-model, correlated errors were added for each functional component across each of MTV, BEN and MBM (e.g. MTV Values and BEN Values; MTV Values and MBM Values; and BEN Values and MBM Values). The resulting fit statistics suggested an acceptable fit of the X-model (cf. Table 5.18).

Table 5.18   Summary of fit statistics for the measurement model

	χ^2	df	p	NFI	RMSEA	RMSEA 90% CI	CFI
X-model	803.99	207	.00	.94	.08	.07 - .09	.96
Y-model	0.00	0	1.00		.00		
Threshold				> .90	< .08	< .08	> .90

NFI = Normed Fit Index
RMSEA = Root Mean Square Error of Approximation
CI = Confidence Interval
CFI = Comparative Fit Index

The chi-square value for the X-model was 803.99 (*df* = 207, *p* = .000). As this chi-square value is significant at the *p* < .05 level, it is regarded as indicating unsatisfactory model fit. Although large samples generally result in significant chi-square values, it is recommended that this statistic be reported, as detailed in Chapter 4, Section 4.9.1. The *RMSEA* was .08, with a 90% confidence interval (*CI*) between .07 and .09, indicating a reasonable fit. The NFI was .94 and

the *CFI* was .96; these two indices also indicate an acceptable fit of the model to the data. Given the use of fixed path loadings and error variances for each of the endogenous variables, the degrees of freedom of the Y-model were zero; $\chi^2 = 0.00$ ($df = 0$, $p = 1.00$); *RMSEA* = .00 (cf. Table 5.8).
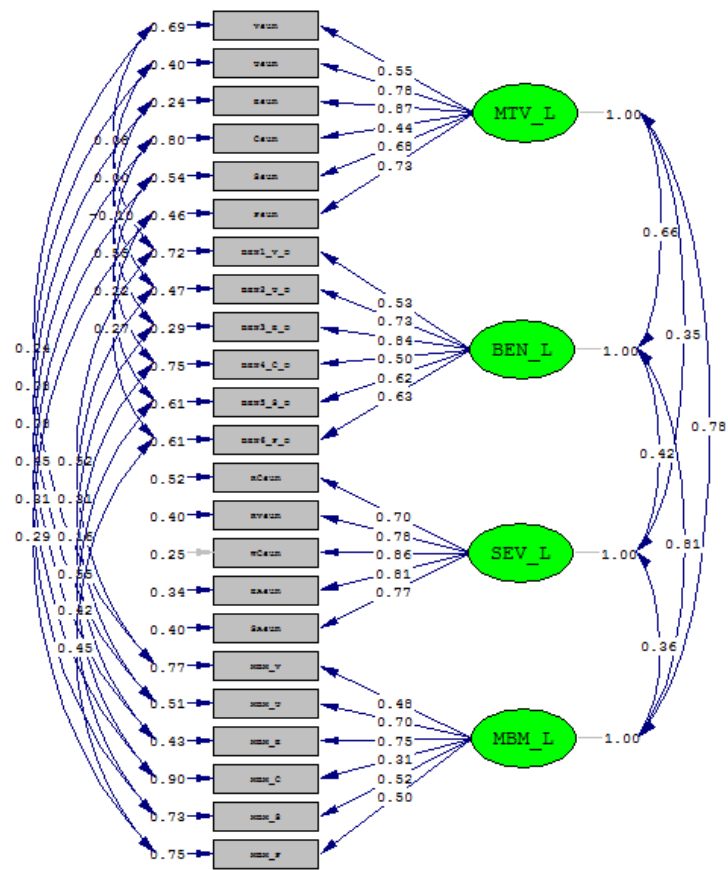
X-model
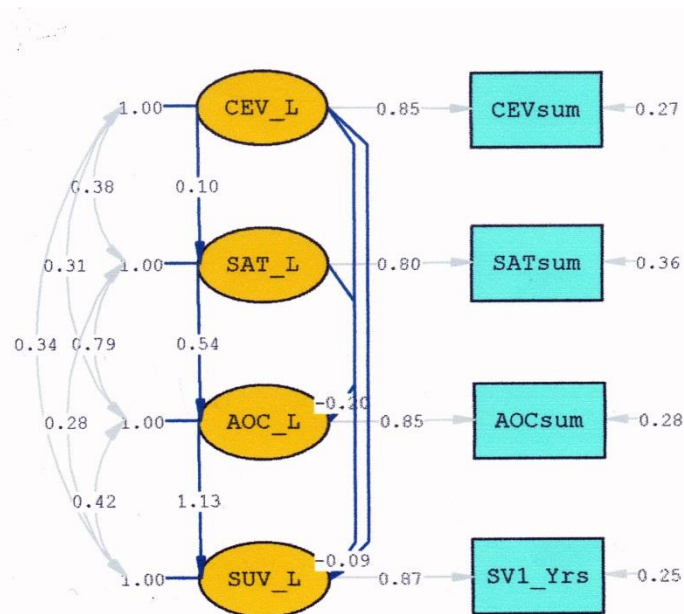
Y-model

Figure 5.2   Measurement model based on composite scale scores as indicators of latent variables

5.13 Chapter summary and conclusion

This chapter has verified the construct validity of each of the measures used in the postulated model for this study using confirmatory factory analysis (CFA). Composite scores were calculated for each of the measured variables and a new computed variable, motivation-benefit match. The distributions of these composite scores were examined for conformity to the assumptions of the statistical analyses used to test the postulated model: correlational analysis, multiple regression and structural equation modelling (SEM).

The measurement model for the postulated conceptual model was constructed using composite scale scores as indicators for the corresponding latent variables or factors, and the fit of this model was assessed using fit indices for measurement models identified in Chapter 4. This measurement model forms the basis of the structural model to be tested using structural equation modelling in Chapter 6.

Chapter Six - Testing the Conceptual Model – Structural Equation Modelling

6.1   Introduction

Data were collected from 454 volunteers in three community service organisations. Details of the sample frame were presented in Chapter 4 (cf. Section 4.4.2) and the profile of respondents in Chapter 5 (cf. Section 5.3). Chapter 5 also reports the data analyses attesting the validity and reliability of the measures used in this study and presents the SEM measurement model based on these measures.

The purpose of the present chapter is to report the use of these measures in a sample of community service organisations to facilitate the answering of the research question: How do dispositional and organisational factors influence sustained volunteering, that is, a volunteer's continued involvement with a community service organisation? Specifically, to what extent do the variables selected for this study – that is, motivation, self-efficacy, functional benefits, motivation-benefit match, satisfaction, collective efficacy and affective commitment to the organisation - taken individually or in combination, influence the sustained involvement of the volunteer? These variables were selected on the basis of their empirical support in the literature, their theoretical relevance, and their relevance to the volunteering context of the study, as discussed in Chapter 2 and Chapter 3. The hypothesised relationships are represented in the conceptual model developed in Chapter 3 (cf. Figure 3.5). Figure 6.1 represents this model. Figure 6.1 also includes a range of demographic and contextual variables included in this study as potential influences on sustained volunteering or other dependent variables. Section 6.2 examines the influence of the selected demographic and contextual variables on the four dependent variables, collective efficacy, satisfaction, affective organisational commitment, and sustained volunteering, with a view to incorporating significant influences explicitly in the model to be tested. Section 6.3 addresses the research questions answered and hypotheses tested in this chapter.

Section 6.4 reports the correlational analysis of the survey data as it relates to the hypothesised relationships represented in the conceptual model. Section 6.5 reports the analysis of the conceptual model using structural equation modelling (SEM). Based on the measurement model validated in Chapter 5, fit of the sample data to the conceptual model was first tested using SEM with multiple indicators (weighted composite subscale scores) for variables with established subscales and single indicators (weighted composite scores) for single scale variables. The SEM analysis of this model is reported in Section 6.5.1

A second SEM analysis was conducted using path analysis with the weighted composite sum as the indicator of each of the four multi-factor latent variables, MTV, BEN, SEV and MBM. As

in the first SEM analysis, a single weighted composite score was used as the indicator for the latent variables CEV, SAT and AOC, and SUV was measured by a single indicator. The results of this second SEM analysis are reported in Section 6.5.2.

A third SEM analysis of the hypothesised model was then conducted using path analysis with a latent variable corresponding to each scale or subscale of each of the exogenous variables, MTV, BEN, SEV and MBM, and with the weighted composite score as the single indicator for each of these latent variables. Again, a single weighted composite score was used as the indicator for the endogenous variables CEV, SAT and AOC, and SUV was measured by a single indicator. This third SEM analysis was used to determine the separate influence of each factor as distinct from the influence of the global construct, as required to answer the research questions posed for the present study. For example, in relation to Research Question 1, regarding volunteers "… who are motivated by a particular function(s) …", this third analysis enabled examination of the influence of motivation as a function of the six functional motivations as discrete variables as distinct from the influence of motivation in general, that is, all six functional motivations combined. The results of this third SEM analysis are reported in Section 6.5.3 and the comparison of these three a priori analyses is reported in Section 6.5.4.
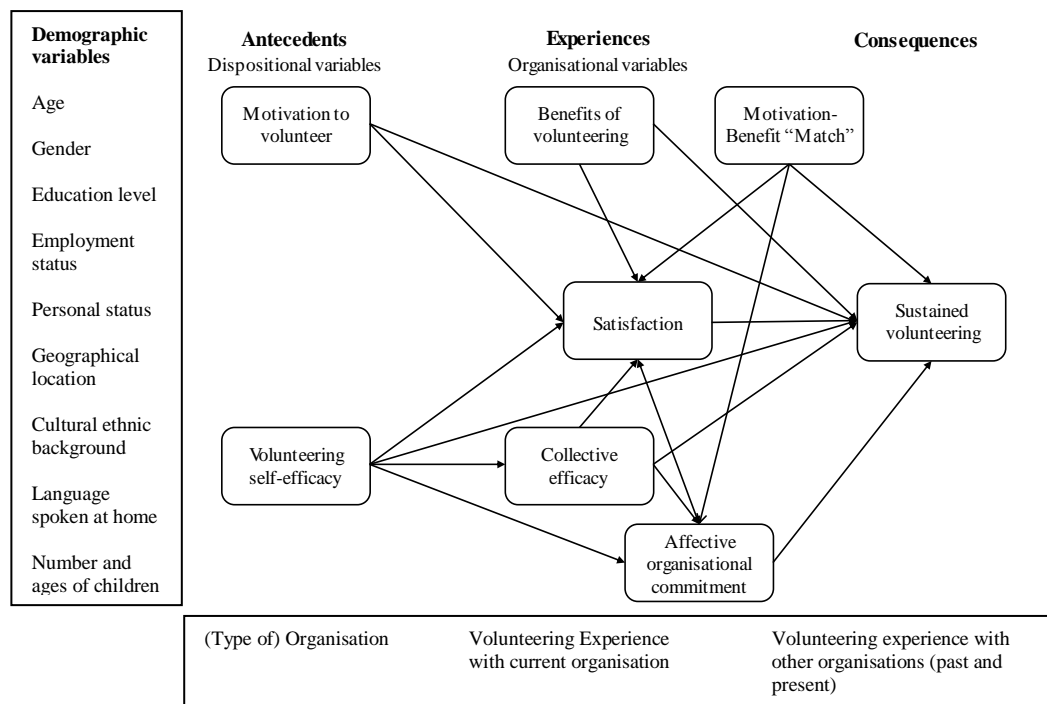
Figure 6.1   Conceptual model of influences on the sustained involvement of volunteers in community service organisations

NOTE: Figure 6.1 re-presents the conceptual model developed in Chapter 3 (cf. Figure 3.5).

To investigate possible improvements to the model, three approaches were adopted. First, modification indices for the two SEM analyses were examined in Sections 6.5.1, 6.5.2 and 6.5.3. Then the relationships between the measured variables were examined empirically, independently of the theoretical relationships hypothesised in the conceptual model (cf. Section 6.6). This ex post facto examination was twofold: correlation analysis and regression analysis. Correlational analysis of survey data reported in Section 6.4 was used to identify non-directional relationships or associations between pairs of variables which were not linked in the conceptual model. A "correlation model" was developed and analysed using SEM (Section 6.6.1). Directional influences, as indicated in the model, were investigated using regression analysis (Section 6.6.2). Because there are potentially several relationships involving the different variables and sustained volunteering, multivariate analysis was used to develop an empirical model so that net effects (that is, the effect of one variable on another when other influences are taken into account) could be estimated. A sequence of regression analyses was therefore conducted to build up an empirical post hoc "regression model" which was then analysed using SEM (Section 6.6.2). Section 6.7 presents a comparison of the SEM analyses of the conceptual and empirical models. Section 6.8 provides a summary of the chapter and conclusions.

6.2 Influence of demographics and measures of volunteer involvement on sustained volunteering

The contribution of demographic and contextual variables to previous research on sustained volunteering was reviewed in Chapter 3 (cf. Section 3.12). Although there was some contradictory evidence regarding the influence of particular demographic and contextual variables, a range of such variables were included in the present study. Hence, the first step in the model analysis was to investigate the relationships of the four endogenous (dependent) variables in the model, SAT, CEV, AOC and SUV, with demographic variables (age, gender, level of education, and location), and various indicators of volunteer involvement (years of volunteering experience, hours volunteered per month, frequency of volunteering, other current volunteering and previous volunteering) as independent variables. The purpose of this investigation was to identify additional direct influences which would give rise to additional hypotheses and be represented as new paths in the conceptual model.

As a first step, correlations of the demographic and contextual variables with each other and with the dependent variables were examined. These correlations are reported in Appendix 6A. To identify significant influences to be included in the conceptual model, a stepwise multiple regression analysis was then conducted to examine the significance of the demographic and contextual variables as predictors of each of the dependent (endogenous) variables in the model

(SAT, CEV, AOC, and SUV). Regression analysis is used when independent variables are correlated with each other and with the dependent variable. The results of these regressions are reported in detail in Appendix 6B, and the significant relationships are summarised in Table 6.1.

Table 6.1   Demographic and contextual variables as predictors of endogenous variables

	CEV	SAT	AOC	SUV
DEMOGRAPHICS				
Gender				-.15***
Age	.16***	.12***	.11*	
Level of education	-.18***		-.11*	-.14**
Location		-.16***		
VOLUNTEERING INVOLVEMENT				
Vol exp - years	.15***		.11*	
Current hours per month			.18***	.15***
Current frequency of volunteering	-.16***	-.19***	-.20***	

*** β value is significant at the $p < .001$ level.
** β value is significant at the $p < .01$ level.
* β value is significant at the $p < .05$ level.

The regression analyses indicated that these variables account for a very small amount of the variance (R^2); 6% or less, except for affective organisational commitment (AOC) which accounts for 13% of the variance in Volunteering Involvement. The variances accounted for in each case are reported in Appendix 6B and summarised in Table 6.2.

Table 6.2   Variance (R^2) accounted for by demographic and contextual variables

	CEV	SAT	AOC	SUV
DEMOGRAPHICS	.06	.04	.03	.04
VOLUNTEERING INVOLVEMENT	.06	.04	.13	.02

Furthermore, given the variation in the distribution of these independent variables across the three organisations, these results are likely to be affected by the particulars of the sample. (cf. Chapter 5, Section 5.3 and Appendices 5A and 5B). Table 6.3 provides illustrative examples of the range of values for these variables across the three organisations.

Table 6.3   Examples of the distribution of demographic and contextual variables

	SVDP (%)	RFS (%)	TBS (%)	TOTAL (%)
DEMOGRAPHICS				
Gender (M:F)	42:58	48:52	24:76	40:60
Age (yrs)				
30 years and under	22	35	4	22
56 years and over	60	28	70	51
Level of education				
Year 12 or below	67	63	40	59
Bachelor degree or higher	15	10	31	18
Location				
Metropolitan	20	25	96	41
Rural and regional	76	69	0	56
No response	4	6	4	4
VOLUNTEERING INVOLVEMENT				
Vol experience – Mean (yrs)	10 yrs	12 yrs	5 yrs	10 yrs
Current hours per month				
24 hours or less	59	69	100	13
More than 40 hours	17	13	0	12
Current frequency of volunteering				
Weekly	81	65	70	73
Less than once a month	2	7	3	4

The intent of the study was to focus on a broad conceptual model of sustained volunteering using a large sample of volunteers across a range of organisations. Given the limited amount of variance accounted for by these demographic and contextual variables, and their varied distribution across different organisations, it was considered problematic to include them in the model to be tested. It was considered that inclusion of these variables may detract from a clear focus on the personal and organisational characteristics which promote sustained volunteering. Non-inclusion of these variables may result in the loss of some power in the model – but the aim was to test a broad model using a broad cross-sectional sample of three organisations.

No additional research questions or hypotheses were introduced as a result of this analysis of demographic and contextual variables.

6.3 Research questions answered and hypotheses tested in this chapter

The research questions and hypotheses which are the focus of this study were enumerated in Chapter 3 (Sections 3.14 and 3.15.2) and Chapter 4 (Section 4.1). They are reproduced here in the context of their relationships with the paths in the model to be tested.

Research questions

The main research question is: How do dispositional and organisational factors influence sustained volunteering; that is, a volunteer's continued involvement with a community service organisation? In particular, to what extent do motivation, self-efficacy, perceived benefits, satisfaction, collective efficacy and affective commitment to the organisation, taken individually or in combination, influence the sustained involvement of the volunteer?

A number of subquestions have been identified. These subquestions, and the corresponding hypotheses represented in the conceptual model, are:

RQ1: How does a volunteer's motivation for volunteering influence their sustained volunteering? Are volunteers who are motivated by a particular function(s) more likely to continue their volunteering with the organisation? [# H2]

RQ2: How does a volunteer's belief in his/her ability to be an effective volunteer (self-efficacy for volunteering) influence their sustained volunteering? [# H14]

RQ3: How do the benefits received from volunteering influence a volunteer's sustained volunteering? [# H4]

RQ4: How does satisfaction with the volunteering experience influence a volunteer's sustained volunteering? [# H9]

RQ5: How does a volunteer's perception of the collective efficacy of the organisation influence a volunteer's sustained volunteering? [# H17]

RQ6: How does a volunteer's affective commitment to the organisation influence a volunteer's sustained volunteering? [# H10]

RQ7: How does the "match" between a volunteer's motivation and the benefits received influence a volunteer's sustained volunteering? [# H7]

Research subquestions RQ1 to RQ7 address the influence of each of the identified dispositional and organisational variables on sustained volunteering. A further question, RQ8, also investigates the combined influence of these variables.

RQ8: How do motivation, self-efficacy, benefits, satisfaction, collective efficacy, affective commitment to the organisation, and motivation-benefit "match" collectively influence sustained volunteering, either directly or indirectly?

Taken individually, the hypothesised influences of each of the independent or exogenous variables on each of the dependent or endogenous variables, and the influences of the endogenous variables among themselves, correspond to the pathways represented in the conceptual model.

Taken collectively, the influence of these variables on sustained volunteering is represented by the combined net effects of these influences; that is, the influence of each variable on sustained volunteering – and any intermediate variables - when the influence of other variables has been taken into account.

Hypotheses

The research questions that shape this investigation concern the strength and significance of the pathways that link the various constructs or measured variables to each other and to sustained volunteering, the volunteer's continued involvement with the organisation. These hypothesised pathways are represented in the conceptual model developed for this study (cf. Figure 6.1). The model represents satisfaction, collective efficacy, organisational commitment and sustained volunteering scales as dependent or endogenous variables. Motivation, self-efficacy, functional benefits, and motivation-benefit match are constructed as independent or exogenous variables. The pathways represented in the hypothesised conceptual model correspond to a series of hypotheses which are labelled H1 to H17 in Figure 6.2. Three examples of these hypotheses are:

H7.   Volunteers who receive functionally relevant benefits are more likely to continue volunteering with the organisation.

H9.   Volunteers who express satisfaction with their volunteering experience are more likely to continue volunteering with the organisation.

H10. Affective organisational commitment is significantly related to sustained volunteering.

All 17 hypotheses are listed in Table 6.4.

Table 6.4   Hypotheses

#		Hypothesis
H1	MTV →SAT	Volunteers' functional motivations are related to satisfaction with the volunteering experience.
H2	MTV →SUV	Volunteers' functional motivations are related to sustained volunteering.
H3	BEN → SAT	Volunteers' perceived benefits are related to satisfaction with the volunteering experience.
H4	BEN → SUV	Volunteers' perceived benefits are related to sustained volunteering.
H5	MBM → SAT	Volunteers who receive functionally relevant benefits are more likely to be satisfied with the volunteer experience.
H6	MBM → AOC	Volunteers who receive functionally relevant benefits are more likely to express affective commitment to the organisation.
H7	MBM → SUV	Volunteers who receive functionally relevant benefits are more likely to continue volunteering with the organisation.
H8	SAT → AOC	Volunteers who express satisfaction with their volunteering experience are more likely to express affective commitment to the organisation.
H9	SAT → SUV	Volunteers who express satisfaction with their volunteering experience are more likely to continue volunteering with the organisation.
H10	AOC → SUV	Affective organisational commitment is significantly related to sustained volunteering.
H11	SEV → CEV	Self-efficacy for volunteering is related to the perceived collective efficacy of the organisation.
H12	SEV → SAT	Self-efficacy for volunteering is significantly related to volunteer satisfaction.
H13	SEV → AOC	Self-efficacy for volunteering is significantly related to affective organisational commitment.
H14	SEV → SUV	Self-efficacy for volunteering is significantly related to sustained volunteering.
H15	CEV → SAT	Perceived collective efficacy of the organisation is significantly related to volunteer satisfaction.
H16	CEV → AOC	Perceived collective efficacy of the organisation is significantly related to affective organisational commitment.
H17	CEV → SUV	Perceived collective efficacy of the organisation is significantly related to sustained volunteering.

Correlation analysis was used initially to examine the hypothesised (non-directional) relationships between the variables (cf. Section 6.4). In order to test all these hypotheses simultaneously, the SEM analysis needs to be completed. The results of this hypothesis testing are presented in Section 6.5.
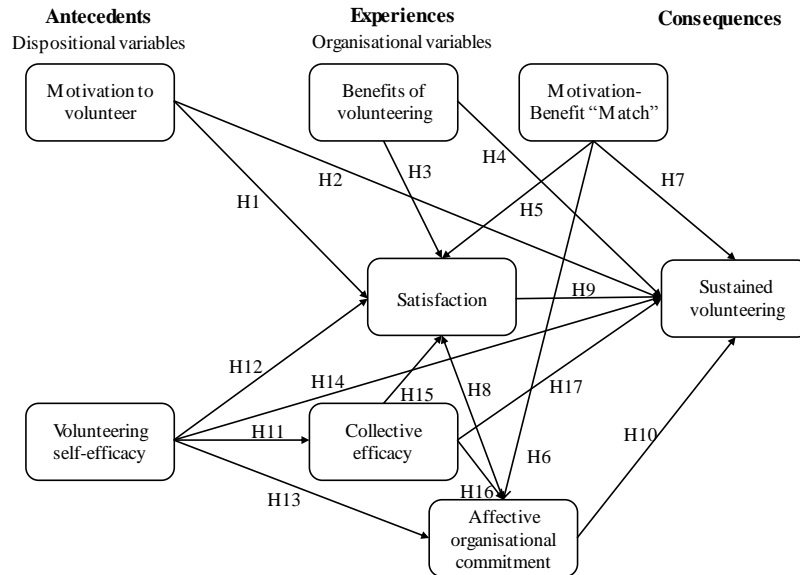
Figure 6.2   Conceptual model of influences on the sustained involvement of volunteers in community service organisations – with hypothesised influences labelled

6.4   Correlation analysis

Correlational analysis of survey data was used to examine the non-directional relationships or associations between pairs of variables which are linked in the conceptual model. Table 6.5 records the mean and standard deviation for each of the measured variables (MVs) in the model and the Pearson correlation coefficients for the associations between those variables. The standard deviations of the variables are included so that the covariance matrix used in the structural equation modelling (SEM) reported later in this chapter can be recovered for use in further analyses (Hoyle, 1995b, p. 161). These standard deviations and correlation coefficients are reported rounded to three decimal places, rather than the customary two, to ensure that any subsequent data analyses can take full advantage of the precision offered by SEM computer programs.

Table 6.5 shows that 89 of the 114 non-redundant cells produce significant ($p < .05$) correlations. These 89 cells include all the relationships hypothesised in the conceptual model (H1 to H17), as summarised in Table 6.6, and five additional relationships not postulated in the model. These additional relationships are labelled HA to HE in Table 6.6 and are examined in Section 6.6.1.

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Table 6.5   Pearson correlations of indicator variables with dependent variables (N=454)

Variable	*M*	*SD*	SAT	CEV	AOC	SUV
MTV-Values	18.13	4.05	.169**	.357**	.367**	.049
MTV-Understanding	16.21	5.05	.145**	.281**	.329**	.057
MTV-Enhancement	13.94	5.73	.072	.278**	.276**	.062
MTV-Career	8.94	6.46	.033	.081	.147**	.014
MTV-Social	11.40	5.38	.056	.260**	.284**	.162**
MTV-Protective	9.97	5.72	-.018	.207**	.241**	.034
MTV-Sum	78.57	24.61	.091	.308**	.349**	.081
BEN-Values	4.00	1.05	.530**	.344**	.499**	.099*
BEN-Understanding	3.80	1.18	.325**	.232**	.366**	.018
BEN-Enhancement	3.87	1.13	.396**	.255**	.499**	.071
BEN-Career	2.25	1.41	.119**	.108*	.232**	.027
BEN-Social	3.76	1.14	.375**	.318**	.472**	.173**
BEN-Protective	3.37	1.38	.197**	.194**	.351**	.040
BEN-Sum	12.50	2.84	.476**	.354**	.597**	.100*
MBM-Values	2.36	.67	.279**	.250**	.365**	.116*
MBM-Understanding	2.32	.66	.185**	.216**	.263**	.061
MBM-Enhancement	2.33	.61	.235**	.242**	.299**	.027
MBM-Career	2.23	.55	.083	.098*	.154**	-.033
MBM-Social	2.32	.61	.242**	.262**	.356**	.092
MBM-Protective	2.27	.58	.132**	.169**	.228**	.018
MBM-Sum	13.83	2.21	.326**	.348**	.467**	.082
SEV-RC	18.81	3.92	.352**	.524**	.415**	.073
SEV-RV	12.98	1.74	.328**	.578**	.414**	.096*
SEV-WC	19.21	2.90	.296**	.546**	.402**	.179**
SEV-EA	15.36	2.50	.252**	.547**	.404**	.084
SEV-SA	18.17	2.91	.381**	.671**	.495**	.217**
SEV-Sum	84.52	11.58	.393**	.688**	.515**	.157**
SAT	7.71	1.05	1.000	.496**	.513**	.195**
CEV	8.98	1.59	.496**	1.000	.520**	.226**
AOC	14.61	2.43	.513**	.520**	1.000	.306**
SUV	4.31	1.03	.195**	.226**	.306**	1.000

** Correlation is significant at the .01 level (2-tailed).

 * Correlation is significant at the .05 level (2-tailed).

Motivation to Volunteer (MTV)

This section reports the relationships of motivation to volunteer (MTV) with satisfaction (SAT), sustained volunteering (SUV), affective organisational commitment (AOC) and collective efficacy (CEV).

Motivation and Satisfaction

H1. Volunteers' functional motivations are related to satisfaction with the volunteering experience.

Correlational analysis indicated that the functional motivations of Values ($r = .169$, $p < .01$) and Understanding ($r = .145$, $p < .01$) were significantly related to satisfaction with the volunteering experience (SAT), while the other four functional motivations measured by the Volunteer Functions Inventory (VFI) and the total VFI score were not significantly related to satisfaction.

Motivation and Sustained Volunteering

H2. Volunteers' functional motivations are related to sustained volunteering.

Of the six functional motivations measured by the VFI, only MTV-Social was significantly related to sustained volunteering (SUV) ($r = .162$, $p < .01$).

Benefits of Volunteering (BEN)

This section reports the relationships of benefits of volunteering (BEN) with satisfaction (SAT), sustained volunteering (SUV), affective organisational commitment (AOC) and collective efficacy (CEV).

Benefits of Volunteering and Satisfaction

H3. Volunteers' perceived benefits are related to satisfaction with the volunteering experience.

Each of the six functional benefits was significantly related to satisfaction with volunteering at the $p < .01$ level: Values ($r = .530$), Understanding ($r = .325$), Enhancement ($r = .396$), Career ($r = .119$), Social ($r = .375$), and Protective ($r = .197$). Total Benefit of volunteering (BEN-Sum) was also significantly related to satisfaction with volunteering ($r = .476$, $p < .01$).

Benefits of Volunteering and Sustained Volunteering

H4. Volunteers' perceived benefits are related to sustained volunteering.

Total perceived benefits of volunteering (BEN-Sum) were significantly related to sustained volunteering ($r = .100$, $p < .05$). Of the six functional benefits, only two - Values benefits ($r = .099$, $p < .05$), and Social benefits ($r = .173$, $p < .01$) - were significantly related to sustained volunteering.

Motivation-Benefit Match (MBM)

This section reports the relationships of motivation-benefit match (MBM) with satisfaction (SAT), affective organisational commitment (AOC), sustained volunteering (SUV) and collective efficacy (CEV).

Motivation-Benefit Match and Satisfaction

H5.   Volunteers who receive functionally relevant benefits are more likely to be satisfied with the volunteer experience.

Correlation analysis indicated that volunteers whose motives matched their perceived benefits were more likely to be satisfied with the volunteering experience. Correlations were significant at the $p < .01$ level for Values ($r = .279$), Understanding ($r = .185$), Enhancement ($r = .235$), Social ($r = .242$), Protective ($r = .132$), and total motivation-benefit match score ($r = .326$), and at the $p < .05$ level for Career ($r = .098$) motivation.

Motivation-Benefit Match and Affective Commitment

H6.   Volunteers who receive functionally relevant benefits are more likely to express affective commitment to the organisation.

Volunteers whose motives matched their perceived benefits were more likely to express affective commitment to the organisation for all six motivations measured by the VFI: Values ($r = .365, p < .01$), Understanding ($r = .263, p < .01$), Enhancement ($r = .299, p < .01$), Career ($r = .154, p < .01$), Social ($r = .356, p < .01$), and Protective ($r = .228, p < .01$) – as well as the total motivation-benefit match score ($r = .467, p < .01$).

Motivation-Benefit Match and Sustained Volunteering

H7.   Volunteers who receive functionally relevant benefits are more likely to continue volunteering with the organisation.

The match between motivations and perceived benefits was significantly related to sustained volunteering for Values ($r = .114, p < .05$) only.

Satisfaction with the volunteering experience (SAT)

This section reports the relationships of satisfaction with the volunteering experience (SAT) with affective organisational commitment (AOC) and sustained volunteering (SUV).

Satisfaction and Affective Commitment

H8.   Volunteers who express satisfaction with their volunteering experience are more likely to express affective commitment to the organisation.

Satisfaction with the volunteering experience (SAT) was significantly related to affective organisational commitment (AOC) ($r = .513, p < .01$).

Satisfaction and Sustained volunteering

H9.   Volunteers who express satisfaction with their volunteering experience are more likely to continue volunteering with the organisation.

Satisfaction with the volunteering experience was significantly related to sustained volunteering ($r = .195$, $p < .01$).

Affective Organisational Commitment (AOC)

This section reports the relationship of Affective organisational commitment (AOC) and Sustained volunteering (SUV).

H10. Affective organisational commitment is significantly related to sustained volunteering. Affective commitment to the organisation was significantly related to sustained volunteering ($r = .306$, $p < .01$)

Self-efficacy for Volunteering (SEV)

This section reports the relationships of self-efficacy for volunteering (SEV) with Collective efficacy of the organisation (CEV), satisfaction with the volunteering experience (SAT), Affective organisational commitment (AOC) and Sustained volunteering (SUV).

Self-efficacy and Collective efficacy

H11. Self-efficacy for volunteering is related to the perceived collective efficacy of the organisation.

All five dimensions of self-efficacy for volunteering were significantly related to the collective efficacy of the organisation: Relationships with clients ($r = .524$, $p < .01$), Relationships with volunteers ($r = .578$, $p < .01$), work competence ($r = .546$, $p < .01$), empathetic action ($r = .547$, $p < .01$), and Social awareness ($r = .671$, $p < .01$) – as was the total self-efficacy score ($r = .688$, $p < .01$).

Self-efficacy and Satisfaction

H12. Self-efficacy for volunteering is significantly related to volunteer satisfaction.

All five dimensions of self-efficacy for volunteering were significantly related to satisfaction with the volunteering experience: Relationships with clients ($r = .352$, $p < .01$), Relationships with volunteers ($r = .328$, $p < .01$), work competence ($r = .296$, $p < .01$), empathetic action ($r = .252$, $p < .01$), and Social awareness ($r = .381$, $p < .01$) – along with the total self-efficacy score ($r = .393$, $p < .01$).

Self-efficacy and Affective organisational commitment

H13. Self-efficacy for volunteering is significantly related to affective organisational commitment.

All five dimensions of self-efficacy for volunteering were significantly related to affective organisational commitment: Relationships with clients ($r = .415$, $p < .01$), Relationships with volunteers ($r = .414$, $p < .01$), work competence ($r = .402$, $p < .01$), empathetic action ($r = .404$, $p < .01$), and Social awareness ($r = .495$, $p < .01$) - as was the total self-efficacy score ($r = .515$, $p < .01$).

Self-efficacy and Sustained volunteering

H14. Self-efficacy for volunteering is significantly related to sustained volunteering.

Volunteers with higher scores on the work competence dimension of self-efficacy were more likely to continue volunteering with the organisation ($r = .179$, $p < .01$), as were volunteers who scored highly on the Social awareness dimension ($r = .217$, $p < .01$) and the Relationships with volunteers dimension ($r = .096$, $p < .05$), as well as those with a higher total self-efficacy score ($r = .157$, $p < .01$); but the remaining two dimensions of self-efficacy – Relationships with clients and empathetic action – were not significantly related to sustained volunteering.

Collective Efficacy of the Volunteer organisation (CEV)

This section reports the relationships of Collective efficacy of the volunteering organisation (CEV) with satisfaction with the volunteering experience (SAT), Affective organisational commitment (AOC) and Sustained volunteering (SUV).

Collective efficacy and Satisfaction with the volunteering experience

H15. Perceived collective efficacy of the organisation is significantly related to volunteer satisfaction.

Stronger perceptions of the collective efficacy of the organisation were associated with higher levels of satisfaction ($r = .496$, $p < .01$).

Collective efficacy and Affective organisational commitment

H16. Perceived collective efficacy of the organisation is significantly related to affective organisational commitment.

The collective efficacy of the organisation was significantly related to affective organisational commitment ($r = .520$, $p < .01$).

Collective efficacy and Sustained volunteering

H17. Perceived collective efficacy of the organisation is significantly related to sustained volunteering.

The collective efficacy of the organisation was significantly related to sustained volunteering ($r = .226$, $p < .01$).

Summary of correlational analysis

All 17 postulated paths (in the conceptual model) represent significant relationships between the pairs of variables linked by those paths. In each case, a single indicator variable (e.g. MTV-Sum, and/or one or more of its composite indicator variables, correlates significantly with the paired latent variable. The significant correlations associated with each hypothesis are summarised in Table 6.6. As mentioned previously, the five additional relationships suggested by the correlation analysis are labelled HA to HE and shaded in Table 6.6. They are further examined in Section 6.6.1.

Table 6.6   Summary of significant correlations by hypothesis

(Significant correlations additional to the conceptual model are labelled HA to HE and shaded.)

#	Hypothesis	Single indicator variable	Composite variables
H1	MTV →SAT	MTV-Sum - ns	MTV-V**, MTV-U**
H2	MTV →SUV	MTV-Sum - ns	MTV-S**
HA	MTV → AOC	MTV-Sum**	MTV-V, U, E, C, S, P – all 6**
HB	MTV → CEV	MTV-Sum**	MTV-V, U, E, S, P – all 5** BEN-C^{ns}
H3	BEN → SAT	BEN-Sum**	BEN-V, U, E, C, S, P – all 6**
H4	BEN → SUV	BEN-Sum**	BEN-V*, BEN-S**
HC	BEN → AOC	BEN-Sum**	BEN-V, U, E, C, S, P – all 6**
HD	BEN → CEV	BEN-Sum**	BEN-V, U, E, S, P – all 5** BEN-C*
H5	MBM → SAT	MBM-Sum**	MBM-V, U, E, S, P – all 5** MBM-C^{ns}
H6	MBM → AOC	MBM-Sum**	MBM-V, U, E, C, S, P – all 6**
H7	MBM → SUV	MBM-Sum - ns	MBM-V*
HE	MBM → CEV	MBM-Sum**	MBM-V, U, E, S, P – all 5** MBM-C*
H8	SAT → AOC	SAT-Sum**	Not applicable
H9	SAT → SUV	SAT-Sum**	Not applicable
H10	AOC → SUV	AOC-Sum**	Not applicable
H11	SEV → CEV	SEV-Sum**	SEV-RC, RV, WC, EA, SA – all 5**
H12	SEV → SAT	SEV-Sum**	SEV-RC, RV, WC, EA, SA – all 5**
H13	SEV → AOC	SEV-Sum**	SEV-RC, RV, WC, EA, SA – all 5**
H14	SEV → SUV	SEV-Sum**	SEV-WC, SA**, SEV-RV*, SEV-RC^{ns}, EA^{ns}
H15	CEV → SAT	CEV-Sum**	Not applicable
H16	CEV → AOC	CEV-Sum**	Not applicable
H17	CEV → SUV	CEV-Sum**	Not applicable

ns = not significant   * $p < .05$ ** $p < .01$

6.5   *Testing the Conceptual Model – SEM analysis*

This section reports the results of SEM for the hypothesised conceptual model. In the conceptual framework, the volunteer process unfolds over time as antecedents-stage variables give way to experiences-stage variables, which, in turn, lead to the consequences of volunteering. In this investigation, four constructs were identified as independent variables: two at the antecedents stage - motivation to volunteer (MTV) and self-efficacy for volunteering (SEV) – and two at the experiences stage – benefits of volunteering (BEN) and the derived construct motivation-benefit match (MBM). These four independent variables were hypothesised to influence constructs at the experiences and consequences stages: satisfaction with the volunteering experience (SAT), collective efficacy of the volunteering organisation (CEV), affective commitment to the organisation (AOC), and sustained volunteering (SUV).

Because there are potentially several relationships involving these variables, it was important to use multivariate analysis so that net effects (that is, the effect of one variable on another when other influences are taken into account) can be estimated. The conceptual model encompasses several regression analyses which are specified in the structural equation modelling (SEM) framework. Structural equation modelling (SEM) then allows for the simultaneous estimation of these regression analyses.

Based on the measurement model validated in Chapter 5, the conceptual model was tested using the SEM software program LISREL 8.80, (Jöreskog & Sörbom, 2006). This completely specified model of the volunteer process was tested in three ways:

1. using multiple indicators (weighted composite subscale scores) for variables with established subscales and single indicators (weighted composite scores) for single scale variables. Weighted composite sub-scale or factor scores were used as indicators for the four multi-factor latent variables, motivation to volunteer (MTV), benefits of volunteering (BEN), self-efficacy for volunteering (SEV) and motivation-benefit match (MBM). A single weighted composite score was used as the indicator for the latent variables collective efficacy (CEV), satisfaction (SAT) and affective organisational commitment (AOC). The latent variable sustained volunteering (SUV) was measured by a single indicator as discussed in Chapter 4 (cf. Section 4.9.2.1). The results of this first SEM analysis, Model #1, are reported in Section 6.5.1.

2. using path analysis with the weighted composite sum as the indicator of each of the four multi-factor latent variables, MTV, BEN, SEV and MBM. As in the first SEM analysis, a single weighted composite score was used as the indicator for the latent variables CEV, SAT and AOC, and SUV was measured by a single indicator. The results of this second SEM analysis, Model #2, are reported in Section 6.5.2.

3. using path analysis with a latent variable corresponding to each subscale of each exogenous variable, MTV, BEN, SEV and MBM, and with the weighted composite score as the single indicator for each of these latent variables. Again, a single weighted composite score was used as the indicator for the endogenous variables CEV, SAT and AOC, and SUV was measured by a single indicator. As described in Section 6.1, this third SEM analysis was used to determine the separate influence of each factor as distinct from the influence of the global construct. The results of this third SEM analysis, Model #3, are reported in Section 6.5.3.

The LISREL SEM analyses based on the conceptual model generated modification indices listing additional relationships which would improve the fit of the model (cf. Chapter 4, Section 4.9.5). These modification indices were examined in each case to assess their plausibility on

theoretical grounds and their impact if added to the relevant model. As discussed in Chapter 4, Section 4.9.3, the structural model to be tested in this study is recursive; it was decided to eschew non-recursive models in the present study as model specification can be problematic when using cross-sectional data, as used in this study (Groenland & Stalpers, 2012, p. 27). Consequently, any modification indices whose adoption would result in a non-recursive model were not included.

6.5.1 *SEM analysis – multiple indicators for latent variables [Model #1]*

SEM analysis of the hypothesised model was conducted using multiple indicators (weighted composite subscale scores) for variables with established subscales and single indicators (weighted composite scores) for single scale variables. The LISREL path diagram for this analysis is shown in Figure 6.3.

<u>Fit indices</u>

The model structure was examined using the goodness-of-fit statistics selected in Chapter 4, Section 4.9.5 for assessing structural models: the chi-square statistical significance test, i.e. chi-square (χ^2) with its corresponding *p*-value; Root Mean Square Error of Approximation (*RMSEA*); 90% confidence interval of the *RMSEA*; Standardised Root Mean Square Residual (*SRMR*); and the Comparative Fit Index (*CFI*). These fit statistics suggested an acceptable fit (cf. Table 6.8). The chi-square value for the tested model was 1094.60 (*df* = 288, *p* = .000). As this chi-square value is significant at the *p* < .05 level, it is regarded as indicating unsatisfactory model fit. Although large samples generally result in significant chi-square values, it is recommended that this statistic be reported, as detailed in Chapter 4, Section 4.9.5. The *RMSEA* was .079, with a 90% confidence interval (*CI*) between .07 and .08, indicating a reasonable fit. The *SRMR* was .079, which was just below the upper threshold of .08, and the *CFI* was .95; these two indices also indicate an acceptable fit of the model to the data.

Figure 6.3 **Structural model for sustained volunteering based on the conceptual model of sustained volunteering developed for this study with multiple indicators for independent variables (standardised coefficients)**

SEM analysis generates modification indices, which suggest additional relationships which would improve model fit (cf. Chapter 4, Section 4.9.5). The modification indices identified in the current analysis (Model #1) were examined as possible improvements to model fit.

Modification of the model based on LISREL analysis

Modification indices in the LISREL SEM output suggested five additional paths linking the latent variables in the model: AOC → CEV, SAT → CEV, MBM → CEV, BEN → CEV, and BEN → AOC. The decrease in Chi-square ($\Delta\chi^2$) and the resulting new estimate in each case are shown in Table 6.7.

Table 6.7   Additional paths suggested by modification indices – Model #1

Path	$\Delta\chi^2$	New estimate
AOC → CEV	32.5	.58
SAT → CEV	22.6	.44
MBM → CEV	22.5	.28
BEN → CEV	17.4	.24
BEN → AOC	14.2	.47

The inclusion of model modifications identified by SEM analysis must be justified on theoretical grounds rather than empirical grounds alone. The additions to the model suggested by the modification indices were examined to assess their theoretical relevance and their potential to add value to the initial model.

Two of the paths suggested by the modification indices, AOC to CEV and SAT to CEV, would result in a non-recursive model, as paths from CEV to AOC and CEV to SAT are already included. As it had been decided to eschew non-recursive models in the present context (cf. Chapter 4, Section 4.9.3), these two non-recursive paths were not included in the recursive model being tested.

Modification indices also suggest a direct influence of motivation-benefit match (MBM) on CEV. This influence was not hypothesised in the original model. Rather, MBM was expected to influence directly SAT, AOC and SUV. Given the focus on both MBM and CEV in this study and the limited research on CEV related to volunteering (cf. Chapter 3, Section 3.11), it seemed reasonable to explore this connection in the present study.

The original model hypothesised that benefits (BEN) would directly influence satisfaction (SAT) and sustained volunteering (SUV), and influence affective organisational commitment (AOC) only indirectly through satisfaction (SAT). These modification indices suggest a direct influence of BEN on both AOC and CEV which is plausible given the relationships between these variables as examined in the literature (cf. Chapter 3, Sections 3.8, 3.10, 3.11).

Accordingly, paths from MBM to CEV, BEN to CEV and BEN to AOC were added progressively to the model and the SEM analysis repeated. These paths correspond to three of the five additional relationships identified by correlational analysis: HE, HD and HC respectively (cf. Sections 6.4 and 6.6.1). The resulting fit indices, together with the fit indices of the initial model 1, are shown in Table 6.8.

Table 6.8   Fit statistics for Model #1 and modifications

Model	Actions	χ^2	df	$\Delta\chi^2$	Δdf	RMSEA	CI	SRMR	CFI
1 (Initial)		1094.60	288			.079	.07-.08	.079	.95
1.1 (1st modification)	Path MBM → CEV	1080.32	287	14.28	1	.078	.07-.08	.076	.95
1.2 (2nd modification)	Path BEN → CEV	1080.23	286	.09	1	.078	.07-.08	.076	.95
1.3 (Final)	Path BEN → AOC	1061.76	285	18.47	1	.078	.07-.08	.077	.95

RMSEA = Root Mean Square Error of Approximation
CI = 90% Confidence Interval for *RMSEA*
SRMR = Standardised Root Mean Square Residual
CFI = Comparative Fit Index

Fit indices for the modified model

Based on the fit statistics selected for structural models in Chapter 4, Section 4.9.5, the LISREL analysis of the modified recursive model (Model #1.3), as shown in Figure 6.4, revealed a satisfactory fit to the data (cf. Table 6.8). The chi-square value for the tested model was 1061.76 (df = 285, p = .000). As this chi-square value is significant at the p < .05 level, it is regarded as indicating unsatisfactory model fit.

The *RMSEA* was .078, with a 90% confidence interval (*CI*) between .07 and .08; values of RMSEA below .08 with a confidence level upper limit less than .08 indicate a well-fitting model (cf. Chapter 4, Section 4.9.5). The *SRMR* was .077 which was below the upper threshold of .08. Together with the *CFI* of .95, these indices also indicate a satisfactory fit of the model to the data.

The addition of these last two paths, BEN to CEV and BEN to AOC, did not significantly improve the fit of the modified model, but they were retained as they corresponded to two of the significant correlations identified by the correlational analysis but which were not included as hypotheses in the initial conceptual model.

Chi-Square=1061.76   df=285   P-value=0.000   RMSEA=0.078
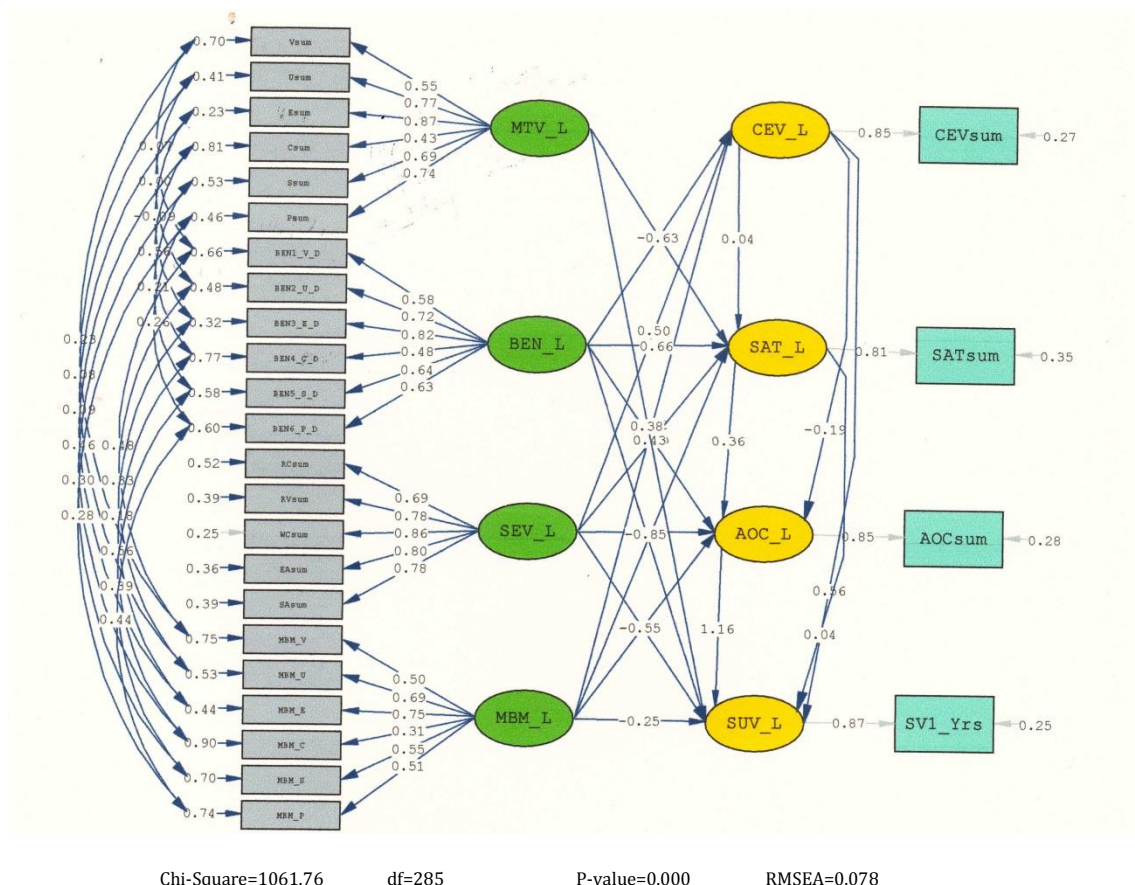
Figure 6.4   Structural model for sustained volunteering based on analysis of the conceptual model developed for this study with three additional paths identified in the LISREL analysis – Model #1.3 (standardised coefficients)

Table 6.9 lists, by hypothesis, the standardised coefficients (loadings) of each path in the structural model represented in Figure 6.4 with its corresponding *t*-value and level of significance. These hypotheses and their corresponding path coefficients are shown in Figure 6.5. By way of comparison and contrast, significant paths only are shown in Figure 6.6.

It will be noted in Table 6.9 that the standardised coefficient for the path from AOC to SUV is greater than one in magnitude. This is not a problem and, indeed, this can happen for any factor loading or structural coefficient in any LISREL model as the factor loadings are regression coefficients and not correlations, as in exploratory factor analysis (Jöreskog, 1999).

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Table 6.9   Hypotheses testing results based on SEM analysis of Model #1.3 (N = 454)
(Standardised path coefficients, with *t*-values and levels of significance.)

(Additional paths based on modification indices are labelled HC to HE and shaded.)

#	Hypothesis	Path Coefficient	*t*-value
H1	MTV →SAT	-.64***	-6.41
H2	MTV →SUV	.38*	2.47
H3	BEN → SAT	.66***	6.25
H4	BEN → SUV	-.85***	-4.11
HC	BEN → AOC	.43***	4.16
HD	BEN → CEV	.08^{ns}	.80
H5	MBM → SAT	.28*	2.00
H6	MBM → AOC	.07^{ns}	.71
H7	MBM → SUV	-.25^{ns}	-1.42
HE	MBM → CEV	.22*	2.19
H8	SAT → AOC	.36***	4.78
H9	SAT → SUV	.05^{ns}	.23
H10	AOC → SUV	1.16***	4.29
H11	SEV → CEV	.50***	8.75
H12	SEV → SAT	.30***	3.96
H13	SEV → AOC	.35***	5.39
H14	SEV → SUV	-.55***	-3.69
H15	CEV → SAT	.04^{ns}	.43
H16	CEV → AOC	-.19**	-2.60
H17	CEV → SUV	.56***	4.26

ns = not significant   * *p* < .05   ** *p* < .01   *** *p* < .001

NOTE: Significance levels are attached to the path coefficients in this table rather than the *t*-values to facilitate comparison of different SEM analyses in subsequent tables.

Of the 20 hypothesised direct and indirect influences on SUV in this modified model, 15 were significant (four of these negative) (cf. Table 6.9). There were five significant direct influences on SUV (two of them negative). AOC (H10) (*p* < .001), CEV (H17) (*p* < .001) and MTV (H2) (*p* < .05) were significant positive influences on SUV, while BEN (H4) (*p* < .001) and SEV (H14) (*p* < .001) were negative influences. BEN (H3) (*p* < .001), CEV (H12) (*p* < .001) and MBM (H5) (*p* < .05) were significant positive influences on SAT, while MTV was a negative influence (H1) (*p* < .001). While SAT did not significantly influence SUV directly (H9), SAT (H8) (*p* < .001), BEN (HC) (*p* < .001) and SEV (H13) (*p* < .01) were significant positive influences on AOC while CEV was a negative influence (H16) (*p* < .01). In turn, AOC influenced SUV significantly (H10) (*p* < .001) (cf. Table 6.9).

Three key variables which were related to sustained volunteering in this study were self-efficacy for volunteering (SEV), collective efficacy for volunteering (CEV), and motivation-benefit

match (MBM). As discussed in Chapter 1 (Section 1.8), this is one of the first studies to investigate the influence of self-efficacy on sustained volunteering, and one of the few to include the variable collective efficacy. This study aims to provide new insights into the role of efficacy in sustaining volunteer involvement. In the model under discussion, SEV significantly and positively influenced AOC, SAT and CEV (H13, 12 & 11 respectively) (all $p < .001$), while SEV was a negative influence on SUV (H14) ($p < .001$). However, SEV indirectly influenced SUV mediated by AOC. CEV was a positive and direct influence on SUV (H17) ($p < .001$), while also indirectly influencing SUV through AOC.

The present study has also examined motivation-benefit match (MBM), the "match" or congruence between volunteer motivations and benefits and how this match influences sustained volunteering (cf. Chapter 3, Section 3.8.2). While MBM did not influence SUV directly, MBM did significantly influence CEV (HE) ($p < .05$) and SAT (H5) ($p < .05$) and hence indirectly influenced SUV mediated by AOC.
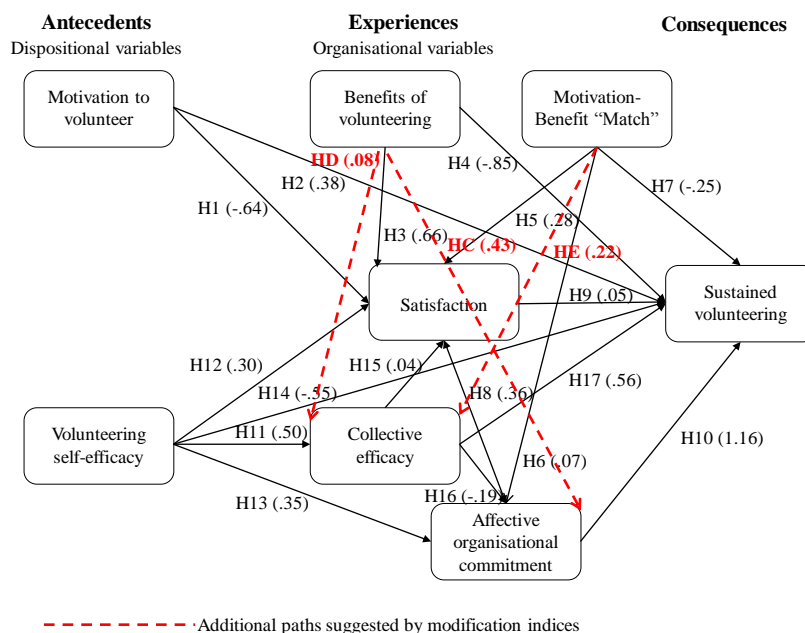
Figure 6.5   Results of SEM analysis of modified model [#1.3] showing all path loadings.

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Antecedents
Dispositional variables

Experiences
Organisational variables

Consequences
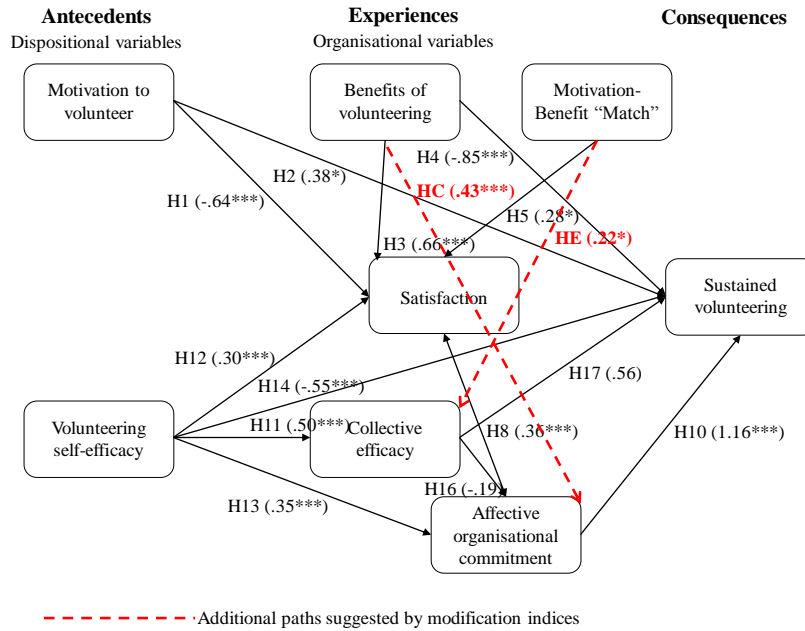
(* = p < .05; ** = p < .01; *** = p < .001)

Figure 6.6 **Results of SEM analysis of modified model [#1.3] showing significant paths only with their loadings and the total coefficient of determination (R^2) for each of the endogenous variables**

Direct and indirect effects

As described in Chapter 4, Section 4.9.6, path coefficients, represented by standardised regression coefficients, were calculated to provide the degree and direction of effects that are postulated to exist among the variables in the model. These effects may be direct, indirect or total. Table 6.10 lists the standardised direct, indirect and total effects of the exogenous and mediating variables on sustained volunteering as measured by Model #1.3. The direct effect of each variable on sustained volunteering indicates whether that variable uniquely impacts sustained volunteering after taking account of the overlap with the variance that is shared between the other variables and sustained volunteering. An indirect effect represents the effect of that variable on sustained volunteering through mediating variables. The total effect is the sum of the direct and indirect effects.

Table 6.10 Standardised effects on sustained volunteering – Model #1.3 ($N = 454$)

		Direct	Indirect	Total
1.	Motivation	.38*	-.29**	.08^{ns}
2.	Self-efficacy	-.55***	.73***	.18**
3.	Benefits	-.85***	.83***	-.02^{ns}
4.	Motivation-benefit match	-.25^{ns}	.28*	.03^{ns}
5.	Satisfaction	.05^{ns}	.42**	.46**
6.	Collective efficacy	.56***	-.20^{ns}	.36***
7.	Affective commitment	1.16***	-	1.16***

ns = not significant	* $p < .05$	** $p < .01$	*** $p < .001$

Table 6.11 lists the standardised direct effects of each of the variables on the endogenous variables, as depicted in Figure 6.5, together with the squared multiple correlation for each of the endogenous variables. The squared multiple correlations indicate the variance associated with each of the endogenous variables and are analogous to R^2 in multiple regression analysis.

The values of R^2 reported in LISREL output files are Hayduk's blocked-error- R^2 (beR^2) which

> uses a minimal hypothetical causal intervention to resolve the variance-partitioning ambiguities caused by loops and correlated errors. … For variables included within loops, whether stabilising or not, beR^2 provides the same value as Hayduk's *(1996)* loop-adjusted R^2. For variables not involved in loops and not displaying correlated residuals, beR^2 reports the same value as the traditional regression R^2. Thus beR^2 provides a conceptualisation of the proportion of explained variance that spans both recursive and nonrecursive structural equation models *(Hayduk, 2006, p. 629).*

Table 6.11 Standardised direct effects and predictive value of factors influencing sustained volunteering – Model #1.3 ($N = 454$)

	Variables	Endogenous (dependent) variables			
		Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1.	Motivation	-.64***	-	-	.38*
2.	Self-efficacy	.30***	.50***	.35***	-.55***
3.	Benefits	.66***	.03^{ns}	.43***	-.85***
4.	Motivation-benefit match	.28*	.22*-	-.17^{ns}	-.25^{ns}
5.	Satisfaction	-	-	.36***	.05^{ns}
6.	Collective efficacy	.04^{ns}	-	-.19**	.56***
7.	Affective commitment	-	-	-	1.16***
	R^2	.62	.45	.78	.49

ns = not significant	* $p < .05$	** $p < .01$	*** $p < .001$

R^2 = squared multiple correlation (total coefficient of determination)
The values of R^2 reported here are Hayduk's blocked-error- R^2 (beR^2) as described in Section 6.5.1.

Forty-nine percent of the variation in sustained volunteering (SUV) was accounted for by the predictor variables ($R^2 = .49$) (cf. Table 6.11). Affective organisational commitment (AOC) ($p < .001$), CEV ($p < .001$), MTV ($p < .05$), BEN ($p < .001$) and SEV ($p < .001$) were the five significant predictors of SUV in this modified model, the last two being negative.

Seventy-eight percent of the variation in AOC was accounted for by its predictor variables ($R^2 = .78$) (cf. Table 6.11). Benefits (BEN) ($p < .001$), satisfaction (SAT) ($p < .001$), self-efficacy for volunteering (SEV) ($p < .001$) and collective efficacy for volunteering (CEV) ($p < .01$) were all significant predictors of AOC and, hence, indirect influences on SUV through AOC. CEV was the only negative influence on AOC.

While SAT was a significant predictor of AOC, 62 percent of the variation in SAT was accounted for ($R^2 = .62$) by its predictor variables (cf. Table 6.11). BEN ($p < .001$), SEV ($p < .001$) and MBM ($p < .05$) were significant positive influences on SAT while motivation to volunteer (MTV) ($p < .001$) was a significant negative influence.

Forty-five percent of the variation in CEV was accounted for by its predictor variables ($R^2 = .45$) (cf. Table 6.11). SEV ($p < .001$) and MBM) ($p < .05$) were the only significant predictors of CEV in this modified model, both of them positive.

Conclusion to analysis of SEM Model #1

This section has detailed the SEM analysis of the conceptual model using weighted composite scores as indicators, measured variables (MVs), of the latent variables. Multiple indicators (MVs) were used for multi-factor latent variables: MTV, BEN, SEV and MBM. The resulting structural model accounted for 49% of the variance in sustained volunteering and 78% of the variance in affective commitment. Affective commitment was the most significant influence on sustained volunteering; collective efficacy and self-efficacy also contributed significantly to sustained volunteering, as did satisfaction with the volunteering experience (cf. Table 6.10).

Further analysis of the hypothesised model was conducted using path analysis with the weighted composite sum as the single indicator of each of the four multi-factor latent variables, MTV, BEN, SEV and MBM. This further analysis is reported as Model #2 in Section 6.5.2.

6.5.2   SEM analysis - path analysis with weighted composite sums as indicators [Model #2]

A second SEM analysis of the conceptual model was conducted using path analysis with the weighted composite sum as the single indicator of each latent variable. This second SEM analysis was used to determine the influence of each variable in the model as a global construct, rather than as a composite of separate factors. The results of this second SEM analysis are reported in this section.

Figure 6.7 shows the LISREL path diagram with standardised coefficients for the SEM analysis of the conceptual model using weighted composite scores as indicators of latent variables.

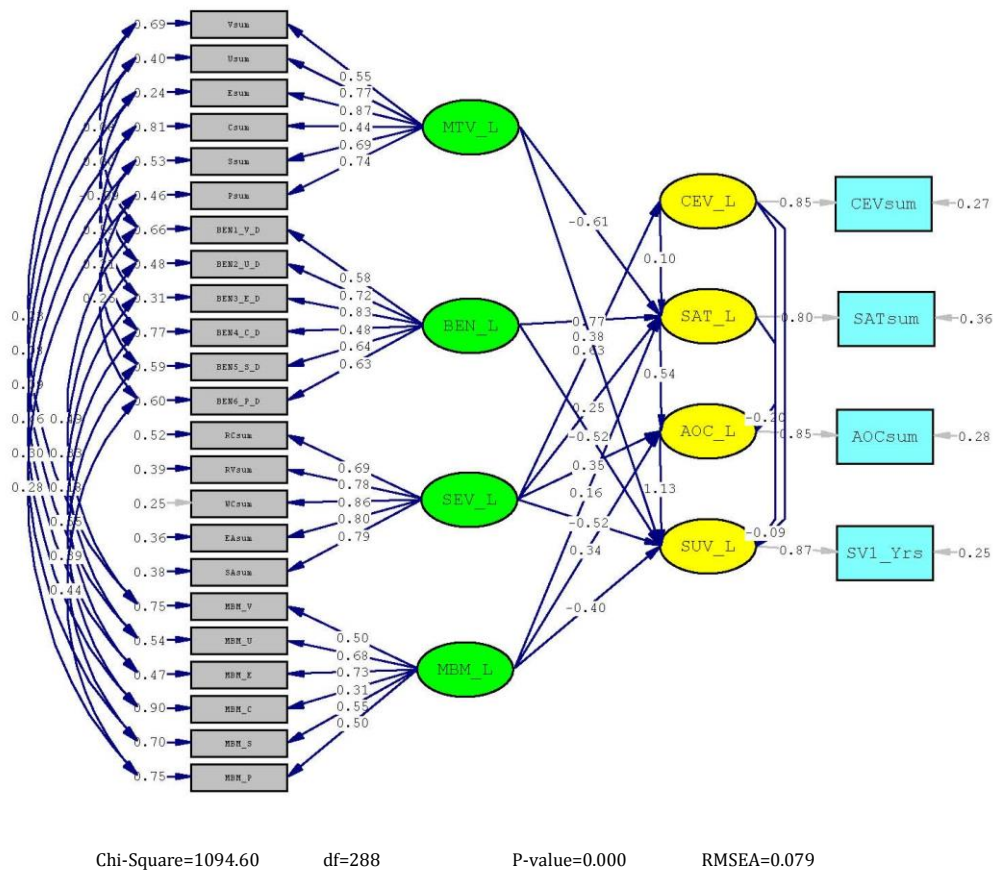Chi-Square=35.31, df=5, P-value=0.00000, RMSEA=0.116

Figure 6.7   Structural model for sustained volunteering based on path analysis of the conceptual model of sustained volunteering developed for this study (standardised coefficients)

Fit indices

The fit statistics selected in Chapter 4, Section 4.9.5 for assessing structural models, suggested differing levels of fit (cf. Table 6.13). The chi-square value for the tested model was 35.31 ($df =$ 5, $p = .000$). As this chi-square value is significant at the $p < .05$ level, it is regarded as indicating unsatisfactory model fit. The *RMSEA* was .116, with a 90% confidence interval (*CI*) between .08 and .15, indicating a poor fit; values of RMSEA below .07 with a confidence level upper limit less than .08 indicate a reasonable fit (cf. Section 4.9.5). By contrast, the *SRMR* was .038 which was well below the upper threshold of .08. Together with the *CFI* of .99, these two indices indicate an acceptable fit of the model to the data.

It is likely that model fit for the original model is affected adversely to some extent because this model treated multidimensional constructs as unidimensional. The six MTV scales were combined into a single global MTV construct (MTV-Sum), and the five SEV scales were similarly combined into a single construct (SEV-Sum). It was expected that better fit of the model would be obtained in subsequent analyses where subscales for MTV and SEV were substituted for the global constructs. These analyses are reported in Section 6.5.3 (Model #3). In the interim, modification indices were examined to identify possible improvements to model fit.

Modification of the model based on LISREL analysis

Modification indices in the LISREL SEM output suggested five additional paths linking the latent variables in the model: BEN → AOC, MBM → CEV, AOC → CEV, BEN → CEV, and SUV → AOC. The decrease in Chi-square ($\Delta\chi^2$) and the resulting new estimate in each case are shown in Table 6.10.

Table 6.12   Additional paths suggested by modification indices – Model #2

Path	$\Delta\chi^2$	New estimate
BEN → AOC	20.6	.35
MBM → CEV	14.4	.10
AOC → CEV	10.7	.19
BEN → CEV	9.8	.07
SUV → AOC	8.4	-3.30

The inclusion of model modifications identified by SEM analysis must be justified on theoretical grounds rather than empirical grounds alone. The additions to the model suggested by the modification indices were examined to assess their theoretical relevance and their potential to add value to the initial model.

The original model hypothesised that benefits (BEN) would directly influence satisfaction (SAT) and sustained volunteering (SUV), and influence affective organisational commitment (AOC) only indirectly through satisfaction (SAT). These modification indices suggest a direct influence of BEN on both AOC and CEV which is plausible given the relationships between these variables as examined in the literature (cf. Chapter 3, Sections 3.8, 3.10, 3.11).

Modification indices also suggest a direct influence of motivation-benefit match (MBM) on CEV. This influence was not hypothesised in the original model. Rather, MBM was expected to influence directly SAT, AOC and SUV. Given the focus on both MBM and CEV in this study and the limited research on CEV related to volunteering (cf. Chapter 3, Section 3.11), it seemed reasonable to explore this connection in the present study.

The other two paths suggested by the modification indices, AOC to CEV and SUV to AOC, would result in a non-recursive model, as paths from CEV to AOC and AOC to SUV are already included. As discussed in Chapter 4, Section 4.9.3, and earlier in this chapter (Section 6.5), the plausibility of reciprocal influences between variables in the model is acknowledged, but it was decided to eschew non-recursive models in the present context (Groenland & Stalpers, 2012, p. 27). Hence, these two non-recursive paths were not included in Model #2.

Accordingly, paths from BEN to AOC, MBM to CEV and BEN to CEV were added progressively to the model and the SEM analysis repeated. These paths correspond to three of

the five additional relationships identified by correlational analysis: HC, HE and HD respectively (cf. Sections 6.4 and 6.6.1). The resulting fit indices are shown in Table 6.13.

Table 6.13   Fit statistics for Model #2 and modifications

Model	Actions	χ^2	df	$\Delta\chi^2$	Δdf	RMSEA	CI	SRMR	CFI
2 (Initial)		35.31	5			.116	.08-.15	.038	.99
2.1 (1st modification)	Path BEN → AOC	14.99	4	20.32	1	.078	.04-.12	.034	.99
2.2 (2nd modification)	Path MBM → CEV	.67	3	14.32	1	.042	.00-.04	.003	1.00
2.3 (Final)	Path BEN → CEV	.59	2	.08	1	.000	.00-.04	.003	1.00

RMSEA = Root Mean Square Error of Approximation
CI = 90% Confidence Interval for RMSEA
SRMR = Standardised Root Mean Square Residual
CFI = Comparative Fit Index

Fit indices for the modified model

Based on the fit statistics selected for structural models in Chapter 4, Section 4.9.5, the LISREL path analysis of the modified recursive model (Model #2.3), as shown in Figure 6.8, revealed a very good fit to the data (cf. Table 6.13). The chi-square value for the tested model was .59 ($df = 2$, $p = .743$). As this chi-square value is not significant at the $p < .05$ level, it is regarded as indicating satisfactory model fit.
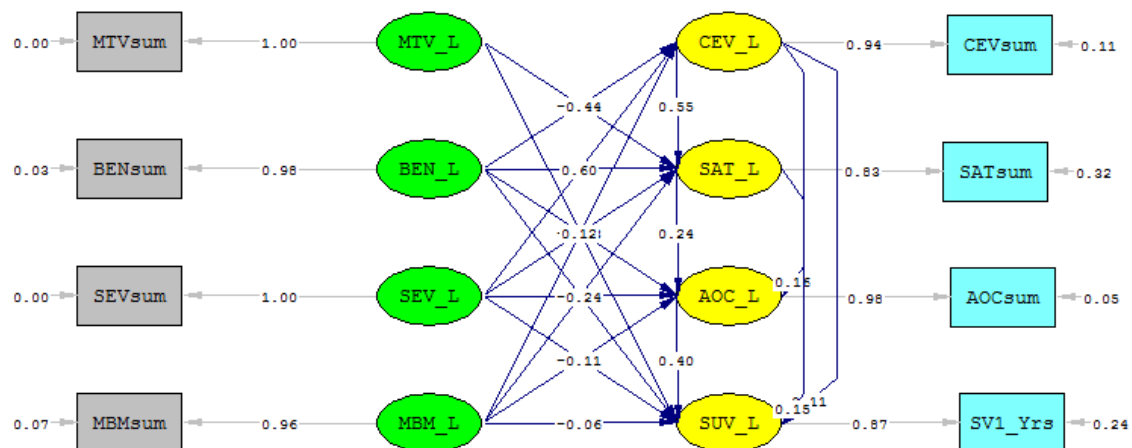
Chi-Square=0.59, df=2, P-value=0.74275, RMSEA=0.000

Figure 6.8   Structural model for sustained volunteering based on path analysis of the conceptual model developed for this study with three additional paths identified in the LISREL analysis – Model #2.3 (standardised coefficients)

The *RMSEA* was .000, with a 90% confidence interval (*CI*) between .00 and .06; values of RMSEA below .07 with a confidence level upper limit less than .08 indicate a well-fitting model (cf. Section 4.9.5). The *SRMR* was .003 which was well below the upper threshold of .08. Together with the *CFI* of 1.00, these indices also indicate a very good fit of the model to the data.

Table 6.14 lists, by hypothesis, the standardised coefficients (loadings) of each path in the structural model represented in Figure 6.8 with its corresponding *t*-value and level of

significance. These hypotheses and their corresponding path coefficients are shown in Figure 6.9. By way of comparison and contrast, significant paths only are shown in Figure 6.10.

Table 6.14 Hypotheses testing results based on SEM analysis of Model #2.3 ($N = 454$)
(Standardised path coefficients, with *t*-values and levels of significance.)
(Additional paths based on modification indices are labelled HC to HE and shaded.)

#	Hypothesis	Path Coefficient	*t*-value
H1	MTV → SAT	-.44***	-7.11
H2	MTV → SUV	.12^{ns}	1.24
H3	BEN → SAT	.60***	7.93
H4	BEN → SUV	-.24^{ns}	-1.94
HC	BEN → AOC	.35***	4.66
HD	BEN → CEV	.02^{ns}	.28
H5	MBM → SAT	.05^{ns}	.59
H6	MBM → AOC	.02^{ns}	.28
H7	MBM → SUV	-.06^{ns}	-.62
HE	MBM → CEV	.14*	2.21
H8	SAT → AOC	.24***	3.37
H9	SAT → SUV	.15^{ns}	1.09
H10	AOC → SUV	.40***	4.84
H11	SEV → CEV	.67***	17.44
H12	SEV → SAT	-.03^{ns}	-.37
H13	SEV → AOC	.16**	2.99
H14	SEV → SUV	-.11^{ns}	-1.32
H15	CEV → SAT	.55***	7.50
H16	CEV → AOC	.16*	2.15
H17	CEV → SUV	.11^{ns}	.91

ns = not significant　　　* $p < .05$　　　** $p < .01$　　　*** $p < .001$

NOTE: Significance levels are attached to the path coefficients in this table rather than the *t*-values to facilitate comparison of different SEM analyses in subsequent tables.

Of the 20 hypothesised direct and indirect influences on SUV in this modified model, 10 were significant (one of these negative). AOC was the only significant direct influence on SUV (H10) ($p < .01$). BEN and CEV were significant [positive] influences on SAT (H3 & H15) (both $p < .01$), while MTV was a negative influence (H1) ($p < .01$). While SAT did not significantly influence SUV directly (H9), SAT and SEV were significant influences on AOC (H8 & H13) (both $p < .01$) which, in turn, influenced SUV significantly (H10) ($p < .01$), while CEV was a significant indirect influence on SUV mediated by SAT and AOC (H8 & H10) (both $p < .01$).

Three key variables which were related to sustained volunteering in this study were self-efficacy for volunteering (SEV), collective efficacy for volunteering (CEV), and motivation-benefit match (MBM). As discussed in Chapter 1 (Section 1.8), this is one of the first studies to investigate the influence of self-efficacy on sustained volunteering, and one of the few to

include the variable collective efficacy. This study aims to provide new insights into the role of efficacy in sustaining volunteer involvement. In the model under discussion, SEV did not influence SUV directly, but SEV significantly influenced AOC (H13) ($p < .01$), and hence indirectly influenced SUV mediated by AOC. While CEV did not directly influence SUV (H17), CEV did significantly influence AOC (H16) ($p < .05$) and indirectly influenced SUV through AOC.

The present study has also examined motivation-benefit match (MBM), the "match" or congruence between volunteer motivations and benefits and how this match influences sustained volunteering (cf. Chapter 3, Section 3.8.2). While MBM did not influence SUV directly, MBM did significantly influence CEV (HE) ($p < .05$) and hence indirectly influenced The *RMSEA* was .000, with a 90% confidence interval (*CI*) between .00 and .06; values of RMSEA below .07 with a confidence level upper limit less than .08 indicate a well-fitting model (cf. Section 4.9.5). The *SRMR* was .003 which was well below the upper threshold of .08. Together with the *CFI* of 1.00, these indices also indicate a very good fit of the model to the data.
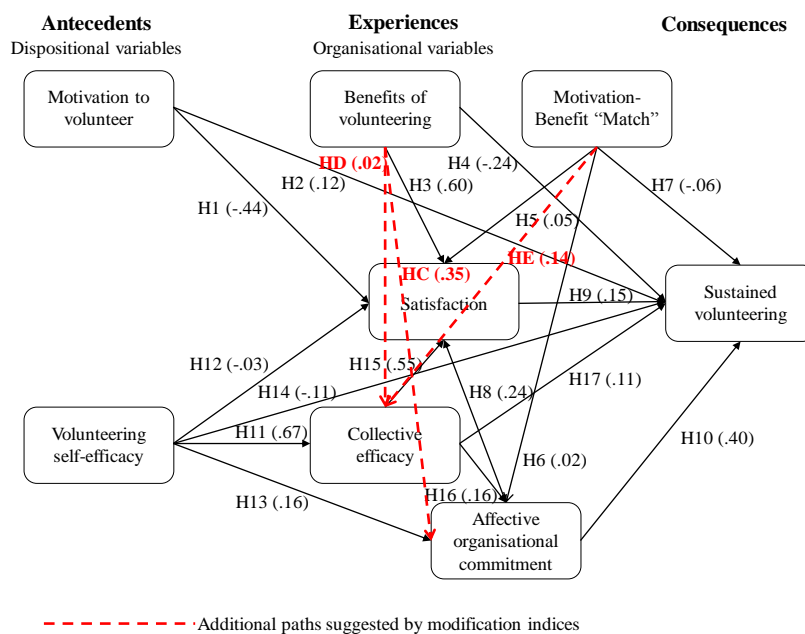
Figure 6.9   Results of SEM analysis of modified model [#2.3] showing all path loadings.

Antecedents
Dispositional variables

Experiences
Organisational variables

Consequences

Motivation to volunteer

Benefits of volunteering

Motivation-Benefit "Match"

H1 (-.44**)

H3 (.60**)

HC (.35)**

HE (.14*)

Satisfaction
($R^2 = .66$)

Sustained Volunteering
($R^2 = .17$)

H8 (.24**)

H15 (.55**)

H11 (.67**)

Collective efficacy
($R^2 = .55$)

H10 (.40**)

Volunteering self-efficacy

H16 (.16*)

H13 (.16**)

Affective organisational Commitment
($R^2 = .55$)

– – – – – – ·Additional paths suggested by modification indices

($* = p < .05; ** = p < .01; *** = p < .001$)

Figure 6.10   Results of SEM analysis of modified model [#2.3] showing significant paths only with their loadings and the total coefficient of determination (R^2) for each of the endogenous variables

Direct and indirect effects

As described in Chapter 4, Section 4.9.6, and reported for Model #1.3 in Section 6.5.1, path coefficients were calculated to provide the direct, indirect and total effects that are postulated to exist among the variables in Model #2.3. Table 6.15 lists the standardised direct, indirect and total effects of the exogenous and mediating variables on sustained volunteering as measured by Model #2.3. The direct effect of each variable on sustained volunteering indicates whether the that variable uniquely impacts sustained volunteering after taking account of the overlap with the variance that is shared between the other variables and sustained volunteering. An indirect effect represents the effect of that variable on sustained volunteering through mediating variables. The total effect is the sum of the direct and indirect effects.

Table 6.15 Standardised effects on sustained volunteering – Model #2.3

		Direct	Indirect	Total
1.	Motivation	$.12^{ns}$	$-.11^{ns}$	$.01^{ns}$
2.	Self-efficacy	$-.11^{ns}$	$.27^{***}$	$.16^{**}$
3.	Benefits	$-.24^{ns}$	$.29^{**}$	$.05^{ns}$
4.	Motivation-benefit match	$-.07^{ns}$	$.06^{ns}$	$-.00^{ns}$
5.	Satisfaction	$.15^{ns}$	$.10^{**}$	$.25^{ns}$
6.	Collective efficacy	$.11^{ns}$	$.20^{*}$	$.31^{***}$
7.	Affective commitment	$.40^{***}$	-	$.40^{***}$

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

Table 6.16 lists the standardised direct effects of each of the variables on the endogenous variables, and the squared multiple correlations for each of the endogenous variables, as depicted in Figure 6.10. The squared multiple correlations indicate the variance associated with each of the endogenous variables and are analogous to R^2 in multiple regression analysis.

Table 6.16 Standardised direct effects and predictive value of factors influencing sustained volunteering – Model #2.3

	Variables	Endogenous (dependent) variables			
		Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1.	Motivation	$-.44^{***}$	-	-	$.12^{ns}$
2.	Self-efficacy	$-.03^{ns}$	$.67^{***}$	$.16^{**}$	$-.11^{ns}$
3.	Benefits	$.60^{***}$	$.02^{ns}$	$.35^{***}$	$-.24^{ns}$
4.	Motivation-benefit match	$.05^{ns}$	-	$.02^{ns}$	$-.07^{ns}$
5.	Satisfaction	-	-	$.24^{***}$	$.15^{ns}$
6.	Collective efficacy	$.55^{***}$	-	$.16^{*}$	$.11^{ns}$
7.	Affective commitment	-	-	-	$.40^{***}$
	R^2	.66	.55	.55	.17

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$
R^2 = squared multiple correlation (total coefficient of determination)
The values of R^2 reported here are Hayduk's blocked-error- R^2 (beR^2) as described in Section 6.5.1.

Seventeen percent of the variation in sustained volunteering (SUV) was accounted for by the predictor variables ($R^2 = .17$) (cf. Table 6.16). Affective organisational commitment (AOC) ($p < .001$) was the only significant direct influence on SUV in this modified model.

Fifty-five percent of the variation in AOC was accounted for by its predictor variables ($R^2 = .55$) (cf. Table 6.16). Self-efficacy for volunteering (SEV) ($p < .01$), benefits (BEN) ($p < .001$),

satisfaction (SAT) ($p < .001$) and collective efficacy (CEV) ($p < .05$) were all significant predictors of AOC and, hence, indirect influences on SUV through AOC.

While SAT was a significant predictor of AOC, 66 percent of the variation in SAT was accounted for by its predictor variables ($R^2 = .66$) (cf. Table 6.16). BEN ($p < .001$), and CEV ($p < .001$) were significant positive influences on SAT while motivation to volunteer (MTV) ($p < .001$) was a significant negative influence.

Fifty-five percent of the variation in CEV was accounted for by its predictor variables ($R^2 = .55$) (cf. Table 6.16). SEV ($p < .001$) and motivation-benefit match (MBM) ($p < .05$) were significant predictors of CEV in this modified model.

Conclusion to the SEM analysis of Model #2

This section has detailed the SEM analysis of the conceptual model using path analysis with the weighted composite sum as the single indicator of each of the four multi-factor latent variables, MTV, BEN, SEV and MBM, and the single-scale variables, CEV, SAT and AOC. The resulting structural model accounted for 17% of the variance in sustained volunteering, 62% of the variance in satisfaction, and 55% of the variance in each of collective efficacy and affective commitment. As for Model #1, affective commitment, collective efficacy and self-efficacy were significant influences on sustained volunteering as indicated in Table 6.15.

Further analysis of the hypothesised model was conducted using separate subscales as latent variables in place of the global constructs used in this analysis. This further analysis is reported as Model #3 in Section 6.5.3.

6.5.3 SEM analysis – multiple latent variables for multi-factor constructs [Model #3]

A third SEM analysis of the hypothesised model was conducted using path analysis with a latent variable corresponding to each scale, subscale or factor of each exogenous variable and with the weighted composite score as the single indicator or measured variable (MV) for each of these latent variables. This SEM analysis was used to determine the separate influence of each factor as distinct from the influence of the global construct. For example, this analysis enabled examination of the influence of motivation as a function of values as distinct from the influence of motivation in general, that is, all six functional motivations combined. The results of this third SEM analysis are reported in this section.
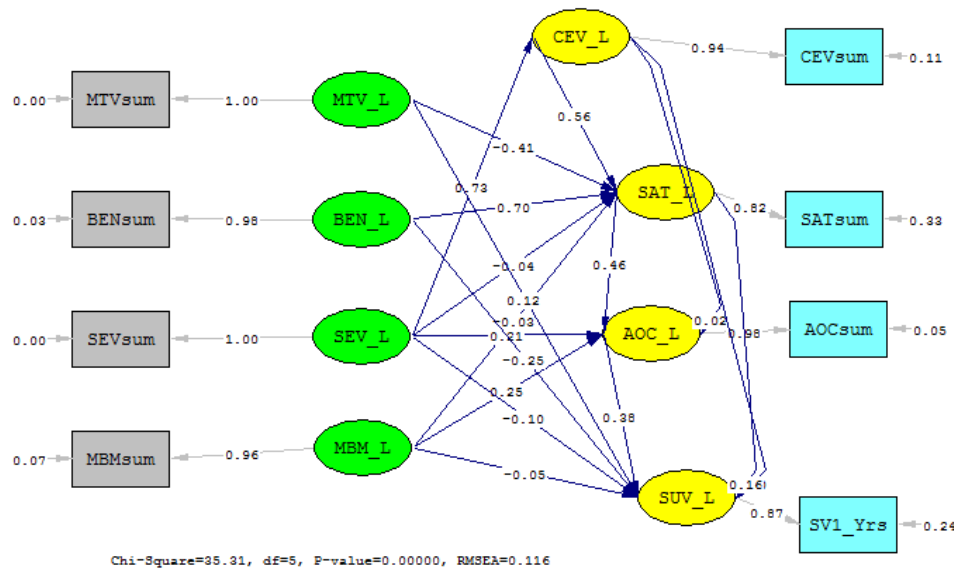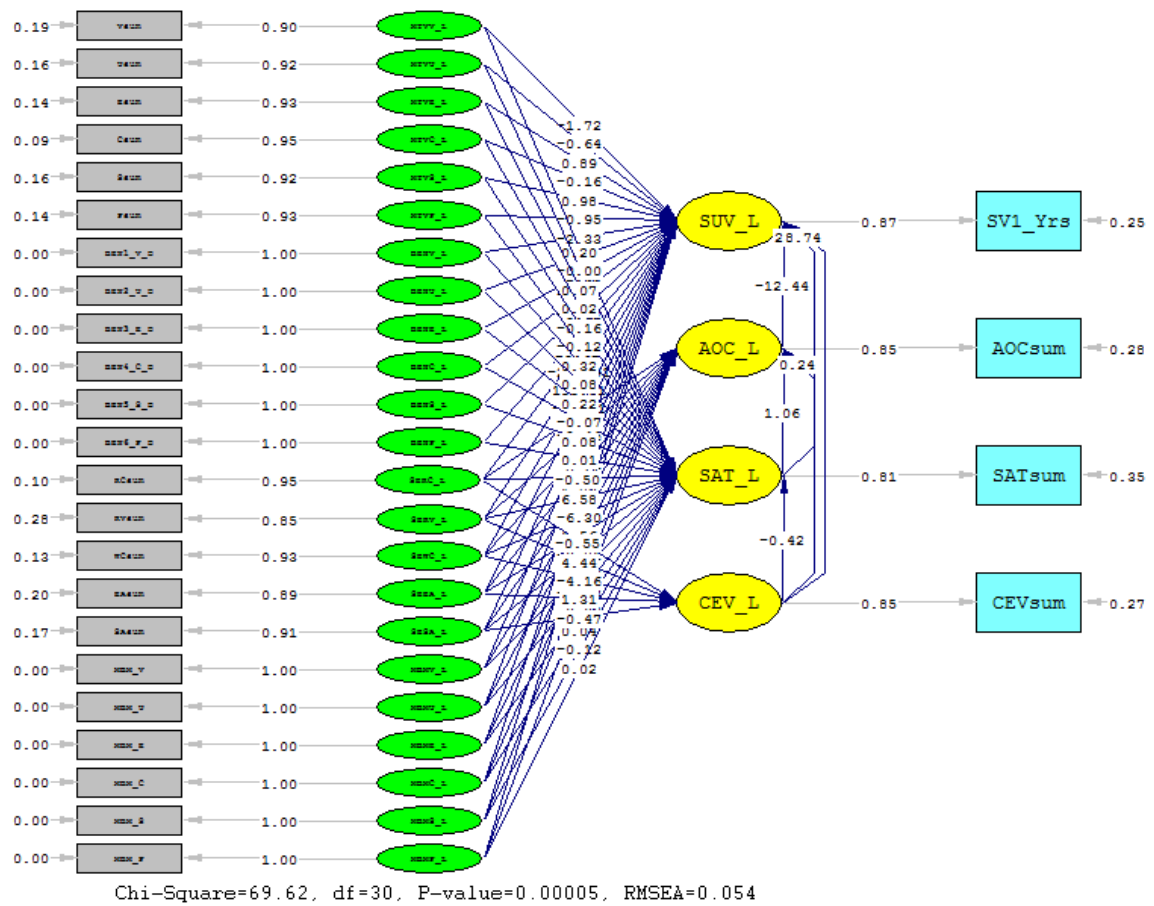
Figure 6.11   **Structural model for sustained volunteering based on path analysis of the conceptual model of sustained volunteering with latent variables for each subscale or factor (standardised coefficients)**

Fit indices

Based on the fit statistics identified in Chapter 4, Section 4.9.5, the LISREL analysis of the conceptual model, as shown in Figure 6.11, revealed a very good fit to the data (cf. Table 6.18). The chi-square value for the tested model was 69.62 ($df = 30$, $p = .000$). As this chi-square value is significant at the $p < .05$ level, it is regarded as indicating unsatisfactory model fit. The *RMSEA* was .054, with a 90% confidence interval (*CI*) between .04 and .07; values of RMSEA below .07 with a confidence level upper limit less than .08 indicate a well-fitting model (cf. Section 4.9.5). The *SRMR* was .008 which was well below the upper threshold of .08. Together with the *CFI* of .998, these indices indicate a very good fit of the model to the data.

Modification of the model based on LISREL analysis

Modification indices in the LISREL SEM output suggested five additional paths linking the latent variables in the model: MTVP → AOC, BENE → AOC, BENP → AOC, MTVE → CEV, and MBMU → CEV. The decrease in chi-square ($\varDelta\chi^2$) and the resulting new estimate in each case are shown in Table 6.17.

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Table 6.17 Additional paths suggested by modification indices – Model #3

Path	$\Delta\chi^2$	New estimate
BENE → AOC	19.90	.62
MTVP → AOC	14.73	.09
BENP → AOC	12.33	.33
MTVE → CEV	8.59	.03
MBMU → CEV	7.95	.27

As mentioned in Section 6.5.2, the inclusion of model modifications identified by SEM analysis must be justified on theoretical grounds rather than empirical grounds alone. The additions to the current model (Model #3) suggested by the modification indices were examined to assess their theoretical relevance and their potential to add value to the initial model.

The initial conceptual model did not hypothesise that benefits of volunteering (BEN) would influence affective organisational commitment directly, but that the influence was indirect and mediated by satisfaction (SAT). Modification indices suggested that benefits of volunteering related to the Enhancement function (BENE) and Protective function (BENP) would directly influence AOC. Given the direct influence of BEN (all functions) on AOC suggested in relation to Model #2, it is plausible to hypothesise that BENE and BENP may be significant contributors to the overall influence of BEN on AOC. These direct influences of BENE and BENP on AOC were added to the model for further SEM analysis.

Modification indices also suggested a direct influence of Motivation Protective function (MTVP) on AOC and Motivation Enhancement function (MTVE) on CEV. The initial conceptual model hypothesised that motivation to volunteer (MTV) would directly influence satisfaction with the volunteering experience (SAT) and sustained volunteering (SUV) and only indirectly influence affective organisational commitment (AOC) by way of satisfaction. No influence of MTV on CEV was postulated, either direct or indirect. Consequently, no additional paths from MTV were added to the model, but it was noted that correlational analysis supports relationships between MTV and both AOC and CEV (cf. HA and HB in Table 6.6, Section 6.4, and also Table 6.22 in Section 6.6.1).

Finally, modification indices suggested a direct influence of MBM Understanding (MBMU) on CEV. Direct influence of MBM on CEV was not hypothesised in the original model. Rather, MBM was expected to influence directly SAT, AOC and SUV. However, modification indices for the path analysis of the model using weighted composite sums (Model #2) did identify this direct influence of MBM (all functions) on CEV. It seemed plausible, therefore, to hypothesise that MBMU may be a significant contributor to the overall influence of MBM on CEV; and given the focus on both MBM and CEV in this study, it seemed reasonable to explore this

connection further by adding this direct influence of MBMU on CEV to the model for further SEM analysis.

Paths from BENE → AOC, BENP → AOC, and MBMU → CEV were added progressively to the model and the SEM analysis repeated. The resulting fit indices are shown in Table 6.18.

Table 6.18   Fit statistics for Model #3 and modifications

Model	Actions	χ^2	df	$\Delta\chi^2$	Δdf	RMSEA	CI	SRMR	CFI
3 (Initial)		69.62	30			.054	.04-.06	.008	.998
3.1 (1st modification)	Path BENE → AOC	60.57	29	9.05	1	.049	.03-.06	.008	.998
3.2 (2nd modification)	Path BENP → AOC	57.19	28	3.38	1	.048	.03-.06	.007	.998
3.3 (Final)	Path MBMU → CEV	48.04	27	9.15	1	.041	.02-.06	.009	.999

RMSEA = Root Mean Square Error of Approximation
CI = 90% Confidence Interval for *RMSEA*
SRMR = Standardised Root Mean Square Residual
CFI = Comparative Fit Index

Fit indices for the modified model

Based on the fit statistics selected for structural models in Chapter 4, Section 4.9.5, the LISREL path analysis of the modified recursive model (Model 3.3), as shown in Figure 6.12, revealed a very good fit to the data (cf. Table 6.18). The chi-square value for the tested model was 48.04 ($df = 27$, $p = .008$). As this chi-square value is significant at the $p < .05$ level, it is regarded as indicating unsatisfactory model fit. Although large samples generally result in significant chi-square values, it is recommended that this statistic be reported, as detailed in Chapter 4, Section 4.9.5.

The *RMSEA* was .026, with a 90% confidence interval (*CI*) between .00 and .05, indicating a well-fitting model (cf. Chapter 4, Section 4.9.5). The *SRMR* was .011 which was well below the upper threshold of .08. Together with the *CFI* of .999, these indices also indicate a very good fit of the model to the data.

Chi-Square=48.04, df=27, P-value=0.00760, RMSEA=0.041
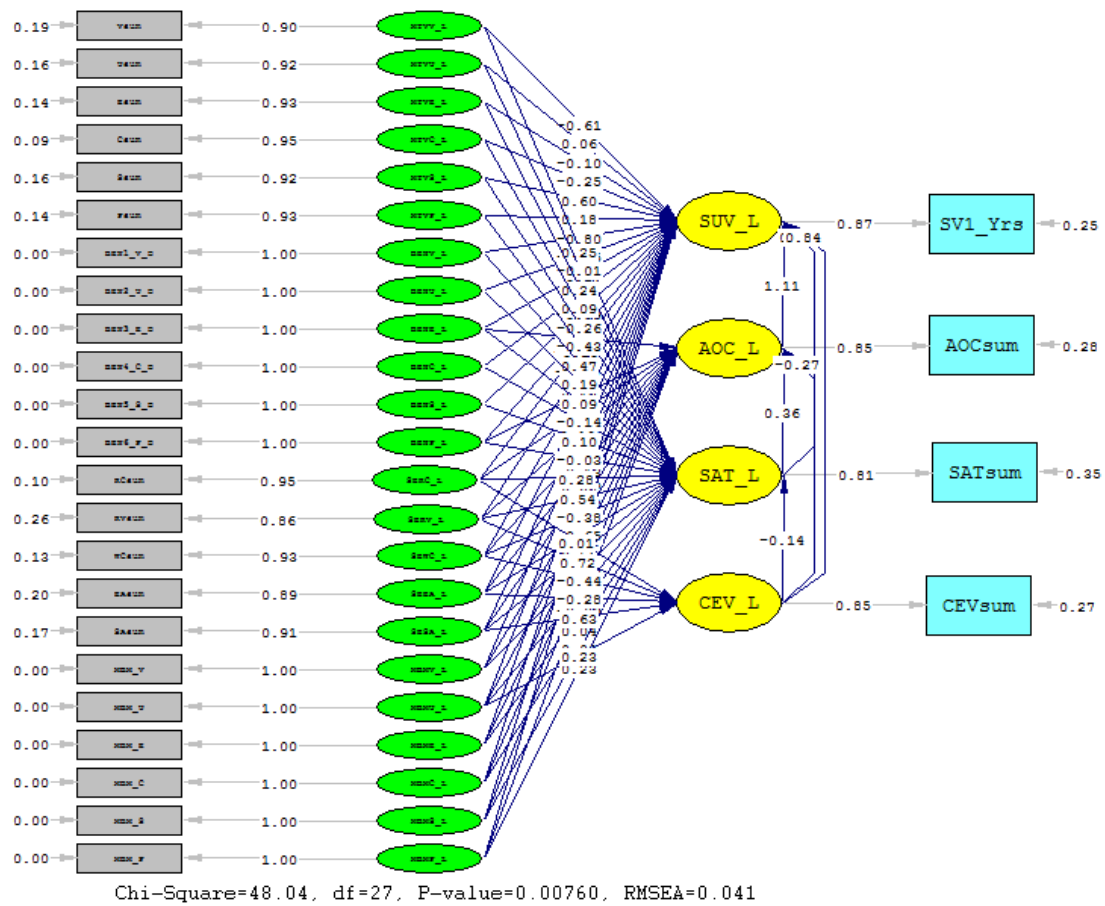
Figure 6.12 Structural model for sustained volunteering based on path analysis with latent variables for each subscale or factor and including three additional paths suggested by modification indices – Model #3.3 (standardised coefficients)

Table 6.19 lists, by hypothesis, the standardised coefficients (loadings) of each path in the structural model represented in Figure 6.12 with its corresponding *t*-value and level of significance.

Table 6.19 Hypotheses testing results based on SEM analysis Model #3.3 (N = 454)

(Standardised path coefficients, with *t*-values and levels of significance.)

(Additional paths based on modification indices are labelled HC and HE and shaded.)

#	Hypothesis	Composite variable	Path coefficient	*t*-value
H1	MTV →SAT	MTV-Values	.25[ns]	1.40
		MTV-Understanding	-.01[ns]	-.04
		MTV-Enhancement	.24[ns]	.55
		MTV-Career	.09[ns]	.72
		MTV-Social	-.26[ns]	-1.76
		MTV-Protective	-.43[ns]	-1.50
H2	MTV →SUV	MTV-Values	-.61*	-2.06
		MTV-Understanding	.06[ns]	.19
		MTV-Enhancement	-.10[ns]	-.16

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#	Hypothesis	Composite variable	Path coefficient	*t*-value
		MTV-Career	$-.25^{ns}$	-1.28
		MTV-Social	$.60^*$	2.43
		MTV-Protective	$.18^{ns}$	.40
H3	BEN → SAT	BEN-Values	.47***	4.39
		BEN-Understanding	$.19^{ns}$	1.58
		BEN-Enhancement	$.09^{ns}$	.58
		BEN-Career	$-.14^{ns}$	-1.26
		BEN-Social	$.01^{ns}$	.89
		BEN-Protective	$-.03^{ns}$	-.31
H4	BEN → SUV	BEN-Values	-.80***	-3.67
		BEN-Understanding	$-.16^{ns}$	-.85
		BEN-Enhancement	$-.17^{ns}$	-.69
		BEN-Career	$.02^{ns}$	.12
		BEN-Social	$-.01^{ns}$	-.61
		BEN-Protective	$-.04^{ns}$	-.29
HC	BEN → AOC	BEN-Enhancement	.27***	3.93
		BEN-Protective	$.12^{ns}$	1.84
H5	MBM → SAT	MBM-Values	$-.19^{ns}$	-1.69
		MBM-Understanding	$.02^{ns}$	.18
		MBM-Enhancement	$-.00^{ns}$	-.02
		MBM-Career	$.04^{ns}$	.46
		MBM-Social	$.00^{ns}$	.03
		MBM-Protective	$.23^*$	2.12
H6	MBM → AOC	MBM-Values	.14**	2.62
		MBM-Understanding	$.05^{ns}$	.83
		MBM-Enhancement	$-.11^{ns}$	-1.83
		MBM-Career	$.04^{ns}$	.95
		MBM-Social	.14**	2.76
		MBM-Protective	$.01^{ns}$	.20
H7	MBM → SUV	MBM-Values	.63**	3.19
		MBM-Understanding	$-.05^{ns}$	-.25
		MBM-Enhancement	$-.05^{ns}$	-.18
		MBM-Career	$-.03^{ns}$	-.21
		MBM-Social	$-.21^{ns}$	-1.38
		MBM-Protective	$-.21^{ns}$	-1.16
HE	MBM → CEV	MBM-Understanding	.23***	4.29
H8	SAT → AOC		.36***	4.32
H9	SAT → SUV		$.39^{ns}$	1.02

#	Hypothesis	Composite variable	Path coefficient	t-value
H10	AOC → SUV		1.11***	3.60
H11	SEV → CEV	SEV-RC	$.01^{ns}$	.09
		SEV-RV	.73***	3.84
		SEV-WC	$-.44^{*}$	-2.22
		SEV-EA	$-.28^{ns}$	-1.92
		SEV-SA	.63***	5.26
H12	SEV → SAT	SEV-RC	$.28^{*}$	2.49
		SEV-RV	$.54^{ns}$	1.49
		SEV-WC	$-.38^{ns}$	-1.09
		SEV-EA	-.65*	-2.05
		SEV-SA	$.56^{**}$	2.65
H13	SEV → AOC	SEV-RC	$.06^{ns}$	.76
		SEV-RV	$.13^{ns}$	.61
		SEV-WC	$.02^{ns}$	.11
		SEV-EA	$-.13^{ns}$	-.83
		SEV-SA	$.39^{**}$	2.56
H14	SEV → SUV	SEV-RC	$-.10^{ns}$	-.46
		SEV-RV	-1.89**	-2.63
		SEV-WC	1.57*	2.41
		SEV-EA	$.10^{ns}$	.19
		SEV-SA	$-.47^{ns}$	-1.06
H15	CEV → SAT		$-.14^{ns}$	-1.21
H16	CEV → AOC		$-.27^{**}$	-2.71
H17	CEV → SUV		.84***	3.59

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

NOTE: Significance levels are attached to the path coefficients in this table rather than the t-values to facilitate comparison of different SEM analyses in subsequent tables.

It will be noted in Table 6.19 that the standardised coefficients for the paths from AOC to SUV and from SEV-RV and SEV-WC to SUV are greater than one in magnitude. As discussed in Section 6.5.1, this is not a problem and, indeed, this can happen for any factor loading or structural coefficient in any LISREL model as the factor loadings are regression coefficients and not correlations, as in exploratory factor analysis (Jöreskog, 1999).

Of the 71 hypothesised direct and indirect influences on SUV in this modified model, 23 were significant; 17 were positive influences and six were negative (cf. Tables 6.19 and 6.20). There were eight significant direct influences on SUV, three of them negative. AOC ($p < .001$), CEV ($p < .001$), MBM-Values ($p < .01$), MTV-Social ($p < .05$) and SEV-WC ($p < .05$) were significant positive influences, while BEN-Values ($p < .001$), SEV-RV ($p < .01$) and MTV-

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Values ($p < .05$) were negative; these influences on SUV are listed separately in Table 6.20. Notably, while MTV-Values and BEN-Values are both negative influences on SUV, the match of these two variables, MBM-Values, is a positive influence.

AOC was significantly and positively influenced by SAT ($p < .001$), BEN-Enhancement ($p < .001$), MBM-Values ($p < .01$), MBM-Social ($p < .01$) and SEV-Social Awareness ($p < .05$). CEV ($p < .01$) was the only negative influence on AOC (cf. Tables 6.19 and 6.21). While SAT was a significant predictor of AOC, BEN-Values ($p < .001$), SEV-SA ($p < .01$), SEV-RC ($p < .05$) and MBM-Protective ($p < .05$) were all positive influences on SAT, while SEV-EA ($p < .05$) was a negative influence on SAT. SAT did not significantly influence SUV directly but, as already noted, SAT ($p < .001$), MBM-Values ($p < .01$), MBM-Social ($p < .01$) and BEN-Enhancement ($p < .001$) were significant influences on AOC which, in turn, influenced SUV significantly. MBM-Understanding, SEV-RV and SEV-SA (all $p < .001$) were significant positive influences on CEV, while SEV-WC ($p < .05$) was a negative influence (cf. Tables 6.19 and 6.21).

As discussed in Section 6.5.2, SEV, CEV and MBM were key variables studied in relation to sustained volunteering. In the modified model under discussion (Model 3.3#), SEV-WC ($p < .05$) influenced SUV directly and positively, while SEV-RV ($p < .01$) was a negative influence. CEV ($p < .001$) was a significant positive influence on SUV and, in turn, CEV was influenced positively by MBM-Understanding, SEV-RV and SEV-SA (all $p < .001$), while SEV-WC ($p < .05$) was a negative influence on CEV. MBM-Values ($p < .01$) was a significant direct influence on SUV, while MBM-Values and MBM-Social (both $p < .01$) significantly influenced AOC, and MBM-Understanding ($p < .001$) influenced CEV.

The significant paths and the total coefficient of determination (R^2) for each of the endogenous variables are shown in Figure 6.13 and reported with their levels of significance in Table 6.21.
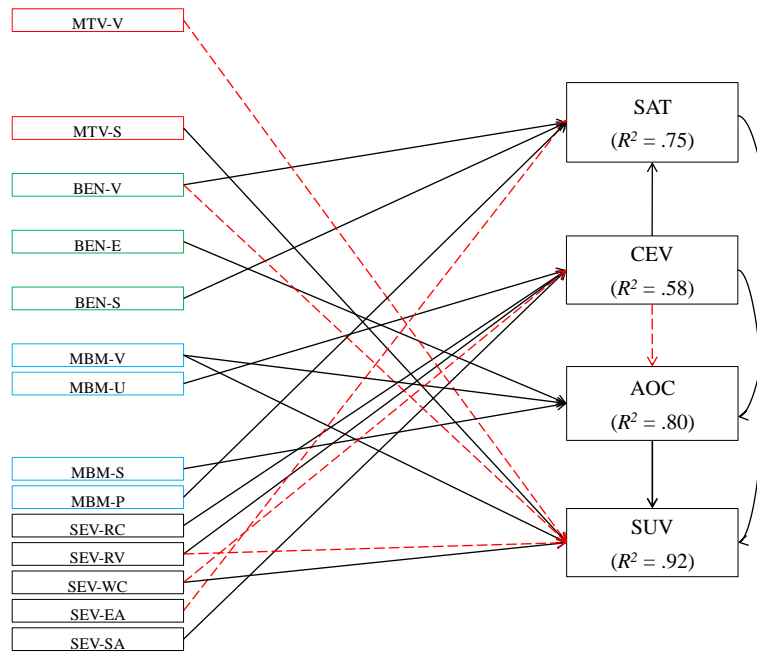
NOTE: continuous black path = positive influence; dashed red path = negative influence.

Figure 6.13 Results of SEM analysis of modified model [#3.3] showing significant paths and variables only and total coefficient of determination (R^2) for each of the endogenous variables

Direct and indirect effects

As described in Chapter 4, Section 4.9.6, and reported for Models #1.3 and #2.3 in Section 6.5.1 and Section 6.5.2 respectively, path coefficients were calculated to provide the direct, indirect and total effects that are postulated to exist among the variables in Model #3.3. Table 6.20 lists the standardised direct, indirect and total effects of the exogenous and mediating variables on sustained volunteering as measured by Model #3.3. The total effect is the sum of the direct and indirect effects.

Table 6.20 Standardised effects on sustained volunteering – Model #3.3

		Direct	Indirect	Total
1.	Motivation			
	Values	-.61*	.20^{ns}	-.41*
	Understanding	.06^{ns}	-.01^{ns}	.06^{ns}
	Enhancement	-.10^{ns}	.19^{ns}	.08^{ns}
	Career	-.25^{ns}	.07^{ns}	-.18^{ns}
	Social	.60*	-.21^{ns}	.40*
	Protective	.18^{ns}	-.34^{ns}	-.16^{ns}

	Direct	Indirect	Total
2. Self-efficacy			
Relations with clients	$-.10^{ns}$	$.29^{ns}$	$.20^{ns}$
Relations with volunteers	-1.89**	$.89^{ns}$	-1.00**
Work competence	1.57*	$-.47^{ns}$	1.10*
Empathetic action	$.10^{ns}$	$-.77^{ns}$	$-.67^{ns}$
Social awareness	$-.47^{ns}$	1.15^{**}	.68**
3. Benefits			
Values	-.80***	.37*	-.43**
Understanding	$-.16^{ns}$	$.15^{ns}$	$-.01^{ns}$
Enhancement	$-.17^{ns}$	.37*	$.20^{ns}$
Career	$.02^{ns}$	$-.11^{ns}$	$-.09^{ns}$
Social	$-.09^{ns}$	$.08^{ns}$	$-.02^{ns}$
Protective	$-.04^{ns}$	$.10^{ns}$	$.06^{ns}$
4. Motivation-benefit match			
Values	.63**	$-.00^{ns}$	.63***
Understanding	$-.05^{ns}$	$.18^{ns}$	$.13^{ns}$
Enhancement	$-.05^{ns}$	$-.12^{ns}$	$-.17^{ns}$
Career	$-.03^{ns}$	$.08^{ns}$	$.05^{ns}$
Social	$-.21^{ns}$	$.16^{ns}$	$-.06^{ns}$
Protective	$-.21^{ns}$	$.19^{ns}$	$-.02^{ns}$
5. Satisfaction	$.39^{ns}$	.40**	.79**
6. Collective efficacy	$.84^{***}$	-.41*	.44**
7. Affective commitment	1.11***	--	1.12***

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

Table 6.21 lists the standardised direct effects of each of the variables on the endogenous variables, and the squared multiple correlations for each of the endogenous variables, as depicted in Figure 6.13. The squared multiple correlations indicate the variance associated with each of the endogenous variables and are analogous to R^2 in multiple regression analysis.

Table 6.21 Standardised direct effects and predictive value of factors influencing sustained volunteering – Model #3.3 ($N = 454$)

Variables	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1. Motivation				
Values	$.25^{ns}$	--	--	$-.61^{*}$
Understanding	$-.01^{ns}$	--	--	$.06^{ns}$
Enhancement	$.24^{ns}$	--	--	$-.10^{ns}$
Career	$.09^{ns}$	--	--	$-.25^{ns}$
Social	$-.26^{ns}$	--	--	$.60^{*}$
Protective	$-.43^{ns}$	--	--	$.18^{ns}$
2. Self-efficacy				
Relations with clients	$.28^{*}$	$.01^{ns}$	$.06^{ns}$	$-.10^{ns}$
Relations with volunteers	$.54^{ns}$	$.73^{***}$	$.13^{ns}$	-1.89^{**}
Work competence	$-.38^{ns}$	$-.44^{*}$	$.02^{ns}$	1.57^{*}
Empathetic action	$-.65^{*}$	$-.28^{ns}$	$-.13^{ns}$	$.10^{ns}$
Social awareness	$.56^{**}$	$.63^{***}$	$.39^{**}$	$-.47^{ns}$
3. Benefits				
Values	$.47^{***}$	--	--	$-.80^{***}$
Understanding	$.19^{ns}$	--	--	$-.16^{ns}$
Enhancement	$.09^{ns}*$	--	$.27^{***}$	$-.17^{ns}$
Career	$-.14^{ns}$	--	--	$.02^{ns}$
Social	$.01^{ns}$	--	--	$-.01^{ns}$
Protective	$-.03ns$	--	$.12^{ns}$	$-.04^{ns}$
4. Motivation-benefit match				
Values	$-.19^{ns}$	--	$.14^{**}$	$.63^{**}$
Understanding	$.02^{ns}$	$.23^{***}$	$.05^{ns}$	$-.05^{ns}$
Enhancement	$-.00^{ns}$	--	$-.11^{ns}$	$-.05^{ns}$
Career	$.04^{ns}$	--	$.04^{ns}$	$-.03^{ns}$
Social	$.00^{ns}$	--	$.14^{**}$	$-.21^{ns}$
Protective	$.23^{*}$	--	$.01^{ns}$	$-.21^{ns}$
5. Satisfaction	--	--	$.36^{***}$	$.39^{ns}$
6. Collective efficacy	$-.14^{ns}$	--	$-.27^{**}$	$.84^{***}$
7. Affective commitment	--	--	--	1.11^{***}
R^2	.75	.58	.80	.92

ns = not significant $* \ p < .05$ $** \ p < .01$ $*** \ p < .001$
The values of R^2 reported here are Hayduk's blocked-error- R^2 (beR^2) as described in Section 6.5.1.

As reported in Figure 6.13 and Table 6.21, 92 percent of the variation in sustained volunteering (SUV) was accounted for by the predictor variables in this model ($R^2 = .92$). The model also

accounted for 80 percent of the variation in AOC ($R^2 = .80$); 75 percent of the variation in SAT ($R^2 = .75$); and 58 percent of the variation in ($R^2 = .58$).

Conclusion to the SEM analysis of Model #3

This section has detailed the third SEM analysis of the conceptual model using path analysis with each scale and subscale as a separate latent variable in place of the global constructs used in Model #2. The resulting structural model demonstrated strong explanatory value, accounting for 92% of the variance in sustained volunteering, 80% of the variance in affective commitment, 75% and 58% of the variance in satisfaction and collective efficacy respectively. Affective commitment, values motivation-match, collective efficacy, satisfaction, social motivation and self-efficacy for work competence contributed significantly and positively to sustained volunteering, while self-efficacy for relations with volunteers, values motivation and values benefits were negative influences on sustained volunteering in this model (cf. Table 6.20). As for Model #1 and Model #2, affective commitment was the most significant direct influence on sustained volunteering in this model.

6.5.4   *Conclusion to testing the conceptual model*

This section summarises the outcomes of the three analyses of the conceptual model reported in Sections 6.5.1 to 6.5.3. Table 6.22 compares the fit statistics for the "final" modified model in each analysis. While the overall fit of the three models varies, all provide an acceptable fit to the data.

Table 6.22   Fit statistics for SEM analyses of conceptual model of sustained volunteering

Model	χ^2	df	p	RMSEA	CI	SRMR	CFI
1.3 (Multiple MVs)	1061.76	285	.000	.078	.07-.08	.077	.953
2.3 (Sums only)	.59	2	.743	.000	.00-.06	.003	1.00
3.3 (Multiple LVs)	48.04	27	.008	.041	.02-.06	.009	.999

RMSEA = Root Mean Square Error of Approximation
CI = 90% Confidence Interval for *RMSEA*
SRMR = Standardised Root Mean Square Residual
CFI = Comparative Fit Index

Table 6.23 compares the predictive strength of each endogenous variable within each of the three structural models. The predictive strength of the endogenous variables varies across the three analyses, particularly in relation to sustained volunteering; presumably, this is largely due to the use of single factors as indicators of separate latent variables as distinct from the use of multiple factors as indicators of a global construct.

Table 6.23 Predictive strength (R^2) of endogenous variables – different analyses of the conceptual model

Model	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1.3 (Multiple MVs)	.62	.45	.78	.49
2.3 (Sums only)	.66	.55	.55	.17
3.3 (Multiple LVs)	.75	.58	.80	.92

R^2 = squared multiple correlation (total coefficient of determination)

As with the different overall strengths of the predictors in each model, there are both similarities and discrepancies in the significant influences, i.e. path loadings, identified in each of the three models. The path loadings (standardised coefficients) and their levels of significance are presented in Table 6.24.

Table 6.24 Significant influences on the endogenous variables assessed by different SEM models ($N = 454$)

(Standardised path coefficients with levels of significance.)

(Additional paths based on modification indices are labelled HC to HE and shaded.)

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3
H1	MTV → SAT	MTV-Sum	-.64***	-.44***	
		MTV-Values			.25^{ns}
		MTV-Understanding			-.01^{ns}
		MTV-Enhancement			.24^{ns}
		MTV-Career			.09^{ns}
		MTV-Social			-.26*
		MTV-Protective			-.43^{ns}
H2	MTV → SUV	MTV-Sum	.38*	.12^{ns}	
		MTV-Values			-.61*
		MTV-Understanding			.06^{ns}
		MTV-Enhancement			-.10^{ns}
		MTV-Career			-.25^{ns}
		MTV-Social			.60*
		MTV-Protective			.18^{ns}
H3	BEN → SAT	BEN-Sum	.66***	.60***	
		BEN-Values			.47***
		BEN-Understanding			.19^{ns}
		BEN-Enhancement			.09*
		BEN-Career			-.14^{ns}
		BEN-Social			.01^{ns}
		BEN-Protective			-.03^{ns}

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3
H4	BEN → SUV	BEN-Sum	-.85***	-.24^{ns}	
		BEN-Values			-.80***
		BEN-Understanding			-.16^{ns}
		BEN-Enhancement			-.17^{ns}
		BEN-Career			.02^{ns}
		BEN-Social			-.01^{ns}
		BEN-Protective			-.04^{ns}
HC	BEN → AOC	BEN-Sum	.43***	.35***	
		BEN-Enhancement			.27***
		BEN-Protective			.12^{ns}
HD	BEN → CEV	BEN-Sum	.08^{ns}	.02^{ns}	
H5	MBM → SAT	MBM-Sum	.28*	.05^{ns}	
		MBM-Values			-.19^{ns}
		MBM-Understanding			.02^{ns}
		MBM-Enhancement			-.00^{ns}
		MBM-Career			.04^{ns}
		MBM-Social			.00^{ns}
		MBM-Protective			.23*
H6	MBM → AOC	MBM-Sum	.07^{ns}	.02^{ns}	
		MBM-Values			.14**
		MBM-Understanding			.05^{ns}
		MBM-Enhancement			-.11^{ns}
		MBM-Career			.04^{ns}
		MBM-Social			.14**
		MBM-Protective			.01^{ns}
H7	MBM → SUV	MBM-Sum	-.25^{ns}	-.06^{ns}	
		MBM-Values			.63**
		MBM-Understanding			-.05^{ns}
		MBM-Enhancement			-.05^{ns}
		MBM-Career			-.03^{ns}
		MBM-Social			-.21^{ns}
		MBM-Protective			-.21^{ns}
HE	MBM → CEV	MBM-Sum	.22*	.14*	
		MBM-Understanding			.23***
H8	SAT → AOC	SAT-Sum	.36***	.24***	.36***
H9	SAT → SUV	SAT-Sum	.05^{ns}	.15^{ns}	.39^{ns}
H10	AOC → SUV	AOC-Sum	1.16***	.40***	1.11***
H11	SEV → CEV	SEV-Sum	.50***	.67***	

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3
		SEV-RC			$.01^{ns}$
		SEV-RV			.73***
		SEV-WC			$-.44^{*}$
		SEV-EA			$-.28^{ns}$
		SEV-SA			.63***
H12	SEV → SAT	SEV-Sum	.30***	$-.03^{ns}$	
		SEV-RC			.28*
		SEV-RV			$.54^{ns}$
		SEV-WC			$-.38^{ns}$
		SEV-EA			-.65*
		SEV-SA			.56**
H13	SEV → AOC	SEV-Sum	.35***	.16**	
		SEV-RC			$.06^{ns}$
		SEV-RV			$.13^{ns}$
		SEV-WC			$.02^{ns}$
		SEV-EA			$-.13^{ns}$
		SEV-SA			.39**
H14	SEV → SUV	SEV-Sum	-.55***	$-.11^{ns}$	
		SEV-RC			$-.10^{ns}$
		SEV-RV			-1.89**
		SEV-WC			1.57*
		SEV-EA			$.10^{ns}$
		SEV-SA			$-.47^{ns}$
H15	CEV → SAT	CEV-Sum	$.04^{ns}$	.55***	-14^{ns}
H16	CEV → AOC	CEV-Sum	-.19**	.16*	-.27**
H17	CEV → SUV	CEV-Sum	.56***	$.11^{ns}$	.84***

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

NOTE: This table presents path coefficients with significance levels, rather than *t*-values to facilitate comparison of the direct effects of variables across different SEM analyses.

The SEM analyses of the conceptual model identified 11 direct influences on sustained volunteering, six positive and five negative (cf. Table 6.24). The positive influences were: AOC ($p < .001$), CEV ($p < .001$), MTV overall (MTV-Sum, $p < .05$), especially MTV-Social ($p < .05$), MBM-Values ($p < .01$) and SEV-WC ($p < .05$). The negative influences were: SEV overall (SEV-Sum, $p < .001$), especially SEV-RV ($p < .01$), BEN overall (BEN-Sum, $p < .001$), especially BEN-Values ($p < .001$) and MTV-Values ($p < .05$).

AOC was significantly influenced by SAT ($p < .001$), SEV-Sum (SEV overall, $p < .001$), especially SEV-SA ($p < .01$), BEN-Sum (overall) ($p < .001$) and BEN-Enhancement ($p < .001$)

in particular, as well as MBM-Values ($p < .01$), MBM-Social ($p < .01$). The influence of collective efficacy on affective commitment is problematic; it was identified as a negative influence in Models #1.3 and #3.3 (both ($p < .01$) and as a positive influence in Model #2.3 ($p < .05$).

While SAT was a significant predictor of AOC, BEN-Sum (overall) ($p < .001$), and BEN-Values ($p < .001$) in particular, were positive influences on SAT, along with MBM-Sum and MBM-Protective (both $p < .05$), SEV-Sum ($p < .001$), SEV-SA ($p < .01$) and SEV-RC ($p < .05$). Negative influences on SAT were: MTV-Sum (MTV overall) ($p < .001$), and SEV-EA ($p < .05$). SAT did not influence SUV directly but, as already noted, SAT, SEV-Sum, SEV-SA, BEN-Sum, BEN-Enhancement, MBM-Values and MBM-Social were significant influences on AOC which, in turn, influenced SUV significantly.

There were five significant (positive) influences on CEV: SEV-Sum, SEV-RV and SEV-SA (all $p < .001$), as well as MBM-Sum ($p < .05$) and MBM-Understanding ($p < .001$), while CEV was identified as a significant influence on SAT ($p < .001$) in Model #2.3 only. SEV-WC ($p < .05$) was the only negative influence on CEV identified in the analyses.

As discussed in Section 6.5.2, self-efficacy for volunteering (SEV), collective efficacy for volunteering (CEV) and motivation-benefit match (MBM) were key variables studied in relation to sustained volunteering. In the SEM analyses of the hypothesised model, each of these variables had a significant influence on SUV, either direct or indirect or both. SEV-WC ($p < .05$) influenced SUV directly, while SEV-Sum ($p < .001$) and SEV-RV ($p < .01$) were negative influences; SEV-Sum ($p < .001$) and SEV-SA ($p < .01$) influenced AOC, which was the most significant influence on SUV. CEV directly influenced SUV ($p < .001$), but the total effect of CEV on SUV was reduced by indirect effects (cf. Tables 6.10 and 6.20). MBM-Values ($p < .01$) directly influenced SUV, while MBM-Values and MBM-Social (both $p < .01$) influenced AOC directly and hence SUV indirectly. MBM-Sum and MBM-Protective influenced SAT directly (both $p < .05$) and hence influenced SUV indirectly mediated by AOC. MBM-Sum ($p < .05$) and MBM-Understanding ($p < .001$) influenced CEV directly and hence indirectly influenced SUV (cf. Table 6.24).

The similarities and differences in the three analyses of the conceptual model can be seen in Table 6.24. The significant influences on sustained volunteering are aligned across all three models, except that Model #2.3 produced different outcomes to Models #1.3 and #3.3 in relation to collective efficacy (CEV) and the exogenous variables which all had separate factors or scales, motivation, benefits, motivation-benefit match, and self-efficacy. Models #1.3 and #3.3 include these separate factor or scale scores in the SEM analysis, whereas, in Model #2.3, these factor or scale scores have been combined into a composite score to be used as a single indicator for the construct represented by the latent variable (cf. Section 6.5). Model #1.3

represents the SEM analysis of the structural model based on the measurement model developed in Chapter 5 (cf. Section 5.12) and Model #1.3 uses composite scale scores as indicators or measured variables of the latent constructs. Model #3.3 uses a latent variable corresponding to each scale or subscale of each of the exogenous variables, motivation, benefits, motivation-benefit match, and self-efficacy, and with the weighted composite score as the single indicator for each of these latent variables (cf. Section 6.5.3). This third SEM analysis (Model #3.3) was used to determine the separate influence of each factor as distinct from the influence of the global construct, as required to answer the research questions posed for the present study. For example, in relation to Research Question 1, regarding volunteers "… who are motivated by a particular function(s) …", this third analysis enabled examination of the influence of motivation as a function of the six functional motivations as discrete variables as distinct from the influence of motivation in general, that is, all six functional motivations combined (cf. Section 6.1). After careful analysis and reflection, Models #1.3 and #3.3 were selected as providing a valid and comprehensive basis for addressing the research questions and hypothesises established for the present study.

Section 6.6 examines possible alternative models based on ex post facto empirical analysis of the data in the present study and the SEM analyses of these models. Section 6.7 compares the SEM analyses of these empirical models with the analyses of the conceptual model reported in Section 6.5.

6.6   Investigating alternative models

Traditionally, SEM techniques are intended to be used for model confirmation rather than model development. In SEM research, the issue of model modification is contentious; any post hoc modification of the hypothesised model to improve model fit needs to be justified on theoretical grounds. SEM analysis generates modification indices suggesting additional relationships between variables which would improve model fit. The modification indices for the SEM analyses of the a priori conceptual model were examined in Sections 6.5.1, 6.5.2 and 6.5.3. Some researchers have explored ways in which inspection of the data can lead them to modify their models even before using SEM programs (Maruyama, 1998, p. 274).

In the context of the study's research questions and hypotheses, the relationships between the measured (observed) variables were examined empirically, independently of the theoretical relationships hypothesised in the conceptual model. This ex post facto examination was conducted from two perspectives: using correlation analysis (non-directional relationships) and regression analysis (directional relationships) to identify direct and indirect influences. The outcomes of these two analyses were used to construct two ex post facto empirical models, a "correlation model" and a "regression model". These models were then tested using SEM.

Details of the correlation model and its SEM analysis are reported in Section 6.6.1; details of the regression model and its SEM analysis are reported in Section 6.6.2. The results of the SEM analyses of these two empirical models and the analyses of the a priori conceptual model are compared in Section 6.7.

6.6.1   *Developing and testing an empirical "correlation model"*

This section reports the development and testing of an empirical model based on correlation analysis of the data for the present study. While supporting the significance of the 17 relationships hypothesised in the conceptual model, the correlational analysis reported in Section 6.4 also suggests five additional relationships between an independent variable and a dependent variable: motivation to volunteer and affective organisational commitment; motivation to volunteer and collective efficacy; benefits of volunteering and affective organisational commitment; benefits of volunteering and collective efficacy; and motivation-benefit match and collective efficacy. These additional relationships are detailed in Appendix 6C and summarised in Table 6.25.

Table 6.25   Summary of additional significant correlations

#	Hypothesis	Single indicator variable	Composite variables
HA	MTV → AOC	MTV-Sum**	MTV-V, U, E, C, S, P – all 6**
HB	MTV → CEV	MTV-Sum**	MTV-V, U, E, S, P – all 5** MTV-C[ns]
HC	BEN → AOC	BEN-Sum**	BEN-V, U, E, C, S, P – all 6**
HD	BEN → CEV	BEN-Sum**	BEN-V, U, E, S, P – all 5** BEN-C*
HE	MBM → CEV	MBM-Sum**	MBM-V, U, E, S, P – all 5** MBM-C*

ns = not significant   * $p < .05$ ** $p < .01$

A "correlation model" was constructed which included the 17 paths from the conceptual model and the five additional paths identified in the correlation analysis. The SEM analysis of this model is detailed in Appendix 6D, and the outcomes are summarised in Table 6.26.

Table 6.26 Standardised direct effects and predictive value of factors influencing sustained volunteering in the correlational model

Variables	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1. Motivation	$-.45^{***}$	$-.01^{ns}$	$.05^{ns}$	$.12^{ns}$
2. Self-efficacy	$-.02^{ns}$	$.67^{**}$	$.16^{**}$	$-.11^{ns}$
3. Benefits	$.60^{***}$	$.02^{ns}$	$.32^{***}$	$-.24^{ns}$
4. Motivation-benefit match	$.06^{ns}$	$.14^{*}$	$-.01^{ns}$	$-.06^{ns}$
5. Satisfaction	-	-	$.29^{**}$	$.15^{ns}$
6. Collective efficacy	$.55^{***}$	-	$.13^{ns}$	$.11^{ns}$
7. Affective commitment	-	-	-	$.39^{**}$
R^2	.66	.55	.55	.17

ns = not significant $*\ p < .05$ $**\ p < .01$ $***\ p < .001$
The values of R^2 reported here are Hayduk's blocked-error-R^2 (beR^2) as described in Section 6.5.1.

The results of this SEM analysis of the correlation model are compared with the results of the regression model and the analyses of the conceptual model in Section 6.7.

6.6.2   Developing and testing an empirical "regression model"

This section reports the development and testing of an empirical model based on regression analysis of the data for the present study. Stepwise multiple regression analysis was used to develop and test an 'a posteriori' empirical model. The results of the multiple regression analysis are reported in Appendix 6E and the results of the SEM analysis are reported in Appendix 6F and summarised in Tables 6.27 and 6.28.

Table 6.27 Summary of fit statistics for regression model of sustained volunteering

	χ^2	df	RMSEA	RMSEA 90% CI	SRMR	CFI
Regression	60.38	64	.00	.00 - .03	.01	1.00
Threshold			< .08	< .08	< .08	> .90

RMSEA = Root Mean Square Error of Approximation
CI = Confidence Interval
SRMR = Standardised Root Mean Square Residual
CFI = Comparative Fit Index

Table 6.28   Standardised direct effects and predictive value of factors influencing sustained volunteering in the regression model

Variables	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1. Motivation				
Values	-	-	.09*	$-.14^{ns}$
Understanding	-	-	-	-
Enhancement	-	-	$-.02^{ns}$	-
Career	-	-	-	-
Social	-.15**	-	-	.14**
Protective	-.24***	.09*	-	-
2. Self-efficacy				
Relations with clients	-	.24***	-	$-.18^{ns}$
Relations with volunteers	-	.17***	$.09^{ns}$	-.10*
Work competence	-	-	-	.25***
Empathetic action	-.13*	-	-	-
Social awareness	-	.47***	-	-
3. Benefits				
Values	.38***	-	.13***	-
Understanding	-	-	-	-
Enhancement	.22***	$-.03^{ns}$	.17**	-
Career	-	-.08*	-	-
Social	.18***	-	.13*	-
Protective	-	-	$.09^{ns}$	-
4. Motivation-benefit match				
Values	-	-	-	-
Understanding	-	.08*	-	-
Enhancement	-	$.05^{ns}$	-	-
Career	-	-	$.03^{ns}$	$-.09^{ns}$
Social	-	-	-	-
Protective	.12*	-	-	-
5. Satisfaction	-	-	.18*	$.07^{ns}$
6. Collective efficacy	.53***		.21**	
7. Affective commitment	-	-	-	.31***
R^2	.72	.62	.55	.15

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$
The values of R^2 reported here are Hayduk's blocked-error- R^2 (beR^2) as described in Section 6.5.1.

The results of this SEM analysis of the regression model are compared with the results of the correlation model and the analyses of the conceptual model in Section 6.7.

6.7   Comparison of the conceptual model and the empirical models

This section compares the results of the SEM analyses of the conceptual model with the analyses of the correlation and regression empirical models. Table 6.29 compares the fit statistics of the conceptual and empirical models, while Table 6.30 compares the predictive strengths of the endogenous variables as measured by the different models.

Table 6.29 indicates that the SEM analysis of each model indicates an acceptable fit of the data to the model. The RMSEA for both the Model #2.3 and the correlation model is .000; as described in Appendix 6D, three of the five additional paths in the correlation model were also suggested as additional paths by modification indices for Model #2 and were included in Model #2.3 resulting in the correlation model approximating closely to Model #2.3. The close comparison of the outcomes of the correlation model with those of Model #2.3 can be seen in Table 6.31 in this section. Model #2.3 and the (empirical) correlation model each accounts for 17% of the variance in sustained volunteering (cf. Table 6.30). The RMSEA for the regression model is also .000; this very close fit is not surprising, given that the regression model was developed by combining significant relationships identified in separate multiple regressions on each of the four endogenous variables and then using SEM to simultaneously assess these relationships in the resulting model (cf. Appendices 6E and 6F). The (empirical) regression model accounts for 10% of the variance in sustained volunteering (cf. Table 6.30).

Table 6.29   Fit statistics for conceptual and empirical models of sustained volunteering

Model	χ^2	df	RMSEA	RMSEA 90% CI	SRMR	CFI
1.3 (Multiple MVs)	1061.76	285	.078	.07 - .08	.077	.952
2.3 (Sums only)	.59	2	.000	.00 - .07	.003	1.000
3.3 (Multiple latents)	35.16	27	.026	.00 - .05	.011	.999
Empirical (Correlation)*	0.00	0	.000	-	-	-
Empirical (Regression)	60.38	64	.000	.00 - .03	.010	1.000
Threshold			< .08	< .08	< .08	> .90

RMSEA = Root Mean Square Error of Approximation
CI = Confidence Interval
SRMR = Standardised Root Mean Square Residual
CFI Comparative Fit Index
* model is saturated; the fit is perfect.

Table 6.30 compares the predictive strength of each endogenous variable within each of the five structural models analysed in this chapter. The predictive strength of the endogenous variables varies across the five analyses, particularly in relation to sustained volunteering; presumably, this is due largely to the use of multiple measures as indicators of a global construct (Model #1.3), as distinct from using a single composite (multi-factor) score as the indicator of that construct (Model #2.3 and correlation model), or using a separate latent variable for each factor or scale (Model #3.3 and regression model).

Table 6.30 Comparison of the predictive strength (R^2) of endogenous variables – conceptual and empirical models

Model	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1.3 (Multiple MVs)	.62	.45	.78	.49
2.3 (Sums only)	.66	.55	.55	.17
3.3 (Multiple latents)	.75	.58	.80	.92
Correlation	.66	.55	.55	.17
Regression	.75	.68	.58	.10*

R^2 = squared multiple correlation (total coefficient of determination)

Table 6.31 lists, by hypothesis, the comparative influences on sustained volunteering and the other endogenous variables as assessed by the different analyses of the conceptual and empirical models.

Table 6.31 Significant influences for each hypothesis as assessed by different SEM analyses of the conceptual and empirical models (*t*-values)

(Additional paths based on modification indices are labelled HA to HE and shaded.)

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3	Correlation	Regression
H1	MTV → SAT	MTV-Sum	-6.41***	-7.11***		-7.13***	
		MTV-Values			1.40^{ns}		
		MTV-Understanding			$-.04^{ns}$		
		MTV-Enhancement			$.55^{ns}$		
		MTV-Career			$.72^{ns}$		
		MTV-Social			-1.76^{ns}		-2.83**
		MTV-Protective			-1.50^{ns}		-4.24***
H2	MTV → SUV	MTV-Sum	2.47*	1.24^{ns}		1.22^{ns}	
		MTV-Values			-2.06*		-2.61**
		MTV-Understanding			$.19^{ns}$		
		MTV-Enhancement			$-.16^{ns}$		
		MTV-Career			-1.28^{ns}		
		MTV-Social			2.43*		2.89**
		MTV-Protective			$.40^{ns}$		
HA	MTV → AOC					.76	
		MTV-Values					2.25*
		MTV-Enhancement					$-.45^{ns}$
HB	MTV → CEV					-.13	
		MTV-Protective					2.33*
H3	BEN → SAT	BEN-Sum	6.25***	7.93***		7.95***	
		BEN-Values			4.39***		7.89***
		BEN-Understanding			1.58^{ns}		
		BEN-Enhancement			$.58^{ns}$		4.47***

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3	Correlation	Regression
		BEN-Career			-1.26^{ns}		
		BEN-Social			$.89^{ns}$		3.51^{***}
		BEN-Protective			$-.31^{ns}$		
H4	BEN → SUV	BEN-Sum	-4.11^{***}	-1.94^{ns}		-1.94^{ns}	
		BEN-Values			-3.67^{***}		
		BEN-Understanding			$-.85^{ns}$		
		BEN-Enhancement			$-.69^{ns}$		
		BEN-Career			$.12^{ns}$		
		BEN-Social			$-.61^{ns}$		
		BEN-Protective			$-.29^{ns}$		
HC	BEN → AOC	BEN-Sum	4.16^{***}	4.66^{***}		3.79^{***}	
		BEN-Values					3.83^{***}
		BEN-Enhancement			3.93^{***}		3.05^{**}
		BEN-Social					2.29^{*}
		BEN-Protective			1.84^{ns}		1.77^{ns}
HD	BEN → CEV	BEN-Sum	$.80^{ns}$	$.28^{ns}$		$.29^{ns}$	
		BEN-Enhancement					$-.64^{ns}$
		BEN-Career					-2.23^{*}
H5	MBM → SAT	MBM-Sum	2.00^{*}	$.59^{ns}$		$.63^{ns}$	
		MBM-Values			-1.69^{ns}		
		MBM-Understanding			$.18^{ns}$		
		MBM-Enhancement			$-.02^{ns}$		
		MBM-Career			$.46^{ns}$		
		MBM-Social			$.03^{ns}$		
		MBM-Protective			2.12^{*}		2.36^{*}
H6	MBM → AOC	MBM-Sum	$.71^{ns}$	$.28^{ns}$		$-.07^{ns}$	
		MBM-Values			2.62^{**}		
		MBM-Understanding			$.83^{ns}$		
		MBM-Enhancement			-1.83^{ns}		
		MBM-Career			$.95^{ns}$		$.94^{ns}$
		MBM-Social			2.76^{**}		
		MBM-Protective			$.20^{ns}$		
H7	MBM → SUV	MBM-Sum	-1.42^{ns}	$-.62^{ns}$		$-.62^{ns}$	
		MBM-Values			3.19^{**}		
		MBM-Understanding			$-.25^{ns}$		
		MBM-Enhancement			$-.18^{ns}$		
		MBM-Career			$-.21^{ns}$		-2.01^{*}
		MBM-Social			-1.38^{ns}		

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3	Correlation	Regression
		MBM-Protective			-1.16^{ns}		
HE	MBM → CEV	MBM-Sum	2.19*	2.21*		1.97*	
		MBM-Understanding			4.29***		2.09*
		MBM-Enhancement					1.19^{ns}
H8	SAT → AOC	SAT-Sum	4.78***	3.37***	4.32***	3.01**	2.11*
H9	SAT → SUV	SAT-Sum	.23^{ns}	1.09^{ns}	1.02^{ns}	1.07^{ns}	1.01^{ns}
H10	AOC → SUV	AOC-Sum	4.29***	4.84***	3.60***	4.73***	4.57***
H11	SEV → CEV	SEV-Sum	8.75***	17.44***		17.34***	
		SEV-RC			.09^{ns}		4.06***
		SEV-RV			3.84***		4.82***
		SEV-WC			-2.22*		
		SEV-EA			-1.92^{ns}		
		SEV-SA			5.26***		9.98***
H12	SEV → SAT	SEV-Sum	3.96***	-.37^{ns}		-.35^{ns}	
		SEV-RC			2.49*		
		SEV-RV			1.49^{ns}		
		SEV-WC			-1.09^{ns}		
		SEV-EA			-2.05*		-2.28
		SEV-SA			2.65**		
H13	SEV → AOC	SEV-Sum	5.39***	2.99**		2.97**	
		SEV-RC			.76^{ns}		
		SEV-RV			.61^{ns}		1.77^{ns}
		SEV-WC			.11^{ns}		
		SEV-EA			-.83^{ns}		
		SEV-SA			2.56*		
H14	SEV → SUV	SEV-Sum	-3.69***	-1.32^{ns}		-1.32^{ns}	
		SEV-RC			-.46^{ns}		-1.77^{ns}
		SEV-RV			-2.63**		-2.30*
		SEV-WC			2.41*		3.38***
		SEV-EA			.19^{ns}		
		SEV-SA			-1.06^{ns}		
H15	CEV → SAT	CEV-Sum	.43^{ns}	7.50***	-1.21^{ns}	7.51***	8.97***
H16	CEV → AOC	CEV-Sum	-2.60**	2.15*	-2.71**	1.57^{ns}	2.97***
H17	CEV → SUV	CEV-Sum	4.26***	.91^{ns}	3.59***	.91^{ns}	-

ns = not significant   * *p* < .05   ** *p* < .01   *** *p* < .001

NOTE: This table presents *t*-values and their significance levels, rather than path coefficients as presented in previous tables, to highlight where differences in significance levels across different models are marginal.

Table 6.32 presents a reorganisation of Table 6.31 by influences on each endogenous variable rather than by hypothesis. All of the influences on each endogenous variable are grouped together and shaded in a different colour. This view of the SEM outputs enables direct comparison of all influences on each endogenous variable.

Table 6.32 Significant influences on each endogenous variable as assessed by different SEM analyses of the conceptual and empirical models (*t*-values)

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3	Correlation	Regression
H2	MTV → SUV	MTV-Sum	2.47*	1.24		1.22	
		MTV-Values			-2.06*		-2.61**
		MTV-Understanding			.19		
		MTV-Enhancement			-.16		
		MTV-Career			-1.28		
		MTV-Social			2.43*		2.89**
		MTV-Protective			.40		
H4	BEN → SUV	BEN-Sum	-4.11***	-1.94		-1.94	
		BEN-Values			-3.67***		
		BEN-Understanding			-.85		
		BEN-Enhancement			-.69		
		BEN-Career			.12		
		BEN-Social			-.61		
		BEN-Protective			-.29		
H7	MBM → SUV	MBM-Sum	-1.42	-.62		-.62	
		MBM-Values			3.19**		
		MBM-Understanding			-.25		
		MBM-Enhancement			-.18		
		MBM-Career			-.21		-2.01*
		MBM-Social			-1.38		
		MBM-Protective			-1.16		
H9	SAT → SUV	SAT-Sum	.23	1.09	1.02	1.07	1.01^{ns}
H10	AOC → SUV	AOC-Sum	4.29***	4.84***	3.60***	4.73***	4.57***
H14	SEV → SUV	SEV-Sum	-3.69***	-1.32		-1.32	
		SEV-RC			-.46		-1.77
		SEV-RV			-2.63**		-2.30*
		SEV-WC			2.41*		3.38***
		SEV-EA			.19		
		SEV-SA			-1.06		
H17	CEV → SUV	CEV-Sum	4.26***	.91	3.59***	.91	-
HA	MTV → AOC					.76	
		MTV-Values					2.25*
		MTV-Enhancement					-.45^{ns}
HC	BEN → AOC	BEN-Sum	4.16***	4.66***		3.79***	

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3	Correlation	Regression
		BEN-Values					3.83***
		BEN-Enhancement			3.93***		3.05**
		BEN-Social					2.29*
		BEN-Protective			1.84		1.77[ns]
H6	MBM → AOC	MBM-Sum	.71	.28		-.07	
		MBM-Values			2.62**		
		MBM-Understanding			.83		
		MBM-Enhancement			-1.83		
		MBM-Career			.95		.94[ns]
		MBM-Social			2.76**		
		MBM-Protective			.20		
H8	SAT → AOC	SAT-Sum	4.78***	3.37***	4.32***	3.01**	2.11*
H13	SEV → AOC	SEV-Sum	5.39***	2.99**		2.97**	
		SEV-RC			.76		
		SEV-RV			.61		1.77[ns]
		SEV-WC			.11		
		SEV-EA			-.83		
		SEV-SA			2.56*		
H16	CEV → AOC	CEV-Sum	-2.60**	2.15*	-2.71**	1.57	2.97***
H1	MTV → SAT	MTV-Sum	-6.41***	-7.11***		-7.13***	
		MTV-Values			1.40		
		MTV-Understanding			-.04		
		MTV-Enhancement			.55		
		MTV-Career			.72		
		MTV-Social			-1.76		-2.83**
		MTV-Protective			-1.50		-4.24***
H3	BEN → SAT	BEN-Sum	6.25***	7.93***		7.95***	
		BEN-Values			4.39***		7.89***
		BEN-Understanding			1.58		
		BEN-Enhancement			.58		4.47***
		BEN-Career			-1.26		
		BEN-Social			.89		3.51***
		BEN-Protective			-.31		
H5	MBM → SAT	MBM-Sum	2.00*	.59		.63	
		MBM-Values			-1.69		
		MBM-Understanding			.18		
		MBM-Enhancement			-.02		
		MBM-Career			.46		
		MBM-Social			.03		
		MBM-Protective			2.12*		2.36*
H12	SEV → SAT	SEV-Sum	3.96***	-.37		-.35	
		SEV-RC			2.49*		

#	Hypothesis	Composite variable	Model #1.3	Model #2.3	Model #3.3	Correlation	Regression
		SEV-RV			1.49		
		SEV-WC			-1.09		
		SEV-EA			-2.05*		-2.28
		SEV-SA			2.65**		
H15	CEV → SAT	CEV-Sum	.43	7.50***	-1.21	7.51***	8.97***
HE	MBM → CEV	MBM-Sum	2.19*	2.21*		1.97*	
		MBM-Understanding			4.29***		2.09*
		MBM-Enhancement					1.19^{ns}
HB	MTV → CEV					-.13	
		MTV-Protective					2.33*
H11	SEV → CEV	SEV-Sum	8.75***	17.44***		17.34***	
		SEV-RC			.09		4.06***
		SEV-RV			3.84***		4.82***
		SEV-WC			-2.22*		
		SEV-EA			-1.92		
		SEV-SA			5.26***		9.98***
HD	BEN → CEV	BEN-Sum	.80	.28		.29	
		BEN-Enhancement					-.64
		BEN-Career					-2.23*

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

All models identify affective organisational commitment as a highly significant and positive influence on sustained volunteering. Other significant influences common to two models are collective efficacy, social motivation and self-efficacy for work competence which are positive, and values motivation and self-efficacy for relations with volunteers which are negative. In Model #1.3, motivation overall is a positive influence on sustained volunteering, while benefits overall and self-efficacy overall are negative influences.

As discussed in Section 6.6, the correlation and regression models were developed to examine empirically the relationships between the measured variables in the present study independently of the theoretical relationships hypothesised by the conceptual model. This examination has the potential to identify possible modifications to the model. As with the additional paths suggested by modification indices, any proposed modifications to the model based on the empirical ex post facto analysis must be justified on theoretical grounds. The results reported in this section provide a basis for possible modifications to the conceptual model developed for this study; possible alternative models are discussed in Chapter 8 (cf. Section 8.6).

6.8   Chapter summary and conclusion

Based on the measurement model developed and assessed in Chapter 5, this chapter has applied structural equation modelling (SEM) to analyse the conceptual model adopted for the present study. Separate analyses were conducted using weighted factor scores of multi-factor variables as indicators, measured variables, of those variables, and using path analysis to assess the influence of each of the factors as a separate latent variable. These separate analyses provided indications of the direct and indirect influence of the different variables on sustained volunteering, including the separate influence of the factors which contribute to the multi-factor variables.

The relationships between the variables were also examined independently of the relationships hypothesised in the conceptual model. The results of correlational analysis and multiple regression analysis were analysed using structural equation modelling. These empirical analyses are generally consistent with the analyses of the conceptual model and support the additional paths suggested by the modification indices for the analyses of the conceptual model.

The three SEM analyses of the conceptual model (Models #1, #2 and #3) have demonstrated a high level of commonality with each other (cf. Section 6.5.4). Model #3.3, with a separate latent variable for each factor or subscale of the exogenous variables, has offered the strongest explanatory interpretation of the conceptual model as a predictor of sustained volunteering.

As discussed in Section 6.5.4, the SEM analyses of Models #1.3 and #3.3 were selected as providing a valid and comprehensive basis for addressing the research questions and hypothesises established for the present study.

Based on the analyses of Models #1.3 and #3.3, affective organisational commitment and collective efficacy were the most significant predictors of sustained volunteering, with motivation also a positive influence and social motivation in particular, as well as self-efficacy for work competence. Negative influences on sustained volunteering were benefits of volunteering overall and values benefits in particular, self-efficacy overall and, in particular, self-efficacy for relationships with volunteers, as well as values motivation.

Benefits of volunteering, satisfaction with the volunteering experience, self-efficacy overall, and self-efficacy for social awareness in particular, were significant predictors of affective organisational commitment, as were the match of motivation and benefits for values and social motives. Collective efficacy was a negative influence on organisational commitment.

Chapter 7 applies the results of the analyses of Models #1.3 and #3.3 to answer the research questions posed for this study and to examine their support for the hypotheses which gave rise to the conceptual model.

Chapter Seven - Discussion of Findings

7.1   Introduction

This chapter applies the results of the SEM analyses reported in Chapter 6. As detailed in Chapter 6 (Sections 6.5.4 and 6.8), the results of the analyses of Models #1.3 and #3.3 will be used in this chapter to address the research questions posed for this study and to assess support for the hypotheses which gave rise to the conceptual model. Answers to the research questions stated in Chapter 1 (cf. Section 1.7) are examined and support for the hypotheses developed in Chapter 3 (cf. Section 3.15.2) is tested. Findings in relation to each of the variables included in the model are discussed both in terms of their direct influence on sustained volunteering and their indirect influence through other variables.

The research questions that shaped this investigation concern the strength and significance of the pathways that link the various factors or variables to each other and to sustained volunteering in the conceptual model developed for this study (cf. Chapter 6, Figure 6.1). The model represents satisfaction, collective efficacy, organisational commitment and sustained volunteering scales as dependent or endogenous variables. Motivation, self-efficacy, functional benefits, and motivation-benefit match are constructed as independent or exogenous variables. The pathways represented in the hypothesised conceptual model correspond to a series of 17 hypotheses. Sections 7.2 and 7.3 discuss the answers to the research questions and the support for the hypotheses based on the model statistics reported in Chapter 6, principally the direct effects of the independent variables on sustained volunteering for each of the conceptual model analyses Model #1.3 and #3.3, as reported in Table 6.24, and the direct, indirect and total effects on sustained volunteering as reported in Tables 6.10 and 6.20, and the direct effects of the independent variables on the endogenous variables as reported for Model #1.3 in Table 6.11.

7.2   Research questions answered

The principal research question posed for this study was: How do dispositional and organisational factors influence sustained volunteering, that is, a volunteer's continued involvement with a community service organisation? Specifically, to what extent do the variables selected for this study – that is, motivation, self-efficacy, functional benefits, motivation-benefit match, satisfaction, collective efficacy and affective commitment to the organisation - taken individually or in combination, influence the sustained involvement of the volunteer?

The nature and extent of the influence of each individual factor, either direct or indirect, or combinations of factors, were examined by way of a series of subquestions, RQ1 – RQ8. Research questions 1 to 7 (RQ1 to RQ7) examine the influence of the different factors on

sustained volunteering. Each question relates to one of the pathways represented in the proposed model of sustained volunteering (cf. Figure 7.1) and one of the 17 postulated hypotheses developed for this study and discussed in Section 7.3 (cf. Figure 7.2). The answers are the results of the analyses within the context of the multivariate model. A further research question, RQ8, also investigates the combined influence of these variables.
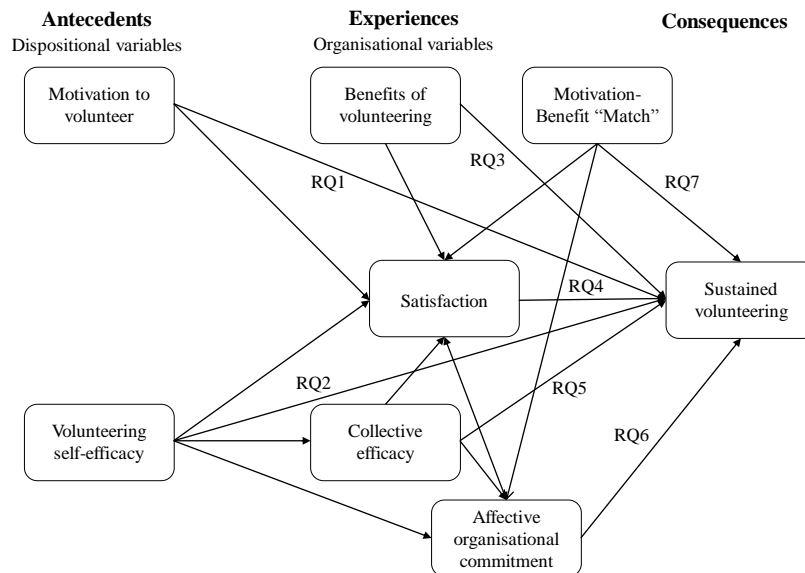
Figure 7.1   Conceptual model of sustained volunteering showing research questions

In the remainder of this section, for each of the eight research questions, the question is stated (as RQ1, etc.) followed by the ANSWER based on the model statistics. This is followed by a common language statement of the answer in *italics*.

RQ1: How does a volunteer's motivation for volunteering influence their sustained volunteering? Are volunteers who are motivated by a particular function(s) more likely to continue their volunteering with the organisation? [Hypothesis 2]

ANSWER: Functional motivation as a whole (MTV-Sum) directly influences sustained volunteering (SUV) ($p < .05$), but its total effect is not significant (cf. Chapter 6, Table 6.10). Among the six functional types, social motivation (MTV-Social) influences sustained volunteering directly ($p < .05$), while values motivation (MTV-Values) exerts a negative influence on sustained volunteering ($p < .05$) (cf. Chapter 6, Table 6.20).

The strength of volunteers' motivations overall exerts a positive influence on their continued volunteering with the organisation, but those who volunteer primarily to strengthen social

relationships are more likely to continue volunteering, while those whose primary motivation is to help others based on values such as humanitarianism are less likely to continue volunteering.

RQ2: How does a volunteer's belief in his/her ability to be an effective volunteer (self-efficacy for volunteering) influence their sustained volunteering? [Hypothesis 14]

ANSWER: Self-efficacy overall (SEV-Sum) is a negative direct influence on sustained volunteering (SUV) ($p < .001$), but its total effect is positive (cf. Chapter 6, Table 6.10). However, work competence (SEV-WC) influences sustained volunteering positively ($p < .05$), while relationships with volunteers (SEV-RV) exerts a negative influence on sustained volunteering ($p < .01$) (cf. Chapter 6, Table 6.24).

Volunteers with higher overall self-efficacy may be less likely to continue volunteering with the same organisation. However, volunteers who see themselves as handling their volunteering tasks effectively and making a positive contribution are more likely to continue their volunteering with the current organisation, whereas volunteers who perceive themselves as not capable of building relationships with other volunteers as co-workers may be less likely to continue volunteering.

RQ3: How do the benefits received from volunteering influence a volunteer's sustained volunteering? [Hypothesis 4]

ANSWER: Benefits of volunteering overall (BEN-Sum) are a negative influence on sustained volunteering ($p < .001$) with values benefits (BEN-Values) in particular influencing sustained volunteering negatively ($p < .001$) (cf. Chapter 6, Table 6.24).

Overall, benefits perceived by volunteers are a negative influence on continued volunteering. In particular, volunteers who perceive they have received benefits related to the motivation to help others are less likely to continue volunteering.

RQ4: How does satisfaction with the volunteering experience influence a volunteer's sustained volunteering? [Hypothesis 9]

ANSWER: Satisfaction with the volunteering experience (SAT) does not directly influence sustained volunteering (cf. Chapter 6, Table 6.24), although satisfaction indirectly influences sustained volunteering through its effect on affective organisational commitment (AOC) ($p < .001$) (cf. RQ6 and Hypothesis 8).

Volunteers' satisfaction with their volunteering experience does not directly affect their continued volunteering with the organisation. However, satisfaction strongly influences affective organisational commitment which does influence continued volunteering.

RQ5: How does a volunteer's perception of the collective efficacy of the organisation influence a volunteer's sustained volunteering? [Hypothesis 17]

ANSWER: Collective efficacy of the volunteering organisation (CEV) influences sustained volunteering both directly ($p < .001$) (cf. Chapter 6, Table 6.24) and indirectly ($p < .05$) (cf. Chapter 6, Tables 6.10 and 6.20).

Volunteers' who believe that their organisation or group is effective in achieving shared goals are more likely to continue their volunteering with the organisation.

RQ6: How does a volunteer's affective commitment to the organisation influence a volunteer's sustained volunteering? [Hypothesis 10]

ANSWER: Affective commitment to the organisation (AOC) significantly influences sustained volunteering ($p < .001$) (cf. Chapter 6, Table 6.24). It is the most significant direct influence and mediates the influence of other variables, especially benefits, satisfaction and self-efficacy (cf. Chapter 6, Table 6.24).

Volunteers who identify with an organisation and have formed an emotional attachment to it are more likely to continue volunteering with that organisation. This attachment is influenced by perceived benefits of volunteering, satisfaction with the volunteering experience, and perceived effectiveness as a volunteer.

RQ7: How does the match between a volunteer's motivation and the benefits received influence a volunteer's sustained volunteering? [Hypothesis 7]

ANSWER: Motivation-benefit match overall (MBM-Sum) does not influence sustained volunteering. However, motivation-benefit match for the values function (MBM-Values) considered as a separate indicator does significantly influence sustained volunteering ($p < .01$) (cf. Chapter 6, Table 6.24).

Volunteers who receive benefits which match their motivation to help others based on their personal values are more likely to continue volunteering with the organisation.

Research questions RQ1 to RQ7 address the influence of each of the identified dispositional and organisational variables on sustained volunteering. A further research question, RQ8, also investigates the combined influence of these variables.

RQ8: How do motivation, self-efficacy, benefits, satisfaction, collective efficacy, affective commitment to the organisation, and motivation-benefit match collectively influence sustained volunteering, either directly or indirectly? [Hypotheses 1 to 17]

In broad terms, the research questions that shape this investigation concern the strength and significance of the pathways that link the various factors or variables to a volunteer's continued involvement with the organisation. These pathways are represented in the conceptual model developed for this study in Chapter 3 as an outcome of a review of the relevant literature (cf. Section 3.15, Figure 3.4).

ANSWER: Sustained volunteering is directly and positively influenced by affective organisational commitment (AOC) ($p < .001$), collective efficacy (CEV) ($p < .001$), motivation overall (MTV-Sum) ($p < .05$) (especially MTV-Social, $p < .05$), match between values motivation and benefits (MBM-Values) ($p < .01$), and self-efficacy for work competence (SEV-WC) ($p < .05$) (cf. Chapter 6, Table 6.24). Negative direct influences on sustained volunteering were values motivation (MTV-Values) ($p < .05$), benefits overall ($p < .001$) (especially BEN-Values, $p < .001$) and self-efficacy overall (SEV-Sum) ($p < .001$) (especially for relationships with volunteers, SEV-RV, $p < .01$) (cf. Chapter 6, Section 6.5.4 and Table 6.24). While SEV-Sum was a negative direct influence on SUV, it was a significant indirect influence ($p < .001$) and had a positive total effect on SUV ($p < .01$) (cf. Chapter 6, Table 6.10).

Affective organisational commitment (AOC) ($p < .001$) was the most significant direct influence on sustained volunteering (SUV). Direct influences on AOC, and hence indirect influences on SUV, were satisfaction with the volunteering experience (SAT) ($p < .001$), self-efficacy overall (SEV-Sum) ($p < .001$) and self-efficacy for social awareness in particular (SEV-SA) ($p < .01$), benefits overall (BEN-Sum) ($p < .001$), especially benefits related to enhancement motivations (BEN-Enhancement) ($p < .001$), as well as motivation-benefit match for values (MBM-Values) ($p < .01$) and social motivations (MBM-Social) ($p < .01$) (cf. Chapter 6, Table 6.24).

As SAT was a significant predictor of AOC, direct influences on SAT were indirect influences on SUV mediated by SAT and AOC. Positive direct influences on SAT were benefits overall (BEN-Sum) ($p < .001$) and BEN-Values in particular ($p < .001$), SEV overall ($p < .001$) and SEV-RC ($p < .05$) and SEV-SA ($p < .01$) in particular, MBM overall (MBM-Sum) ($p < .05$) and MBM-Protective in particular ($p < .05$). Negative influences on SAT were MTV overall (MTV-Sum) ($p < .001$) and social motivation in particular ($p < .05$), as well as self-efficacy for empathetic action (SEV-EA) ($p < .05$) (cf. Chapter 6, Table 6.24). SAT did not significantly influence SUV directly but, as already noted, SAT, SEV-Sum, SEV-SA, BEN-Sum, BEN-Enhancement, MBM-Values, and MBM-Social were significant influences on AOC which, in turn, influenced SUV significantly.

Significant direct influences on CEV were: SEV-Sum, and SEV-RV and SEV-SA in particular (all $p < .001$), as well as MBM-Sum ($p < .05$) and MBM-Understanding ($p < .001$). No negative influences on CEV were identified in the analyses.

Three key variables which were related to sustained volunteering in this study were self-efficacy for volunteering (SEV) and SEV-RC and SEV-SA, collective efficacy for volunteering (CEV), and motivation-benefit match (MBM). In the SEM analyses of the hypothesised model, as

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reported in Chapter 6, Section 6.5.4, SEV-WC influenced SUV directly ($p < .05$), while SEV-Sum ($p < .001$) and SEV-RV ($p < .01$) were negative influences on SUV. SEV-Sum ($p < .001$) and SEV-SA ($p < .01$) influenced AOC, which was the most significant influence on SUV ($p < .001$).

CEV directly influenced SUV ($p < .001$), but the total effect of CEV on SUV was reduced by indirect effects (cf. Chapter 6, Tables 6.10 and 6.20 MBM-Values ($p < .01$) directly influenced SUV, while MBM-Values and MBM-Social (both $p < .01$) influenced AOC directly and hence SUV indirectly. MBM-Sum and MBM-Protective influenced SAT directly (both $p < .05$) and hence influenced SUV indirectly mediated by AOC. MBM-Sum ($p < .05$) and MBM-Understanding ($p < .001$) influenced CEV directly and hence indirectly influenced SUV (cf. Chapter 6, Table 6.24).

Volunteers are more likely to continue volunteering with their current organisation if they have developed an emotional attachment to the organisation; if they perceive that their organisation or group is effective in achieving shared goals; or if their motivation to help others based on their personal values is matched by benefits they receive from their volunteering. Volunteers are also more likely to volunteer if they see themselves as handling their volunteering tasks effectively, if they are highly motivated to volunteer or if their predominant motivation is to develop or strengthen their social relationships.

Other influences such as volunteers' satisfaction with the volunteering experience, benefits received from volunteering, the match between their motivations and benefits received, and belief in their effectiveness as a volunteer, may support the development of an attachment to the organisation and the perception that the organisation or group is effective. In turn, these influences may encourage the volunteer to continue their efforts on behalf of the organisation.

The significance of these answers to research and practice are discussed in Chapter 8. Section 7.3 reviews the findings of the SEM analyses as they relate to the hypotheses represented by the pathways in the model of sustained volunteering developed and tested in this study.

7.3   Hypotheses tested

The literature review suggested a number of potential relationships leading to sustained volunteering. These potential relationships, expressed as hypotheses linking specific variables, were tested in the analysis of the research model. The 17 hypotheses identified, which are listed in Chapter 6, Table 6.4, correspond to the pathways represented in the conceptual model for this study. These pathways are labelled H1 to H17 in Figure 7.2. The results of these analyses and the strengths of these relations, as reported in Chapter 6, Section 6.5.4, are summarised below. For each of the 17 hypotheses, the hypothesis is stated (as H1, etc.) followed by a statement

indicating the support for the hypothesis based on the model statistics. This is followed by a common language statement of the level of support in *italics*.
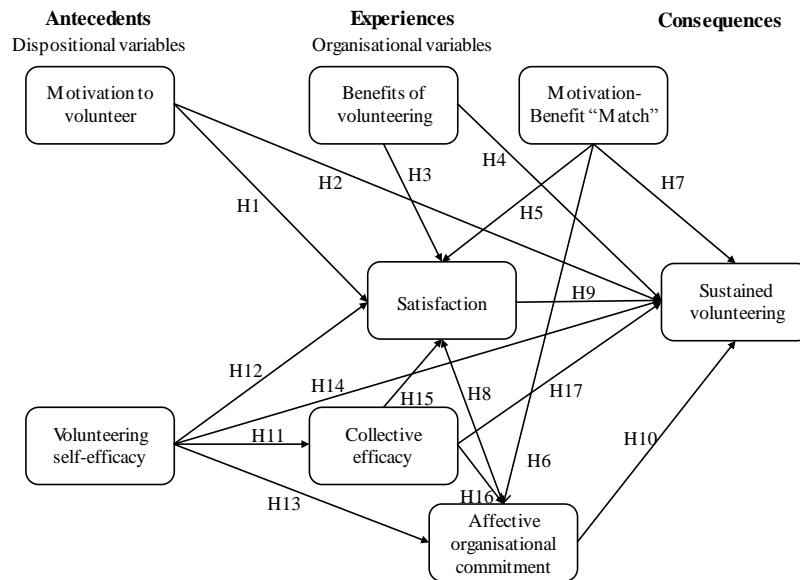
Figure 7.2   Conceptual model of influences on the sustained involvement of volunteers in community service organisations – with hypothesised influences labelled

Motivation to Volunteer (MTV)

H1.   Volunteers' functional motivations are related to satisfaction with the volunteering experience.

Supported. Influence of motivations overall on satisfaction is negative ($p < .001$).

Volunteers' motivations for volunteering are likely to impact negatively their satisfaction with the volunteering experience.

H2.   Volunteers' functional motivations are related to sustained volunteering (cf. RQ2).

Supported. Influence of motivations overall ($p < .05$) and social motivation ($p < .05$) is positive, while values motivation ($p < .05$) is a negative influence. However, if the values motivation is fulfilled, that is, matched with functionally relevant benefits (MBM-Values), this exerts a positive influence on sustained volunteering (cf. H7).

Overall, volunteers' motivations for volunteering directly influence their continued volunteering with the organisation. Those who volunteer to strengthen social relationships are more likely to continue volunteering, while those who volunteer to help others based on values such as

humanitarianism are less likely to continue volunteering. But those who volunteer to help others and receive benefits which match this motivation are more likely to continue volunteering with the organisation.

Benefits of Volunteering (BEN)

H3. Volunteers' perceived benefits are related to satisfaction with the volunteering experience.

Supported. Benefits overall ($p < .001$) and values benefits specifically ($p < .001$) are positive influences on satisfaction.

Overall, benefits perceived by volunteers result in greater levels of satisfaction. In particular, this is true for those who volunteer to help others based on values such as humanitarianism.

H4. Volunteers' perceived benefits are related to sustained volunteering (cf. RQ3).

Supported. Benefits overall ($p < .001$) and values benefits specifically ($p < .001$) are negative influences on sustained volunteering. However, if functionally relevant values benefits are matched with values motivation (MBM-Values), this exerts a positive influence on sustained volunteering (cf. H7).

Volunteers who perceive they have received significant benefits overall or benefits specifically related to the motivation to help others are less likely to continue volunteering. But those who volunteer to help others and receive benefits which match this motivation are more likely to continue volunteering with the organisation.

HC. Volunteers' perceived benefits are related to affective organisational commitment.

This additional hypothesis relating benefits of volunteering to affective organisational commitment arose from consideration of the modification indices in the SEM analyses.

Benefits of volunteering overall are positively related to affective organisational commitment ($p < .001$). Benefits related to enhancement motivation specifically are positively related to affective organisational commitment (both $p < .001$).

The greater the benefits volunteers receive from volunteering, the more likely they are to identify with the organisation and to feel an emotional attachment to it, especially if these benefits are related to their own personal development.

Motivation-Benefit Match (MBM)

H5. Volunteers who receive functionally relevant benefits are more likely to be satisfied with the volunteer experience.

Supported. Functionally relevant benefits overall (MBM-Sum) ($p < .05$) and MBM-Protective in particular ($p < .05$) are positive influences on satisfaction with the volunteering experience.

Volunteers who receive benefits which match their motivations overall, or which match their motivation to reduce their negative feelings or address personal problems, are more likely to be satisfied with the volunteer experience.

H6.   Volunteers who receive functionally relevant benefits are more likely to express affective commitment to the organisation.

Supported. Functionally relevant benefits related to values and social motivations (both $p < .01$) are both positive influences on affective organisational commitment.

Volunteers who receive benefits which match their motivations to help others based on their personal values or to strengthen their social relationships are more likely to identify with the organisation and to form an emotional attachment to it.

H7.   Volunteers who receive functionally relevant benefits are more likely to continue volunteering with the organisation (cf. RQ7).

Supported. Functionally relevant values benefits (MBM-Values) only ($p < .01$) are a positive influence on continued volunteering.

Volunteers who receive benefits which match their motivation to help others based on their personal values are more likely to continue volunteering with the organisation.

HE.   Volunteers who receive functionally relevant benefits are more likely to perceive their organisation or group to be effective in achieving their shared goals.

This additional hypothesis relating motivation-benefit match to collective efficacy of the organisation arose from consideration of the modification indices in the SEM analyses.

Functionally relevant benefits overall, motivation-benefit match, are positively related to collective efficacy ($p < .05$). The only motivation-benefit match specifically related to collective efficacy is understanding ($p < .001$).

If volunteers perceive that their motivations for volunteering are being met - that is, they are receiving relevant benefits - they are likely to see the organisation or group as being effective in accomplishing shared goals, particularly if they see volunteering as providing opportunities for personal learning and the development of skills.

<u>Satisfaction with the volunteering experience (SAT)</u>

H8.   Volunteers who express satisfaction with their volunteering experience are more likely to express affective commitment to the organisation.

Supported. Satisfaction is a significant positive influence on affective organisational commitment ($p < .001$).

Volunteers who are satisfied with their volunteering experience are more likely to identify with, and be emotionally attached to, the organisation.

H9.   Volunteers who express satisfaction with their volunteering experience are more likely to continue volunteering with the organisation (cf. RQ4).

Not supported. Satisfaction is not a significant direct influence on continued or sustained volunteering, although satisfaction indirectly influences sustained volunteering through its significant effect on affective organisational commitment (AOC) ($p < .001$) (cf. RQ6 and H8).

Volunteers' satisfaction with their volunteering experience does not directly affect their continued volunteering with the organisation. However, satisfaction strongly influences affective organisational commitment which does influence continued volunteering.

Affective Organisational Commitment (AOC)

H10. Affective organisational commitment is significantly related to sustained volunteering (cf. RQ6).

Supported. Affective organisational commitment is a significant positive influence on sustained volunteering ($p < .01$). This commitment is influenced by perceived benefits of volunteering, satisfaction with the volunteering experience, and self-efficacy for volunteering (cf. RQ6).

Volunteers who identify with an organisation and have formed an emotional attachment to it are more likely to continue volunteering with that organisation. This attachment is influenced by perceived benefits of volunteering, satisfaction with the volunteering experience, and perceived effectiveness as a volunteer.

Self-efficacy for Volunteering (SEV)

H11. Self-efficacy for volunteering is related to the perceived collective efficacy of the organisation.

Supported. Self-efficacy overall is a significant positive influence on collective efficacy ($p < .001$). Two the five dimensions of self-efficacy are significant influences on collective efficacy: relationships with other volunteers ($p < .001$) and social awareness ($p < .001$).

Volunteers who see themselves as capable of performing effectively in their volunteering role are more likely to see the organisation or group as capable of achieving shared goals. In particular, volunteers are more likely to see the organisation as effective in achieving its goals if they are confident that they can build relationships with other volunteers as co-workers or that they understand the social issues relevant to their situation and can make a difference.

H12. Self-efficacy for volunteering is significantly related to volunteer satisfaction.

Supported. Self-efficacy overall ($p < .001$), and for the dimensions of social awareness ($p < .01$) and relationships with clients ($p < .05$) are positive influences on volunteer satisfaction. Self-efficacy for empathetic action is a negative influence on satisfaction ($p < .05$).

Volunteers who see themselves as effective in their volunteer role are more likely to be satisfied with their volunteering experience, especially if they feel confident that they understand the social issues relevant to their situation and can build relationships with the people the organisation seeks to serve. Volunteers who believe they can empathise with people's life situations may be less likely to be satisfied with the volunteer experience.

H13. Self-efficacy for volunteering is significantly related to affective organisational commitment.

Supported. Self-efficacy overall is a significant positive influence on affective organisational commitment ($p < .001$), as is the dimension of social awareness ($p < .01$).

Volunteers who see themselves as capable of performing effectively in their volunteering role or, at least, of learning how to do so, are more likely to identify with the organisation and to feel an emotional attachment to it. This may be especially so if they feel confident that they understand the social issues relevant to their situation.

H14. Self-efficacy for volunteering is significantly related to sustained volunteering (cf. RQ2).
Supported. Self-efficacy overall (SEV-Sum) is a negative direct influence on sustained volunteering (SUV) ($p < .001$), but its total effect on sustained volunteering is positive ($p < .01$) (cf. Chapter 6, Table 6.10) due to indirect influences through satisfaction and affective commitment (cf. Hypotheses 12 & 13). However, self-efficacy for work competence (SEV-WC) directly influences sustained volunteering positively ($p < .05$), while self-efficacy for relationships with other volunteers (SEV-RV) exerts a negative influence on sustained volunteering ($p < .01$) (cf. RQ2) (cf. Chapter 6, Table 6.24).

Taking an holistic view, including the influence of affective commitment to the organisation and satisfaction with the volunteering experience, volunteers who see themselves as capable of performing effectively in their volunteering role or, at least, of learning how to do so, are likely to continue their volunteering with the current organisation, especially if they see themselves as capable of building relationships with other volunteers as co-workers or are confident that they can handle their volunteering tasks effectively and make a positive contribution.

Collective Efficacy of the Volunteer Organisation (CEV)

H15. Perceived collective efficacy of the organisation is significantly related to volunteer satisfaction.

Not supported. Collective efficacy is not a significant influence on satisfaction ($p < .01$).

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Perceiving their organisation or group to be effective in achieving their shared goals, of itself, has no influence on volunteers' satisfaction with their volunteering experience.

H16. Perceived collective efficacy of the organisation is significantly related to affective organisational commitment.

Supported. Collective efficacy is a significant negative influence on affective organisational commitment ($p < .01$).

Volunteers who perceive their organisation or group to be effective in achieving their shared goals are, in isolation from other influences, less likely to identify with the organisation and to feel an emotional attachment to it.

H17. Perceived collective efficacy of the organisation is significantly related to sustained volunteering (cf. RQ5).

Supported. Collective efficacy of the volunteering organisation influences sustained volunteering directly ($p < .001$) (cf. Chapter 6, Table 6.24).

Volunteers' who believe that their organisation or group is effective in achieving shared goals are more likely to continue their volunteering with the organisation.

7.4 Sustained volunteering

The study has identified six significant direct positive influences on sustained volunteering: affective organisational commitment ($p < .001$), collective efficacy ($p < .001$), match between values motivation and benefits ($p < .01$), motivation overall ($p < .05$) and social motivation in particular ($p < .05$), and self-efficacy for work competence ($p < .05$) (cf. RQ8, Section 7.2, and Chapter 6, Section 6.5.4).

As reported in Chapter 3, Section 3.8.3, Clary, Snyder et al. (1998) examined volunteers in a variety of organisations and reported that volunteers who experience motive fulfilment, that is, receive functionally relevant benefits, expressed stronger intention to continue volunteering in both the short and long term than those who did not receive benefits which aligned with their functional motives for volunteering. However, the present study identified this intention to continue volunteering only in relation to functionally relevant values benefits (MBM-Values).

Five negative influences on sustained volunteering were identified: values motivation ($p < .05$); self-efficacy overall ($p < .001$) and self-efficacy for relationships with volunteers ($p < .01$); benefits overall ($p < .001$) and benefits related to values motivation ($p < .001$) (cf. RQ8, Section 7.2, and Chapter 6, Section 6.5.4). While self-efficacy overall was a negative direct influence on sustained volunteering, it was a significant indirect influence ($p < .001$) and had a positive total effect on sustained volunteering ($p < .01$) (cf. Chapter 6, Table 6.10).

The present study has found that self-efficacy for volunteering overall is a negative direct influence on sustained volunteering ($p < .001$), but its total effect is positive (cf. Chapter 6, Table 6.10). Among the five dimensions of self-efficacy, self-efficacy for work competence influences sustained volunteering positively ($p < .05$), while self-efficacy for relationships with volunteers exerts a negative influence on sustained volunteering ($p < .01$). As in the present study, Erb (2001) found no significant direct relation between self-efficacy and continued volunteering; however, Barbaranelli et al. (2003) found that intention to continue volunteering was positively affected by self-efficacy (cf. Chapter 3, Section 3.6). Findings in the present study suggest the value of continued study of self-efficacy in relation to volunteering and possibly different ways to operationalise self-efficacy in terms of the volunteering context (cf. Section 7.11).

Notably, values motivation and values benefit were both negative influences on sustained volunteering, while the match between values motivation and values benefit was a significant positive influence on sustained volunteering. This would indicate that the match between motivation and related benefits is an important influence beyond that of a particular motivation or a particular benefit considered separately. This is a significant finding and an important contribution to knowledge related to volunteer motivations and benefits.

7.5   Affective organisational commitment

Affective organisational commitment was the strongest direct influence on sustained volunteering. In turn, there were seven positive influences on affective organisational commitment, and hence indirect influences on sustained volunteering. These were: satisfaction with the volunteering experience ($p < .001$), self-efficacy overall ($p < .001$) and self-efficacy for social awareness in particular ($p < .01$), benefits overall ($p < .001$) and benefits related to enhancement motivation in particular ($p < .001$), match between values motivation and benefits ($p < .01$), and match between social motivation and benefits ($p < .01$). Collective efficacy ($p < .01$) was the only negative influence on organisational commitment identified in the analyses, although both collective efficacy and organisational commitment were significant influences on sustained volunteering. These results suggest that the operationalisation of collective efficacy needs further theoretical and research attention in this domain. In the present study, collective efficacy was measured using a two-item scale. More recent theoretical understandings of collective efficacy (Hoy, 2013) could be employed in future research.

As discussed in Chapter 3 (cf. Section 3.10), "On the whole, the research suggests that what we might loosely call 'strength of feeling' towards an organisation does not in fact lead to more volunteering. But the precise conclusions vary from one study to another." (M. Locke et al., 2003, p. 91). A study of volunteers in AIDS service organisations found a significant positive

relationship between organisational commitment and the amount of time people reported working for the organisation (measured as hours per week), but commitment was not significantly associated with length of service (Penner & Finkelstein, 1998). Cuskelly, McIntyre and Boag (1998) found that volunteer sport administrators who placed more emphasis on altruism and who felt they were contributing to the welfare and enjoyment of others, developed higher levels of organisational commitment, but this commitment was not strongly related to length of membership. Commitment to the organisation has been shown to be important in predicting intention to continue in a variety of organisational settings including voluntary organisations (Cuskelly & Boag, 2001; Meyer & Allen, 1997; Tett & Meyer, 1993). Knoke and Prensky (1982) argued that volunteers may be strongly committed to the goals of their organisations but have weak ties to the particular institution, hence the possibility of abandonment is a real threat to volunteer-involving organisations.

The present study found that commitment to the organisation is a strong predictor of continued volunteering with the particular institution. Satisfaction, in turn, was found to be a significant indirect influence on intention to continue, mediated by organisational commitment

7.6 Satisfaction with the volunteering experience

While satisfaction was not a direct influence on sustained volunteering, it was the most significant influence on affective organisational commitment, which was the most significant influence on sustained volunteering. Hence satisfaction was an important indirect influence on sustained volunteering. The positive influences on satisfaction were: benefits overall ($p < .001$) and benefits related to values motivation in particular ($p < .001$), motivation-benefit match overall and motivation-match related to protective motivation (both $p < .05$), self-efficacy overall ($p < .001$), self-efficacy for social awareness ($p < .01$) and self-efficacy for relationships with clients ($p < .05$). The negative influences on satisfaction were motivation overall ($p < .001$), and self-efficacy for empathetic action ($p < .05$). These direct influences on satisfaction were indirect influences on sustained volunteering mediated by satisfaction and affective commitment.

Existing data on the effect of satisfaction on length of service and intention to continue volunteering is equivocal, as discussed in Chapter 3 (cf. Section 3.9). While earlier studies had found that satisfaction was associated with length of service (Clary et al., 1998; Omoto & Snyder, 1995; Penner & Finkelstein, 1998), more recent studies have found that satisfaction was unrelated to length of service (Davis et al., 2003; Finkelstein & Brannick, 2007; Finkelstein & McIntyre, 2005).

The present study has found that volunteers' satisfaction with the volunteering experience does not directly affect their continued volunteering with the organisation. However, satisfaction

strongly influences affective organisational commitment which, in turn, strongly influences continued volunteering.

7.7   *Collective efficacy of the organisation*

The model for the present study hypothesised that perceived collective efficacy of the volunteering organisation influences sustained volunteering, affective organisational commitment and satisfaction. The study found that collective efficacy influences sustained volunteering directly ($p < .001$) (cf. Chapter 6, Table 6.24).

Collective efficacy is a significant negative influence on organisational commitment ($p < .01$), but does not influence satisfaction. This apparent anomaly supports the case for examining alternative measures of collective efficacy of the volunteering organisation (cf. Sections 7.5 and 7.11).

Significant direct influences on collective efficacy were: self-efficacy overall, and self-efficacy for relationships with volunteers and social awareness in particular (all $p < .001$), as well as motivation-benefit match overall ($p < .05$) and motivation-benefit match for the understanding motive in particular ($p < .001$). Self-efficacy for work competence was the only negative influence on collective efficacy ($p < .05$).

7.8   *Motivation to volunteer*

The model for the present study hypothesised that motivation to volunteer influences sustained volunteering and satisfaction. Findings indicate that functional motivation as a whole directly influences sustained volunteering ($p < .05$), but its total effect is not significant (cf. Chapter 6, Table 6.10). Among the six functional types, social motivation influences sustained volunteering directly ($p < .05$), while values motivation exerts a negative influence on sustained volunteering ($p < .05$) (cf. Chapter 6, Table 6.20). However, functional motivation overall is a negative influence on satisfaction ($p < .001$), as is the social motive in particular ($p < .05$).

In the present study, motivation to volunteer was measured using Clary and Snyder's (1998) Volunteer Functions Inventory (VFI). The VFI is a well-tested instrument. Several factor analyses carried out on VFI data provide support for a six-factor correlated model of motivation to volunteer (cf. Chapter 3, Section 3.2.4). Table 7.1 provides a comparison of VFI scale reliabilities obtained in two of these studies (Clary et al., 1998; Okun et al., 1998) with the results obtained in the present study.

Table 7.1   Scale reliabilities for VFI functional scales

Function/scale	Cronbach's alpha				
	Clary et al. (1998)		Okun et al. (1998)		Present study
	Study 1	Study 2	SMHSI*	RSVP[+]	
Values	.80	.82	.81	.84	.81
Understanding	.81	.84	.83	.82	.84
Enhancement	.84	.85	.83	.83	.86
Career	.89	.85	.84	.88	.91
Social	.83	.83	.80	.83	.84
Protective	.81	.82	.83	.79	.86
All 30 items			.93	.92	.94
Average interscale correlation[#]	.34	.41			.49

*   SMHSI = Scottsdale Memorial Health Systems Incorporated
[+]   RSVP = Retired and Senior Volunteer Program
This is a measure of divergent validity and low values support the argument that the scales are measuring different constructs

The analysis of the Volunteer Functions Inventory (VFI) scales in the present study offers additional support for the six-factor structure of the VFI proposed by Clary and Snyder (1998) (cf. Table 7.1 and Chapter 5, Section 5.4). More broadly, these findings support the functional approach to motivation in volunteering which suggests that the structure of people's motivations for volunteering involves multiple motives. Such multiple and at times conflicting motives are a human reality and indicate the complexity of interacting factors that this SEM analysis has attempted to resolve.

Finkelstein and Brannick (2007) conducted a comprehensive study of the influence of functional motivation on satisfaction and reported correlations between volunteer satisfaction and both the strength of the six functional motives for volunteering and the extent of fulfillment/related benefits of these motives (cf. Chapter 3, Section 3.9.1). These correlations, and their comparison with the corresponding results from the present study, are reported in Table 7.2

Table 7.2   Correlates of Volunteer Satisfaction (Pearson *r*)

Variables	Finkelstein & Brannick (2007) (N = 148-156) Satisfaction	Present study (N = 454) Satisfaction
MTV-Values (V)	.41***	.17**
MTV-Understanding (U)	.20*	.15**
MTV-Enhancement (E)	.21**	.07
MTV-Career (C)	.04	.03
MTV-Social (S)	.17*	.06
MTV-Protective (P)	.16	-.02
V Fulfillment/MBM-V	.35***	.28**
U Fulfillment/MBM-U	.26***	.19**
E Fulfillment/MBM-E	.30***	.24**
C Fulfillment/MBM-C	.01	.08
S Fulfillment/MBM-S	.21**	.24**
P Fulfillment/MBM-P	.12	.13**

** $p < .05$ ** $p < .01$ *** $p < .001$ (Finkelstein only; not available for present study)

For Finkelstein and Brannick (2007), satisfaction was positively associated with all motives except Career and Protective, while in the present study only the Values and Understanding motives were positively associated with satisfaction. For Finkelstein and Brannick (2007), satisfaction was positively associated with the fulfillment of all motives except Career and Protective, while in the present study satisfaction was positively associated with the fulfillment/motivation-benefit match of all motives except Career. Finkelstein used the same indicators (VFI) as the present study but a much smaller sample and only one organisation or functional context. The present study and Finkelstein and Brannick's study (2007) are in broad agreement as regards the relationships between the indicators used to measure motivation, satisfaction and motivation-benefit match (motive fulfilment). This broad agreement supports the use of these indicators in the present study and the findings based on these indicators. Furthermore, compared to Finkelstein and Brannick's study, the present research used a larger sample and included multiple and diverse organisations suggesting greater generalisation of the outcomes of the present study.

7.9   Benefits of volunteering

The present study found that benefits of volunteering overall are a negative direct influence on sustained volunteering ($p < .001$) with values benefits in particular influencing sustained volunteering negatively ($p < .001$) (cf. Chapter 6, Table 6.24). However, benefits overall are a significant indirect influence on sustained volunteering, especially for benefits related to the values and enhancement motivations (cf. Chapter 6, Tables 6.10 and 6.20).

Benefits overall significantly influence organisational commitment, especially benefits related to the enhancement motivation (both $p < .001$). Benefits also significantly influence satisfaction; benefits overall ($p < .001$), and benefits related to the values ($p < .001$) and enhancement ($p < .05$) motivations (cf. Chapter 6, Table 6.24).

7.10   Motivation-benefit match

The conceptual model hypothesised that motivation-benefit match would influence sustained volunteering, affective organisational commitment and satisfaction with the volunteering experience. Based on modification indices from the SEM analyses, motivation-benefit match was further hypothesised to influence collective efficacy, overall for Model #1.3 and for the understanding function only for Model #3.3.

Findings indicate that motivation-benefit match overall does not influence sustained volunteering directly, but only indirectly ($p < .05$) (cf. Chapter 6, Table 6.10). However, motivation-benefit match for the values function considered as a separate indicator does significantly influence sustained volunteering ($p < .01$) (cf. Chapter 6, Table 6.24).

Clary, Snyder et al. (1998) conducted six studies and found that volunteers who had received benefits that matched the functional dimensions of volunteering that were important to them expressed stronger intention to continue volunteering than volunteers who had received fewer benefits that matched the important functional dimensions, or benefits that matched functions that were of low importance. (cf. Chapter 3, Section 3.8.2). In the present study, this influence of motivation-benefit match on intention to continue volunteering was significant for the match of values motivation and benefit only.

In the present study, motivation-benefit match for both the values function and the social function also significantly influence organisational commitment (both $p < .01$) and hence influence sustained volunteering indirectly, their influence mediated by organisational commitment (cf. Chapter 6, Table 6.24). Motivation-benefit match overall and motivation-match for the (ego) protective motivation are significant influences on satisfaction (both $p < .05$). Clary, Snyder et al. (1998) found that volunteers who had received benefits that matched the functional dimensions of volunteering that were important to them, reported greater satisfaction than volunteers who had received fewer matched benefits (cf. Chapter 3, Section 3.8.1). The present study supports Clary and Snyder's findings regarding the influence of motivation-benefit match on satisfaction with the volunteering experience.

The additional hypotheses based on modification indices resulted in a significant influence of motivation-benefit match on collective efficacy, both overall ($p < .05$) (Model #1.3), and for motivation-benefit match for the understanding function ($p < .001$) (Model #3.3).

The present study used a measure of motivation-benefit match for each of the six functional motivations measured by the VFI (MBM-Values, MBM-Understanding, etc), and one which aggregated matches across all six functional categories, MBM overall or MBM-Sum. This measure of overall match is similar to Stukas, Worth, Clary and Snyder's (2009) Total Match Index (TMI) which they used to calculate a volunteer's total number of matches across all six categories. They found that this index predicted outcomes better than motives or benefits alone and as well as any univariate match index (i.e. in a particular motivational category). Indeed, they suggest that the univariate relations between a match on any given motivational category and any given outcome may actually underestimate the potential predictive value of matching, and an aggregated index of the number of matches reported by a volunteer may prove to be the best predictor of a range of outcomes for him or her. This would suggest that the use of MBM-Sum in all analyses of the present study may have yielded better predictive value than the six separate measures for each motivational category.

7.11   Self-efficacy for volunteering

The conceptual model for the present study hypothesised that self-efficacy for volunteering influences sustained volunteering, organisational commitment, satisfaction and collective efficacy. Findings indicate that self-efficacy for volunteering overall is a negative direct influence on sustained volunteering ($p < .001$), but its total effect is positive (cf. Chapter 6, Table 6.10). However, self-efficacy for work competence influences sustained volunteering positively ($p < .05$), while self-efficacy for relationships with volunteers exerts a negative influence on sustained volunteering ($p < .01$) (cf. Chapter 6, Table 6.24).

Self-efficacy overall is a significant positive influence on affective organisational commitment ($p < .001$), as is the dimension of social awareness ($p < .01$). Self-efficacy overall ($p < .001$), and for the dimensions of social awareness ($p < .01$) and relationships with clients ($p < .05$), are positive influences on satisfaction. However, self-efficacy for empathetic action is a negative influence on satisfaction ($p < .05$). These findings align with those of Barbaranelli et al. (2003) who found, in a study of 508 volunteers in human service organisations, that self-efficacy was positively related to satisfaction and integration into the organisation (cf. Chapter 3, Section 3.6). The effectiveness of self-efficacy in predicting satisfaction and organisational commitment supports its inclusion in further studies which may also provide additional evidence of its support for sustained volunteering.

Self-efficacy overall is a significant positive influence on collective efficacy ($p < .001$). Two of the five dimensions of self-efficacy are significant positive influences on collective efficacy: relationships with other volunteers ($p < .001$) and social awareness ($p < .001$). Self-efficacy for work competence ($p < .05$) is a significant negative influence on collective efficacy. The

positive significance of self-efficacy for volunteering overall and two of the five dimensions of self-efficacy as influences on collective efficacy (all three $p < .001$) reflects the close relationship between the constructs of self-efficacy and collective efficacy as measured in this study ($r = .69$, $p < .01$) (cf. Chapter 6, Section 6.4). Alternative measures of collective efficacy might be examined to explore further differentiation of the measured variables used to operationalise these two constructs (cf. Sections 7.5 and 7.7).

7.12   *Chapter summary and conclusion*

Answers to the research questions stated in Chapter 1 (cf. Section 1.7) are examined and support for the hypotheses developed in Chapter 3 (cf. Section 3.15.2) is tested. Findings in relation to each of the variables included in the model are discussed both in terms of their direct influence on sustained volunteering and their indirect influence through other variables.

This chapter has applied the findings of the SEM analyses reported in Chapter 6 to answer the research questions posed for the study (cf. Chapter 1, Section 1.7) and to assess support for the hypotheses which gave rise to the conceptual model developed for the study (cf. Chapter 3, Section 3.15.2). Affective commitment and collective efficacy were identified as significant direct determinants of sustained volunteering along with motivation, especially social motivation, self-efficacy for work competence, and the match between values motivation and related benefits. Satisfaction, benefits and self-efficacy also contributed significantly to sustained volunteering through their influence on affective commitment to the organisation. This chapter has also reported direct and indirect influences on the other dependent variables represented in the conceptual model.

Self-efficacy for volunteering, collective efficacy of the organisation and motivation-benefit match were three key variables studied in relation to sustained volunteering. As discussed in Chapter 6, Section 6.5.2, and in the present chapter, each of these variables had a significant influence on sustained volunteering, either direct or indirect or both. Self-efficacy also influenced organisational commitment, which was the most significant influence on sustained volunteering. Collective efficacy directly influenced sustained volunteering, but the total effect of collective efficacy on sustained volunteering was reduced by indirect effects. Motivation-benefit match for the values function directly influenced sustained volunteering, while motivation-benefit match for both the values function and the enhancement function influenced organisation commitment directly and hence sustained volunteering indirectly. Motivation-benefit match overall and for the protective function in particular influenced satisfaction directly and hence influenced sustained volunteering indirectly, mediated by organisational commitment. Motivation-benefit match overall and for the understanding function in particular, influenced collective efficacy directly and hence indirectly influenced sustained volunteering.

Chapter 8 summarises the contribution of this study to both research and practice in volunteering. Limitations of the study are identified and suggestions for further research are discussed.

Chapter Eight - Conclusions and Recommendations

8.1   Introduction

This research has directly informed the literature on sustained volunteering and volunteering more generally, and has contributed indirectly to the knowledge available to support the more effective management of volunteers and to optimise the retention of their services by the organisation. This chapter summarises the contribution of this study to both research and practice in volunteering. Limitations of the study are identified and suggestions for further research are discussed.

This research has been a rigorous investigation of the complexity of sustained volunteering using verified instruments. The sample was large and from diverse organisations, offering increased generalisability above previous studies. Structural equation modelling (SEM) analysis permitted analysis of the combined and separate effects of consistent indicators/variables.

The literature on sustained volunteering has indicated that research on the factors that influence sustained volunteering has been largely inconclusive and that further research needs to acknowledge the complexity of sustained volunteering and examine multiple factors or variables and the interactions between them. Research findings related specifically to key factors or variables, such as motivation, satisfaction and commitment to the organisation, have been largely inconclusive or, at best, equivocal (cf. Chapter 3). The present research has addressed the complexity of sustained volunteering by developing and testing a conceptual model which examines the interactions between multiple factors or variables, both dispositional and organisational, assumed to influence volunteers' continued volunteering with their current organisation (cf. Chapter 1, Section 1.8).

The principal findings of the study relate to sustained volunteering, affective organisational commitment, collective efficacy of the organisation, satisfaction with the volunteering experience, motivation-benefit match, and self-efficacy for volunteering. The influence of each of these variables on sustained volunteering, both directly and indirectly, and the interactions between them have been reported in Chapter 7. The implications of these findings for both research and practice are explored in this chapter.

8.2   Sustained volunteering

Sustained volunteering is a critical issue for organisations that depend on the contribution of volunteers for the continuation of their programs and the achievement of their goals. This continuity of service is especially important where organisations have invested significant resources in recruiting, training and equipping their current volunteers, due to the high costs of recruitment and training new volunteers. Attrition can pose a more serious problem where the

effectiveness of the organisation's programs depends on continuity of contact between the volunteer and the client; and attrition can impact the morale of both volunteers and paid staff (cf. Chapter 1, Sections 1.1 and 1.8).

This study has shown that volunteers are more likely to continue volunteering with their current organisation if they have developed an emotional attachment to the organisation; if they perceive that their organisation or group is effective in achieving shared goals; or if their motivation to help others based on their personal values is matched by benefits they receive from their volunteering. Volunteers are also more likely to volunteer if they see themselves as handling their volunteering tasks effectively, if they are highly motivated to volunteer or if their predominant motivation is to develop or strengthen their social relationships.

Other influences such as volunteers' satisfaction with the volunteering experience, benefits received from volunteering, the match between their motivations and benefits received, and belief in their effectiveness as a volunteer, may support the development of an attachment to the organisation and the perception that the organisation or group is effective. In turn, these influences may encourage the volunteer to continue their efforts on behalf of the organisation.

8.3   Contributions of this research to knowledge

This research makes an important contribution to volunteering as a study which addresses the complexity of sustained volunteering through the use of multiple independent variables. Most studies of sustained volunteering have looked at the influence of only two or three factors, and overall previous research has been largely inconclusive (M. Locke et al., 2003). The present study acknowledges the complexity of sustained volunteering and has addressed this complexity by considering the collective influence of several dispositional and organisational factors assumed to affect sustained volunteering.

Moreover, this study focusses on a volunteer's continued volunteering with their current organisation rather than continued service as a volunteer per se. Consequently, affective commitment to the current organisation and the collective efficacy of the current organisation were key variables studied in relation to continued volunteering with the current organisation. Affective organisational commitment and collective efficacy of the organisation emerged as the two most significant direct influences on sustained volunteering. This is an important finding for both volunteer organisations and further research.

A multi-dimensional measure of self-efficacy is used which includes measures related to the volunteer's current circumstances (relationships with clients, relationships with other volunteers, and work competence) as well as broader contextual issues (empathetic action and social awareness), as distinct from the more generic measure of volunteer role identity used in

other models of sustained volunteering. This additional focus on the volunteer's current organisation addresses the need of volunteer organisations to retain experienced volunteers in roles which require intensive training, a high level of organisation-specific knowledge, or a long-term commitment to provide continuity of service to clients.

The study has addressed the limitations of previous studies which have involved small sample sizes and a single organisation or program. The study has sought to avoid the low generalisability of previous studies by using a large sample size across three community service organisations. The diversity of the organisations participating in this study also increases the generalisability of the findings. These organisations represent a diversity of social and organisational contexts as described in Chapter 1, Section 1.8, and Chapter 2, Section 2.8.2.

This study, and the conceptual model, has extended Clary and Snyder's prior work on functional motivation and benefits, including motivation-benefit match. Clary and Snyder conducted several studies to examine how continued volunteering is influenced by the match between functional motives and perceived benefits of volunteering (Clary & Snyder, 1999; Clary et al., 1992; Clary et al., 1996); these earlier studies were each based on data from a single organisation in the USA. This study has extended Clary and Snyder's work in this area by extending their studies in an Australian context, collecting data across three organisations, and placing their approach within a broader conceptual framework which includes further variables related to sustained volunteering.

This research is one of the first studies to investigate the influence of self-efficacy on sustained volunteering, and one of the few to include the variable collective efficacy (Barbaranelli et al., 2003). This inclusion of self-efficacy and collective efficacy has provided new insights into the role of efficacy in sustaining volunteer involvement and opened further avenues for research (cf. Section 8.6).

The analyses of the conceptual model suggested additional relationships which were included in subsequent analyses (cf. Chapter 6, Appendix 6D, Table 6D.3). Two significant influences were benefits on organisational commitment, BEN → AOC (Hypothesis HC), and motivation-benefit match on collective efficacy, MBM → CEV (Hypothesis HE) (cf. Chapter 6, Table 6.24). These relationships should continue to be explored in subsequent research.

Four further relationships suggested by modification indices would have resulted in non-recursive models and so were not included in the SEM analyses for this study: AOC → SAT, AOC→ CEV, SAT → CEV, and SUV → AOC (cf. Chapter 6, Section 6.5). These same four paths were identified in the empirical regression analysis of the data for this study (cf. Chapter 6, Appendix 6E). Further research on sustained volunteering should consider the potential benefits of analysing non-recursive models.

Volunteering, as defined in this study, is long-term, planned behaviour (Penner, 2002). The theory of planned behaviour (Ajzen, 1991) has underpinned this study, with self-efficacy as the preferred measure of perceived behavioural control (Armitage & Conner, 2001) (cf. Chapter 3, Section 3.2.1). The multi-dimensional measure of self-efficacy used in this study has the potential to provide insights into volunteers' individual dispositions beyond those identified by role identity.

8.4 Implications for practice

This section addresses the implications for volunteering practice as they relate to the volunteer and the volunteer organisation. Volunteers are more likely to continue volunteering with their current organisation if they have developed an emotional attachment to the organisation; if they perceive that their organisation or group is effective in achieving shared goals; or if their motivation to help others based on their personal values is matched by benefits they receive from their volunteering. Volunteers are also more likely to volunteer if they see themselves as handling their volunteering tasks effectively, if they are highly motivated to volunteer or if their predominant motivation is to develop or strengthen their social relationships.

Other influences such as volunteers' satisfaction with the volunteering experience, benefits received from volunteering, the match between their motivations and benefits received, and belief in their effectiveness as a volunteer, may support the development of an attachment to the organisation and the perception that the organisation or group is effective. In turn, these influences may encourage the volunteer to continue their efforts on behalf of the organisation.

8.4.1 Implications for volunteers

A person's decision to engage as a volunteer with a particular community organisation is based on their knowledge of the organisation and what it does – and how this aligns with their values, needs and circumstances (motivations and potential, related benefits); their perception that the organisation is effective in what it does (collective efficacy); and their belief that they could be effective doing that sort of volunteer work (self-efficacy) (Butcher & Ryan, 2006, p. 47). Potential volunteers need to have sufficient knowledge of the organisation to see it as matching their goals and capacities and being effective in meeting community needs. This knowledge is at times gained from people, such as family, friends, members of the organisation, or through the organisation's own advertising (Butcher & Ryan, 2006, p. 43).

If people believe they are capable of volunteering successfully, it is likely they will follow this through. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave (Bandura, 2005). Factors which influence the development of self-efficacy beliefs include: personally mastering the task, vicariously seeing people similar to oneself manage the task, and being socially persuaded that one has the capabilities to do the task (Bandura, 2005; Gist &

Mitchell, 1992). Any combination of these influences may lead a person to initiate volunteering and maintain that involvement. In this study, two of the most important influences on continued involvement were volunteers' belief that they had the skills and experience to address the tasks involved (self-efficacy for work competence), and that the organisation was effective (collective efficacy) (cf. Chapter 6, Table 6.24).

To facilitate the initiation or continuance of volunteering, organisations need to ensure that processes are in place to identify the interests and skills of the volunteer and arrange activities that match those interests and skills; and that volunteers have opportunities to assess, and re-assess, their self-efficacy for volunteering. This study also includes tools which organisations might find useful as assessment instruments for volunteer managers.

8.4.2   *Implications for volunteer organisations*

In the National Survey of Volunteering Issues 2011, volunteers identified the three most important things to continue volunteering in the future as: the availability of volunteer work that matches their interest and/or skills, the values and principles of the organisation, and knowing their contribution makes a difference (Volunteering Australia, 2011, p. 19, Section 4.2.8). When asked how they would prefer to volunteer in the future, the most common preference was to volunteer regularly with the same organisation, cited by 75% of volunteer respondents (Volunteering Australia, 2011, p. 19, Section 4.2.8).

These findings indicate that volunteers are well-disposed to continue volunteering with their current organisation, and highlight the importance for volunteer organisations of matching volunteer tasks to their motivations and ensuring that they receive related benefits as a result of their participation (motivation-benefit match); promoting the volunteer's identification with the organisation (affective commitment) by emphasising the mission and values of the organisation in their interactions with volunteers; and making explicit to the volunteers how their volunteer activities make a difference (and fulfil their values motivation). In the V21 study, volunteer managers or coordinators were found to be pivotal in negotiating this match of goal, task and capacity for the new volunteers (Butcher & Ryan, 2006, p. 34).

Implications for volunteer retention

Organisations should seek to understand what motivates their volunteers and what benefits they expect from their volunteering service. To maximise the opportunity for matching benefits to a volunteer's motives, individuals must be matched with the task(s) to which they are best suited and in which they feel most comfortable (Stukas & Dunlap, 2002).

Organisations should develop an evidence-based approach to understanding the volunteer perspectives. To encourage sustained volunteering, organisations should seek to develop the affective organisational commitment of volunteers and their sense of the collective efficacy of

the organisation. Perceived benefits and satisfaction contribute to this commitment, along with self-efficacy.

This study will help the participating organisations, and community service organisations generally, to better understand how dispositional and organisational factors influence a volunteer's sustained efforts on behalf of the organisation. Better understanding will enable the organisations to maximise volunteer retention by taking these factors into account in managing their volunteers.

The findings of this study can also serve the purposes of organisations that rely on volunteers for the delivery of services to people in need. First, specific organisations could use the Volunteer Functions Inventory (VFI) to assess the motivations that are important to their current volunteers and then utilise this information for purposes of retention: if volunteers are seeking to satisfy specific needs and goals, then organisations offering the fulfilment of these specific goals should increase their volunteers' satisfaction with the volunteering experience and their perception of the collective efficacy of the organisation, and hence also increase their affective commitment to the organisation and the likelihood that they will continue to serve.

Implications for volunteer recruitment

In addition to the retention of current volunteers, this study has implications for volunteer recruitment. Recruitment could begin with an understanding of the motivations of an organisation's current volunteers and particularly the organisation's satisfied and committed volunteers, and then attempt to find potential volunteers who resemble the motivational profile of these volunteers. Indeed, several authors, including the authors of the Volunteer Functions Inventory (VFI), have suggested that organisations should target recruitment based on an understanding of the motivations of current volunteers, and attempt to find new volunteers that match the current motivational profile (Clary et al., 1996; McCurley & Lynch, 1998). Volunteer managers and coordinators seeking to recruit new volunteers can use the VFI to ascertain the importance of the various motives for volunteering in their target population. For example, if the findings of this study are generalisable to potential volunteers, then they will be motivated to volunteer mostly by the values, understanding, enhancement and social dimensions (cf. Chapter 5, Section 5.10.1, Table 5.12). This knowledge could be used effectively by organisations to develop appeals to potential volunteers that emphasise the opportunities volunteering provides for (a) acting on beliefs about the importance of helping others; (b) learning about oneself and the world in which one lives; (c) feeling useful and good about oneself; and (d) building or strengthening social relationships. For managers of volunteers, it is important not only to understand the motivations of volunteers but also to assess the motivations of each volunteer to assist in attracting and retaining volunteers and assigning volunteer roles and activities.

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8.4   Strengths of the current research

The particular strengths of the current research include the use of a large sample and the inclusion of multiple and diverse volunteer organisations. The theoretical basis for the study included the theory of planned behaviour (TPB), and specifically the use of self-efficacy as the measure perceived behavioural control in the context of the TPB. A conceptual model was developed and used to address the complexity of sustained volunteering; this complex model included multiple variables and the interactions between these variables. The data for the study, based on the conceptual model, were subjected to rigorous analysis using structural equation modelling (SEM) which allowed the interactions between variables to be studied. The findings of the study related to variables which volunteer organisations can use to increase their understanding of the volunteer process from the volunteer's perspective, and which they can apply to develop structures and processes which better support volunteer retention and recruitment.

8.5   Limitations of the current research

The author acknowledges that there are limitations associated with this research and has identified a number of cautions and reservations that need to be noted.

Self-reporting by participants: As with most studies into volunteer motivations including those undertaken by Clary, Snyder and their colleagues, this research involves the self-reporting of volunteers in completing the Volunteer Functions Inventory (VFI) and the scales used to measure the other variables (cf. Chapter 4, Section 4.11). This self-reporting format requires willingness on the part of volunteers to complete the survey and to respond candidly to the statements contained in the various scales. It is not inconceivable that a number of volunteers who complete the VFI, and other scales, may base their answers on what they believe their organisation and the researcher want to read. Although the anonymity of the survey and wording of statements would somewhat reduce this concern, it must be acknowledged as part of any self-reporting process.

Cross-sectional survey design: In discussing the findings of this research, we should remain aware of the nature of the data set: all measures were obtained at the same point in time – cross-sectional survey design was used as the sole data collection instrument so responses needed to be taken at face value as there was no opportunity to verify or cross-check responses (cf. Chapter 4, Section 4.11).

A key feature of cross-sectional design is the concurrent measurement of variables. The model used in this study, like many models used in cross-sectional studies, specified a number of directional influences; the perspective that directional influences require some finite amount of

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time to operate suggests that interpretation of such effects in cross-sectional designs may be problematic because concurrent measurement of variables precludes such effects from occurring (MacCallum & Austin, 2000). Longitudinal studies should be considered (cf. Section 8.6).

This study looks at the expectations and experiences of volunteers in three community service organisations and their intentions regarding their continued involvement with these organisations as reported through a single survey instrument. As such it is a 'snapshot' of intentions at a point in time and does not investigate whether this intended behaviour was actually demonstrated. Although, as mentioned earlier (cf. Chapter 3, Section 3.2.1), studies investigating the Theory of Planned Behaviour indicate that intention to behave in a certain way is a reliable predictor of the behaviour itself.

Generalisability of findings: This research is confined to volunteers based in New South Wales and there are no assurances at this stage that the findings will translate effectively to other Australian states or overseas countries (cf. Chapter 4, Section 4.11). However, the size of the sample and the diversity of the organisations involved suggest high potential for generalisability.

Sample: The participants in this study were predominantly older, long-term volunteers, rather than new volunteers to the organisation. (51% were aged more than 55 years; length of service with their current organisation ranged from one month to 60 years with an average of 10 years.) It is likely that these characteristics influenced responses to the measures assessed in this study, particularly the length of time participants intended to continue volunteering. Also, these characteristics may differ significantly from those of the 29% of volunteers who were approached but chose not to participate in the study.

A further limitation pertains to the decision to focus on active volunteers. It is an empirical question as to whether the results would have been different had the study included participants who were being recruited to volunteer for an organisation or who had previously volunteered for the organisation but had since ceased their involvement. This issue could be addressed in future research by comparing the volunteering motives of active volunteers with those of previous volunteers and people potentially interested in volunteering (cf. Section 8.7).

Measures of volunteer motivations: The question arises as to whether support for Clary et al.'s (1998) six-factor model is contingent on using items from the VFI as indicators of volunteer motivation. For example, would a factor analysis of a measure with an equal number of altruistic and egoistic items be more likely to provide support for the bipartite model of volunteer motivation? (Lucas & Williams, 2000; Mesch et al., 1998; Rubin & Thorelli, 1984). Hartenian and Lilly (2009) found support for integrating egoism and altruism to understand sustained volunteering specifically. This issue could be addressed in future research by using

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multiple formats and by using indicators from various motivation-to-volunteer measures; for example, the Volunteer Motivation Inventory (Esmond & Dunlop, 2004). Similar observations might be made related to other scales used in the present study.

Ethics

All research procedures reported in the thesis received the approval of the Australian Catholic University's Human Research Ethics Committee (cf. Chapter 4, Section 4.6). The volunteer organisations agreed formally to be involved and explicitly consented to their names being reported in this study (cf. Chapter 4, Section 4.5). All participants were voluntary, anonymous respondents to a survey which collected the individual data. The anonymity of individuals has been preserved (cf. Chapter 4, Section 4.6).

8.6   *Suggestions for further research*

An important next step would be to conduct longitudinal studies of sustained volunteering to see if motivations, benefits, self-efficacy, collective efficacy, satisfaction, and affective organisational commitment are stable over time, and to see if intentions to continue volunteering are realised. Longitudinal studies would provide the opportunity to examine more closely the relative contributions of various predictors, and to distinguish more clearly direct influences from indirect, mediated influences.

In a study of hospice volunteers, Finkelstein (2008) found that associations between motive fulfilment and amount of time devoted to volunteering changed over time. Conversely, the correlations between time and role identity varied little between 3 and 12 months. Finkelstein suggests that changes that were observed may explain some apparent discrepancies in the volunteer literature. For example, while some researchers report a positive correlation between motive strength and volunteer activity (e.g. Clary et al.,1998; Omoto & Snyder, 1995; Penner & Finkelstein, 1998), others observed few significant relationships between motives and either time volunteered or length of service (e.g. Finkelstein, 2007, 2008; Finkelstein et al., 2005). Finkelstein concludes that "cross-sectional and longitudinal studies can both yield invaluable insights into the contributions of motive and [role] identity to sustaining volunteers. The challenge is understanding that time can change these conclusions" (Finkelstein, 2008, p. 1353).

To better understand motivations and intentions related to volunteering, it is recommended that future studies include not only active volunteers but those who had previously volunteered with the organisation and people potentially interested in volunteering. On a related point, Bussell (2002) points out that while the literature addresses the issue of retaining volunteers, it is almost completely silent on suggestions for ways to reactivate or re-engage former volunteers. This should be looked at further as the cost to the organisation of reactivating an already trained

volunteer is almost certain to be lower than the cost of recruiting and training a new volunteer (Keaveney, Saltzman, & Sullivan, 1991).

The findings related to self-efficacy and collective efficacy in the present study suggest the value of further research involving these variables (cf. Section 8.3). The present study examined the direct influence of self-efficacy for volunteering on sustained volunteering, organisational commitment, satisfaction, and collective efficacy. Future research might profitably explore self-efficacy as a mediating variable. Some researchers have suggested that one can test for mediation even when a direct path is not significant and no mediation had been predicated (Shrout & Bolger, 2002).

As discussed in Section 8.3, modification indices suggested by SEM (cf. Chapter 6, Section 6.5) and results of the ex post hoc regression analysis of the data for the study (Chapter 6, Appendix 6E) suggested additional paths in the model which would have resulted in non-recursive models. These additional paths were not included in the SEM analyses for the present study as the use of non-recursive models with cross-sectional survey design is problematic (cf. Chapter 4, Section 4.9.3). Further research on sustained volunteering should consider the potential benefits of analysing non-recursive models. Indeed, alternative models need to be explored since SEM cannot confirm a model but can only disconfirm it. A model is tested using SEM goodness-of-fit tests to determine if the pattern of variances and covariances in the data is consistent with a structural model specified by the researcher. However, as other unexamined models may fit the data as well or better, an accepted model is only a not-disconfirmed model (Cliff, 1983).

The conceptual model of sustained volunteering developed for this study was based on Clary and Snyder's Volunteer Process Model and on perspectives drawn from the theory of planned behaviour (TPB) and psychological contract theory. These perspectives continue to provide bases for further research on volunteering generally, and sustained volunteering in particular; research which is more theoretically sophisticated and methodologically rigorous. Wilson (2012) has reviewed recent research based on the volunteer process model and has identified a need for further research on the experiences stage of the process, particularly the influence of the social context of volunteer work on the volunteer's satisfaction and commitment. Veludo-de-Oliveira, Pallister and Foxall (2013) have tested an expanded TPB model and proposed an integrative model of sustained volunteering as a basis for further research. Nicholls (2013) examined the ways in which research into the psychological contract of volunteers has been constrained by the direct transfer of measures from the study of employees and proposed "a revised research agenda" which understands the contract as socially constructed and the need to juxtapose the expectations of managers and volunteers in order to understand the contract as a social relationship. Further research on the psychological contract of volunteers has the potential

to inform an integrative approach to the study of continued volunteering, an approach which includes both the volunteer's perspective, sustained volunteering, and the organisation's perspective, volunteer retention.

NOTE: The V21 survey included an additional (non-VFI) motivation item 'Volunteering is an expression of my religious beliefs'. This item was added as a result of discussions with representatives of some of the organisations involved in the research. This item was excluded from the analysis in this study as it was a single-item measure and because it might confound planned comparisons of this study's results with the findings of Clary and Snyder's research based on the 30-item VFI. Given the emphasis placed on religious affiliation in some volunteering research (Taniguchi & Thomas, 2011), and the potential of religious beliefs to increase both the likelihood and the level of volunteering (Forbes & Zampelli, 2012), future research might well investigate this potentially important motivator in greater detail by including a multi-item scale to assess this motivation to volunteer.

8.7 Conclusion

Combining volunteer motivation and self-efficacy as dispositional antecedents of the volunteer experience provided a useful perspective from which to examine key organisational factors also and their combined impact on the volunteer's intention to continue volunteering. Affective commitment and collective efficacy emerged as the strongest predictors of sustained volunteering; other significant influences included social motivation, perceived effectiveness in handling volunteering tasks, and the matching of benefits to motivation for those volunteers who were strongly motivated by a desire to help others based on their personal values.

This study contributes to the existing literature by testing a new model of sustained volunteering which includes multiple dispositional and organisational variables. The use of this model, as well as the inclusion of self-efficacy and collective efficacy measures, adds to methodological and conceptual development in volunteer research. The findings of this study further advance the discourse in research on volunteers by focusing on the individual within the context of the organisation – the sustained involvement of the volunteer – rather than focusing on the perspective of the organisation – volunteer retention. Moreover, the model focusses on a volunteer's continued volunteering with a particular organisation rather than their continuation as a volunteer based on volunteer role identity.

The role that institutions play in managing volunteers should facilitate the involvement of individuals in a manner that is meaningful not only to the volunteer but also to community service agencies and the clients they serve. This study further adds to the knowledge of volunteers' motivations, their perceived effectiveness as a volunteer, and their perceptions of the

volunteering experience, and provides organisations with important information and insights to assist them in managing their volunteer resource.

The findings of this study indicate also that organisations would benefit from viewing the volunteer's involvement from the perspective of the volunteer, not only from the organisation's perspective.

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APPENDICES

Appendix 4A ACU Confirmation of candidature

ACU
AUSTRALIAN CATHOLIC UNIVERSITY

ACU education

28th July 2011

FILENOTE: PhD Student – Michael Ryan (S00031266)

Principal Supervisor: Dr Roger Vallance

Co-Supervisor: Associate Professor Jeffrey Dorman (Monash Uni)

This file note confirms that the research in progress seminars equated to confirmation of candidature as indicated by the waiver request submitted by Dr Roger Vallance, 10th June 2011.

Dates that presentations were held include:

19th November 2003

2-4th June 2004

14-16th July 2004

15th June 2005

20-22nd July 2005

14-17th August 2005

April 2006

29th September 2006

Timelines have been adopted to ensure submission of the thesis by August 2012.

Dr Roger Vallance
Principal Supervisor

Professor Deb Keen
Associate Dean Research

Appendix 4B   Ethics approval

This appendix includes HREC Approval Forms for the V21 Project and the present study together with a letter to the Chair of HREC from Professor Jude Butcher documenting the relationship of the present study to the V21 Project as discussed with the Chair of the HREC.

Human Research Ethics Committee

<u>Committee Approval Form</u>

Principal Investigator/Supervisor: A/Prof Jude Butcher   Sydney Campus

Co-Investigators: Prof Patrick Duignan   Sydney Campus

Student Researcher:

Ethics approval has been granted for the following project:
Enhancing volunteer capacity to maximise the volunteer resources for contexturally diverse community organisations.

for the period: September 2003 to December 2004.

Human Research Ethics Committee (HREC) Register Number: N2003.04-10

The following <u>standard</u> conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* (1999) apply:

    (i)   that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
- security of records
- compliance with approved consent procedures and documentation
- compliance with special conditions, and

    (ii)   that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
- proposed changes to the protocol
- unforeseen circumstances or events
- adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than minimum risk. There will also be random audits of a sample of projects considered to be of minimum risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

Signed: .... Date: ....
                     (Research Services Officer, Strathfield Campus)

Human Research Ethics Committee

Committee Approval Form

Principal Investigator/Supervisor: Associate Professor Jude Butcher   Sydney Campus

Co-Investigators: Mr Michael Ryan   Sydney Campus

Student Researcher:

Ethics approval has been granted for the following project:
From 'doer' to 'stayer' - personal factors affecting volunteer retention in community service organisations

for the period: 2 September 2005 to 31 December 2005

Human Research Ethics Committee (HREC) Register Number: N200506 5

The following <u>standard</u> conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* **(1999) apply:**

    (i)   that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
- security of records
- compliance with approved consent procedures and documentation
- compliance with special conditions, and

    (ii)   that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
- proposed changes to the protocol
- unforeseen circumstances or events
- adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than minimum risk. There will also be random audits of a sample of projects considered to be of minimum risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

K. Pashley.

Signed: .... Date: 2 September 2005
(Research Services Officer, McAuley Campus)

8 August 2005

Dr John Ozolins
Chair
Human Research Ethics Committee
ACU National

Dear John

Re: PhD Study being conducted in conjunction with ARC Linkage Project

I recently discussed with you the most appropriate way to obtain HREC Approval for a PhD study which involves further analysis of the existing data set of a current (HREC-approved) project. Following our discussion and your advice, a separate application for HREC Approval is now submitted for the PhD study. Briefly, the details as discussed with you are as follows.

The School of Education NSW is currently conducting a research project "V21 - Enhancing Volunteer Capacity" in partnership with three community organisations – the St Vincent de Paul Society, the NSW Rural Fire Service and The Benevolent Society. This is a three-year project with support from an ARC Linkage-Project grant in the second and third years. This project has been approved by HREC under application N2003.04-10.

Mr Michael Ryan, a full-time doctoral student is conducting his PhD research in conjunction with the ARC-funded volunteering project. I am the supervisor for Mr Ryan's PhD study and I am also the Principal Investigator for the V21 project.

Since November 2002 the three industry partners have been aware of, and have endorsed, Mr Ryan's PhD study being conducted in conjunction with the ARC-funded project.

Mr Ryan's PhD study is linked directly to the research questions established for the V21 project. It both builds upon and enhances the V21 project by unpacking the V21 data to a deeper level and exploring further the interrelationship between the key variables.

Mr Ryan's PhD study will examine the impact of selected personal factors on volunteer retention. In particular, the study will examine in what ways and to what extent a volunteering experience which meets an individual's needs and expectations contributes to favourable outcomes for both the individual and the organisation such as job satisfaction, commitment to the organisation and the intention to continue volunteering with the organisation.

Data gathering procedures for the V21 research questions have already been approved by HREC under application N2003.04-10. The information letters to participants, consent forms, and permissions to use off-campus locations submitted with this application are the same as those submitted with the Application for Ethics Approval for the V21 project. They are included here for your information. The instruments used for data gathering in the V21 project – the focus group schedule and the volunteer survey - which were not available at the time of the V21 application, are also included.

Thank you for your consideration of this application.

Yours sincerely

Associate Professor Jude Butcher   243

Appendix 4C Agreement of organisations to participate in the V21 Research Project - Example

AUSTRALIAN RESEARCH COUNCIL LINKAGE-PROJECT RESEARCH AGREEMENT

Agreement in relation to rights associated with the project "Enhancing volunteer capacity to maximise the volunteer resources for contextually diverse community organisations" ("the project") made this _____27_____ day of ___April___ 2004.

Between: AUSTRALIAN CATHOLIC UNIVERSITY ABN 15 050 192 660 ("ACU"), C/o Research Services, Locked Bag 2002, Strathfield NSW 2135.

And: THE BENEVOLENT SOCIETY ABN 95 084 695 045, Level 1, 188 Oxford Street, Paddington, NSW, 2021, Australia ("BS"), the Industry Partner.

BACKGROUND

A. ACU has been awarded a Linkage – Project grant by the Australian Research Council (ARC) to conduct the Research Project entitled "Enhancing volunteer capacity to maximise the volunteer resources for contextually diverse community organisations". Details of the Research Project are contained in the Linkage Grant application, which is attached to this agreement as Schedule 2.

B. The Research Project may lead to the exchange of confidential information between parties and the creation of Intellectual Property. It is a condition of the award that the parties enter into an agreement dealing with the conduct of the Research Project and Intellectual Property generated by the Research Project.

C. In compliance with the Australian Research Council Funding Contract for Linkage Projects, the parties have agreed to carry out the Research Project upon the terms and conditions of this Agreement.

THE PARTIES AGREE AS FOLLOWS:

1   Definitions

1.1   In this agreement, including the Background and Schedules, the following definitions apply unless there is a contrary intention.

"**Agreement**" means this agreement;

"**Application**" means the application for the Linkage Grant, attached as Schedule 2;

"**Background Intellectual Property**" means pre-existing or independently developed Intellectual Property, including Confidential Information, introduced to the Research Project by a party.

"Chief Investigator" means the first named Chief Investigator as identified in the Application, being Professor Patrick Duignan.

"Commercialise" means to develop, manufacture, have made, sell, hire or otherwise exploit a product or process or to provide a service, incorporating the Intellectual Property arising from this project or incorporated in other IP (as appropriate) and **"Commercialisation"** will be similarly construed.

"Completion of Project". The completion date of the project will be the date on which the Final Report is due with the Australian Research Council.

"Confidential Information" means all trade secrets and know-how, financial information and other commercially valuable information in whatever form and of whatever description which a Party claims is confidential to itself. It includes all other such information that may be in the possession of a Party, but does not include information or data which:

(a) is already in the public domain;

(b) hereafter becomes part of the public domain through no fault of the recipient Party;

(c) is or becomes available to the recipient Party from a third party lawfully in possession thereof and who has lawful power to disclose such information to the recipient Party;

(d) is received by a Party from a third party without any obligation to hold in confidence and which has not been obtained by that third party directly or indirectly from a party to this Agreement;

(e) is independently developed by an officer or employee of the recipient Party owing the obligation of confidence whilst having no knowledge of the other party's Confidential Information; or

(f) the Party claiming confidentiality is identified in writing as being released from the obligation of confidence.

"Exploit" shall have the same meaning as that defined in the *Patents Act 1990 (Cth)* and **"Exploitation"** shall be similarly construed.

"GST" means any tax imposed on the supply of goods or services, which is imposed or assessed under GST Law.

"GST law" means *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* (as amended) and all related ancillary legislation which provides for a broad based consumption tax and the supply of Goods and Services which becomes operative in respect of the provisions of this Agreement.

"Intellectual Property" means all statutory and other proprietary rights in respect of know-how, confidential information, copyright, trade marks, designs (as embodied in,

but not limited to, drawings, computer software, solid models and computer algorithms), patents, circuit layouts and all other rights of an exclusive nature;

"Parties" means the Industry Partner and ACU;

"Project Intellectual Property" means all Intellectual Property, which is (or are) created by a Party (or the Parties) as a result of carrying out the Research Project;

"Registration Costs" means all fees, costs and expenses (including all patent attorney and legal fees and expenses) incurred in the obtaining of registration of Intellectual Property and maintaining the same in any or all parts of the Territory and includes all expenses incurred in making amendments to patent specifications, divisional patent applications and dealing with oppositions to any such application;

"Research Project" means the research project which is to be carried out by the Parties in accordance with this Agreement, as defined in the application for the Linkage Grant (see Schedule 2);

"Tax Invoice" has the meaning given under *A New Tax System (Goods and Services Tax) Act 1999 (Cth).*

2   Consistency between this Agreement and the Grant

2.1   The Parties agree to be bound by the Application and by the conditions of the Linkage Grant. The terms and conditions of this Agreement are subject to the conditions of the Linkage Grant. In the event of any inconsistency between any terms and conditions of this Agreement and any conditions of the Grant, as set out in the ARC Funding Contract, the conditions of the Grant will prevail. The ARC Funding Contract is attached to this agreement as Schedule 3.

2.2   Definitions which are set out in the conditions of Grant shall apply to this Agreement, unless a contrary intention is apparent.

2.3   The Parties acknowledge and agree that they each have received a copy of the conditions of Grant prior to the execution of this Agreement.

2.4   The Parties agree to contribute and participate in the Research Project as set out in the Application.

3   Research Project

3.1   The parties will carry out the Research Project diligently and competently and in accordance with generally accepted professional, scientific, ethical, business and financial principles and standards and in accordance with the Funding Contract.

3.2   The Industry Partner must contribute to and assist the ACU as reasonably necessary, with all reports ACU must provide to the Government under the

Funding Contract. ACU will make available a copy of each of these reports to the other parties if requested.

3.3 The Industry Partner will grant to ACU access to such facilities designated by the Industry Partner as being for use in the Research Project. Nothing in this Agreement will constitute permission for ACU to access facilities of the Industry Partner which are not designated as being for use in the Research Project.

3.4 The Industry Partner agrees that should any of its personnel named in the Application become unavailable to work on the Research Project to the extent identified in the Application, suitably qualified replacements will be nominated in consultation with the Chief Investigator.

4   Background Intellectual Property

4.1 Each Party retains all rights, title and interests to its Background Intellectual Property.

4.2 Each Party grants to the other Parties, a royalty-free, non-exclusive, non-transferable licence to use its Background Intellectual Property to the extent necessary to carry out the Research Project.

5   Ownership and use of the Project Intellectual Property

5.1 Project Intellectual Property will belong to ACU. The Industry Partner agrees to actively cooperate if required in the taking of any steps, including the signing of documentation, to give effect to the vesting of ownership of the Project IP in ACU.

5.2 The Parties will decide in consultation, which part of the Project Intellectual Property shall:
(a)   be retained as Confidential Information of the Parties; or
(b)   be included in an application for registered Intellectual Property in any country of the world.

5.3 Subject to the terms of this Agreement and the Conditions of the Grant, ACU grants to the Industry Partner an irrevocable, non-exclusive, non-transferable, free licence to copy, exhibit, publicise, distribute, reproduce, exploit, adapt and otherwise use the Project Intellectual Property for its own internal uses only.

6   Confidential Information and Publication

6.1 Each Party must treat all Confidential Information owned by any other Party as confidential and must not, without prior written consent of the other Parties, disclose or permit the same to be disclosed to any third person, unless permitted by this Agreement.

6.2 Each party agrees to treat as confidential, all Background Intellectual Property received by them from another party in the course of carrying out the project.

6.3 A Party has the right to publish any matter or material arising from the Research Project, provided the publication does not contravene the provisions of Clauses 6.1 and 6.2, does not jeopardise the commercialisation of the Project and that the consent of all parties is obtained.

6.4 A Party must provide the other Parties with a copy of any proposed publication arising from the Project at least 30 days prior to submission for publication.

6.5 Any published material arising out of the Project must acknowledge the assistance and contributions of the other Parties.

7. Commercialisation (Exploitation)

7.1 Notwithstanding Clauses 5.1 and 5.3, after Project completion the Industry Partner will have 6 months in which to determine whether they have a commercial interest in the Project IP ("Initial Option Period"). The Industry Partner must within the Initial Option Period notify ACU in writing if it has a commercial interest in all or part of the Project IP. If the Industry Partner gives notice within the Initial Option Period that they have a commercial interest then Clause 7.2 will apply.

7.2 The Industry Partner will have the option to negotiate an exclusive licence on reasonable terms to use the Project IP for commercial purposes. Such terms and exclusivity will be negotiated by ACU and the Industry Partner in good faith.

8. Dispute Resolution and Notices

8.1 A Party seeking to resolve a dispute arising between the Parties out of or relating to this agreement, must notify the existence and nature of the Dispute to the other Parties. Upon receipt of the Notification, the Parties must refer the Dispute to their respective Chief Executive Officers or their nominees for resolution.

8.2 If the Parties fail to resolve the Dispute within thirty (30) days from the date of receipt of the Notification, the Parties must refer the Dispute to mediation under the rules of Conciliation through the Australian Commercial Dispute Centre ("ACDC"). If the Dispute has not been resolved within thirty (30) days from the date of referral to the ACDC, any Party is free to initiate proceedings in a court.

8.3 All notices to be provided by one Party to the other Parties must be in writing and delivered by pre-paid mail, facsimile, email or air courier at the address for notices as set out in Schedule 1, Item 1.

9.   Governing Law

9.1   This Agreement is governed by the laws of New South Wales, Australia.

10   Insurance

10.1   The Parties must maintain valid and enforceable public liability, professional indemnity and workers compensation insurances to cover any liability arising out of the performance of the Research Project.

11.   Term and Termination

11.1   This Agreement and the Research Project will commence on the date of this Agreement and will continue for the period of two (2) years.

11.2   The obligations provided under clauses 4, 5, 6, 7, 9 and 10 are continuing obligations, separate and independent of each other party's other obligations and will survive the expiration or, where relevant, earlier termination of this Agreement.

11.3   Should the Industry Partner withdraw from the Project prior to Project Completion the rights granted to it under Clause 5.3 will terminate.

12   Goods and Services Tax and Payments

12.1   If this Agreement or any supply under or in respect of this Agreement becomes subject to GST, and if the recipient of the consideration is liable to GST in relation to any supply under this Agreement, the Parties agree that the amount payable for any supply under or in respect of this Agreement by any Party shall be adjusted by the amount of the GST.

12.2   Each Party agrees to provide invoices or other documentation that may be necessary to enable the other Parties to claim or verify any input in tax credit, set off, rebate or refund in relation to any GST payable under this agreement or in respect of any supply under this Agreement.

12.3   The Industry Partner will be invoiced by ACU for the initial payment of ▮▮▮▮ on the commencement of the Research Project. Subsequent invoicing by ACU will occur in January 2005.

13.   Variations and Other Provisions

13.1   Party must not assign any of its rights under this Agreement or any of its interest in the subject matter of this Agreement, without the prior written consent of all the other Parties.

13.2 This Agreement may only be amended or modified by written agreement of the Parties.

EXECUTED BY THE PARTIES AS AGREEMENT
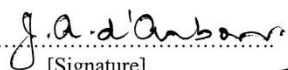
Signed for and on behalf of
and with the authority of
AUSTRALIAN CATHOLIC
UNIVERSITY LIMITED by:

Professor John C. Coll
Pro-Vice-Chancellor
(Research and Development)

....
[Signature]

in the presence of:

PROF T. D'ARBON.
....
[Print name of witness]

....
[Signature]

Signed for and on behalf of
and with the authority of
THE BENEVOLENT
SOCIETY by:

RICHARD SPENCER
....
Chief Executive Officer

....
[Signature]

in the presence of:

ANNE HAMPSHIRE
....
[Print name of witness]

....
[Signature]

Appendix 4D Agreement to use V21 data in this research - Example

All communications to be addressed to:

Head Office
NSW Rural Fire Service
Locked Mail Bag 17
Granville NSW 2142

Telephone: (02) 9684 4411
e-mail: shane.fitzsimmons@rfs.nsw.gov.au

Head Office
NSW Rural Fire Service
Unit S, 175-179 James Ruse Drive
Rosehill NSW 2142

Facsimile: (02) 9638 7956

Support letter for:

Enhancing Volunteer Capacity to Maximise the Volunteer Resources for Contextually Diverse Community Organisations

Your Ref:

Our Ref:

6 May 2003

To whom it may concern:

NSW RURAL FIRE SERVICE ORGANISATIONAL PROFILE

1.1   Size of Organisation

The NSW Rural Fire Service ("the Service") was established by the Rural Fires Act 1997 as the organisation responsible for delivering fire services to some 90% of the State.

The Service has an annual budget of around $113 million, over 460 staff and around 70,000 volunteers.

1.2   Purpose and Services

Our mission is to protect the community and environment by minimising the impact of fire and other emergencies by providing the highest standards of training, community education, prevention and operational capability.

The fire management and fire protection responsibilities of the Service are:

- The protection of life and property for all fire related incidents within all rural fire districts in NSW;
- The safety and welfare of all volunteers;
- The provision of effective training and resources to rural fire brigades; and
- The provision of emergency assistance to other emergency service organisations.

The customers of the Service include the volunteers, other agencies, the media, government departments, rural land managers and landholders, local government, schools, and all members and sections of the Service.

◆ Rural Fire Service Advisory Council   ◆ Bush Fire Co-ordinating Committee

2.0   IMPORTANCE OF THIS RESEARCH TO THE ORGANISATION

2.1   Need for research

This project will address a number of research questions, which are critical for the NSW RFS as a volunteer-based organisation. The Service and the community work together to achieve common community outcomes, and the reciprocal nature of volunteering is a crucial factor. Existing forms of volunteering may not appeal to, or be practical for many people, and particularly young people, as a result of social and demographic changes in employment, education and lifestyle patterns. Additionally, the specific changing demographics in rural areas where there is an increasing trend of young people leaving rural townships, compounds this, and may lead to an aging RFS volunteer base. There is a need to investigate the ratio of gender within volunteers in rural areas also, to inform strategies to encourage a greater gender balance.

There needs to be an increased understanding on how to "recruit" and sustain young people in volunteering, as well as to address the issues specifically relevant to young people as volunteers, such as the types of activities it is appropriate in which to engage them. Additionally, greater accountabilities, new technologies, occupational health and safety considerations, environmental awareness and ongoing training have placed increased responsibilities on the volunteer firefighters of the Service and will undoubtedly impact on future recruitment.

2.3   Benefits to NSW Rural Fire Service

With the transfer of over 300 district fire control staff from local government to direct employment by the Service (the State) on 1st July 2001, there is an opportunity to facilitate a more cohesive management approach to our principal asset, the 70,000 volunteers who comprise the Service. The proposed project will complement and build on the substantial work the Service has begun in the analysis and implementation of service quality enhancements at all levels, by providing real data upon which to make decisions concerning formation and ongoing maintenance of Brigades.

There will be significant benefit to the Service by providing data to assist in the development of specific strategies for:

- Increasing and sustaining the involvement of young volunteers;
- Helping develop new forms of volunteering, which better fit the lifestyles, interests and competencies of young people;
- Addressing some issues confronting the Service with regard to appropriate boundaries for young people as volunteers, e.g. exposure to life threatening situations, the setting up of Cadet Brigades, and the addition of duties such as dealing with Motor Vehicle accidents;
- Investigating some of the tensions around the staff/volunteer divide, of particular relevance to the Service in the current environment of change in District and Regional structure;
- Benefiting from a greater gender balance of volunteers in rural areas.

3.0   COMMITMENT TO THE PROJECT

The NSW Rural Fire Service has committed the following resources to the project:
Cash:
In-kind: ███████████████

* Staff costs of approximately ██████████████. (Those staff being: Manager Volunteer Relations, Executive Director Strategic Development, Regional Managers and District/Zone Managers, and other staff as needed. ███████ ██████████████████████████████ statistical and data analysis, travel, computing, etc = ██████████████. (To be coordinated by the Manager Volunteer Relations.)

The NSW RFS is committed to this project as it is an area of significant and increasing importance to our current and future core business.

Shane Fitzsimmons
Assistant Commissioner
Executive Director Strategic Development

Appendix 4E   V21 Questionnaire as printed and distributed

Separate versions of the questionnaire were produced for each organisation. The content and presentation of these versions were identical except that the name of the particular organisation was used, where appropriate, instead of a generic term such as "your organisation". The introduction to the questionnaire provides Information for Participants as required by Ethics Approval. Completion and return of questionnaire constitutes informed consent.

V21 Research Project
Enhancing Volunteering for the 21st Century

SURVEY OF VOLUNTEER OPINIONS AND EXPERIENCES

ST VINCENT DE PAUL SOCIETY

About the V21 Project

Three community organisations – the NSW Rural Fire Service, the St Vincent de Paul Society, and The Benevolent Society – and the Australian Catholic University are partners in a three-year research project: V21 – Enhancing Volunteering for the 21st Century.

This research aims to identify and analyse changing patterns of volunteering in the community organisations involved, and to assist these organisations and the sector generally to enhance the volunteer experience for all concerned.

By completing the survey you will help us to identify how best to support the volunteering effort in the partner organisations and in community organisations generally.

The survey is in five sections that ask about you and various aspects of your experience of volunteering.

There are NO right or wrong answers to the items in the survey.

The survey takes 30-35 minutes to complete.

All responses are STRICTLY CONFIDENTIAL and you will not be identified in any way in the project report.

Participation in this project is voluntary. By completing and returning this survey you are indicating your willingness to be involved in the project in this way.

Thank you for taking the time to complete the survey. The partner organisations and the V21 research team are most appreciative of your support.

Please return the completed survey form in the pre-paid envelope.

If you have any queries about the V21 survey, please contact Mick Ryan, V21 Project Officer, School of Education NSW, ACU National, 25A Barker Road, Strathfield NSW 2135. Phone: (02) 9701 4134. Email: m.ryan@mary.acu.edu.au.

STRICTLY CONFIDENTIAL

INSTRUCTIONS
Please read each question carefully and fill in the circle of the response that most closely represents your opinion or that best applies to you.
Use a blue or black biro. Do not use pencil or felt-tip pen.
Completely fill in the circle with a dark mark. Do not make any stray marks.
Please mark like this: ○○○●   NOT like this: ⊘⊗⊖⦸
If you wish to change an answer, place an "X" through the first mark, and fill in the circle for your preferred answer: ○✗○●

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Section A – How do you volunteer with the St Vincent de Paul Society?

A1. How long have you been volunteering with the St Vincent de Paul Society?

|___|___| years and |___|___| months

A2. Have you had a break from volunteering with the St Vincent de Paul Society during this time?

○ No.　　　　　　　○ Yes; if so, how long was your break? _____

A3. How often do you volunteer with the St Vincent de Paul Society?
Mark one circle.

○ Weekly　　　○ Fortnightly　　　○ Less than once a month　　　○ Monthly

A4. Does your volunteering with the St Vincent de Paul Society include any of the following?
Mark all that apply.

○ Emergencies/critical incidents　　　　　○ Special events

A5. *On average,* how much time do you volunteer with the St Vincent de Paul Society *each month*?
Mark one circle

○ 8 hours or less　　○ 9-16 hours　　○ 17-24 hours　　○ 25-32 hours
○ 33-40 hours　　○ More than 40 hours

A6. Would you like to be doing more, less, or about the same hours of volunteer work with the St Vincent de Paul Society as you do at present?

○ More hours　　　○ About the same　　　○ Less hours

A7. Does the time you spend volunteering with the St Vincent de Paul Society vary from week to week?

○ No. My time spent volunteering does not vary from week to week.

○ Yes. Please indicate how much variation by marking one circle on the line below.

Little variation　1 ○　　2 ○　　3 ○　　4 ○　　5 ○　　6 ○　　7 ○　A lot of variation

A8. Would you like to volunteer with the St Vincent de Paul Society more often, less often, or about the same as you do at present?

○ More often　　　○ Less often　　　○ About the same

A9. What kind of activities do you carry out as a volunteer in the St Vincent de Paul Society?
Please mark more than one circle if appropriate.

○ Counselling/mediation/advocacy　　　　○ Education/training/tutoring/mentoring

○ Fundraising/retail　　　　　　　　　　○ IT/computing

○ Material relief　　　　　　　　　　　　○ Professional/management/committee

○ Admin/clerical　　　　　　　　　　　　○ Emergency/firefighting/safety/rescue

○ Food service/catering　　　　　　　　　○ Technical/mechanical/maintenance

○ Visiting/social support/welfare support　　○ Driving

○ Recreational activities　　　　　　　　　○ Radio communications/logistics/aviation support

○ Other. *Please specify* _____

A10. Since you started to volunteer with the St Vincent de Paul Society, has the type of volunteering work you do changed?

○ No, I have done much the same work since becoming involved as a volunteer.

○ Yes, the work I have done has changed. *Please give brief details:* _____

A11. Since you started to volunteer with the St Vincent de Paul Society, have your role and responsibilities changed?

○ No.　　　　　○ Yes. *Please give brief details:* _____

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A12. Would you like to be involved in other volunteer roles or activities within the St Vincent de Paul Society?

O No   O Yes. *Please give brief details:* _____

_____

A13. Has the St Vincent de Paul Society's expectations of volunteers changed since you started volunteering?
Please indicate how much change by marking one circle on the line below.

Not at all   1 O   2 O   3 O   4 O   5 O   6 O   7 O   Changed a lot

A14. How long do you think you will continue volunteering with the St Vincent de Paul Society?
Mark one circle.

O Less than 6 months   O 6 to 12 months   O 1 to 2 years   O 2 to 5 years   O More than 5 years

Section B – Why do you volunteer with the St Vincent de Paul Society?

B1. Was there a particular event in your life that provided the opportunity for you to volunteer, or to resume volunteering? (For example, a change in work or family circumstances, moving to a new area?)

O No   O Yes. *Please give brief details:* _____

_____

B2. Why did you choose to volunteer with the St Vincent de Paul Society?
Please mark one circle or indicate under 'Other'

O I was asked by a friend   O I was asked by a member of the St Vincent de Paul Society

O I was asked by a family member   O I saw an advertisement

O Other. *Please specify briefly:* _____

Items B3 to B33 list a number of possible **reasons for volunteering**. Please mark one circle to indicate how important **each reason** is for you in doing volunteer work with the St Vincent de Paul Society.

		How important is it?						
		Not at all 1	A little 2	Somewhat 3	Fairly 4	Quite 5	Very 6	Extremely 7
B3.	Volunteering lets me learn things through direct, hands on experience.	O	O	O	O	O	O	O
B4.	Volunteering makes me feel needed.	O	O	O	O	O	O	O
B5.	My friends volunteer.	O	O	O	O	O	O	O
B6.	I can explore my own strengths.	O	O	O	O	O	O	O
B7.	Volunteering will help me to succeed in my chosen profession.	O	O	O	O	O	O	O
B8.	Doing volunteer work relieves me of some of the guilt over being more fortunate than others.	O	O	O	O	O	O	O
B9.	Volunteering is an important activity to the people I know best.	O	O	O	O	O	O	O
B10.	I feel compassion toward people in need.	O	O	O	O	O	O	O
B11.	Volunteering is a good escape from my own troubles.	O	O	O	O	O	O	O
B12.	I can learn how to deal with a variety of people.	O	O	O	O	O	O	O
B13.	Volunteering increases my self-esteem.	O	O	O	O	O	O	O
B14.	I am concerned about those less fortunate than myself.	O	O	O	O	O	O	O
B15.	Volunteering makes me feel important.	O	O	O	O	O	O	O

	How important is it?						
	Not at all 1	A little 2	Somewhat 3	Fairly 4	Quite 5	Very 6	Extremely 7
B16. I feel it is important to help others.	O	O	O	O	O	O	O
B17. I can learn more about the cause for which I am working.	O	O	O	O	O	O	O
B18. I can do something for a cause that is important to me.	O	O	O	O	O	O	O
B19. No matter how bad I've been feeling, volunteering helps me to forget about it.	O	O	O	O	O	O	O
B20. People I know share an interest in community service.	O	O	O	O	O	O	O
B21. Volunteering helps me work through my own personal problems.	O	O	O	O	O	O	O
B22. Volunteering makes me feel better about myself.	O	O	O	O	O	O	O
B23. Volunteering can help me to get my foot in the door at a place where I would like to work.	O	O	O	O	O	O	O
B24. Others with whom I am close place a high value on community service.	O	O	O	O	O	O	O
B25. Volunteering allows me to explore different career options.	O	O	O	O	O	O	O
B26. Volunteering experience will look good on my CV.	O	O	O	O	O	O	O
B27. By volunteering I feel less lonely.	O	O	O	O	O	O	O
B28. People I'm close to want me to volunteer.	O	O	O	O	O	O	O
B29. I can make new contacts that might help my business or career.	O	O	O	O	O	O	O
B30. Volunteering is a way to make new friends.	O	O	O	O	O	O	O
B31. Volunteering allows me to gain a new perspective on things.	O	O	O	O	O	O	O
B32. I am genuinely concerned about the particular group I am serving.	O	O	O	O	O	O	O
B33. Volunteering is an expression of my religious beliefs.	O	O	O	O	O	O	O

Items B34 to B37 list a number of possible reasons for believing you could work effectively with the St Vincent de Paul Society. For each item, please mark one circle to indicate how important each reason was for you before you joined up.

	How important is it?						
	Not at all 1	A little 2	Somewhat 3	Fairly 4	Quite 5	Very 6	Extremely 7
B34. My family, friends or neighbours were volunteers in the St Vincent de Paul Society.	O	O	O	O	O	O	O
B35. I have the skills and/or life experiences to contribute to the community.	O	O	O	O	O	O	O
B36. I was persuaded by others to give this type of volunteer work a try.	O	O	O	O	O	O	O

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	How important is it?						
	Not at all 1	A little 2	Somewhat 3	Fairly 4	Quite 5	Very 6	Extremely 7
B37. I chose to work with the St Vincent de Paul Society because I believed it was an effective organisation.	O	O	O	O	O	O	O

Section C – How are you supported by the St Vincent de Paul Society in your volunteering?

C1. Have you received any training from the St Vincent de Paul Society for your work as a volunteer?

O No

O Yes; if so,

(a) Please give a general indication of the training received: _____

_____

(b) Please indicate how useful you thought the training was by marking one circle on the line below.

Not useful at all   1 O   2 O   3 O   4 O   5 O   6 O   7 O   Extremely useful

C2. Do you feel training is necessary for the volunteering work that you do?

O No   O Yes; if so, please give a general indication of what is required: _____

_____

C3. Have you received sufficient training for the volunteering work that you do?

O Yes   O No; if not, please give a general indication of what further training is required: _____

C4. Is there training available to prepare you for other roles within the St Vincent de Paul Society?

O No   O Yes; if so, please give a general indication of what is available: _____

_____

C5. Do you feel well supported by the St Vincent de Paul Society in carrying out the volunteering work that you do? (eg in terms of appropriate advice and supervision, and in other ways)

O No, I do not feel well supported   O Yes, I feel well supported

C6. What types of support does the St Vincent de Paul Society provide to you in your volunteering work?
Please list the types of support you receive in order of their importance to you.

1. _____

2. _____

3. _____

4. _____

5. _____

Section D – How do you feel about volunteering with the St Vincent de Paul Society?

In general, how do you feel about volunteering with the St Vincent de Paul Society?
For items D1 to D24, please mark one circle to indicate the extent to which you agree with the following statements.

	Disagree 1	Tend to disagree 2	Uncertain 3	Tend to agree 4	Agree 5
D1. The work I do as a volunteer with the St Vincent de Paul Society has a great deal of personal meaning for me.	O	O	O	O	O
D2. I would be proud to tell others where I do my volunteering work.	O	O	O	O	O
D3. I feel a strong sense of belonging to the St Vincent de Paul Society.	O	O	O	O	O

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	Disagree 1	Tend to disagree 2	Uncertain 3	Tend to agree 4	Agree 5
D4. The St Vincent de Paul Society does not consult volunteers on matters which affect them.	O	O	O	O	O
D5. I feel that the St Vincent de Paul Society does not have a clear vision for the future.	O	O	O	O	O
D6. Paid staff are appreciative of the contribution that volunteers make to the work of the St Vincent de Paul Society	O	O	O	O	O
D7. I would be happy to continue to volunteer with the St Vincent de Paul Society.	O	O	O	O	O
D8. I feel that any problems faced by the St Vincent de Paul Society are also my problems.	O	O	O	O	O
D9. The St Vincent de Paul Society does not appreciate my loyalty.	O	O	O	O	O
D10. My contributions are valued within the St Vincent de Paul Society.	O	O	O	O	O
D11. I feel confident in the leadership and direction of the St Vincent de Paul Society.	O	O	O	O	O
D12. Paid staff tend to keep to themselves when volunteers are around.	O	O	O	O	O
D13. I do not feel like part of a family at the St Vincent de Paul Society.	O	O	O	O	O
D14. I feel emotionally attached to the St Vincent de Paul Society.	O	O	O	O	O
D15. I enjoy discussing the St Vincent de Paul Society with appropriate people outside of it.	O	O	O	O	O
D16. I don't think I have got anything out of being a volunteer with the St Vincent de Paul Society.	O	O	O	O	O
D17. On the whole my volunteering experience with the St Vincent de Paul Society has been positive for me.	O	O	O	O	O
D18. I have been personally satisfied with the responsibilities given to me as a volunteer with the St Vincent de Paul Society.	O	O	O	O	O
D19. I have been able to express my personal values through my volunteering work with the St Vincent de Paul Society.	O	O	O	O	O
D20. I have learned more about the world through my volunteering experience with the St Vincent de Paul Society.	O	O	O	O	O
D21. I have grown and developed as a person through volunteering with the St Vincent de Paul Society.	O	O	O	O	O
D22. By volunteering with the St Vincent de Paul Society I have improved my career prospects.	O	O	O	O	O
D23. My work as a volunteer with the St Vincent de Paul Society has been appreciated by my friends and acquaintances.	O	O	O	O	O
D24. When volunteering with the St Vincent de Paul Society I think less about my own problems and concerns.	O	O	O	O	O

For items D25 to D39, please mark one circle to indicate your response.

While working as a volunteer with the St Vincent de Paul Society, how confident are you that you can:

	How confident are you?						
	Not confident 1	2	3	4	5	6	Very confident 7
D25. Build trust with people the service supports.	O	O	O	O	O	O	O
D26. Be valued by people the service supports.	O	O	O	O	O	O	O
D27. Establish a rapport with the people the service supports.	O	O	O	O	O	O	O
D28. Respond with sensitivity to people the service supports.	O	O	O	O	O	O	O
D29. Value the volunteers you work with.	O	O	O	O	O	O	O

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	Not confident 1	2	3	4	5	6	Very confident 7
D30. Build good working relationships with the other volunteers you work with.	O	O	O	O	O	O	O
D31. Maintain appropriate professionalism.	O	O	O	O	O	O	O
D32. Handle experiences that are out of your comfort zone.	O	O	O	O	O	O	O
D33. Make a positive contribution by volunteering for the community.	O	O	O	O	O	O	O
D34. Participate successfully in volunteer work.	O	O	O	O	O	O	O
D35. Enjoy volunteer work.	O	O	O	O	O	O	O
D36. Respond appropriately to needs in the community.	O	O	O	O	O	O	O
D37. See what the world looks like from different perspectives.	O	O	O	O	O	O	O
D38. Understand how frustrating life can be for some people.	O	O	O	O	O	O	O
D39. Understand how hard it is to let someone else help you.	O	O	O	O	O	O	O

For items D40 to D45, please mark one circle to indicate your response.
How confident are you that:

	Not confident 1	2	3	4	5	6	Very confident 7
D40. The organisation I volunteer for is effective.	O	O	O	O	O	O	O
D41. Volunteering within my team increases my effectiveness as a volunteer.	O	O	O	O	O	O	O
D42. A little support from the community makes an enormous difference.	O	O	O	O	O	O	O
D43. When volunteers contribute to the community it makes a difference.	O	O	O	O	O	O	O
D44. There are needs in the community that I can respond to and make a difference.	O	O	O	O	O	O	O
D45. My effectiveness as a volunteer has increased.	O	O	O	O	O	O	O

Section E – Who are you?

E1.	**What is your gender?**			
	O Male	O Female		
E2.	**What is your age?**			
	O 15-18 years	O 19-30 years	O 31-40 years	O 41-50 years
	O 51-55 years	O 55-60 years	O 61-70 years	O Over 70 years
E3.	**What is your country of birth?**			
	O Australia	O Other (*Please specify* _____)		
E4.	**What language is *mostly* spoken at home?**			
	O English	O Other (*Please specify* _____)		

E5. What do you identify as your cultural/ethnic background?

○ Anglo-Saxon ○ European ○ Asian ○ Other (*Please specify* _____)

E6. What is your status?

○ Never married ○ Widowed ○ Divorced ○ Separated ○ Married

E7. Do you have children?

○ No ○ Yes (If so, how many children do you have ____, and how many are under 18 ____)

E8. What level of education have you reached?

○ Year 9 or below ○ Year 10 or equivalent ○ Year 12 or equivalent ○ Certificate or diploma

○ Bachelor degree ○ Postgraduate degree

E9. What is your present employment status?
Please mark all that apply.

○ Employed full-time ○ Employed part-time ○ Self-employed ○ Casual employment

○ Unemployed ○ Home duties ○ Studying full-time ○ Studying part-time

○ Retired ○ Other (*Please specify* _____)

E10. What is your present occupation (if employed)?

_____

E11. What is your home postcode?

|__|__|__|__|__|

E12. Do you currently volunteer with organisations other than the St Vincent de Paul Society?

○ No ○ Yes. *Please give brief details* _____)

E13. Have you previously volunteered with other organisations?

○ No ○ Yes. *Please give brief details* _____)

If you have any additional comments on your experience as a volunteer, or on any specific aspect of volunteering, please write them below.

Any comment you may have on the survey itself is equally welcome.

_____

_____

_____

_____

_____

_____

_____

At a further stage in the study we intend to explore selected aspects of volunteering in more detail by interviewing a small number of volunteers. Interviews will last about an hour and will be completely confidential. If you would like to be considered for these interviews, please complete the enclosed form *Volunteer Contact Details*, seal it in the separate envelope marked *V21 Interviews – Contact Details*, and return it with your survey in the envelope provided.

Thank you for completing the survey.

Please return the completed survey form in the pre-paid envelope.

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Appendix 4F Motivation to Volunteer (MTV-VFI) scale

The motivation to volunteer (MTV) scale comprised the 30 items of the Volunteer Functions Inventory (Clary et al., 1992). The items, grouped by functional motivation type, are listed in Table 4F.1. The V21 questionnaire reference is given in parenthesis after each item; e.g. (B5) indicates item 5 in Section B. The complete questionnaire is available at Appendix 4E.

Table 4F.1   MTV-VFI items grouped by function

Function	Item description
Values	
	I feel compassion toward people in need. (B10)
	I am concerned about those less fortunate than myself. (B14)
	I feel it is important to help others. (B16)
	I can do something for a cause that is important to me. (B18)
	I am genuinely concerned about the particular group I am serving. (B32)
Understanding	
	Volunteering lets me learn things through direct, hands on experience. (B3)
	I can explore my own strengths. (B6)
	I can learn how to deal with a variety of people. (B12)
	I can learn more about the cause for which I am working. (B17)
	Volunteering allows me to gain a new perspective on things. (B31)
Enhancement	
	Volunteering makes me feel needed. (B4)
	Volunteering increases my self-esteem. (B13)
	Volunteering makes me feel important. (B15)
	Volunteering makes me feel better about myself. (B22)
	Volunteering is a way to make new friends. (B30)
Career	
	Volunteering will help me to succeed in my chosen profession. (B7)
	Volunteering can help me to get my foot in the door at a place where I would like to work. (B23)
	Volunteering allows me to explore different career options. (B25)
	Volunteering experience will look good on my CV. (B26)
	I can make new contacts that might help my business or career. (B29)
Social	
	My friends volunteer. (B5)
	Volunteering is an important activity to the people I know best. (B9)
	People I know share an interest in community service. (B20)
	Others with whom I am close place a high value on community service. (B24)
	People I'm close to want me to volunteer. (B28)
Protective	
	Doing volunteer work relieves me of some of the guilt over being more fortunate than others. (B8)
	Volunteering is a good escape from my own troubles. (B11)
	No matter how bad I've been feeling, volunteering helps me to forget about it. (B19)
	Volunteering helps me work through my own personal problems. (B21)
	By volunteering I feel less lonely. (B27)

Appendix 4G   Self-efficacy for Volunteering (SEV) scale

The Self-efficacy for Volunteering (SEV) scale comprised the 19 items across five dimensions (Labone et al., 2005). The items, grouped by dimension, are listed in Table 4G.1. The V21 questionnaire reference is given in parenthesis after each item; e.g. (D27) indicates item 27 in Section D. The complete questionnaire is available at Appendix 4E.

Table 4G.1   SEV items grouped by dimension

Dimension	Item description
Relationships with clients or people the service supports	While working as a volunteer with [PO], how confident are you that you can:
	Build trust with people the service supports. (D25)
	Be valued by people the service supports. (D26)
	Establish a rapport with the people the service supports. (D27)
	Respond with sensitivity to people the service supports. (D28)
Relationships with other volunteers as co-workers	While working as a volunteer with [PO], how confident are you that you can:
	Value the volunteers you work with. (D29)
	Build good working relationships with the other volunteers you work with. (D30)
	Maintain appropriate professionalism. (D31)
Work competence	While working as a volunteer with [PO], how confident are you that you can:
	Handle experiences that are out of your comfort zone. (D32)
	Make a positive contribution by volunteering for the community. (D33)
	Participate successfully in volunteer work. (D34)
	Enjoy volunteer work. (D35)
Empathetic action	While working as a volunteer with [PO], how confident are you that you can:
	Respond appropriately to needs in the community. (D36)
	See what the world looks like from different perspectives. (D37)
	Understand how frustrating life can be for some people. (D38)
	Understand how hard it is to let someone else help you. (D39)
Social awareness	How confident are you that:
	A little support from the community makes an enormous difference. (D42)
	When volunteers contribute to the community it makes a difference. (D43)
	There are needs in the community that I can respond to and make a difference. (D44)
	My effectiveness as a volunteer has increased. (D45)

Appendix 4H   Summary of variables, factors, scales and measures

Table 4H.1: Summary of variables, factors and response scales – V21 survey

Variable/Construct	Factors/components	No. of items	Response pattern	Measure
Motivation to Volunteer (MTV) - Volunteer Functions Inventory (VFI) – 6 factors				
	Values function (V)	5	7-pt scale	Sum of item scores
	Understanding function (U)	5	7-pt scale	Sum of item scores
	Enhancement function (E)	5	7-pt scale	Sum of item scores
	Career function (C)	5	7-pt scale	Sum of item scores
	Social function (S)	5	7-pt scale	Sum of item scores
	Protective function (P)	5	7-pt scale	Sum of item scores
	MTV Sum	*30*	*Range 30-210*	*Sum of all MTV items*
Benefits of Volunteering (BEN) - (by functional motivation)				Item score
	Values benefit (V-BEN)	1	5-pt scale	
	Understanding benefit (U-BEN)	1	5-pt scale	Item score
	Enhancement benefit (E-BEN)	1	5-pt scale	Item score
	Career benefit (C-BEN)	1	5-pt scale	Item score
	Social benefit (S-BEN)	1	5-pt scale	Item score
	Protective benefit (P-BEN)	1	5-pt scale	Item score
	BEN Sum	*6*	*Range 6-30*	*Sum of all BEN items*
Self-efficacy for Volunteering (SEV)	Relationship with clients or people the service supports (RC)	4	7-pt scale	Sum of item scores
	Relationship with other volunteers (RV)	3	7-pt scale	Sum of item scores
	Work competence (WC)	4	7-pt scale	Sum of item scores
	Social awareness (SA)	4	7-pt scale	Sum of item scores
	Empathetic action (EA)	4	7-pt scale	Sum of item scores
	SEV Sum	*19*	*Range 19-133*	*Sum of all SEV items*
Motivation-Benefit Match (MBM) - (by functional motivation)				3 = MTV High BEN High
	MBM Values	1	3-pt scale	
	MBM Understanding	1	3-pt scale	
	MBM Enhancement	1	3-pt scale	2 = MTV Low BEN High
	MBM Career	1	3-pt scale	2 = MTV Low BEN Low
	MBM Social	1	3-pt scale	
	MBM Protective	1	3-pt scale	1 = MTV High BEN Low
	MBM Sum	*6*	*Range 6-18*	*Sum of all MBM items*
Satisfaction (SAT)		3	5-pt scale	Sum of item scores
	SAT Sum	*3*	*Range 3-15*	*Sum of all SAT items*
[Affective] Organisational commitment (AOC)		7	5-pt scale	Sum of item scores
	AOC Sum	*7*	*Range 7-35*	*Sum of all AOC items*
Collective efficacy for Volunteering (CEV)		2	7-pt scale	Sum of item scores
	CEV Sum	*2*	*Range 2-14*	*Sum of all CEV items*
Sustained Volunteering (SUV)	Intention to continue (for X years) (SUV1)	1	5-pt scale 1 = < 6 months 2 = 6-12months 3 = 1-2 years 4 = 2-5 years 5 = > 5 years	Item score
	Intention to maintain or increase hours (SUV2)	*1*	*3-pt scale* *1 = less hours* *2 = same hours* *3 = more hours*	*Item score* *OR* *Same/more (i.e. 2, 3) = YES* *Less (i.e. 1) = NO*

Variable/Construct	Factors/components	No. of items	Response pattern	Measure
	Intention to maintain or increase frequency (SUV3)	*1*	*3-pt scale* *1 = less often* *2 = same* *3 = more often*	*Item score* **OR** *Same/more (i.e. 2, 3) = YES* *Less (i.e. 1) = NO*

Appendix 5A Summary of demographic and descriptive statistics

Table 5A.1 Demographic characteristics and other descriptive statistics for volunteers (N = 454)

Characteristic	Proportion of sample (%)[1]			
	SVDP (N = 197)	**RFS** (N = 153)	**TBS** (N = 104)	**ALL** (N = 454)
Gender				
Male	42	48	24	40
Female	58	52	76	60
Age range				
15-18 years	11	14	-	9
19-30 years	11	21	4	13
31-40 years	3	14	6	7
41-50 years	9	13	11	11
51-55 years	6	11	10	9
56-60 years	9	14	13	12
61-70 years	33	11	33	25
Over 70 years	18	3	24	14
Country of birth				
Australia	86	94	64	84
Other	14	6	36	16
Language mostly spoken at home				
English	94	100	95	96
Other	6	-	5	4
Cultural/ethnic **background**				
Anglo-Saxon	74	82	77	78
European	21	11	14	16
Asian	3	1	5	3
Other	1	6	4	4
Relationship status[2]				
Never married	29	35	14	28
Widowed	15	3	16	11
Divorced	6	9	19	10
Separated	2	1	4	2
Married	48	52	48	49
Children				
Yes	68	57	77	66

Characteristic	Proportion of sample (%)[1]			
	SVDP (N = 197)	RFS (N = 153)	TBS (N = 104)	ALL (N = 454)
Under 18	6	24	14	14
Level of education reached*				
Year 9 or below	11	13	8	11
Year 10 or equivalent	32	33	21	30
Year 12 or equivalent	24	17	11	18
Certificate or diploma	18	27	30	24
Bachelor degree	13	7	19	13
Postgraduate degree	2	3	12	5
Employment status* [Multiple responses allowed.]				
Employed full-time	7	31	6	15
Employed part-time	6	12	13	10
Self-employed	3	15	9	8
Casual employment	10	8	1	7
Unemployed	8	5	6	6
Home duties	16	12	14	14
Studying full-time	13	13	5	11
Studying part-time	4	5	4	4
Retired	43	14	58	37
Other	3	3	4	3
Location				
Metropolitan	20	25	96	41
Regional	36	34	-	27
Rural	40	35	-	29
No response	4	6	4	4
Currently volunteering with other organisations				
Yes	36	32	36	35
Previously volunteered with other organisations				
Yes	47	48	52	48

1. Because of rounding and missing data, percentages may not sum to 100.

2. For each of these characteristics (Relationship status, Level of education and Employment status), the survey used the same categories as the Australian Bureau of Statistics Census, to facilitate comparisons with other populations and survey samples based on these characteristics.

Table 5A.2 Profile of all volunteer responses by age, gender and area

Age Group	Metropolitan		Regional		Rural		Totals		
	Male	Female	Male	Female	Male	Female	Male	Female	All
15-18 years	4	3	11	8	3	7	18	24	42
19-30 years	10	10	9	15	6	5	25	30	55
31-55 years	10	35	18	17	13	22	41	74	115
55+ years	47	60	24	20	19	50	90	130	220
Total	71	108	62	60	41	90	174	258	432*

* Note: No age given - 15; no postcode given – 13

Table 5A.3 Distribution of all volunteer responses by organisation, age and gender

AGE (years)	SVDP			RFS			TBS			ALL		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
15-18	12	9	21	6	15	21	-	-	-	18	23	41
19-30	10	12	22	16	15	31	0	4	4	26	31	57
31-55	13	22	35	27	30	57	1	26	27	41	78	119
55+	44	68	112	23	18	41	23	46	69	90	132	222
Total	79	111	190	72	78	150	24	76	100	175	264	439*

* Note: No age given - 15

Table 5A.4 Distribution of all volunteer responses by organisation and area

	SVDP	RFS	TBS	ALL
Metropolitan	42	41	104	187
Regional	72	50	-	122
Rural	79	53	-	132
Total locations	193	144	104	441
No location	4	9	0	13
Total	197	153	104	454

Table 5A.5 **Distribution of volunteer responses by age, gender and area - St Vincent de Paul Society**

Age Group	Metropolitan Male	Metropolitan Female	Regional Male	Regional Female	Rural Male	Rural Female	Total Male	Total Female
15-18 years	3	0	8	2	1	7	12	9
19-30 years	3	3	6	9	1	0	10	12
31-55 years	4	1	6	9	3	12	13	22
55+ years	18	8	15	15	11	43	44	66
Total	28	12	35	35	16	62	79	109

Note: No age and/or postcode given - 9

Table 5A.6 **Distribution of volunteer responses by age, gender and area - NSW Rural Fire Service**

Age Group	Metropolitan Male	Metropolitan Female	Regional Male	Regional Female	Rural Male	Rural Female	Total Male	Total Female
15-18 years	1	3	3	6	2	6	6	15
19-30 years	7	3	3	6	5	5	15	14
31-55 years	5	8	12	8	10	10	27	26
55+ years	6	6	9	5	8	7	23	18
Total	19	20	27	25	25	28	71	73

Note: No age and/or postcode given - 9

Table 5A.7 **Distribution of volunteer responses by age, gender and area - The Benevolent Society**

Age Group	Metropolitan Male	Metropolitan Female	Regional Male	Regional Female	Rural Male	Rural Female	Total Male	Total Female
15-18 years								
19-30 years	0	4					0	4
31-55 years	1	26					1	26
55+ years	23	46					23	46
Total	24	76					24	76

Note: No age given - 4

Appendix 5B Nature and extent of volunteering with current organisation

Table 5B.1 Years of volunteer service with current organisation

	SVDP	RFS	TBS	ALL
Median	5.0	7.4	3.0	5.0
Mean	9.9	12.2	5.3	9.6
Shortest	0.2	0.5	0.1	0.1
Longest	60.0	60.0	32.0	60.0

Table 5B.2   Hours volunteered each month (on average) (N = 446)

	SVDP (%)	RFS (%)	TBS (%)	ALL (%)
8 hours or less	21.0	27.3	51.5	30.0
9-16 hours	24.6	25.3	40.6	28.5
17-24 hours	13.8	16.0	7.9	13.2
25-32 hours	11.3	8.7	-	7.8
33-40 hours	12.3	9.3	-	8.5
More than 40 hours	16.9	13.3	-	11.9

Table 5B.3 Frequency of volunteer involvement (N = 449)

	SVDP (%)	RFS (%)	TBS (%)	ALL (%)
Weekly	81.4	65.4	69.6	73.3
Fortnightly	10.3	13.7	20.6	13.8
Monthly	6.7	13.7	6.9	9.1
Less than once a month	1.5	7.2	2.9	3.8

Appendix 5C   Motivation to Volunteer (MTV-VFI) scale

The motivation to volunteer (MTV) scale comprised the 30 items of the Volunteer Functions Inventory (Clary et al., 1992). The items, grouped by functional motivation type, are listed in Table 4C.1. The V21 questionnaire reference is given in parenthesis after each item; e.g. (B5) indicates item 5 in Section B. The complete questionnaire is available at Appendix 4E.

Table 5C.1   MTV-VFI items grouped by function

Function	Item description
Values	
	I feel compassion toward people in need. (B10)
	I am concerned about those less fortunate than myself. (B14)
	I feel it is important to help others. (B16)
	I can do something for a cause that is important to me. (B18)
	I am genuinely concerned about the particular group I am serving. (B32)
Understanding	
	Volunteering lets me learn things through direct, hands on experience. (B3)
	I can explore my own strengths. (B6)
	I can learn how to deal with a variety of people. (B12)
	I can learn more about the cause for which I am working. (B17)
	Volunteering allows me to gain a new perspective on things. (B31)
Enhancement	
	Volunteering makes me feel needed. (B4)
	Volunteering increases my self-esteem. (B13)
	Volunteering makes me feel important. (B15)
	Volunteering makes me feel better about myself. (B22)
	Volunteering is a way to make new friends. (B30)
Career	
	Volunteering will help me to succeed in my chosen profession. (B7)
	Volunteering can help me to get my foot in the door at a place where I would like to work. (B23)
	Volunteering allows me to explore different career options. (B25)
	Volunteering experience will look good on my CV. (B26)
	I can make new contacts that might help my business or career. (B29)
Social	
	My friends volunteer. (B5)
	Volunteering is an important activity to the people I know best. (B9)
	People I know share an interest in community service. (B20)
	Others with whom I am close place a high value on community service. (B24)
	People I'm close to want me to volunteer. (B28)
Protective	
	Doing volunteer work relieves me of some of the guilt over being more fortunate than others. (B8)
	Volunteering is a good escape from my own troubles. (B11)
	No matter how bad I've been feeling, volunteering helps me to forget about it. (B19)
	Volunteering helps me work through my own personal problems. (B21)
	By volunteering I feel less lonely. (B27)

Figure 5C.1 LISREL diagram for CFA of MTV

Table 5C.2 Correlation of the six scales (factors) for MTV-VFI in the CFA (N = 454)

		1	2	3	4	5	6
1	MTV-Values	-	.51	.45	.13	.40	.42
2	MTV-Understanding		-	.66	.49	.55	.50
3	MTV-Enhancement			-	.54	.61	.72
4	MTV-Career				-	.40	.37
5	MTV-Social					-	.54
6	MTV-Protective						-

Table 5C.3 Item-total statistics for Values scale (MTV-VFI)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
MTV-V1	21.11	21.60	.70	.55	.73
MTV-V2	21.39	20.80	.70	.55	.73
MTV-V3	20.71	25.77	.54	.33	.78
MTV-V4	21.36	23.97	.54	.30	.78
MTV-V5	21.56	22.30	.49	.26	.80

Cronbach's coefficient alpha for the Values scale is .81. The reliability of the scale would not be improved by removing any one (or more) items, so all five items in the scale (as defined by Clary and Snyder (1999)) were retained.

Table 5C.4 Item-total statistics for Understanding scale (MTV-VFI)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
MTV-U1	17.61	33.74	.65	.45	.81
MTV-U2	18.60	32.38	.65	.46	.81
MTV-U3	18.03	32.30	.71	.51	.79
MTV-U4	18.40	33.63	.58	.36	.83
MTV-U5	18.19	33.83	.64	.42	.81

Cronbach's coefficient alpha for the Understanding scale is .84. The reliability of the scale would not be improved by removing any one (or more) items, so all five items in the scale (as defined by Clary and Snyder (1999)) were retained.

Table 5C.5 Item-total statistics for Enhancement scale (MTV-VFI)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
MTV-E1	14.44	40.64	.61	.40	.84
MTV-E2	15.12	35.83	.75	.57	.80
MTV-E3	16.21	37.19	.71	.53	.81
MTV-E4	15.37	36.60	.76	.60	.80
MTV-E5	14.65	41.78	.52	.28	.86

Cronbach's coefficient alpha for the Enhancement scale is .86. The reliability of the scale would not be improved by removing any one (or more) items, so all five items in the scale (as defined by Clary and Snyder (1999)) were retained.

Table 5C.6 Item-total statistics for Career scale (MTV-VFI)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
MTV-C1	8.63	40.37	.755	.59	.90
MTV-C2	8.81	39.98	.83	.69	.88
MTV-C3	8.72	39.94	.81	.65	.89
MTV-C4	8.52	40.54	.72	.54	.90
MTV-C5	8.98	42.15	.78	.61	.89

Cronbach's coefficient alpha for the Career scale is .91. The reliability of the scale would not be improved by removing any one (or more) items, so all five items in the scale (as defined by Clary and Snyder (1999)) were retained.

Table 5C.7 Item-total statistics for Social scale (MTV-VFI)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
MTV-S1	13.10	39.35	.56	.36	.82
MTV-S2	12.56	35.47	.68	.49	.79
MTV-S3	11.98	37.31	.68	.50	.79
MTV-S4	12.31	35.98	.69	.52	.79
MTV-S5	13.59	40.30	.58	.36	.82

Cronbach's coefficient alpha for the Social scale is .84. The reliability of the scale would not be improved by removing any one (or more) items, so all five items in the scale (as defined by Clary and Snyder (1999)) were retained.

Table 5C.8 Item-total statistics for Protective scale (MTV-VFI)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
MTV-P1	11.09	42.49	.51	.27	.86
MTV-P2	10.93	37.52	.72	.55	.81
MTV-P3	9.91	38.26	.65	.45	.83
MTV-P4	10.97	38.09	.77	.60	.80
MTV-P5	10.92	37.95	.71	.52	.81

Cronbach's coefficient alpha for the Protective scale is .86. The reliability of the scale would not be improved by removing any one (or more) items, so all five items in the scale (as defined by Clary and Snyder (1999)) were retained.

Table 5C.9 Item-total statistics for all MTV-VFI items

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted *
MTV-U1-B3	103.35	1037.36	.50	.53	.938
MTV-E1_B4	103.93	1023.25	.61	.53	.937
MTV-S1-B5	105.66	1036.18	.46	.45	.939
MTV-U2-B6	104.34	1018.35	.62	.58	.937
MTV-C1-B7	106.16	1027.73	.54	.66	.938
MTV-P1-B8	106.08	1029.38	.52	.44	.938
MTV-S2-B9	105.12	1007.94	.64	.58	.936
MTV-V1-B10	103.02	1044.89	.49	.61	.938
MTV-P2-B11	105.92	1018.80	.59	.64	.937
MTV-U3-B12	103.77	1020.02	.64	.58	.936
MTV-E2-B13	104.62	1000.71	.72	.67	.935
MTV-V2-B14	103.30	1050.25	.41	.64	.939
MTV-E3-B15	105.71	1005.60	.70	.66	.936
MTV-V3-B16	102.63	1061.21	.42	.42	.939
MTV-U4-B17	104.13	1023.73	.57	.48	.937
MTV-V4-B18	103.27	1043.82	.53	.47	.938
MTV-P3-B19	104.90	1014.65	.60	.57	.937
MTV-S3-B20	104.54	1024.95	.56	.59	.937
MTV-P4-B21	105.96	1022.02	.61	.65	.937
MTV-E4-B22	104.86	1008.74	.69	.68	.936
MTV-C2-B23	106.33	1028.37	.56	.72	.937
MTV-S4-B24	104.87	1014.82	.61	.59	.937
MTV-C3-B25	106.25	1024.67	.58	.70	.937
MTV-C4-B26	106.05	1033.29	.48	.62	.938
MTV-P5-B27	105.91	1017.56	.61	.59	.937
MTV-S5-B28	106.15	1032.49	.53	.50	.938
MTV-C5-B29	106.51	1036.89	.52	.66	.938
MTV-E5-B30	104.15	1016.70	.64	.56	.936
MTV-U5-B31	103.93	1018.69	.67	.60	.936
MTV-V5-B32	103.47	1058.90	.29	.38	.940

*   Cronbach's coefficient alpha is reported to 3 decimal places to show variation across scale items.

Cronbach's coefficient alpha for the all 30 items on the MTV-VFI scale is .94. The reliability of the scale would not be improved by removing any one (or more) of these items, so all 30 items in the MTV-VFI-All scale were retained.

Appendix 5D Self-efficacy for Volunteering (SEV) scale

The Self-efficacy for Volunteering (SEV) scale comprised the 19 items across five dimensions (Labone et al., 2005). The items, grouped by dimension, are listed in Table 5D.1. The V21 questionnaire reference is given in parenthesis after each item; e.g. (D27) indicates item 27 in Section D. The complete questionnaire is available at Appendix 4E.

Table 5D.1 SEV items grouped by dimension

Dimension	Item description
Relationships with clients or people the service supports	While working as a volunteer with [PO], how confident are you that you can:
	Build trust with people the service supports. (D25)
	Be valued by people the service supports. (D26)
	Establish a rapport with the people the service supports. (D27)
	Respond with sensitivity to people the service supports. (D28)
Relationships with other volunteers as co-workers	While working as a volunteer with [PO], how confident are you that you can:
	Value the volunteers you work with. (D29)
	Build good working relationships with the other volunteers you work with. (D30)
	Maintain appropriate professionalism. (D31)
Work competence	While working as a volunteer with [PO], how confident are you that you can:
	Handle experiences that are out of your comfort zone. (D32)
	Make a positive contribution by volunteering for the community. (D33)
	Participate successfully in volunteer work. (D34)
	Enjoy volunteer work. (D35)
Empathetic action	While working as a volunteer with [PO], how confident are you that you can:
	Respond appropriately to needs in the community. (D36)
	See what the world looks like from different perspectives. (D37)
	Understand how frustrating life can be for some people. (D38)
	Understand how hard it is to let someone else help you. (D39)
Social awareness	How confident are you that:
	A little support from the community makes an enormous difference. (D42)
	When volunteers contribute to the community it makes a difference. (D43)
	There are needs in the community that I can respond to and make a difference. (D44)
	My effectiveness as a volunteer has increased. (D45)

Chi-Square=832.79, df=147, P-value=0.00000, RMSEA=0.101

Figure 5D.1   LISREL diagram for CFA of SEV

Table 5D.2 Correlation of the five scales (factors) for SEV in the CFA (N = 454)

		1	2	3	4	5
1	Relationships with clients	-	.54	.59	.60	.50
2	Relationships with other volunteers		-	.71	.58	.59
3	Work competence			-	.68	.65
4	Empathetic action				-	.66
5	Social awareness					-

Table 5D.3 Item-total statistics for SEV-RC scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
SEV-RC1 (D25)	16.98	12.29	.79	.63	.87
SEV-RC2 (D26)	17.02	12.16	.81	.68	.86
SEV-RC3 (D27)	17.04	12.01	.83	.69	.85
SEV-RC4 (D28)	16.65	14.07	.69	.49	.90

Cronbach's coefficient alpha for the SEV-RC scale is .90. The reliability of the scale would not be improved by removing any one (or more) items, so all four items in the scale were retained.

Table 5D.4 Item-total statistics for SEV-RV scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
SEV-RV1 (D29)	12.31	3.43	.56	.35	.66
SEV-RV2 (D30)	12.44	2.95	.64	.42	.56
SEV-RV3 (D31)	12.53	2.98	.51	.27	.73

Cronbach's coefficient alpha for the SEV-RV scale is .74. The reliability of the scale would not be improved by removing any one (or more) items, so all three items in the scale were retained.

Table 5D.5 Item-total statistics for SEV-WC scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
SEV-WC1 (D32)	18.67	7.47	.60	.41	.88
SEV-WC2 (D33)	18.10	7.43	.81	.67	.77
SEV-WC3 (D34)	17.99	7.99	.78	.67	.78
SEV-WC4 (D35)	17.88	8.92	.66	.52	.83

Cronbach's coefficient alpha for the SEV-WC scale is .87. The removal of the item SEV-WC1 would improve marginally the reliability of the scale (from .87 to .88). However, given that the

alpha was already so high, it was considered appropriate to retain all four items in the scale as defined by Labone et al. (2005).

Table 5D.6 Item-total statistics for SEV-EA scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
SEV-EA1 (D36)	17.25	9.81	.52	.28	.79
SEV-EA2 (D37)	17.57	8.26	.66	.44	.72
SEV-EA3 (D38)	17.22	9.02	.66	.44	.72
SEV-EA4 (D39)	17.58	8.28	.61	.38	.75

Cronbach's coefficient alpha for the SEV-EA scale is .80. The reliability of the scale would not be improved by removing any one (or more) items, so all four items in the scale were retained.

Table 5D.7 Item-total statistics for SEV-SA scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
SEV-SA1 (D42)	18.19	9.24	.67	.47	.79
SEV-SA2 (D43)	17.97	9.85	.61	.46	.81
SEV-SA3 (D44)	18.45	7.67	.75	.58	.75
SEV-SA4 (D45)	18.47	8.37	.64	.49	.80

Cronbach's coefficient alpha for the SEV-SA scale is .83. The reliability of the scale would not be improved by removing any one (or more) items, so all four items in the scale were retained.

Table 5D.8 Item-total statistics for all SEV items

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted *
SEV-RC1 (D25)	107.40	205.83	.65	.66	.932
SEV-RC2 (D26)	107.45	206.25	.65	.71	.932
SEV-RC3 (D27)	107.47	205.37	.67	.71	.932
SEV-RC4 (D28)	107.08	207.76	.70	.61	.931
SEV-RV1 (D29)	106.67	217.46	.55	.46	.934
SEV-RV2 (D30)	106.79	215.09	.58	.51	.933
SEV-RV3 (D31)	106.88	210.93	.65	.54	.932
SEV-WC1 (D32)	107.45	208.70	.60	.51	.933
SEV-WC2 (D33)	106.87	208.15	.76	.73	.930
SEV-WC3 (D34)	106.77	210.71	.74	.72	.931
SEV-WC4 (D35)	106.66	214.15	.67	.58	.932
SEV-EA1 (D36)	107.04	207.85	.76	.68	.930
SEV-EA2 (D37)	107.35	210.09	.58	.49	.933
SEV-EA3 (D38)	107.00	213.02	.58	.50	.933
SEV-EA4 (D39)	107.37	209.96	.56	.47	.934
SEV-SA1 (D42)	106.81	214.21	.57	.50	.933
SEV-SA2 (D43)	106.60	215.02	.58	.52	.933
SEV-SA3 (D44)	107.08	205.82	.69	.64	.931
SEV-SA4 (D45)	107.10	208.29	.63	.56	.932

*   Cronbach's coefficient alpha is reported to 3 decimal places to show variation across scale items.

Cronbach's coefficient alpha for the SEV scale is .94. The reliability of the scale would not be improved by removing any one (or more) items, so all 19 items in the scale were retained.

Appendix 5E LISREL diagrams for CFA for BEN, SAT, AOC and MBM

Chi-Square=44.03, df=9, P-value=0.00000, RMSEA=0.093
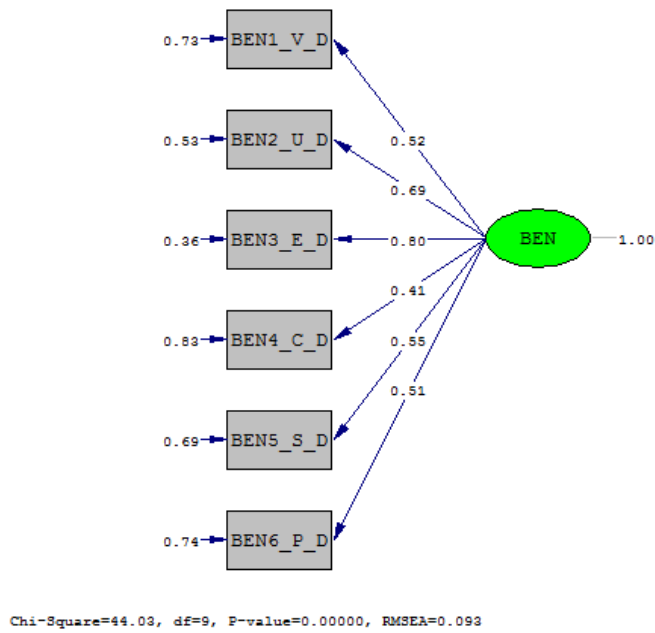
Figure 5E.1   LISREL diagram for CFA of BEN
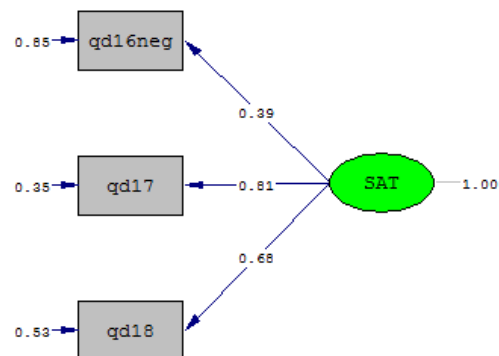
Figure 5E.2   LISREL diagram for CFA of SAT

Chi-Square=64.37, df=14, P-value=0.00000, RMSEA=0.089
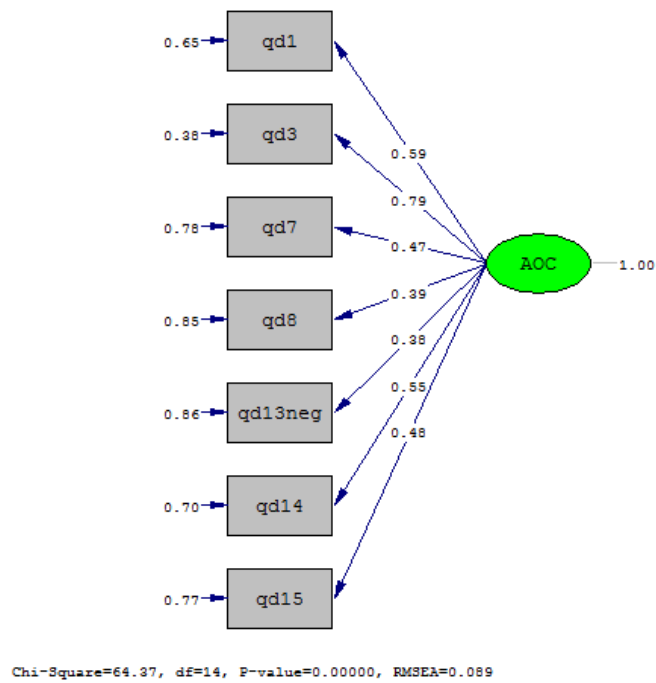
Figure 5E.3   LISREL diagram for CFA of AOC

Chi-Square=16.80, df=9, P-value=0.05202, RMSEA=0.044
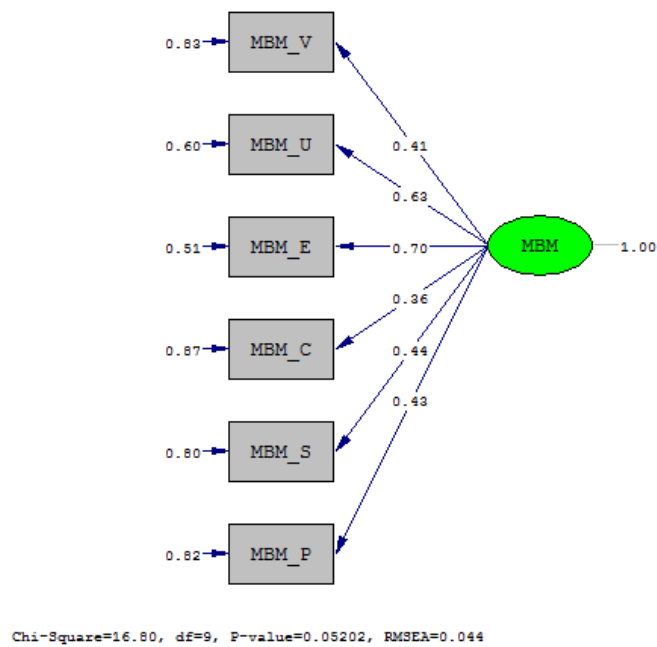
Figure 5E.4   LISREL diagram for CFA of MBM

Appendix 5F   Item-total statistics for BEN, SAT, AOC and MBM

Table 5F.1 Item-total statistics for BEN scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted
BEN-Values (D19)	17.04	18.58	.42	.24	.72
BEN-Understanding (D20)	17.24	16.98	.53	.37	.69
BEN-Enhancement (D21)	17.18	16.41	.64	.46	.67
BEN-Career (D22)	18.80	17.20	.37	.15	.74
BEN-Social (D23)	17.28	17.24	.53	.30	.69
BEN-Protective (D24)	17.67	16.61	.44	.23	.72

Cronbach's coefficient alpha for the BEN scale is .75. The reliability of the scale would not be improved by removing any one (or more) items, so all six items in the scale were retained.

Table 5F.2 Item-total statistics for SAT scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SAT1 (rev) (D16)	9.15	1.95	.33	.11	.71
SAT2 (D17)	9.17	1.67	.54	.34	.42
SAT3 (D18)	9.25	1.71	.50	.31	.48

Cronbach's coefficient alpha for the SAT scale is .65. The removal of the item SAT1 would improve the reliability of the scale to .71. As this new alpha would be greater than .70, which is often specified as a threshold value, consideration was given to removing this item from the SAT scale. However, given the small number of items in the scale and the acceptability of a coefficient alpha of .65, it was considered preferable to retain all three items.

Table 5F.3 Item-total statistics for AOC scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AOC1 (D1)	23.23	17.26	.44	.40	.68
AOC2 (D3)	23.47	15.23	.59	.42	.63
AOC3 (D7)	23.00	18.25	.37	.47	.69
AOC4 (D8)	24.68	15.48	.37	.21	.69
AOC5 (rev) (D13)	23.61	16.78	.30	.21	.71
AOC6 (D14)	24.45	14.18	.50	.25	.65
AOC7 (D15)	23.82	15.73	.44	.27	.67

Cronbach's coefficient alpha for the AOC scale is .72. The reliability of the scale would not be improved by removing any one (or more) items, so all seven items in the scale were retained.

Table 5F.4 Item-total statistics for MBM scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's coefficient alpha if Item Deleted *
MBM-VALUES	11.47	3.61	.33	.13	.619
MBM-UNDERSTANDING	11.51	3.34	.46	.26	.565
MBM-ENHANCEMENT	11.50	3.36	.51	.29	.548
MBM-CAREER	11.60	4.07	.23	.08	.647
MBM-SOCIAL	11.50	3.67	.36	.14	.605
MBM-PROTECTIVE	11.56	3.74	.36	.13	.606

*   Cronbach's coefficient alpha is reported to 3 decimal places to show variation across scale items.

Cronbach's coefficient alpha for the MBM scale is .643. Removing the MBM-Career item would improve the scale reliability marginally (from .643 to .647), but this was considered negligible given that it was desirable to retain all six MBM scale items for use in the structural model so that the potential influence of all six motivation-benefit matches can be investigated.

Appendix 5G   Fit indices for all CFA models

Table 5G.1 Summary of fit statistics for CFA of all measurement scales ($N = 454$)

	χ^2	df	NFI	CFI	RMSEA	RMSEA 90% CI
MTV-VFI Six-factor model	1580.81	399	.94	.96	.081	$.077 < CI < .085$
SEV Five-factor model	832.79	147	.95	.96	.100	$.095 < CI < .110$
BEN One-factor model	44.03	9	.95	.96	.093	$.066 < CI < .120$
AOC One-factor model	64.37	14	.92	.94	.089	$.068 < CI < .110$
MBM One-factor model	16.80	9	.96	.98	.044	$.000 < CI < .076$
Threshold			$\geq .90$	$\geq .90$	$\leq .08$	$.00 < CI < .08$
					$\leq .10$ "mediocre"	

NFI = Normed Fit Index
CFI = Comparative Fit Index
RMSEA = Root Mean Square Error of Approximation
CI = Confidence Interval

Appendix 5H   Comparison of imputation methods

Table 5H.1 LISREL pattern matrix for CFA of MTV-VFI items – Raw data including missing values

Variable	Item description	V	U	E	C	S	P
Values							
MTV-V1	I feel compassion toward people in need. (B10)	.85					
MTV-V2	I am concerned about those less fortunate than myself. (B14)	.81					
MTV-V3	I feel it is important to help others. (B16)	.65					
MTV-V4	I can do something for a cause that is important to me. (B18)	.62					
MTV-V5	I am genuinely concerned about the particular group I am serving. (B32)	.54					
Understanding							
MTV-U1	Volunteering lets me learn things through direct, hands on experience. (B3)		.68				
MTV-U2	I can explore my own strengths. (B6)		.75				
MTV-U3	I can learn how to deal with a variety of people. (B12)		.79				
MTV-U4	I can learn more about t the cause for which I am working. (B17)		.66				
MTV-U5	Volunteering allows me to gain a new perspective on things. (B31)		.73				
Enhancement							
MTV-E1	Volunteering makes me feel needed. (B4)			.69			
MTV-E2	Volunteering increases my self-esteem. (B13)			.82			
MTV-E3	Volunteering makes me feel important. (B15)			.77			
MTV-E4	Volunteering makes me feel better about myself. (B22)			.82			
MTV-E5	Volunteering is a way to make new friends. (B30)			.62			
Career							
MTV-C1	Volunteering will help me to succeed in my chosen profession. (B7)				.80		
MTV-C2	Volunteering can help me to get my foot in the door at a place where I would like to work. (B23)				.88		
MTV-C3	Volunteering allows me to explore different career options. (B25)				.86		
MTV-C4	Volunteering experience will look good on my CV. (B26)				.76		
MTV-C5	I can make new contacts that might help my business or career. (B29)				.81		
Social							
MTV-S1	My friends volunteer. (B5)					.61	
MTV-S2	Volunteering is an important activity to the people I know best. (B9)					.79	
MTV-S3	People I know share an interest in community service. (B20)					.73	
MTV-S4	Others with whom I am close place a high value on community service. (B24)					.78	
MTV-S5	People I'm close to want me to volunteer. (B28)					.64	
Protective							
MTV-P1	Doing volunteer work relieves me of some of the guilt over being more fortunate than others. (B8)						.56
MTV-P2	Volunteering is a good escape from my own troubles. (B11)						.79
MTV-P3	No matter how bad I've been feeling, volunteering helps me to forget about it. (B19)						.73
MTV-P4	Volunteering helps me work through my own personal problems. (B21)						.82
MTV-P5	By volunteering I feel less lonely. (B27)						.77

Table 5H.2 LISREL pattern matrix for CFA of MTV-VFI items - Data file with missing values imputed in SPSS (EM)

Variable	Item description	V	U	E	C	S	P
Values							
MTV-V1	I feel compassion toward people in need. (B10)	.84					
MTV-V2	I am concerned about those less fortunate than myself. (B14)	.81					
MTV-V3	I feel it is important to help others. (B16)	.62					
MTV-V4	I can do something for a cause that is important to me. (B18)	.60					
MTV-V5	I am genuinely concerned about the particular group I am serving. (B32)	.52					
Understanding							
MTV-U1	Volunteering lets me learn things through direct, hands on experience. (B3)		.67				
MTV-U2	I can explore my own strengths. (B6)		.75				
MTV-U3	I can learn how to deal with a variety of people. (B12)		.79				
MTV-U4	I can learn more about t the cause for which I am working. (B17)		.64				
MTV-U5	Volunteering allows me to gain a new perspective on things. (B31)		.73				
Enhancement							
MTV-E1	Volunteering makes me feel needed. (B4)			.68			
MTV-E2	Volunteering increases my self-esteem. (B13)			.82			
MTV-E3	Volunteering makes me feel important. (B15)			.78			
MTV-E4	Volunteering makes me feel better about myself. (B22)			.82			
MTV-E5	Volunteering is a way to make new friends. (B30)			.62			
Career							
MTV-C1	Volunteering will help me to succeed in my chosen profession. (B7)				.81		
MTV-C2	Volunteering can help me to get my foot in the door at a place where I would like to work. (B23)				.88		
MTV-C3	Volunteering allows me to explore different career options. (B25)				.86		
MTV-C4	Volunteering experience will look good on my CV. (B26)				.77		
MTV-C5	I can make new contacts that might help my business or career. (B29)				.82		
Social							
MTV-S1	My friends volunteer. (B5)					.59	
MTV-S2	Volunteering is an important activity to the people I know best. (B9)					.79	
MTV-S3	People I know share an interest in community service. (B20)					.73	
MTV-S4	Others with whom I am close place a high value on community service. (B24)					.78	
MTV-S5	People I'm close to want me to volunteer. (B28)					.65	
Protective							
MTV-P1	Doing volunteer work relieves me of some of the guilt over being more fortunate than others. (B8)						.57
MTV-P2	Volunteering is a good escape from my own troubles. (B11)						.79
MTV-P3	No matter how bad I've been feeling, volunteering helps me to forget about it. (B19)						.73
MTV-P4	Volunteering helps me work through my own personal problems. (B21)						.82
MTV-P5	By volunteering I feel less lonely. (B27)						.78

Table 5H.3 LISREL pattern matrix for CFA of MTV-VFI items - Data file with missing values imputed in LISREL – Multiple Imputation (EM)

Variable	Item description	V	U	E	C	S	P
Values							
MTV-V1	I feel compassion toward people in need. (B10)	.84					
MTV-V2	I am concerned about those less fortunate than myself. (B14)	.81					
MTV-V3	I feel it is important to help others. (B16)	.63					
MTV-V4	I can do something for a cause that is important to me. (B18)	.60					
MTV-V5	I am genuinely concerned about the particular group I am serving. (B32)	.53					
Understanding							
MTV-U1	Volunteering lets me learn things through direct, hands on experience. (B3)		.67				
MTV-U2	I can explore my own strengths. (B6)		.73				
MTV-U3	I can learn how to deal with a variety of people. (B12)		.79				
MTV-U4	I can learn more about t the cause for which I am working. (B17)		.65				
MTV-U5	Volunteering allows me to gain a new perspective on things. (B31)		.73				
Enhancement							
MTV-E1	Volunteering makes me feel needed. (B4)			.68			
MTV-E2	Volunteering increases my self-esteem. (B13)			.82			
MTV-E3	Volunteering makes me feel important. (B15)			.78			
MTV-E4	Volunteering makes me feel better about myself. (B22)			.82			
MTV-E5	Volunteering is a way to make new friends. (B30)			.62			
Career							
MTV-C1	Volunteering will help me to succeed in my chosen profession. (B7)				.80		
MTV-C2	Volunteering can help me to get my foot in the door at a place where I would like to work. (B23)				.88		
MTV-C3	Volunteering allows me to explore different career options. (B25)				.85		
MTV-C4	Volunteering experience will look good on my CV. (B26)				.76		
MTV-C5	I can make new contacts that might help my business or career. (B29)				.81		
Social							
MTV-S1	My friends volunteer. (B5)					.59	
MTV-S2	Volunteering is an important activity to the people I know best. (B9)					.79	
MTV-S3	People I know share an interest in community service. (B20)					.72	
MTV-S4	Others with whom I am close place a high value on community service. (B24)					.79	
MTV-S5	People I'm close to want me to volunteer. (B28)					.65	
Protective							
MTV-P1	Doing volunteer work relieves me of some of the guilt over being more fortunate than others. (B8)						.57
MTV-P2	Volunteering is a good escape from my own troubles. (B11)						.79
MTV-P3	No matter how bad I've been feeling, volunteering helps me to forget about it. (B19)						.73
MTV-P4	Volunteering helps me work through my own personal problems. (B21)						.83
MTV-P5	By volunteering I feel less lonely. (B27)						.78

Appendix 6A Correlation of demographic variables and measures of volunteer involvement with dependent (endogenous) variables

This appendix examines the correlations (non-directional associations) between the dependent variables in the model on the one hand and demographic variables and measures of volunteer involvement on the other hand, as discussed in Section 6.2.

Table 6A.1 Correlations of endogenous (dependent) variables with demographics and volunteer involvement (N = 454)

	How long will you continue? (SUV)	AOC Total Score	SAT Total Score	CEV Total Score
DEMOGRAPHICS				
Gender	-.16**	-.07	-.05	.02
Age	-.10*	.12*	.17**	.20**
Level of education	-.10*	-.11*	-.04	-.22**
Location	.06	-.01	-.17**	.03
VOLUNTEERING INVOLVEMENT				
Vol exp - years (decimal)	.15**	.21**	.17**	.23**
Current hours per month	.15**	.31**	.15**	.19**
Current frequency of volunteering	-.06	-.23**	-.14**	-.16**
Other current volunteering	-.02	.01	.01	-.04
Previous volunteering	-.11*	-.03	-.06	.01

** Correlation is significant at the p < .01 level (2-tailed).
* Correlation is significant at the p < .05 level (2-tailed).

Gender [# Male = 1; female = 2]

Gender was significantly but negatively correlated with SUV (r = -.16, p < .01). Female volunteers were less likely to continue volunteering with the organisation or increase the frequency of their volunteering.

Age

Age was positively correlated with AOC (r = .12, p < .05), SAT (r = .17, p < .01) and CEV (r = .20, p < .01), but negatively correlated with SUV (r = -.10, p < .05). Older volunteers were more likely to be affectively committed to the organisation, satisfied with the volunteering experience and view the collective efficacy of the organisation favourably; but

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they were less likely to continue volunteering with the organisation or increase the time or frequency of their volunteering.

Level of education

Level of education was significantly but negatively correlated with CEV ($r = -.22$, $p < .01$), AOC ($r = -.11$, $p < .05$) and SUV ($r = -.10$, $p < .05$). Volunteers with higher levels of education were less likely to view the collective efficacy of the organisation favourably, less likely to be affectively committed to the organisation, and less likely to continue volunteering with the organisation.

Location [# Metropolitan = 1; regional = 2; rural = 3]

Location was significantly but negatively correlated with SAT ($r =.17$, $p < .01$), suggesting that volunteers in more populous areas were more likely to be satisfied with the volunteering experience.

Length of volunteering experience

All four dependent variables were significantly and positively correlated with length of volunteering experience (recorded in years and months). The four positive correlations were all significant at the $p < .01$ level: CEV ($r = .23$), SAT ($r = .17$), AOC ($r = .21$) and SUV ($r = .15$). Volunteers who had served longest with the organisation were more likely to view the collective efficacy of the organisation favourably, be satisfied with the volunteering experience and to identify with and feel emotional attachment to the organisation. They were also more likely to continue volunteering with the organisation.

Time volunteered each month

The amount of time volunteered each month (in hours) was recorded on a six-point scale (8 hours or less, 9-16, 17-24, 25-32, 33-40, more than 40 hours). The amount of time volunteered was significantly and positively correlated with all four dependent variables; CEV ($r = .19$), SAT ($r = .15$), AOC ($r = .31$) and SUV ($r = .15$). All correlations were significant at the $p < .01$ level. The more hours per month volunteers served with the organisation, the more likely they were to view the collective efficacy of the organisation favourably, be satisfied with the volunteering experience and to identify with and feel emotional attachment to the organisation. They were also more likely to continue volunteering with the organisation.

Frequency of volunteering

Frequency of current volunteering was reported on a four-point scale (weekly = 1, fortnightly = 2, monthly = 3, less than once a month = 4). Three of the four dependent variables were significantly but negatively correlated with frequency of volunteering; AOC ($r = -.23$), SAT ($r = -.14$) and CEV ($r = -.16$). All three correlations were significant at the $p < .01$ level. The more often volunteers served with the organisation, the less likely they were to view the collective

efficacy of the organisation favourably, be satisfied with the volunteering experience and to identify with and feel emotional attachment to the organisation.

Other current volunteering

There was no significant correlation between other current volunteering and any of the dependent variables. Whether volunteers were volunteering concurrently with other organisations or not, did not appear to influence their perceptions of the collective efficacy of the organisation, their satisfaction with the volunteering experience, their identification with and emotional attachment to the organisation, or their intention to continue volunteering with the organisation.

Previous volunteering experience

Volunteers who had previously volunteered with other organisations were less likely to continue volunteering with the current organisation ($r = -.11$, $p < .05$).

Table 6A.2 Correlations of demographic and contextual variables with dependent variables (N=454)

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Gender	1.60	.49	1.000	-.009	-.048	.071	-.158**	-.101*	.085*	.102*	.136**	-.044	.028	-.039	-.146**
2	Age	5.05	2.34	-.009	1.000	-.067	-.098*	.397**	.130**	-.274**	.117*	.130**	.138**	.171**	.114*	-.016
3	Education	3.09	1.36	-.048	-.067	1.000	-.292**	-.211**	-.124**	.060	.120*	.084	-.035	-.193**	-.120*	-.128**
4	Location	1.89	.84	.071	-.098*	-.292**	1.000	.118*	.126**	.067	.098*	.054	-.170**	-.008	-.018	.072
5	Vol Experience	9.48	11.51	-.158**	.397**	-.211**	.118*	1.000	.216**	-.175**	.035	.111*	.083	.183**	.185**	.102*
6	Current Hours	2.72	1.70	-.101*	.130**	-.124**	.126**	.216**	1.000	-.427**	-.031	.029	.114*	.145**	.285**	.152**
7	Current Freq	1.44	.81	.085*	-.274**	.060	.067	-.175**	-.427**	1.000	-.034	-.048	-.190**	-.191**	-.296**	-.096*
8	Current Vol	1.34	.48	.102*	.117*	.120*	.098*	-.035	-.031	-.034	1.000	.405**	.013	-.042	.001	-.002
9	Previous Vol	1.49	.50	.136**	.130*	.084	.054	.111*	.029	-.048	.405**	1.000	-.070	-.011	-.012	-.074
10	SAT	7.71	1.05	-.044	.138**	-.035	-.170**	.083	.114*	-.190**	.013	-.070	1.000	.496**	.513**	.195**
11	CEV	8.98	1.59	.028	.171**	-.193**	.008	.183**	.145**	-.191**	-.042	-.011	.496**	1.000	.520**	.226**
12	AOC	14.61	2.43	-.039	.114*	-.120*	-.018	.185**	.285**	-.296**	.001	-.012	.513**	.520**	1.000	.306**
13	SUV	4.31	1.03	-.146**	-.016	-.128**	.072	.102*	.152**	-.096*	-.002	-.074	.195**	.226**	.306**	1.000

** Correlation is significant at the *p* < .01 level (2-tailed).

* Correlation is significant at the *p* < .05 level (2-tailed).

Listwise deletion *N* = 454

Appendix 6B   Stepwise regression of the endogenous variables

To identify significant influences to be included in the conceptual model, a stepwise multiple regression analysis was conducted for each of the dependent (endogenous) variables in the model (SAT, CEV, AOC, and SUV) against the demographic and contextual variables as predictors, as discussed in Section 6.2. The results of these regressions are reported Tables 6B.1 to 6B.4.

Table 6B.1 Results of stepwise regression of the endogenous (dependent) variable satisfaction (SAT) against demographic and contextual variables

Stepwise (p IN .05, p OUT .10)

Dependent variable	Predictor variable	B	SE B	β	t	p
Satisfaction	**Demographic**					
(R² = .04)	(Constant)	7.80	.17		46.98	.000
	Location	-.20	.06	-.16	-3.41	.001***
	Age	.06	.02	.12	2.65	.008**
	Gender (Excluded)				-.70	.484
	Education (Excluded)				-1.65	.099
Satisfaction	**Contextual**					
(R² = .04)	(Constant)	8.06	.10		81.54	.000
	Current frequency	-.25	.06	-.19	-4.12	.000***
	Volunteering experience (Excluded)				1.09	.275
	Current hours (Excluded)				.78	.434
	Other current volunteering (Excluded)				.14	.888
	Previous volunteering (Excluded)				-1.71	.087

* *p* < .05   ** *p* < .01   *** *p* < .001

Table 6B.2 Results of stepwise regression of the endogenous (dependent) variable collective efficacy for volunteering (CEV) against demographic and contextual variables

Stepwise (p IN .05, p OUT .10)

Dependent variable	Predictor variable	B	SE B	β	t	p
Collective Efficacy	**Demographic**					
(R² = .06)	(Constant)	9.09	.25		36.98	.000
	Education	-.21	.05	-.18	-3.99	.000***
	Age	.11	.03	.16	3.47	.001***
	Gender (Excluded)				-.45	.650
	Location (Excluded)				-1.05	.294
Collective Efficacy	**Contextual**					
(R² = .06)	(Constant)	9.24	.17		54.47	.000
	Current frequency	-.32	.09	-.16	-3.54	.000***
	Volunteering experience	.02	.01	.15	3.329	.001***
	Current hours (Excluded)				1.01	.311
	Other current volunteering (Excluded)				-1.51	.250
	Previous volunteering (Excluded)				-.79	.430

* *p* < .05   ** *p* < .01   *** *p* < .001

Table 6B.3 Results of stepwise regression of the endogenous (dependent) variable affective organisational commitment (AOC) against demographic and contextual variables

Stepwise (p IN .05, p OUT .10)

Dependent variable	Predictor variable	*B*	*SE B*	*β*	*t*	*p*
Affective Commitment	**Demographic**					
(R^2 = .03)	(Constant)	14.68	.38		38.30	.000
	Education	-.20	.08	-.11	-2.43	.015*
	Age	.11	.05	.11	2.28	.023*
	Gender (Excluded)				-.95	.345
	Location (Excluded)				-.92	.360
Affective Commitment	**Contextual**					
(R^2 = .13)	(Constant)	14.57	.36		40.22	.000
	Current frequency	-.61	.15	-.20	-4.14	.000***
	Current hours	.25	.07	.18	3.55	.000***
	Volunteering experience	.02	.01	.11	2.48	.014*
	Other current volunteering (Excluded)				-.09	.926
	Previous volunteering (Excluded)				-.89	.373

* *p* < .05   ** *p* < .01   *** *p* < .001

Table 6B.4 Results of stepwise regression of the endogenous (dependent) variable sustained volunteering (SUV) against demographic and contextual variables

Stepwise (p IN .05, p OUT .10)

Dependent variable	Predictor variable	*B*	*SE B*	*β*	*t*	*p*
Sustained Volunteering	**Demographic**					
(R^2 = .04)	(Constant)	5.14	.20		25.88	.000
	Gender	-.32	.10	-.15	-3.31	.001***
	Education	-.10	.04	-.14	-2.9	.004**
	Age (Excluded)				-.58	.564
	Location (Excluded)				.99	.321
Sustained Volunteering	**Contextual**					
(R^2 = .02)	(Constant)	4.06	.09		45.05	.000
	Current hours	.09	.03	.15	3.28	.001***
	Volunteering experience (Excluded)				1.53	.126
	Current frequency (Excluded)				-.74	.460
	Other current volunteering (Excluded)				.06	.956
	Previous volunteering (Excluded)				-1.68	.093

* *p* < .05   ** *p* < .01   *** *p* < .001

Appendix 6C   Developing the correlation model

In addition to the relationships hypothesised in the conceptual model, the correlational analysis reported in Section 6.4 also suggested five additional relationships between an independent variable and a dependent variable: motivation to volunteer and affective organisational commitment; motivation to volunteer and collective efficacy; benefits of volunteering and affective organisational commitment; benefits of volunteering and collective efficacy; and motivation-benefit match and collective efficacy. These additional relationships are detailed in this Appendix.

The conceptual model hypothesised that Motivation influences satisfaction and sustained volunteering. However, correlation analysis suggests further links: between Motivation and affective organisational commitment, and between Motivation and collective efficacy.

Motivation and Affective Organisational Commitment

All six functional motivations, individually and in total, were significantly related to affective organisational commitment at the $p < .01$ level: Values ($r = .367$), Understanding ($r = .329$), Enhancement ($r = .276$), Career ($r = .147$), Social ($r = .284$), Protective ($r = .241$), and total VFI score (MTV-Sum) ($r = .349$).

Motivation and Collective Efficacy

Five functional benefits individually and the total motivation score, were significantly related to collective efficacy the $p < .01$ level: Values ($r = .357$), Understanding ($r = .281$), Enhancement ($r = .278$), Social ($r = .260$), Protective ($r = .207$), and Total VFI Score (MTV-Sum) ($r = .308$). Career motivation was not significantly related to collective efficacy.

Benefits and Affective Organisational Commitment

The conceptual model hypothesised that benefits influence satisfaction which, in turn, influences affective organisational commitment. However, correlation analysis suggests a direct link between benefits and affective organisational commitment. All six functional benefits, individually and in total, were significantly related to affective organisational commitment at the $p < .01$ level: Values ($r = .499$), Understanding ($r = .366$), Enhancement ($r = .499$), Career ($r = .232$), Social ($r = .472$), Protective ($r = .351$), and Total Benefit of volunteering (BEN-Sum) ($r = .597$).

Benefits and Collective Efficacy

The conceptual model did not hypothesise a direct influence of benefits on collective efficacy. However, correlation analysis suggests a direct link between these variables. Five of the six functional benefits and Total Benefit were significantly related to collective efficacy at the $p <$

.01 level: Values ($r = .344$), Understanding ($r = .232$), Enhancement ($r = .255$), Social ($r = .318$), Protective ($r = .194$), and Total Benefit of volunteering (BEN-Sum) ($r = .354$). Career Benefit was significantly correlated with collective efficacy at the $p < .05$ level ($r = .108$).

Motivation-Benefit Match and Collective Efficacy

The conceptual model did not hypothesise a direct influence of motivation-benefit match on collective efficacy. However, correlation analysis suggests a direct link between these variables. Five of the six functional benefits and total motivation-benefit match were significantly related to collective efficacy at the $p < .01$ level: Values ($r = .250$), Understanding ($r = .216$), Enhancement ($r = .242$), Social ($r = .262$), Protective ($r = .169$), and Total Benefit Match (MBM-Sum) ($r = .348$). Career Benefit Match was significantly correlated with collective efficacy at the $p < .05$ level ($r = .098$).

These additional relationships are summarised in Table 6C.1 and also in Table 6.25.

Table 6C.1 Summary of additional significant correlations

#	1Hypothesis	Single indicator variable	Composite variables
HA	MTV → AOC	MTV-Sum**	MTV-V, U, E, C, S, P – all 6**
HB	MTV → CEV	MTV-Sum**	MTV-V, U, E, S, P – all 5** MTV-C^{ns}
HC	BEN → AOC	BEN-Sum**	BEN-V, U, E, C, S, P – all 6**
HD	BEN → CEV	BEN-Sum**	BEN-V, U, E, S, P – all 5** BEN-C*
HE	MBM → CEV	MBM-Sum**	MBM-V, U, E, S, P – all 5** MBM-C*

ns = not significant   * $p < .05$ ** $p < .01$

These relationships are correlational, that is non-directional. The next step is to explore the [directional] relationships between these variables and each of the variables postulated as dependent or outcome variables in the conceptual model. A "correlation model" was constructed which included the 17 paths from the conceptual model and the five additional paths identified in the correlation analysis. The SEM analysis of this model is detailed in Appendix 6D.

Appendix 6D   SEM analysis of the correlation model

This appendix reports the SEM analysis of the correlation model identified in Appendix 6C. Figure 6D.1 shows the structural model for sustained volunteering based on the correlation model; it includes the initial 17 paths from the conceptual model and the five additional paths identified by correlation analysis.

Chi-Square=0.00, df=0, P-value=1.00000, RMSEA=0.000

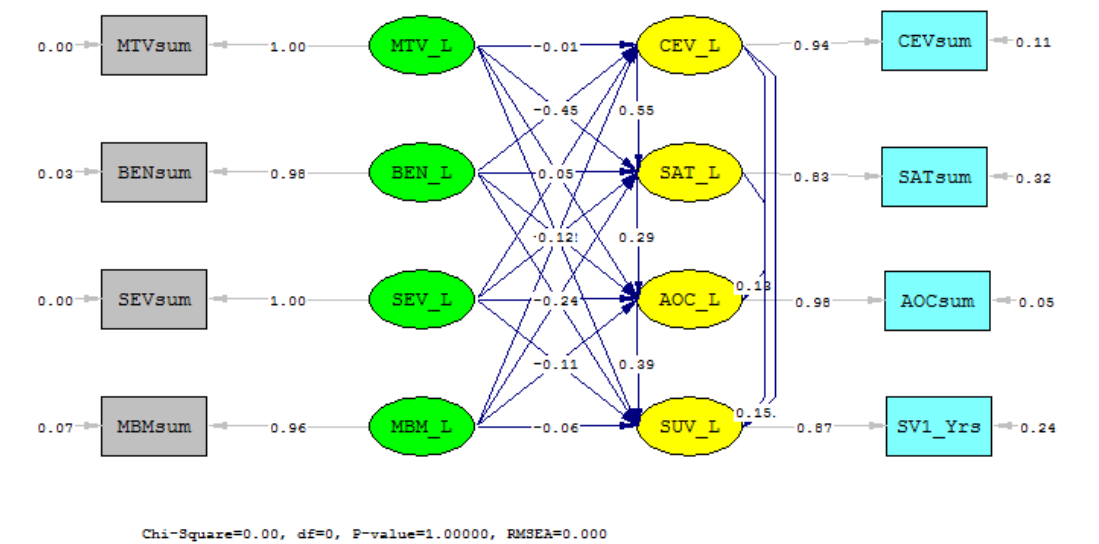**Figure 6D.1   Structural model for sustained volunteering based on path analysis of the conceptual model developed for this study with five additional paths identified in correlation analysis (standardised coefficients)**

Table 6D.1 lists, by hypothesis, the standardised coefficients (loadings) of each path in the structural model represented in Figure 6D.1 with its corresponding *t*-value and level of significance.

Table 6D.1 Hypotheses testing results based on SEM analysis of conceptual model with five additional paths identified by correlation analysis

(Standardised path coefficients, with *t*-values and levels of significance.)

(Additional paths based on correlation analysis are labelled HA to HE and shaded.)

#	Hypothesis	Path coefficient	*t*-value
H1	MTV →SAT	-.45***	-7.13
H2	MTV →SUV	.12^{ns}	1.22
HA	MTV → AOC	.05^{ns}	.76
HB	MTV → CEV	-.01^{ns}	-.13
H3	BEN → SAT	.60***	7.95
H4	BEN → SUV	-.24^{ns}	-1.94
HC	BEN → AOC	.32***	3.79
HD	BEN → CEV	.02^{ns}	.29
H5	MBM → SAT	.06^{ns}	.63
H6	MBM → AOC	-.01^{ns}	-.07
H7	MBM → SUV	-.06^{ns}	-.62
HE	MBM → CEV	.14*	1.97
H8	SAT → AOC	.29**	3.01
H9	SAT → SUV	.15^{ns}	1.07
H10	AOC → SUV	.39***	4.73
H11	SEV → CEV	.67**	17.34
H12	SEV → SAT	-.02^{ns}	-.35
H13	SEV → AOC	.16**	2.97
H14	SEV → SUV	-.11^{ns}	-1.32
H15	CEV → SAT	.55***	7.51
H16	CEV → AOC	.13^{ns}	1.57
H17	CEV → SUV	.11^{ns}	.91

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

NOTE: This table presents path coefficients with significance levels, rather than *t*-values to facilitate comparison of the direct effects of variables across different SEM analyses.

Table 6D.3 reports the direct effects of independent variables on each dependent variable and the predictive value (R^2) for each structural equation (Jöreskog & Sörbom, 1997). The squared multiple correlation coefficient, R^2, in this context, is the total coefficient of determination; it is a measure of the proportion of the variance of the endogenous variable which is accounted for by the model.

Table 6D.2 Standardised direct effects and predictive value of factors influencing sustained volunteering in the correlational model

Variables	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1. Motivation	-.45***	-.01^{ns}	.05^{ns}	.12^{ns}
2. Self-efficacy	-.02^{ns}	.67**	.16**	-.11^{ns}
3. Benefits	.60***	.02^{ns}	.32***	-.24^{ns}
4. Motivation-benefit match	.06^{ns}	.14*	-.01^{ns}	-.06^{ns}
5. Satisfaction	-	-	.29**	.15^{ns}
6. Collective efficacy	.55***	-	.13^{ns}	.11^{ns}
7. Affective commitment	-	-	-	.39***
R^2	.66	.55	.55	.17

ns = not significant   * $p < .05$ ** $p < .01$ *** $p < .001$

The values of R^2 reported here are Hayduk's blocked-error- R^2 (beR^2) as described in Section 6.5.1.

For convenience, Table 6D.2 is repeated as Table 6.26 in Section 6.6.1.

Seventeen percent of the variation in sustained volunteering (SUV) was accounted for by the predictor variables ($R^2 = .17$) (cf. Table 6D.2). Affective organisational commitment (AOC) ($p < .001$) was the only significant direct influence on SUV in this empirical correlation model.

Fifty-five percent of the variation in AOC was accounted for by its predictor variables ($R^2 = .55$) (cf. Table 6D.2). Benefits (BEN) ($p < .001$), self-efficacy for volunteering (SEV) ($p < .01$), and satisfaction (SAT) ($p < .01$) were all significant predictors of AOC and, hence, indirect influences on SUV through AOC.

While SAT was a significant predictor of AOC, 66 percent of the variation in SAT was accounted for by its predictor variables ($R^2 = .66$) (cf. Table 6D.2). BEN ($p < .001$), and CEV ($p < .001$) were significant positive influences on SAT while motivation to volunteer (MTV) ($p < .001$) was a significant negative influence.

Fifty-five percent of the variation in CEV was accounted for by its predictor variables ($R^2 = .55$) (cf. Table 6D.2). SEV ($p < .01$) and motivation-benefit match (MBM) ($p < .05$) were significant predictors of CEV in this correlation model.

The five paths added to the initial conceptual model to form the correlation model are closely aligned with the paths suggested by the modification indices in the LISREL analyses of Models #1 to #3 (cf. Sections 6.5.1 to 6.5.3). This alignment is depicted in Table 6D.3. Three of the five additional paths were also identified by modification indices for Model #2 and were included in Model #2.3 resulting in the correlation model approximating closely to Model #2.3. The close

comparison of the outcomes of the correlation model with those of Model #2.3 can be seen in Table 6.31 (cf. Section 6.7).

Table 6D.3 Comparison of additional correlations with paths suggested by modification indices for Models #1 to #3

#	Correlation	Model #1	Model #2	Model #3
HA	MTV ↔ AOC			MTVP → AOC
HB	MTV ↔ CEV			MTVE → CEV
HC	BEN ↔ AOC	BEN → AOC	BEN → AOC	BENE → AOC BENP → AOC
HD	BEN ↔ CEV	BEN → CEV	BEN → CEV	
HE	MBM ↔ CEV	MBM → CEV	MBM → CEV	MBMU → CEV
		AOC → CEV (non-recursive)	AOC → CEV (non-recursive)	
		SAT → CEV (non-recursive)	SUV → AOC (non-recursive)	

This appendix has detailed the SEM analysis of the correlation model using path analysis with the weighted composite sum as the single indicator of each of the four multi-factor latent variables, MTV, BEN, SEV and MBM, and the single-scale variables, CEV, SAT and AOC.

A summary of this analysis of the correlation model is included in Section 6.6.1. The analysis is compared with other SEM analyses in Section 6.7.

Appendix 6E   Developing the regression model

In the conceptual model posited for this study, four constructs were identified as independent variables: two at the antecedents stage - motivation to volunteer (MTV) and self-efficacy for volunteering (SEV) – and two at the experiences stage – benefits of volunteering (BEN) and the derived construct motivation-benefit match (MBM). These four independent variables were hypothesised to influence constructs at the experiences and consequences stages: satisfaction with the volunteering experience (SAT), collective efficacy of the volunteering organisation (CEV), affective commitment to the organisation (AOC), and sustained volunteering (SUV).

Just as the hypothesised conceptual model encompasses several regression analyses which are specified in the structural equation modelling (SEM) framework used to analyse that model, so too a sequence of regression analyses of the actual data was conducted to build up an empirical model. Structural equation modelling (SEM) was then used for the simultaneous estimation of these regression analyses.

To identify a set of predictor variables to be used in subsequent SEM, a stepwise multiple regression analysis was conducted for each of the dependent (endogenous) variables in the model (SAT, CEV, AOC, and SUV) against the independent (exogenous) variables and remaining dependent variables as predictors. A concern here was that using the default probability criteria in SPSS (p IN .05, p OUT .10) may have resulted in Type II error, eliminating predictors which, when considered in combination with one or more other variables, might have produced significant effects. To minimise Type II error in interaction studies, Pedhazur and Schmelkin (1991) suggest using a relatively large alpha (e.g. .10; or even .25) for tests of interactions. For this reason, the Pedhazur and Schmelkin recommendation was followed, selecting .10 as the criterion probability for examining interaction effects. Accordingly, any predictor whose regression coefficient had an associated t value with p < .10 was included in the four-stage model.

Results for the final step in these regression analyses are shown in Tables 6E.1 to 6E.4. Satisfaction (SAT) had nine significant predictors ($p < .05$), six positive and three negative [negative relationships are identified by (-)]: AOC, BEN-Values, CEV, MTV-Protective (-), BEN-Enhancement, MTV-Social (-), BEN-Social, MBM-Protective, and SEV-EA (-). The coefficient of determination (R^2) for this model was .49. Collective efficacy (CEV) had ten significant predictors ($p < .05$), eight positive and two negative: SEV-SA, SAT, SEV-RV, SEV-RC, MTV-Protective (-), BEN-Career, AOC, BEN-Enhancement (-), MBM-Understanding and MBM-Enhancement. The coefficient of determination (R^2) for this model was .61. Affective organisational commitment (AOC) had eleven significant predictors ($p < .05$), ten positive and one negative: SAT, BEN-Enhancement, BEN-Social, CEV, SUV, BEN-Values, MTV-Values,

SEV-RV, MBM-Career, MTV-Enhancement (-), and BEN-Protective. The coefficient of determination (R^2) for this model was .56. Sustained volunteering (SUV) had eight significant predictors ($p < .05$), four positive and four negative: AOC, SAT, MTV-Social, MBM-Career (-), MTV-Values (-), SEV-WC, SEV-RV (-) and SEV-RC (-). The coefficient of determination (R^2) for this model was .16.

Table 6E.1 Results of final stepwise regression analyses for dispositional and organisational variables predicting satisfaction

Stepwise (p IN .10, p OUT .15)

Dependent variable	Predictor variable	B	SE B	β	t	p
Satisfaction (R^2 = .49)						
	(Constant)	5.50	.55		10.06	.000***
	AOC	.06	.02	.18	3.75	.000***
	BEN-Values	.46	.07	.26	6.17	.000***
	CEV	.25	.04	.28	6.02	.000***
	MTV-Protective	-.04	.01	-.18	-3.84	.000***
	BEN-Enhancement	.27	.07	.16	3.88	.000***
	MTV-Social	-.04	.01	-.15	-3.54	.000***
	BEN-Social	.15	.07	.09	2.07	.039*
	MBM-Protective	.29	.13	.09	2.25	.025*
	SEV-EA	-.06	.03	-.10	-2.30	.022*
	SUV	.12	.07	.07	1.82	.070
	SEV-RC	.03	.02	.07	1.65	.099

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 6E.2 Results of final stepwise regression analyses for dispositional and organisational variables predicting collective efficacy

Stepwise (p IN .10, p OUT .15)

Dependent variable	Predictor variable	B	SE B	β	t	p
Collective Efficacy (R^2 = .61)						
	(Constant)	-2.58	.61		-4.21	.000***
	SEV-SA	.22	.02	.40	10.25	.000***
	SAT	.24	.04	.21	5.60	.000***
	SEV-RV	.22	.05	.18	4.85	.000***
	SEV-RC	.06	.02	.13	3.59	.000***
	MTV-Protective	.03	.01	.11	3.12	.002**
	BEN-Career	-.14	.05	-.09	-2.79	.005**
	AOC	.05	.02	.12	2.90	.004**
	BEN-Enhancement	-.30	.08	-.16	-3.93	.000***
	MBM-Understanding	.26	.12	.08	2.21	.027*
	MBM-Enhancement	.28	.14	.08	2.05	.041*

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 6E.3 Results of final stepwise regression analyses for dispositional and organisational variables predicting affective organisational commitment

Stepwise (p IN .10, p OUT .15)

Dependent variable	Predictor variable	B	SE B	β	t	p
Affective Organisational Commitment (R^2 = .56)						
	(Constant)	2.51	1.84		1.364	.173
	SAT	.49	.12	.17	3.93	.000***
	BEN-Enhancement	.64	.20	.13	3.25	.001***
	BEN-Social	.68	.19	.14	3.56	.000***
	CEV	.38	.12	.15	3.22	.001***
	SUV	.90	.18	.17	5.03	.000***
	BEN-Values	.81	.21	.16	3.92	.000***
	MTV-Values	.12	.04	.12	3.22	.001***
	SEV-RV	.31	.13	.10	2.43	.015*
	MBM-Career	.81	.35	.08	2.35	.019*
	MTV-Enhancement	-.07	.03	-.09	-2.22	.027*
	BEN-Protective	.33	.15	.08	2.17	.031*
	SEV-RC	.08	.05	.07	1.73	.084

* p < .05   ** p < .01   *** p < .001

Table 6E.4 Results of final stepwise regression analyses for dispositional and organisational variables predicting sustained volunteering

Stepwise (p IN .10, p OUT .15)

Dependent variable	Predictor variable	B	SE B	β	t	p
Sustained Volunteering (R^2 = .16)						
	(Constant)	2.25	.45		4.97	.000***
	AOC	.06	.01	.33	5.48	.000***
	BEN-Understanding	-.08	.04	-.09	-1.89	.060
	SAT	.03	.01	.18	3.67	.000***
	MTV-Social	.08	.03	.15	2.67	.008**
	MBM-Career	-.17	.09	-.09	-1.96	.050*
	BEN-Values	-.09	.05	-.10	-1.76	.080
	MTV-Values	-.02	.01	-.11	-2.07	.039*
	SEV-WC	.05	.01	.21	3.31	.001***
	SEV-RV	-.07	.03	-.12	-2.14	.033*
	SEV-RC	-.03	.01	-.12	-2.18	.035*

* p < .05   ** p < .01   *** p < .001

Outcomes of multiple regression analysis

More than fifteen percent of the variation in sustained volunteering (SUV) was accounted for by the predictor variables (R^2 = .16). Of the eight significant predictors, four – affective organisational commitment, satisfaction, social motivation and work competence self-efficacy - had a positive relationship with sustained volunteering scores, while the remaining four predictors were negatively associated. In turn, more than 50% (R^2 = .56) of the variation in affective organisational commitment (AOC) was accounted for by eleven predictor variables. Ten of these predictors had a positive relationship with affective organisational commitment scores. The ten predictors of collective efficacy (CEV) (eight positive; two negative) accounted for more than 60% of the variation of that variable (R^2 = .61), while nine predictor variables (six positive; three negative) accounted for almost 50% (R^2 = .49).of the variation in satisfaction scores (SAT).

Structural equation modelling (SEM) allows for the simultaneous estimation of these regression analyses. An empirical model was developed based on the results of these multiple regression analyses. This was a non-recursive model as four of the predicted influences identified in the multiple regression analyses were the reverse directions of paths linking dependent variables in the original model: AOC → SAT, SUV → AOC, SAT → CEV and AOC → CEV. This non-recursive model is depicted in Figure 6E.1.
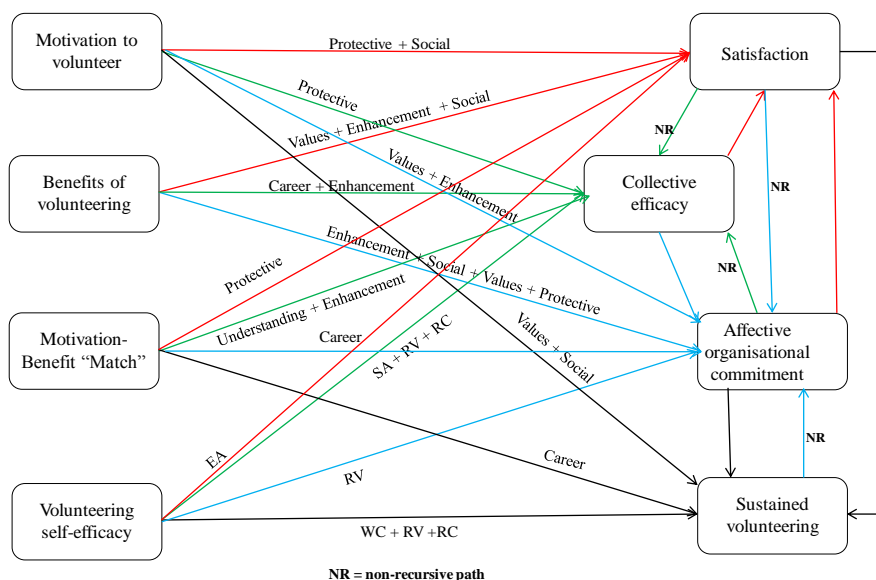
Figure 6E.1 Empirical model of influences on the sustained involvement of volunteers in community service organisations – with predictor variables identified

Consistent with the approach adopted for non-recursive modification indices in Section 6.5, and as recommended by Groenland and Stalpers (2012, p. 27) for studies using cross-sectional data, a recursive regression model was constructed by eliminating the four non-recursive paths from Figure 6E.1. The resulting recursive regression model was analysed using SEM This analysis is reported in Appendix 6F.

Appendix 6F SEM analysis of the regression model

On the basis of the results of the four stepwise, multiple regression analyses reported in Appendix 6E, a recursive empirical model was postulated with 34 direct paths. Figure 6F.1 shows the initial or postulated model (baseline). This appendix reports the results of SEM for the regression model.
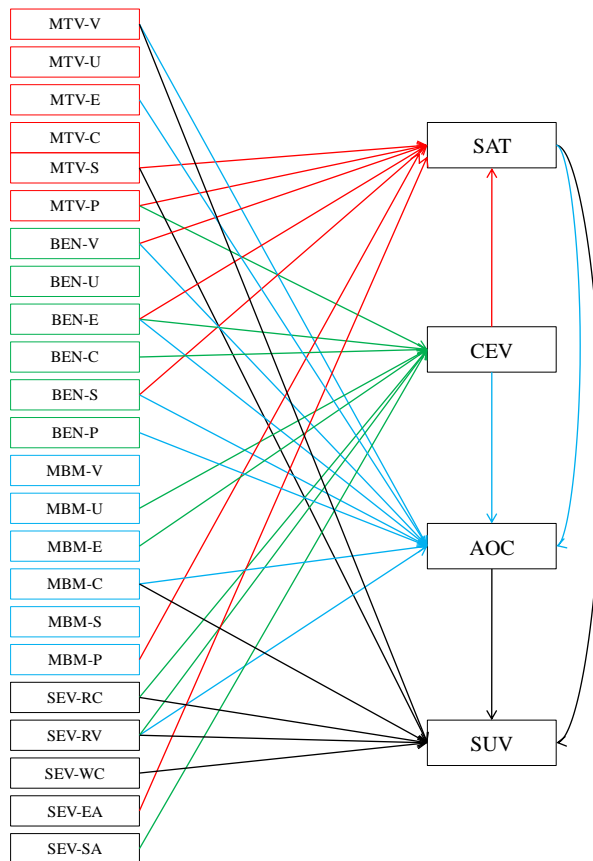
Figure 6F.1 Postulated recursive structural model for sustained volunteering based on the results of multiple regression analyses.

(Observed variables, fixed path loadings from observed variables to latent variables and error variances for observed variables have been omitted).

This completely specified model of the volunteer process was then tested using path analysis with a single measured variable as the indicator for each construct and permitting all possible correlations among constructs within stages using LISREL 8.80, (Jöreskog & Sörbom, 2006). Structural components of this model, as analysed, with standardised path coefficients are shown in Figure 6F.2.
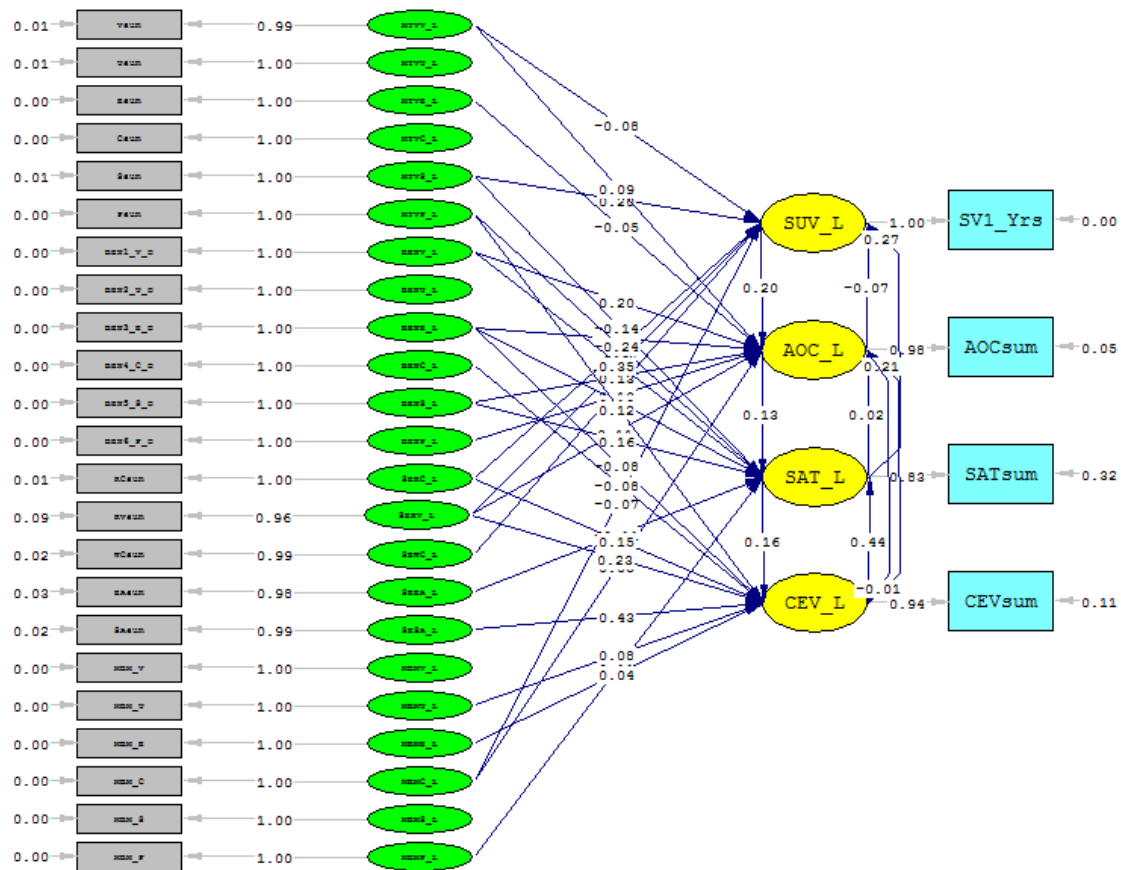
Figure 6F.2 Structural model for sustained volunteering based on simultaneous estimation of the outcomes of multiple regression analyses (standardised path coefficients).

The LISREL analysis of the empirical model, as shown in Figure 6F.2, revealed a very good fit to the data (cf. Table 6F.1). As discussed in Chapter 4 (Section 4.9.5), the goodness-of-fit statistics selected to examine the fit of the structural model in this study were: the chi-square statistical significance test, i.e. chi-square (χ^2) with its corresponding *p*-value; *RMSEA*; 90% confidence interval of the *RMSEA*; the *CFI*; and *SRMR*. Each of these fit statistics is discussed below and their values summarised in Table 6.28.

Chi-square for the tested model was 60.38 (*df* = 64, *p* = .61). As this chi-square value is non-significant at the *p* < .05 level, it is regarded as indicating very satisfactory model fit. The Root Mean Square Error of Approximation (*RMSEA*) was .00, with 90% confidence interval (*CI*) .00 – .03. The *CFI* was 1.00 and the *SRMR* was .01. Predictably, these indices indicate a very good fit of the empirical model to the data.

Table 6F.1 Summary of fit statistics for regression model of sustained volunteering

	χ^2	df	RMSEA	RMSEA 90% CI	SRMR	CFI
Regression	60.38	64	.00	.00 - .03	.01	1.00
Threshold			< .08	< .08	< .08	> .90

RMSEA = Root Mean Square Error of Approximation
CI = Confidence Interval
SRMR = Standardised Root Mean Square Residual
CFI = Comparative Fit Index

In addition to overall fit statistics, it is important to consider the strength and statistical significance of individual parameters in the model. Table 6F.2 reports the direct effects of independent variables on each dependent variable and the predictive value (R^2) for each structural equation (Jöreskog & Sörbom, 1997). The squared multiple correlation coefficient, R^2, in this context, is the total coefficient of determination; it is a measure of the proportion of the variance of the endogenous variable which is accounted for by the model.

Table 6F.2 Standardised direct effects and predictive value of factors influencing sustained volunteering in the regression model

Variables	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
1. Motivation				
Values	-	-	.09*	$-.14^{ns}$
Understanding	-	-	-	-
Enhancement	-	-	$-.02^{ns}$	-
Career	-	-	-	-
Social	-.15**	-	-	.14**
Protective	-.24***	.09*	-	-
2. Self-efficacy				
Relations with clients	-	.24***	-	$-.18^{ns}$
Relations with volunteers	-	.17***	$.09^{ns}$	-.10*
Work competence	-	-	-	.25***
Empathetic action	-.13*	-	-	-
Social awareness	-	.47***	-	-
3. Benefits				
Values	.38***	-	.13***	-
Understanding	-	-	-	-
Enhancement	.22***	$-.03^{ns}$	.17**	-
Career	-	-.08*	-	-

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Variables	Endogenous (dependent) variables			
	Satisfaction	Collective efficacy	Affective commitment	Sustained volunteering
Social	.18***	-	.13*	-
Protective	-	-	.09^{ns}	-
4. Motivation-benefit match				
Values	-	-	-	-
Understanding	-	.08*	-	-
Enhancement	-	.05^{ns}	-	-
Career	-	-	.03^{ns}	-.09^{ns}
Social	-	-	-	-
Protective	.12*	-	-	-
5. Satisfaction	-	-	.18*	.07^{ns}
6. Collective efficacy	.53***		.21**	
7. Affective commitment	-	-	-	.31***
R^2	.72	.62	.55	.15

ns = not significant * $p < .05$ ** $p < .01$ *** $p < .001$
The values of R^2 reported here are Hayduk's blocked-error- R^2 (beR^2) as described in Section 6.5.1.

Table 6F.3 lists, by hypothesis, the standardised coefficients (loadings) of each path in the structural model represented in Figure 6F.2 with its corresponding *t*-value and level of significance.

Table 6F.3 Hypotheses testing results based on SEM analysis of regression model resulting from regression of endogenous variables on all variables – standardised path coefficients

(Standardised path coefficients, with *t*-values and levels of significance.)

#	Hypothesis	Composite variable	Path coefficient	*t*-value
H1	MTV → SAT	MTV-Social	-.15**	-2.83
		MTV-Protective	-.24***	-4.24
H2	MTV → SUV	MTV-Values	-.14**	-2.61
		MTV-Social	.14**	2.89
HA	MTV → AOC	MTV-Values	.09*	2.25
		MTV-Enhancement	-.02^{ns}	-.45
HB	MTV → CEV	MTV-Protective	.09*	2.33
H3	BEN → SAT	BEN-Values	.38***	7.89
		BEN-Enhancement	.22***	4.47
		BEN-Social	.18***	3.51
H4	BEN → SUV	NIL		

#	Hypothesis	Composite variable	Path coefficient	t-value
HC	BEN → AOC	BEN-Values	$.13^{***}$	3.83
		BEN-Enhancement	$.17^{**}$	3.05
		BEN-Social	$.13^{*}$	2.29
		BEN-Protective	$.09^{ns}$	1.77
HD	BEN → CEV	BEN-Enhancement	$-.03^{ns}$	-.64
		BEN-Career	$-.08^{*}$	-2.23
H5	MBM → SAT	MBM-Protective	$.12^{*}$	2.36
H6	MBM → AOC	MBM-Career	$.03^{ns}$	.94
H7	MBM → SUV	MBM-Career	$-.09^{*}$	-2.01
HE	MBM → CEV	MBM-Understanding	$.08^{*}$	2.09
		MBM-Enhancement	$.05^{ns}$	1.19
H8	SAT → AOC	SAT-Sum	$.18^{*}$	2.11
H9	SAT → SUV	SAT-Sum	$.07^{ns}$	1.01
H10	AOC → SUV	AOC-Sum	$.31^{***}$	4.57
H11	SEV → CEV	SEV-RC	$.24^{***}$	4.06
		SEV-RV	$.17^{***}$	4.82
		SEV-SA	$.47^{***}$	9.98
H12	SEV → SAT	SEV-EA	$-.13^{*}$	-2.28
H13	SEV → AOC	SEV-RV	$.09^{ns}$	1.77
H14	SEV → SUV	SEV-RC	$-.18^{ns}$	-1.77
		SEV-RV	$-.10^{*}$	-2.30
		SEV-WC	$.25^{***}$	3.38
H15	CEV → SAT	CEV-Sum	$.53^{***}$	8.97
H16	CEV → AOC	CEV-Sum	$.21^{**}$	2.97
H17	CEV → SUV	NIL		

ns = not significant $* p < .05$ $** p < .01$ $*** p < .001$

NOTE: This table presents path coefficients with significance levels, rather than t-values to facilitate comparison of the direct effects of variables across different SEM analyses.

For convenience, Table 6F.2 is repeated as Table 6.28 in Section 6.6.2.

Of the 34 path coefficients in the final model, 26 were statistically significant (cf. Table 6F.3).

A summary of this analysis of the regression model is included in Section 6.6.2. The analysis is compared with other SEM analyses in Section 6.7.