Newcomers' turnover intentions prior to starting their first job

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List of Acronyms

AT	Attitudes
AVE	Average variance extracted
AM	Alternative model
BS	Bootstrap
CFA	Confirmatory factor analysis
CI	Confidence interval
EFA	Exploratory factor analysis
GFI	Goodness-of-fit index
KI	Kurtosis index
MI	Modification indices
ML	Maximum likelihood
MM	Measurement model
PBC	Perceived behavioural control
PC	Perceived control
RS	Reverse-scored
RMR	Root mean square residual
RMSEA	Root mean square error of approximation
SEM	Structural equation model/modelling
SE	Self-efficacy
SI	Skewness index
SM	Structural model
SN	Subjective norm
SRMR	Standardised root mean square residual
TRA	Theory of reasoned action
TPB	Theory of planned behaviour
TE	Turnover expectations
TI	Turnover intentions
VIF	Variance inflation factors

Declaration of Originality

I declare that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university and that to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text.



Danny Beng-Teck **Oh**

Abstract

Newcomers are graduating tertiary students who have yet to join any organisation for the first time. This group is known to have the highest rate of turnover within the first few years of employment, and yet the causes remain unverified. In this thesis, questions were raised as to whether or not: (a) they have pre-entry expectations that affect their intention to quit their first job; (b) their perceived turnover intentions can be predicted; and (c) they perceive they have control over their future turnover.

Structured questionnaires were developed from an extended version of the theory of planned behaviour and administered anonymously to final year students at a local fair and in a local tertiary institution. Additional constructs added included self-efficacy and perceived control turnover expectations. The results (N=402) were analysed quantitatively using confirmatory factor analysis (CFA) and structural equation modelling (SEM).

Descriptive results showed the median age of the respondents to be 20 years old, that they had yet to graduate and were about to join organisations for the first time. *Newcomers* reported they would quit within 1 month of joining if they were dissatisfied or unhappy with their first job. The longest they would be likely to stay in their first job before beginning to consider changing jobs to gain more experiences was 12 months.

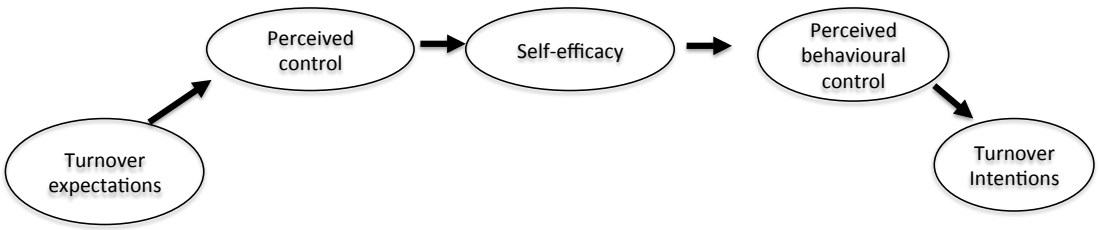
Five hypotheses were tested and supported. A further four hypotheses relating to attitudes and subjective norms were not tested due to their low reliability. Supported hypotheses indicated that *Newcomers'* pre-entry expectations, even before organisational entry or socialisation, include good training, good career and job satisfaction and these are present. *Newcomers* perceived that they have control over their turnover intentions. Although the theory of planned behaviour was not able to predict *Newcomers'* turnover intentions, the perceived behavioural control variable was able to predict the intentions directly.

CFA and SEM revealed a number of significant findings. The perceived behavioural control variable was able to measure and predict intentions accurately and reliably. Structural equation modelling confirmed the multidimensionality of perceived behavioural control and revealed it to be comprised distinctly of self-efficacy and perceived control. Further, structural equation modelling confirmed the

existence of a causal direction within the construct of perceived behavioural control: perceived control → self-efficacy → perceived behavioural control.

The final structural model generated by structural equation modelling shows an expectations-PBC-intentions model (expectations → perceived control → self-efficacy → perceived behavioural control → intentions) that was both theoretically sound and parsimonious, with model-fit indices that surpassed the recommended threshold of fit. A test of confirmatory bias revealed an alternative model showing that if self-efficacy and perceived behavioural control are considered as measuring the same construct, the result of the model-fit-indices is very close and similar to the final structural model. However, for reasons of the parsimony, only the final structural model was accepted.

There are implications for knowledge from this research study. A degree of *Newcomer* socialisation exists even before organisation entry and intentions can be predicted directly by perceived behavioural control. However, the addition of self-efficacy and perceive control is necessary to measure perceived behavioural control accurately. Furthermore, the causal directions within the perceived behavioural control must be considered. The proposed expectations-perceived behavioural control-intentions model, which was demonstrated and shown to predict intention accurately and is illustrated below.



Expectation-PBC-Intention Model

Keywords: Turnover, theory of planned behaviour, perceived behavioural control, attitudes, subjective norms, perceived control, self-efficacy, structural equation modelling

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1 Introduction

1.1 Understanding *Newcomers*, organisation entry and turnover intentions

Traditionally, tertiary graduates, if they do not continue to further studies, will generally start to make a career choice and make the transition from being a student to joining an organisation (Holton & Russell, 1997; Perrot et al., 2014). *Newcomers* are graduating students who will take up their first job after graduating. (Italics and capitalisation are used to distinguish between newcomers with prior working experience joining an organisation and *Newcomers* with no prior work experience joining an organisation to take up their first job). For this study, *Newcomers* are defined as those with no previous work experience prior to entering an organisation, who are also part of Gen Y (born from 1981 to 2000), as their median age is likely to be around 20 to 23 years old.

Organisation entry is the process by which new members move from the outside to the inside of an organisation (Wanous, 1976, 1977, 1980, 1992; Antonacopoulou & Güttel, 2010; Cable & Kay, 2012). Studies have shown that individuals often know very little about the organisations they join until after they begin working there (Wanous, 1976, 2013). Typical organisational entry is concerned primarily with the ability or competence of newcomers to perform satisfactorily, whereas the typical individual is concerned with satisfying personal needs through membership in an organisation (Wanous, 1977, 2013). Organisational entry is concerned with the motivation of candidates to join and remain in the organisation, and personnel psychology places more emphasis on the measurement and prediction of job performance (Wanous, 2013).

Once a new employee moves from organisational outsider to organisational insider, organisation socialisation takes place (Bauer et al., 2007). According to Van Maanen and Schien, “this happens whenever an employee crosses an organisational boundary irregardless of whether the boundary is external or internal” (Van Maanen & Schein, 1979). “Organisational socialisation is defined as a process where a new employee learns the processes and rules of a particular role, thereby acquiring the necessary knowledge and skills to function in that role” (Saks and Ashforth 1979).

During their first encounter with an organisation, *Newcomers* interact with other organisational members to develop a common meaning and understanding through activities such as acquiring new knowledge and new skills, clarifying their roles, responsibilities and relationships, and adjusting their behaviour and attitudes to fit the new organisation (Saks et al., 2007; Yang, 2008; De Vos & Freese, 2011). However, *Newcomers*' transition from student to work can be a difficult experience for them as the transition involves significant changes (Wendlandt & Rochlen, 2008). They start to learn the necessary attitudes, behaviours, skills and knowledge that will allow them to integrate as members of the organisation (Van Maanen & Schein, 1979; Louis, 1980; Saks & Ashforth, 1996; Li, 2004; Daskalaki, 2011; Saks & Gruman, 2011a; Bauer et al., 2012; Rosta, 2012; Phillips et al., 2015). Entering an organisation is a reality shock as *Newcomers* are challenged in their attempts to acquire and learn the skills to allow them to integrate into the organisation (Van Maanen & Schein, 1979; Jones, 1986; Allen, 2006; Larson & Bell, 2013). They may make adjustments to reduce uncertainty and anxiety to make sense of the new organisation (Louis, 1980).

Newcomers who have yet to join any organisation for the first time or to start work will have little opportunity to learn about organisational socialisation. They represent a special group, which, despite not understanding about voluntary turnover, nonetheless has the highest turnover rate (Dunnette et al., 1973; Porter & Steers, 1973; Bray et al., 1974; Wanous, 1980). Many studies have confirmed this high rate of turnover for *Newcomers* (Wanous, 1977; Yang, 2008; Vandenberghe et al., 2011; Brewer et al., 2012; Kim, 2014; Scott, 2014), and yet little has been studied or is known about the causes as most turnover studies seem to have focused on developing models to understand turnover in relation to organisational commitment, job satisfaction, and intention to quit (Arnold & Feldman, 1982; Huselid & Day, 1991; Blau, 1993; Tett & Meyer, 1993). What is commonly known is that most employers believe that Gen Y employees (aged between 19 and 30), including *Newcomers,* are likely have unrealistic goals in work and life; they are known to demand more flexibility in working hours and would normally job-hop without providing any reasons (Chan, 2008). They are also known as the Strawberry Generation, cosseted youths with little experience of hardship (Goh & Ong, 2013) and are known to have different perceptions of work-related characteristics, values and attitudes as compared than previous generations (Davidson et al., 2010). What sets Gen Y greatly apart from

the previous generations is that they grew up with continuously changing and improving technology and live in a world where countries and oceans are no longer seen as boundaries, because communication does not depend on physical closeness (Jansen, 2011). News media have reported that Gen Y are more educated than their predecessors, are likely to be more tech-savvy and plugged into the world, and have more overseas exposure from school trips, university internships and study exchanges (Goh & Ong, 2013). They are likely to favour personal growth and personal fulfillment as important factors during their employment (Goh & Ong, 2013). The study by Brown et al. (2015, p. 130) confirms that "Generation Y employees desire an exciting and challenging career, but also indicates they may be thinking more long-term in their career than typical Generation Y employees." Whereas Gen X (born from 1965 to 1980) grew up in a world of change with technological and social change in which working life did not promise any job security, which led to their appreciation of autonomy and independence and a focus on the own career instead of the development of the organisation they are working for (Jansen, 2011). Gen Y have available social networking and Internet, which has turned their world into a fast-moving and ever-changing environment in which information is easily accessible and mobility required and at the same time make them technologically savy and knowledgeable (Greenberg & Weber, 2008; Jansen, 2011). They are "extremely technologically literate, self-reliant, independent and looking for instant rewards, where long-term means 12 months" (Solnet and Hood 2008 p. 61). Gen Y clearly distinguish between work and non-work time, with non-work time set aside strictly for leisure, vacations and personal pleasure and their job is a means to fund their lifestyle (Brown et al., 2015). Gen Y will only commit to an organisation if the jobs are fulfilling, significant and challenging (Macey et al., 2009; Brown et al., 2015).

Studies showed that:

> "…compared to other generations, members of Generation Y are the hardest to retain in the workplace for two main reasons. First, Generation Y employees value their personal life and are willing to leave their current job if they decide the change is more beneficial for them. Second, they experience the biggest age gap in the workplace, which can be a crucial determinant of intention to leave the job (Barron et al., 2007; Weingarten, 2009)" (Brown et al. 2015 p. 131).

Other characteristics of Gen Y have been reported are that they are "more demanding than new employees have ever been before and they are unafraid of expressing their opinions" (Solnet and Hood 2008 p. 61). They expect quick responses and results (Weingarten, 2009), and expects equality, tolerance and diversity within the workplace (Morton, 2002).

Thus, many questions are raised. For example: Why do *Newcomers* choose to leave their first job? Do they have unmet expectations? What kind of expectations are they looking for in their first job? Do these expectations exist even before they join an organisation? Do they have control over their turnover intentions (TI)? Can *Newcomers'* perceptions of TI be predicted? Is there a solution to retaining them longer?

To find the answers to these questions, it is necessary to examine the intentions and turnover behaviour of *Newcomers*, which can be predicted from a person's intention, or willingness, to perform the behaviour (Fishbein & Ajzen, 1975, 2010).

1.2 Rationale of this study

The rationale for this research study stems from practitioner frustration in encountering and dealing with constant voluntary turnover and realising that this problem is quite prevalent throughout the industry and possibly even worldwide. One particular group, *Newcomers*, was noted to have frequent turnover, not staying long in their first job and leaving within a shockingly short period, ranging from no-show after being offered a job to leaving within a few days, or leaving within less than a year. It has been reported that in the hospitality industry turnover tends to take place during the first four weeks of employment (Kennedy & Berger, 1994; Yang, 2008) and that "the cause is often poor human resource decisions and unmet expectations." (Kennedy and Berger 1994 p. 58) The reasons for the newly hired leaving are also baffling. They often leave for no apparent reason, with little or no regard for responsibility and salary or indication that they were unhappy with their job (Khatri, 1999; Khatri et al., 1999; Allen et al., 2010). In fact, many questions are raised as to why employees are changing jobs more frequently and constantly searching for better opportunities, despite the economic crisis (Teo, 2008; Goh & Ong, 2013). Similarly, turnover scholars have begun to recognise a new trend: unlike conventional reasons for leaving

due to poor job satisfaction and low organisational commitment, employees are now leaving when they are neither unhappy nor seeking new jobs (Lee & Mitchell, 1994; Maertz Jr & Campion, 2004; Hom & Griffeth, 2013).

In the United States alone, more than 1.6 million young adults (*Newcomers*) graduate from college each year (Aud et al., 2011). In Singapore, 269,907 young adults (*Newcomers*) will graduate from tertiary educations (Ministry of Education Singapore, 2014). When added to figures from other countries, the numbers of young adults or *Newcomers* joining organisations worldwide for the first time each year is tremendous. When their turnover rate is translated into costs, the amount could easily stretch into trillions of dollars worldwide, just from this special group of young adults joining an organisation for the first time. The total costs associated with turnover are staggering, estimated in the United States of America alone at US$160 billion annually (Hall, 2005). The potential cost of turnover to employers in the healthcare system in Australia is estimated at US$728 million each year (Brewer et al., 2012). Not surprisingly, the high replacement cost of employee voluntary turnover is a major concern to organisations (Dalton & Todor, 1982; Cascio, 2000; Kammeyer-Mueller & Wanberg, 2003; Boushey & Glynn, 2012); costs accrue from the loss of star performers (Trevor et al., 1997), investments of money, time, training and resources are written off (Nicholson & Arnold, 1991) and there are consequences for organisation-level financial outcomes (Glebbeek & Bax, 2004; Lee & Rwigema, 2005; Shaw & Gupta, 2007).

Labour market studies show that early turnover of *Newcomers* is costly. Time and money is invested in recruiting and training them in preparation for their role in the organisation and if they leave, the organisations will be unable receive compensation, much less to recover the returns on these investment (Griffeth & Hom, 2001; Hall, 2005).

Given the high rate and cost of this Newcomers turnover, it becomes important to understand the causes (Holtom et al., 2013) in order to be able to determine whether or not their TI can be predicted or measured. Therefore, the following research questions were developed to understand how *Newcomers'* TI affect them even before they join an organisation for their first job.

(1) Do graduating students, as *Newcomers* from tertiary institutions embarking on their first job, have pre-entry expectations about turnover intention to quit?

(2) Can *Newcomers*' turnover intention to quit be predicted?

(3) Do *Newcomers* have control over their turnover intention to quit?

1.3 Significance of research

Despite the enormous amount of literature on turnover in organisations (Price, 1977; Mobley, 1982; Zheng et al., 2010), turnover scholars are still divided on why people choose to leave and are unable to provide an accepted account or framework for this (Lee & Mitchell, 1994; Morrell et al., 2001; Jansen, 2011; Regts & Molleman, 2013), especially for why *Newcomers* choose to leave (Jansen, 2011). Examining the nature of *Newcomers*' experiences before entering an organisation can help to understand how *Newcomers*' expectations, perceptions of turnover intentions affects their first job. This understanding can be an important tool for organisations hoping to improve newcomers' satisfaction, engagement, commitment, and retention (Korte, 2009; Saks & Gruman, 2011a). Predicting why *Newcomers* choose to quit can contribute to and enhance understanding of turnover theory. Any improvement to employee retention and turnover minimisation will always be welcome, as unwanted turnover is financially damaging to organisations (Hall, 2005).

As *Newcomers* have frequently been found to show high levels of unmet expectations, which lead to turnover (Wanous, 1992; Yang, 2008), understanding *Newcomers'* turnover intentions may lead to the development of intervention programs such as employee engagement (Berry, 2010a; Saks & Gruman, 2011a), workshops to reinforce of the behaviour (Amin et al., 2014), and the design of realistic job previews (Wanous, 1978, 1989; Roth & Roth, 1995; Hom et al., 1999). Employee engagement may be the key to an organisation's success and competitiveness (Macey et al., 2009; Saks & Gruman, 2011a) and "is a key driver of individual attitudes, behaviour, and performance as well as organisational performance, productivity, retention, financial performance and shareholder return" (Saks & Gruman 2010 p. 383).

Therefore, the research study is significant as it provide understanding of *Newcomers'* TI within the first few years of their employment. It can help to provide crucial information on how to avoid potential high costs to the organisation. It can also help to clarify expectations amongst *Newcomers,* which have been found to be the key to reducing turnover (Porter & Steers, 1973) and to be associated with voluntary employee turnover (Ross & Zander, 1957; Katzell, 1968; Dunnette et al., 1973; Porter & Steers, 1973; Wanous, 1977; Mowday et al., 1979; Muchinsky & Tuttle, 1979; Wanous, 1980). In addition, information from pre-entry expectations can help to

prevent early turnover in the early entry phase of organisational life (Kammeyer-Mueller & Wanberg, 2003). Pre-entry expectation is an important determinant of satisfaction and commitment (Mabey, 1986; Porter & Steers, 1973; Wanous, 1980), and behavioural intention has been found to be one of the best predictors of individual turnover (Steel, 2002; Wittmer et al., 2014)., It has been reported that positive experiences encountered early in their early years of employment can help *Newcomers* to improve their organisational commitment later on (Meyer et al., 1991; Buckley et al., 1998; Meyer & Herscovitch, 2001).

Furthermore, understanding Newcomers' turnover intentions can also reveal how the transition of employees affects employment relationships. Researchers have studied the effect on employment relationship and its transition by examining the "(a) the extent to which human needs are measured and considered, as opposed to abilities; (b) the extent to which participation in an organization (i.e., joining and remaining) is important, as opposed to job performance, and; (c) the extent to which job satisfaction (or other attitudes) is examined, as opposed to the satisfactoriness of a newcomer" (Wanous, 1977). Researchers have found that focusing on turnover intentions is the best single predictor on an individual's behaviour, which is a measure of his intention to perform that behavior (Fishbein and Ajzen 1975 p. 369).

1.4 Overview of thesis and roadmap of chapters

Chapter 2 presents a comprehensive literature review on theories and an epistemological perspective on the key constructs of the research study. Key constructs such as *Newcomers*, organisation entry, socialisation, expectations, turnover, planned behaviour, and statistical methods (e.g. confirmatory factor analysis (CFA) and structural equation modelling (SEM)) are examined and gaps in the literature identified. Links and relationships and their effects on *Newcomers'* TI are examined, together with theories that have been used successfully to measure and predict behavioural intentions. From the literature review, research gaps and research questions are developed. The research conceptual model is developed and the hypotheses are set up for testing, to answer the research questions.

Chapter 3 describes the theoretical grounding and methodology. It presents the research paradigm, which is centred on a post-positivist approach with an objectivistic

theoretical perspective. It describes the research methodology employed in this study, including the selection of the research population, the sampling technique, the data collection and analysis method and the reliability and validity issues. This chapter deals with descriptive statistics and fulfilling the basic statistical requirements of normality, reliability and validity. The argument for the use of CFA is presented, along with a description of SEM.

Chapter 4 presents the results of the data analysis collected from the sampling. As is normal practice, the data are screened for both univariate and multivariate normality and the reliability and validity of the data established by tests of collinearity. SEM is utilised at each stage of the analysis to ensure that the analysis can be replicated and validated. Construct assessment is carried out using CFA and Cronbach alpha is used to test for construct validity and internal consistency. To cater to multivariate non-normality data, bootstrapping (BS) techniques are introduced to assess the extent of multivariate non-normality. Bootstrapping is performed using the maximum likelihood (ML) estimation in AMOS, following the guidelines recommended by Byrne (2010). It is used to assess the difference of regression estimates and standard errors and to provide bias-corrected confidence intervals (CI) for each of the BS estimates. Through CFA, a full SEM comprising a measurement model and a final structural model is achieved. The final measurement model is tested for construct validity before being used for the structural modelling. Both are analysed using conventional ML estimates analysis. Congeneric models are used to assess the constructs in the simplest form of a measurement model that can be used to provide an estimate of the correlation between the unobserved variable and the observed variables. Measurement models are constructed to measure the model-fit and the model and the most parsimonious model will be used to test the hypotheses. The final structural model is well fitted, has satisfied the goodness-of-fit measures and meets acceptable threshold limits. Finally, equivalent and alternative models are examined for confirmatory bias.

Chapter 5 presents the discussion of the results, the impact on the research questions and the hypothesis testing. It presents the descriptive statistics and the population demographics. The research questions are critically examined against the results of the data for support of the hypotheses. They are critiqued with reference to the literature review. Based on the final structural model, the predictive model is established. The details of each of the variables and their effects are also discussed.

The alternative model and final structural model are examined to find support for the final model to be chosen. The thesis concludes by summarising the theoretical contributions, the limitations of this study, and the implications for practitioner and future research.

1.5 Chapter summary

This chapter presents an introduction to the research study and defines *Newcomers,* their place within the organisation entry and how they affect turnover. It shows the rationale for choosing *Newcomers* and turnover for the research study and the significance of the research study. The research questions guiding the research are presented, together with the research conceptual model and the hypothesis for testing. Finally, a roadmap of the whole thesis is introduced.

2 Literature Review

2.1 Introduction

This chapter presents the literature review for the research study. An in-depth exploratory study was made of the key concepts by perusing past research and researching peer-reviewed articles, journals, and books to identify gaps in the literature and possible alternative explanations for the findings (Vancouver & Warren, 2011).

In order to understand *Newcomers*' perception and beliefs about their turnover intentions (TI), key concepts need to be understood and operationalised. The literature review, although extensive and comprehensive as possible, revolved around three major themes: organisation entry, turnover and planned behaviour. Understanding the first theme organisation entry and correspondingly, socialisation is necessary because it is a typical work entry process for anyone joining an organisation. However, the typical organisation entry experience may be different for *Newcomers*, who have yet to join organisations; therefore, clarity is needed from the extant literature.

The second theme deals with the perceptions and beliefs of or the TI of this particular group, who have not yet started work. Unlike target group of traditional turnover models, they have not been influenced by any organisations influence and have no previous work experience to fall back on. It is necessary, then to review factors or determinants that can affect their perceptions of their turnover intention to quit. The literature review will also seek the links and relationships between organisational entry, organisational socialisation and turnover.

The third theme deals with how to predict *Newcomers'* TI. Predicting intentions can be achieved through determinants of attitudes (AT), subjective norms (SN), perceived behavioural control (PBC) and predicting *Newcomers'* intentions, needs and other variables that may be uncovered during the review of organisation entry, organisational socialisation and turnover, such as expectations or any variables. In addition, to enhance the predictive theories, extra variables such as self-efficacy (SE) and PC will be reviewed. Successful predictive theories, such as the theory of reasoned action (TRA) and theory of planned behaviour (TPB), will be examined for their applicability to the research study.

2.2 *Newcomers* joining organisations

In this research study, *Newcomers* are defined as graduating students who will be taking up their first job after graduation. *Newcomers* in italics and capitalisation denote any young adult, students who have will be joining an organisations full time for their first job and have no prior working experiences. Newcomers (or newcomers) can refer to employees who already have previous working experiences in organisations. They are likely to have more than one previous working experience. *Newcomers* will be entering organisations for the first time and are likely to do so immediately after completion of their tertiary education (which includes university, college and polytechnics).

Table 1 shows the education journey in Singapore. In Singapore, a student typically will spend six years in primary school, and four years in secondary school, followed by either two years in junior colleges or pre-university before spending another four years at university (or other tertiary institution). Therefore, when they complete their tertiary education and start to join organisations for the first time, they are likely to be around 23 years old.

Table 1 The Singapore education journey

Age	7-12 years	13-16 years	17-22 years	> 23 years
Types of education	Primary	Secondary	Post-secondary • Alternative qualifications • Institute of Technical Education (ITE) • Junior Colleges • Polytechnics • Universities	Work

Source: Education Digest, 2014 (Ministry of Education Singapore, 2014)

Newcomers joining an organisation for the first time represent a special group in turnover studies (Wanous, 1976, 1977; Louis, 1980; Wanous, 1992; Saks & Gruman, 2011a), one which has not been studied in detail despite age being one variable that has interested turnover scholars for a long time. Findings on the age-

turnover relationship itself and how age affects voluntary turnover have been unclear (Ng & Feldman, 2008, 2009). Previous research has shown that age has been strongly and negatively related to turnover (Porter & Steers, 1973; Price, 1977; Mobley et al., 1979; Rhodes, 1983; Cotton & Tuttle, 1986), with age found to moderate the tenure-turnover correlation with an inverse relationship that is less negative in older populations (Griffeth et al., 2000). Other scholars have reported that age and other demographics, as well as variables such as length of service, retain a powerful independent effect on intention to stay (Price, 1977). Early studies by Healy et al. (1995) on the age-turnover relationship have not been clear and have produced mixed findings. They concluded that "age is not meaningfully related to an individual's decision to leave an organization" (p. 335). Ng and Feldman (2009) conducted meta-analytical studies published between 1990 and 2008 (49 studies, N = 71,053), which showed, unlike the results of Healy et al. (1995), that age affects turnover more significantly than was thought. In fact, what has been noted over the last two decades was that as mobility patterns among employees started to change, the strength of the age-turnover relationship changes as well (Ng and Feldman 2009 p. 283).

Their studies differed from Healey et al.'s (1995) in including "multiple additional sample characteristics (like education) as moderators of the age-turnover relationship" and a methodology that "corrects for measurement artifacts arising from the use of point-biserial correlations in most turnover studies" (Ng and Feldman 2009 p. 284). Their study "highlights that the relationship between age and voluntary turnover behaviour varies depending upon the timeframe used in measuring turnover and the country in which the research is conducted' (Ng and Feldman 2009 p. 204). Two major findings were drawn from their studies. It was found that age was more strongly related to turnover contrary to studies by Healy et al. (1995) and that the strength of the relationship between age and turnover varies with increasing racial minorities in the sample, when the organisational tenure is high and when education level is lower (Ng and Feldman 2009 p. 290).

More recent studies would seem to confirm that age is negatively correlated with turnover (Brewer et al., 2012; Liu et al., 2012; Takase et al., 2014). Furthermore, studies by de Lange et al. (2010) showed that "significant age differences were found in the level of the work characteristics and learning-related behaviour, as well as in the cross-lagged relationships among the variables" (de Lange et al. 2010 p. 925). They found "age effects matter in the relationships between work and learning-related

behavior" (de Lange et al. 2010 p. 940). However, their studies were related to young workers (<30), middle-aged workers (31-44) and older workers (> 45) and are not related to *Newcomers* who have yet to start work. Most findings supported the claim that age does affect intention to quit (Price, 1977; Ng & Feldman, 2009) and in line with recommendations by Ng and Feldman (2009) that "in addition to further examining why age should relate to turnover, researchers should also carefully investigate who is more likely to voluntarily leave their organizations, not only among older workers but among younger workers as well " (Ng and Feldman 2009 p. 290), it remains to be seen to what extent *Newcomers* will differ and affect the age-turnover relationship.

2.2.1 During organisation entry and socialisation

Many researchers have defined organisation entry as a process where new members move from the outside to the inside of an organisation (Wanous, 1976, 1977, 1980, 1992; Antonacopoulou & Güttel, 2010; Cable & Kay, 2012), whereas others refer to it as several processes that occur as new members enter organisations (Wanous, 1976, 1977). Organisation entry has been found to be an important process that is used extensively to understand the psychological thoughts of newcomers as they move from outside to inside of an organisation (Wanous, 1976, 1977; Wanous et al., 1992; Morrison, 1993; Buckley et al., 1998; Griffeth et al., 2000; Sutton & Griffin, 2000; Cooper-Thomas & Anderson, 2002; Bauer et al., 2007; Saks & Gruman, 2012). Organisation entry is primarily concerned with the motivation of member to join and to remain in the organisation (Wanous, 2013). The study of organisation entry can be viewed from either an organisational perspective or from an individual's viewpoint (Wanous, 1976). For this research study, the focus will be from an individual's viewpoint (*Newcomers*).

Louis (1980) articulates a typical organisation entry, which shows that turnover and socialisation follow organisation entry. Turnover, takes place whenever there are unrealistic expectations and unmet expectations (Louis, 1980). There are four stages to socialisation; "the nature of socialisation, the stages of socialisation, content (role-related learning and cultural learning), and socialisation practices" (Louis, 1980). This model has remained popular amongst organisation entry scholars (Louis et al., 1983; Sutton & Louis, 1987; Miller & Jablin, 1991; Mignerey et al., 1995; Tomprou &

Nikolaou, 2011).

The typical organisation entry does not apply to *Newcomers* as they have yet to join an organisation. But in order to understand their beliefs and expectations before organisation entry, it is also necessary to understand how *Newcomers* cope with entry and socialisation experiences during and after organisation entry.

This research is concerned with the individual perspective, especially that of *Newcomers* who have yet to join any organisation. Wanous (1976) found that most outsider expectations were naïve, with individuals' motivations to join organisations usually based on faulty information. When the environment that is different from what is expected, dissatisfaction can lead to turnover (Wanous, 1976). Their turnover expectations (TE) are also linked through organisational entry and socialisation, with the early years before and after graduation having a significant impact (Louis, 1980; Mabey et al., 1996). What is known is that when individuals enter organisations, they often find themselves in many respects in a state of unfamiliarity and uncertainty, most of them unsure of their role and how well they will perform their job. They need information, feedback and social support to help them reduce their anxiety and increase their confidence (Saks & Gruman, 2012).

Therefore, newcomers' typical entry experience is likely to be a sense-making processes, in which, they try to cope or make sense of their entry experiences (Louis, 1980; Jokisaari & Nurmi, 2009; Saks & Gruman, 2010; De Vos & Freese, 2011). In fact, change and surprise are known to form the biggest part of the experience (Louis, 1980; Saks, 1995; Korte, 2009). Louis (1980) described change as the difference between the new and old settings, and the difficulty of change as having to deal with new situations; the more new situations newcomers encounter, the more they have to deal with. In addition, when subsequent experiences in the new setting are not what newcomers expect, the entry experience is surprise (Louis, 1980). Louis described three forms of surprise that may arise during organisation entry; "when conscious expectations about the job are not fulfilled in the newcomer's early job experiences" (p. 237); "when expectations (both conscious and unconscious) about oneself are unmet" (p. 237); and "when unconscious job expectations are unmet or when features of the job are unanticipated" (p. 238). An example may be 'I choose this job because it pays me a good salary; but now I realise that it is too stressful for me'.

Later studies have shown that newcomers do encounter change or surprise after

organisational entry and must learn the necessary attitudes, behaviours, and social knowledge in order for them to adjust and integrate so that they can remain in the organisation (Van Maanen & Schein, 1979; Louis, 1980; Saks & Ashforth, 1996; Li, 2004; Daskalaki, 2011; Saks & Gruman, 2011a; Bauer et al., 2012; Rosta, 2012). These experiences are commonly referred to as organisational socialisation following organisation entry (Louis, 1980; Ashforth & Harrison, 2008; Saks & Gruman, 2011c). Van Maanen & Schein's (1979 p. 230) definition of organisational socialisation has been used extensively by organisation entry scholars: "Organisational socialisation can be viewed as the ways in which the experiences of individuals, while in transition from one role to another, are structured for them by others in the organization."

However, as *Newcomers* in this study have yet to commence work, they will not had a chance to undergo socialisation. As such, their experiences and expectations are neither structured nor influenced by organisations or working experience. Despite this and contrary to the view that socialisation starts after organisational entry, researchers have found that the socialisation process for students entering the workplace actually begins before college graduation (Wendlandt & Rochlen, 2008) and some researchers have found that occupational socialisation starts long before entering work (Bandura, 1986; Hartung et al., 2005; Elfering et al., 2007). Researchers have not clearly defined socialisation experiences prior to joining an organisation but have found that newcomers do have anticipatory socialisation. It begins when recruits who have not yet joined the organisation anticipate their experiences and begin to develop expectations about their life in the organisation and on the job (Louis, 1980). Silbereisen & Eyfreth (1986) reported that these changes are due to newcomer's own choices, activities and the influences that shape them as they go through this transition (Elfering et al., 2007).

The value of socialisation is that "it enables newcomers to discover what the organization is about, why it is important, and their place within in it; it facilitates work adjustment; and it can influence the long-term success and the career of newcomers" (Saks and Gruman 2011 p. 14). This process allows newcomers to adjust to their work and can influence and affect their careers (Ashforth et al., 2007a; Saks & Gruman, 2011c); that is, as "a cognitive-learning process that involves information and knowledge acquisition" (Saks and Gruman 2011 p. 15).

Socialisation has become more important as individuals become more mobile

(Bauer et al., 2007). “The process of socialisation has often been operationalised as either socialisation tactics or newcomer proactive behavior. Socialisation tactics refer to organization-driven or more or less formalized means of socializing individuals” (Ashforth et al. 2007 p. 448). Some organisations have used socialisation tactics to help newcomers adapt to early entry experiences. In fact studies have shown that “socialization tactics were positively related to PJ (person-job) and PO (person-organization) fit perceptions, positive emotions, and self-efficacy but not newcomer engagement” (Saks and Gruman 2011 p. 395). Socialisation tactics and proactive behaviour can be used to engage newcomers (Saks & Gruman, 2011a) and can jointly affect the socialisation content of what they learn and how they adjust during organisation entry (Ashforth et al., 2007b). In a longitudinal study on business and engineering graduates (N=150) during their first seven months of work, it was found that (1) institutionalized socialization and proactive behavior are each associated with newcomer learning, (2) the socialization processes and learning are each associated with various forms of adjustment, and (3) the socialization processes are associated with adjustment, while controlling for learning (Ashforth et al. 2007 p. 447). The findings indicated that newcomers are socialized and has substantive and symbolic value over and above what they actually learn (Ashforth et al. 2007 p. 447).

According to Bauer et al. (2007), as newcomers try to adjust to new situation, they may try to seek role clarity by trying to understand the job task, priorities and time allocation. Their self-efficacy (SE) increases as they gain more confidence in mastering and learning the tasks of the new job (Bauer et al., 2007). Finally, they gain social acceptance when they have adjusted to the organisation and become well-liked and accepted by their peers (Bauer et al., 2007).

Importantly, most of the outcomes of the socialisation process have been found to be related to employee satisfaction, attitudes, stress, and turnover (Van Maanen & Schein, 1979; Louis, 1980; Ashforth et al., 2007b; Bauer et al., 2007; Saks et al., 2007; Saks & Gruman, 2011b). Experiences during organisational entry have been found to be an important part of the understanding of the causes of turnover (Wanous, 1976, 1980; Holton, 1995; Bauer et al., 2012). Socialisation has become more important in recent years as the workforce has become more mobile (Bauer et al., 2007). “Organisations realise the potential positive long-term effect of the on-boarding process on new hires’ performance and retention and that socialisation is related to turnover in new hires” (Allen & Shanock, 2013). Longitudinal studies of *Newcomers’*

expectations and their early socialisation outcomes have shown that the link between unmet expectations and socialisation outcomes is turnover (Major et al., 1995). Recent studies (Phillips et al., 2015) (Figure 1) have shown that newcomers adjust during socialisation by seeking clarity in their roles, understanding the organisation's culture and seeking acceptance by the organisation during socialisation. "Onboarding refers to the process that helps new employees learn the knowledge, skills and behaviours they need to succeed in their new organisations." (Phillips et al. 2015 p. 120). They found the outcomes of socialisation to be turnover, satisfaction, and commitment (Phillips et al., 2015).

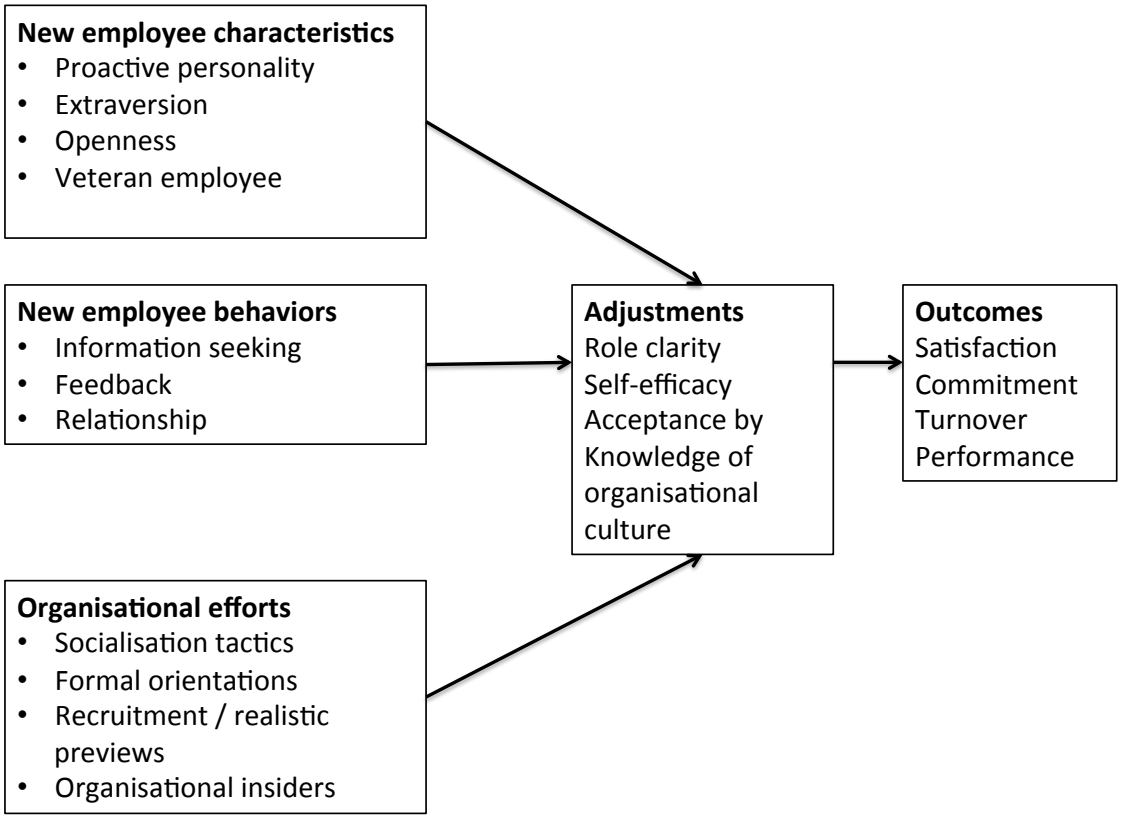


Figure 1 A summary process of socialisation (Phillips et al. 2015 p.120)

2.2.2 Newcomers expectations during the first few years of joining organisations

What happens to graduates in the first few years of their employment? It has been widely reported that the turnover rates during the first few years are the highest (Elfering et al., 2007; Yang, 2008; Lee et al., 2012; Kim, 2014; Scott, 2014). *Newcomers* joining an organisation have been known to have a high turnover during the first few years of their employment (Elfering et al., 2007; Scott, 2014). It has been found that the *Newcomers'* initial experiences are important enough to substantially influences the subsequent relationship between them and the organisation (Buckley et al., 1998). One recent investigation to evaluate graduates' perceptions of their experiences of the first year of graduate employment showed that they only stay in their first position for approximately 18 months (Scott, 2014). Similarly in another longitudinal study on new graduate nurses, Cho et al. (2012) found that the estimated probabilities of the new graduate nurses staying in their first job for 1, 2, and 3 years were .823, .666, and .537 respectively with their reasons for leaving their first job being dissatisfaction with interpersonal relationships, work content, and the physical work environment (Cho et al., 2012).

Many researchers (Buchanan, 1974; Mabey, 1986; Mowday *et al.,* 1982; Wanous, 1980; Meyer and Allen, 1988) have confirmed that the early months of employment are a particularly important period in the development of work attitudes. Wanous (1976; 1977) concluded that newcomers tend to enter organisations with naïve optimism, attributable in part to their educational experiences and lack of working experience and any previous experiences to fall back on. Sometimes it is also caused by the recruitment process in which faulty information leads to high hopes and raised their expectations of their new jobs (Vroom, 1966; Vroom & Deci, 1971; Lawler et al., 1975). This reiterates earlier findings by Louis (1980), that early experiences often do not live up to expectations, leading to a decline in job satisfaction and organisation commitment. As a result turnover is usually high in the early period of employment (Dunnette et al., 1973; Porter & Steers, 1973; Bray et al., 1974; Wanous, 1980).

Studies by Meyer and Allen (1988) confirmed the importance of early work experiences and how pre-entry work expectancies develop employees' commitment to the organisation. Subsequent research reinforces the claim that their initial experiences

with an organisation influence *Newcomers*' work attitudes and behaviour and are important in shaping their future work attitudes and behaviours (Berlew & Hall, 1966; Saks & Ashforth, 1979; Arnold, 1986; Feldman, 1989).

The extant literature made it clear that understanding graduates or *Newcomers'* organisational experiences during their first few years of work is important. Graduates' occupational position one year later can be used to predict outcomes two years later as well as their future occupational directions (Richards, 1984; Meyer & Allen, 1988; Connor et al., 1990; Arnold & Nicholson, 1991; Meyer et al., 1991; Arnold & Davey, 1992; Hebert & Worthy, 2001; Sturges et al., 2002; Blackman et al., 2003; Polach, 2004; Elfering et al., 2007; Ferreira et al., 2007; Experience Inc, 2008; Ivancevich et al., 2009; Cho et al., 2012; Kedrowicz et al., 2015). *Newcomers*' experiences immediately following entry into an organisation during the first six months and the first 11 month have been found to be instrumental in shaping their commitment to that organisation (Meyer & Allen, 1988).

Many graduates enter organisations with poor understanding about work demands and the kind of responsibility they should be given (Arnold & Nicholson, 1991; Veldman, 2013). They expect they will be called upon to make extensive use of what they have studied in college, and that their college degrees and their success in being recruited will be sufficient for them after entry (Arnold & Nicholson, 1991). Therefore, it appears that the first year in an organisation, a time of learning, is a critical learning period (Berlew & Hall, 1966) for securing newcomers' engagement (Saks et al., 2011) and the influence of work commitment is stronger at this time (Meyer & Allen, 1988). Studies of college graduates during their first year of work showed that the first few years of work experience influence newcomer turnover (Gardner & Lambert, 1993; Holton, 1995; Ashforth & Saks, 1996; Holton & Russell, 1997) and have been linked to organisational commitment (Meyer & Allen, 1988), and found to be one of the major influences of turnover.

The understanding of individual *Newcomers*' perceptions during organisational entry, is important and critical to organisational life (Kammeyer-Mueller & Wanberg, 2003), has been found to be an important part of the understanding the causes of turnover (Wanous, 1976). Pre-entry expectations may shape, if not set, post-entry job perceptions (Hom et al., 1999). Wanous (1976) found that individual newcomers' perceptions during organisational entry are an important part of understanding the causes of turnover, with naïve and unmet expectations and unrealistic beliefs, leading

to turnover (Porter & Steers, 1973; Louis, 1980; Meyer & Allen, 1988; Meyer et al., 2004).

2.2.3 Before organisation entry and pre-entry expectations

2.2.3.1 Before organisation entry

Most studies in organisation entry have focused on expectations that occur after organisation entry (Berlew & Hall, 1966; Mabey, 1986; Nicholson & Arnold, 1991; Arnold & Davey, 1992, 1994b; Carriere & Guerin, 2005; Ashforth et al., 2007b; Broadbridge et al., 2007), whereas pre-entry expectations refer to *Newcomers'* expectations formed prior to organisational entry (Sutton & Griffin, 2004). However, not much is known about *Newcomers* who are yet to undergo socialisation or to join organisations. The extant literature has many studies on organisation entry and socialisation of *Newcomers* after they begin work (Wanous, 1980; Korte, 2009; Harvey et al., 2010; Simosi, 2010; Saks & Gruman, 2011c; Bauer et al., 2012; Cho et al., 2012; Saks & Gruman, 2012; Perrot et al., 2014). Most studies tend to focus on newcomers attempts to adjust to the organisation (Bauer et al., 2007; Saks et al., 2007) and learning its norms (Ashforth et al., 2007b), as well as how to engage them through socialisation tactics (Cooper-Thomas & Anderson, 2006) and get them 'on board' (Saks & Gruman, 2012). Most pre-entry experiences during the recruitment and selection process are considered to be part of the anticipatory socialisation phase (Riordan et al., 2001; Kedrowicz et al., 2015). This has led some scholars to suspect that *Newcomers'* socialisation begins while they are still outsiders and start to anticipate their experiences in the organisation that they are about to enter (Louis, 1980; Ford et al., 2013; Kedrowicz et al., 2015). In fact, it has been reported that for students entering the workplace, the socialisation process actually begins before college graduation (Wendlandt & Rochlen, 2008). Other researchers have confirmed that occupational socialisation starts long before entering work (Bandura, 1986; Hartung et al., 2005; Elfering et al., 2007). These changes do not simply happen and are to a considerable degree the result of *Newcomers*'s own choices, activities and influences that shape them as they during socialisation (Silbereisen & Eyferth, 1986; Elfering et al., 2007).

Pre-entry factors are an antecedent of adjustment outcomes (Saks & Ashforth, 1979; Adkins, 1995; Takeuchi & Takeuchi, 2009). Qi et al (2010) showed that

"newcomer used their pre-entry expectations as their estimations for future benchmarks and these are in place before the newcomer's entry into the organization" (Qi et al., 2010). Berlew and Hill (1966) found that early work experiences are important for producing long-term satisfaction and job performance, with newcomers' initial experiences in an organisation influencing their work attitudes and behaviours (Saks & Ashforth, 1979; Pierce & Dunham, 1987; Feldman, 1989). Though earlier studies by Dunnette et al., (1973) had found that pre-entry expectations did not affect or influence the expectation levels of those who remained or those who later decided to leave, Wanous (1976) later disputed this, arguing that those studies were flawed. Wanous cited studies showing that the methodology was contaminated by the tendency to be self-consistent with low correlation for remembered changes (Hardin, 1965; Bern, 1970).

2.2.3.2 Pre-entry expectations

Scholars have concluded that the process of *Newcomers* entering an organisation is influenced by individual-based beliefs, that are indirectly influence by pre-entry expectations and expectations, whereas the organisation will influence control-based beliefs that will in turn be influenced by experiences and post-experiences, such as illustrated in Figure 2 (Arnold & Davey, 1994a; Sutton & Griffin, 2004; Larson & Bell, 2013). Studies have found a link between pre-entry expectations and turnover (Meyer et al., 1991; Arnold & Davey, 1992). Early works on the antecedents of recruit turnover found that *Newcomer*s' expectations are a critical factor associated with voluntary recruit turnover (Ross & Zander, 1957; Katzell, 1968; Dunnette et al., 1973; Porter & Steers, 1973; Muchinsky & Tuttle, 1979; Wanous, 1980) and that expectations can influence the satisfaction and commitment of new employees (Mabey et al. (1996). According to Mabey et al. (1996), what is not clear is whether these expectations affect or are primarily determined by the level of pre-entry expectations, or by the discrepancy of these expectations with actual experience after joining.

In a six-year longitudinal study, Mabey et al. (1996) found that newcomers are likely to formulate a set of expectations before they enter organisations, and these will be influenced by the experience of the organisation's recruitment and selection process. In general, it was found that job satisfaction and organisational commitment correlate with the level of pre-entry expectations, and may last from a week prior to

organisation entry to five or six years after commencing employment.

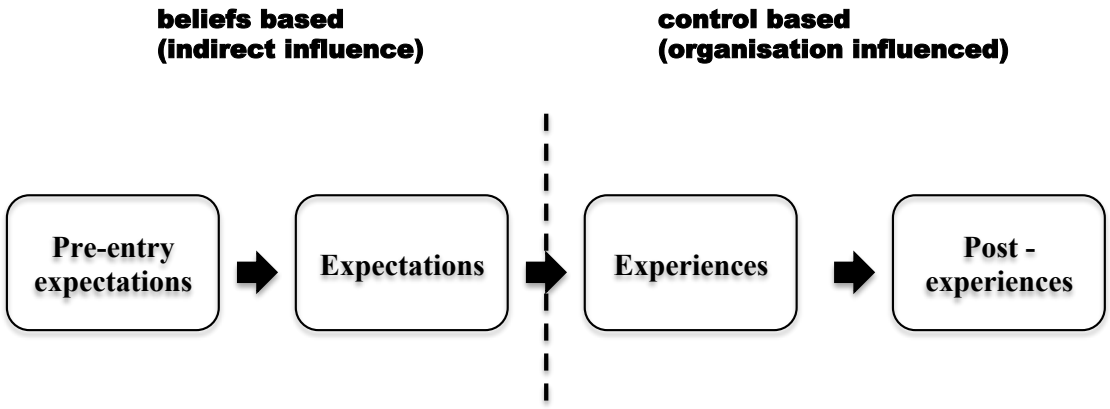


Figure 2 Proposed beliefs and control-based influences (Sutton & Griffin, 2004)

Qi *et al*. (2010) also examined pre-entry expectations and post-entry experiences, focusing on early experiences during organisational entry in a longitudinal study of 336 newcomers working in a large joint stock company (Qi et al., 2010). Their study showed that employees' recent experiences have significant predictive effect for voluntary turnover but did not find support for the met-expectations hypothesis in the Chinese organisational context. They reported that:

> "…neither pre-entry expectations nor early experiences during organisational entry can predict voluntary turnover; and that team expectations moderate the relationships between team experiences and turnover." (Qi et al 2010 p. 284)

Turnover scholars who found pre-entry expectations to be an important determinant of satisfaction and commitment reported a link between pre-entry expectations and turnover (Porter & Steers, 1973; Wanous, 1980; Mabey, 1986; Meyer & Allen, 1988). They found that work experiences during the first month of employment are likely to have an effect on commitment measured for up to the 11 months later on (Meyer & Allen, 1988).

Porter and Steers (1973), who looked at the turnover model of job satisfaction and commitment, articulated the met-expectations hypothesis, which has become an important concept in industrial and organisational behaviour (Wanous et al., 1992; Qi et al., 2010). They define met expectations "as the discrepancy between what a person

encounters on the job in the way of positive and negative experiences and what he expected to encounter" and "that when an individual's expectations —whatever they are — are not substantially met, his propensity to withdraw would increase despite that different employees may have different expectations with respect to payoffs or rewards in a given organizational or work situation" (Porter & Steers, 1973, p. 152).

Since it was articulated 42 years ago, this thesis has gained empirical support (Wanous, 1992; Phillips, 1998; Fan & Wanous, 2008) although others have described "the met-expectations hypothesis as the discrepancy between what individuals encounter on the job and what they expected to encounter prior to organisational entry that influences their propensity to withdraw." (Irving & Meyer, 1995). In a revisit of the met expectations, Hom and et al. (1999) found that post entry experiences likely translate how RJP mediators influence attitudes. Consequently, 'coping strategies and perceived company caring and honesty should affect post entry experiences, while pre-entry expectations may shape, if not set, post entry job perceptions" (Hom et al. 1999 p. 105).

Since then, Taris et al. (2005) have described the met-expectations hypothesis as "the discrepancy between what people expect and what they encounter, to the extent that this discrepancy influences their affective work outcomes, such as job satisfaction and intention to leave" (Taris et al., 2005). It is common to perceive met expectations as the difference in perceptions of the work experiences before entering an organisation compared with their post-entry experiences. Gardner and Lambert (1993), in a longitudinal study carried out on the discrepancies between newcomers' expectations and their subsequent reality reinforced this definition. Their study assessed the expectations of students who had yet to graduate and assessed them again after they were employed two years later on (Gardner & Lambert, 1993). They found significant differences between expectations and reality when they were students and when they were employees (Gardner & Lambert, 1993). Their study found that the students anticipated having responsibility for a variety of task requiring a range of skills (Gardner & Lambert, 1993). They had not expected the sudden change in the amount of guidance, direction and evaluation received before graduation and after commencing work (Gardner & Lambert, 1993). They described their work as routine and restricted (Gardner & Lambert, 1993).

Met expectations have been used to describe a range of perceptions. Sutton and Griffin's (2004) list of these perceptions is presented in Figure 2. Pre-entry

expectations have been used to explain expectations before organisation entry. Studies have found that early experiences frequently do not live up to expectations (Meyer & Allen, 1988) and graduates in their early months of employment may find it hard-going (Arnold, 1985). Studies have shown that there is a high rate of turnover among graduates and that less than 50% remain with their first employer two years after graduation, with the average tenure only 11 months (Gardner & Lambert, 1993; Holton, 1995; Sturges & Guest, 2001; Wendlandt & Rochlen, 2008). Morley (2006) found that the first year of practice for newly qualified occupational therapists is a transforming year. The transition is complex and takes time and should be supported and mentored by experienced supervisors and clinicians (Tryssenaar, 1999; Morley, 2006).

Other researchers have found that graduates encountered no unmet expectations encountered in the early years of employment (Elfering et al., 2007). As this is an exception, their study may not be representative. As the respondents were vocational students, it is possible that their vocational training served its function in preparing them well for work. It was implied that this transition was not primarily experienced as a phase of stress and turmoil (Elfering et al., 2007).

In fact some of the experiences were found not to be as negative as the unmet expectations literature might lead one to expect (Nevel, 1988; Arnold, 1985; Arnold, 1986; Arnold, 1990). But recent studies by Jansen (2011) found that unmet expectations do influence actual turnover and intention to leave, and that in order to manage unmet expectations more successfully, companies need to address the job-related expectations of graduates (Jansen, 2011). Studies by Jusoh et al. (2011) shows that employers are not satisfying the met expectations of graduates. They found “all of the expectation gaps are statistically significant, and thus confirm the belief that the employers are not satisfying the graduates’ expectations” and “such a mismatch between what graduates perceive is important and what they experienced in the organization is expected” (Jusoh et al. 2011 p. 520).

2.3 *Newcomers* perceptions of turnover intentions

2.3.1 Intentions of Newcomers

As *Newcomers* have not started work, most turnover models will not apply to them. Most general turnover models in the extant literature are based on organisational commitment or job satisfaction, a combination of both, or with the addition of other determinants, such as expectations (Steel, 2002). As they have no experience of working in an organisation, they lack a framework for interpretation and against which they can base their experiences (Arnold, 1986). Although *Newcomers* may have little concept of organisational commitment, studies have found that the development of commitment is influenced by three stages: the pre-entry stage, early employment period work experiences, and the middle to late career (Mowday et al., 1982). It has also been found that during the pre-employment stage, individuals enter organisations with different levels of propensity to become committed (Mowday et al., 1982). Organisational commitment has been found to be significantly and consistently related to turnover (Porter & Steers, 1973; Currivan, 1999; Berry, 2010b; Jusoh et al., 2011; Morrow, 2011).

Most turnover models also emphasise individual differences and anticipation of future outcomes but some incorporate behavioural intentions in their core models (Mobley, 1977; Mobley et al., 1979; Price & Mueller, 1986). Research testing the utility of behavioural intentions as predictors of turnover has consistently shown them to be one of the best, if not the best, predictors of turnover behaviour (Steel & Ovalle, 1984; Carsten & Spector, 1987; Hom et al., 1992). The study of human behaviour has identified intention as an important antecedent of behaviour (Ajzen, 1985; Rogers, 1983; Triandis, 1980; Abraham, Sheeran, & Johnston, 1998, Abraham & Sheeran, 2003). Carsten and Spector (1987) found that "intention to quit is more likely to result in turnover when job opportunities are plentiful rather then when they are scarce". In all models, intention to quit was found to be the strongest indicator of employee turnover and to exert a strong negative influence on actual turnover (Price, 1981; Bluedorn, 1982a; Mueller & Price, 1989). Since Mobley (1977) incorporated it as one of the core models of behavioural intentions, turnover behaviour has been studied as intention to quit, which has been found to be the most accurate predictor of turnover (Steers & Mowday, 1979).

Behavioural intention seems to be the most appropriate model for studying *Newcomers'* TI as all other turnover models, which incorporate organisational commitment and job satisfaction with organisation influences, are not suitable. Research has repeatedly confirmed that intention is the antecedent to behaviour and that intention represents the single best predictor of turnover (Mobley, 1977; Mobley et al., 1978; Price & Mueller, 1986; Chen, 2010; Chen et al., 2011; Madera et al., 2012; Robinson et al., 2012; Malek, 2013). Behaviour has often been defined "as the individual's perceived likelihood that he or she will perform an act" (Warshaw & Davis, 1985; Davis & Warshaw, 1992); "as the performance of an action at a certain time in a certain context and with a certain purpose" (Hsing, 2002). Fishbein and Ajzen (2010) stated that any behaviour must be defined by four elements – action, target, context and time.

According to Steel and Orvalle (1984), "behavioural intentions have an expanding role in the field of turnover research and have become increasingly indispensable to empirical and theoretical work linking TI to psychological antecedents." Similarly, Parasuraman (1982) stated that behavioural intentions are the most immediate predictor of TI and refer to individuals' perceived probability of staying in the employing organisation or terminating employment. Behavioural intentions reflect the motivation to stay or leave. However, despite the extensive use of behavioural intentions (intention to quit or intention to stay) in most core turnover models, some scholars, however, have disagreed. Warshaw and Davis (1975) argued that there is a distinction between behavioural intentions and behavioural expectations and that most researchers have unknowingly equated the two. They reasoned that many researchers, including Fishbein and Ajzen, have repeatedly confused intentions with expectations in their theoretical and empirical research. They argued that the definitions of behavioural intentions and behavioural expectations are confused. The first is "the degree to which a person has formulated conscious plans to perform or not perform some specified behaviour" (Warshaw and Davis 1975 p. 215). The latter is:

> "the individual's estimation of the likelihood that he or she actually will perform some specified future behaviour taking into account factors that may influence their behaviour, irrespective of their intentions; these include habits and inclinations, personal restrictions and skills, and constraints, or resources might

> inhibit or facilitate the realisation of some specified behaviour" (Warshaw and Davis 1975 p. 215).

Other scholars, too, argued that intention does not always herald action (Abraham & Sheeran, 2003), but meta-analytic studies have shown that measures of intention account for between 20% and 30% of the variation in behaviour, which confirms the predictive utility of intentions (Sutton, 1988; Armitage & Conner, 2001; Sheeran, 2002). Sheeran (2002) reported that "across six studies of preventive health-related behaviour, the median percentage of intenders who did not act on their intention was 47% compared to only 7% who did not intend to act but subsequently did" (Sheeran, 2002). This gap between intention and behaviour underlines the importance of volitional processes responsible for the enactment of intentions (Abraham et al., 1999). It focuses attention on cognitions that may moderate the intention–behaviour relationship, rendering intention more predictive of future behaviour (Abraham & Sheeran, 2003).

However, according to Fishbein and Ajzen (2010), the most important prerequisite for predictive validity is the measure of intention, which must be compatible with the behavioural criterion in its level of generality or specificity and the principle of compatibility. "An intention is compatible with a behavior if both are measured at the same level of generality of specificity – that is, if the measure of intention must involves exactly the same action, target, context and time elements as the measure of behavior" (Fishbein and Ajzen 2010 p. 44).

> "According to this principle, attitudes and behavior correlate with each other to the extent that they refer to the same action, target, context, and time elements. Measures of behavior typically involve a specific action (e.g., making friends) and target (e.g., a gay person) and often also a specific context (e.g., at school) and time frame (e.g., in the next six months)" (Ajzen 2012 p. 15).

Intention is also an indication of a person's readiness to perform a behaviour. "Behavioral intentions are indications of a person's readiness to perform a behavior" (Fishbein and Ajzen 2010 p. 39). "It is a construct that incorporates such concepts as willingness, behavioural expectation and trying" (Fishbein & Ajzen, 2010, p. 43). "Intentions are likely to reflect past experience and are often assumed to correlate better with a retrospective measure of behaviour than with a prospective measure

obtained at a future point in time" (Fishbein & Ajzen, 2010, p. 49). Abraham and Sheeran (2003) present intentions "as a person's decision to act and reflect the effort that a person is likely to exert in order to achieve a goal or perform a behavior" (Abraham & Sheeran, 2003). Intentions can also be the degree to which a person has formulated conscious plans to perform or not to perform a behaviour (Warshaw & Davis, 1985; Davis & Warshaw, 1992). Ajzen (1991), on the other hand, defined intention as a person's subjective probability of performing a behaviour, reflecting the willingness of an individual to engage in a certain behaviour. According to Fishbein and Ajzen (2010), underlying the fundamental level of trying to understand why people do or do not perform a given behaviour, is a dichotomous behavioural measure, which is the most suitable way to answer questions of this kind and is a very common form of behavioural criterion in empirical investigations (Fishbein and Ajzen 2010 p.43).

Lambert (2001) claimed that using intention to quit as the final endogenous variable is appropriate as intention to quit is a more important variable than the actual act of turnover; that, if the direct and indirect influences of variables on intention to quit are understood, the employer can institute changes to affect this intention (Dalessio et al., 1986). In most turnover studies, intention to quit has been the final determinant on turnover (Hom & Griffeth, 1995). Intentions can become the single best predictor of behaviour (Hom et al., 1979). The popularity and success of using direct measures to predict social behaviours from behavioural intentions has prompted some turnover researchers to use it to predict turnover behaviour (Van Breukelen et al., 2004; van Hooft et al., 2004a). In fact, "direct measures of perceived behavioral control are designed to capture the perceived facilitating and inhibiting effects of all accessible control factors" (Ajzen 2002 p. 671). The use of TI as the most immediate and accurate predictor of actual turnover, and strong support that behavioural intentions are the most important immediate antecedents of behaviour, can be seen in many studies (Mobley, 1977; Hom et al., 1984; Steel & Ovalle, 1984) and has been elaborated in studies using the TRA (Fishbein & Ajzen, 1975) and the TPB (Ajzen, 1991) respectively. Studies have supported the view that intentions are a better predictor of turnover than job satisfaction (Mobley et al., 1978; Steel & Ovalle, 1984; Jaros, 1997; Murrells et al., 2008; Chen et al., 2011; Laschiner, 2012) and thus it is likely that *Newcomers'* TI will lead to actual turnover behaviour.

2.3.2 Predictors of turnover intentions

In looking for the predictors of turnover intentions that may affect *Newcomers*, the extant literature provided little guidance on studies of *Newcomers* that do not have previous work experience and have not joined organisations. However, there are studies on newcomers who have already joined an organisation. These can be examined for links that will affect *Newcomers* who have yet to join an organisation. Mobley's turnover model (Mobley, 1977; Mobley et al., 1979) has been used extensively to study the predictors of turnover (Spencer et al., 1983; Bannister & Griffeth, 1986; Dalessio et al., 1986; Hom et al., 1992; Morrell et al., 2004; Albattat et al., 2013). Mobley's model has been firmly established and since used extensively by turnover researchers (Hom et al., 2012; Albattat et al., 2013; Mayers, 2013; Shipp et al., 2014; Wittmer et al., 2014) to commonly show the determinants of turnover from organisational, individual and economic viewpoint (Miller et al., 1979; Baysinger & Mobley, 1982; Bluedorn, 1982b; Michaels & Spector, 1982; Hom et al., 1984; Dalessio et al., 1986; Lee & Rwigema, 2005; Albattat et al., 2013; Wittmer et al., 2014). Meta-analytical SEM test has also validated and found support for Mobley's turnover model (Hom et al., 1992). Therefore, the determinants of turnover as described in Mobley's turnover model like job satisfaction, job-related perceptions, age, education, economic labour market, and intention to quit is sufficient to be used to guide the research study since the research study is not evaluating or creating any turnover models.

Age and career have been found to be the most common determinants that will affect the graduates' decision on turnover (Hellriegel & White, 1973; Ng & Feldman, 2009) with training, job satisfaction, a job related to their studies, salary, economic situations as other determinants (Arnold, 1985; Allen & Meyer, 1990; Arnold & Davey, 1994a; Arnold & Davey, 1994c; Ali, 2009; Holtom et al., 2013). Research into graduate careers has consistently found that the important factors and reasons why graduates joined an organisation are the training offered, the long-term career prospects, interesting work with less important factors being pay and benefits, early responsibilities, nature of the people working in the organisation and work location (Arnold & Davey, 1994a). Graduates are likely to choose their first job on the basis of job characteristics, training and career prospects rather than salary or other extrinsic factors initially (Keenan & Newton, 1986; Brennan & McGeevor, 1988; Keenan &

Scott, 1988; Hawkins & Barclay, 1990; Arnold & Davey, 1992, 1999). Keenan and Scott (1988) also found that key reasons final year graduates apply to a company were the company's reputation for providing good career prospects and provide good training facilities for graduates.

Training has been considered to be an important component in the socialisation of newcomers (Feldman, 1989). Not surprisingly, training was found to be one key basis for newcomers when choosing their first post-graduation jobs (Arnold & Davey, 1992). For technical workers, ongoing skill development is important. Their ability to keep up with new technology and shifting skill requirements affects their value in the labour market (Hall & Mirvis, 1996; Finegold et al., 2002). Frequently, graduates choose big organisations over small organisations as they feel that bigger organisations have better training (Arnold et al., 2002).

Studies on Gen Y engineers show the predictors to be value learning, mentorship, and involvement in engineering design, work-life balance in addition to training and development (Vieira, 2010). In addition, they prefer jobs that are related to their studies especially to gain practical engineering experience on actual engineering sites (Vieira, 2010).

Another determinant that may affect TI has been found to be the impact of financial crisis on the labour market. In 2007, the United States experienced a financial melt-down with a contraction in wealth, increase in risk spreads, and deterioration in credit-market functioning (Reinhart & Rogoff, 2008), which sparked off a global financial crisis. The impact of financial crisis, economic stagnation, recession or depression has been known to have an impact on turnover and early studies by Hulin et al. (1985). They reported that "during times of economic stagnation, recession, or depression, when the expected utility of possible alternative jobs is low, there is a resulting increase in job satisfaction with any specific job and the utility of the alternatives forgone in order to hold a specific job are decreased" (Hulin et al. 1985 p. 242). However, data to support the expected effects of economic conditions at the individual level are scarce and even those that are available are provocative but not conclusive (Hulin et al., 1985). Recent literature has also found scarce information on this. Therefore, understanding ***Newcomers***' TI during a financial crisis is important and whether ***Newcomers*** will change jobs less frequently during a financial crisis as they may perceived that the available alternatives to one's present employment is limited (Wang et al., 2010).

2.4 Predicting *Newcomers*' turnover intentions

2.4.1 Costs of voluntary turnover

Voluntary turnover has been found to be costly to organisations. The total costs associated with actual turnover are staggering, with an estimated costs in the United States of America at US$160 billion (Hall, 2005) and US$728 million in Australia (Brewer et al., 2012) annually. Studies on the costs of turnover have identified two main costs; separation and replacement costs (Fitz-enz, 2002; Heneman & Judge, 2006; Allen et al., 2010).

According to researchers, separation costs (Table 2) like tangible costs are HR staff time, Manager's time, accrued paid time off and temporary coverage while intangible costs results from loss of workforce diversity, diminished quality while job is unfilled, loss of organisational memory, loss of clients, competition from quitter if he/she opens a new venture, contagion which encourages other employees to leave, teamwork disruptions and loss of seasoned mentors (Fitz-enz, 2002; Heneman & Judge, 2006; Allen et al., 2010).

At the same time, replacement costs (Table 3) can arise from general costs, like HR staff time and hiring manager time, recruitment costs, like advertising, employment agency fees, hiring inducements, referral bonuses, selection costs, like selection measure expenses, application expenses and orientation and training costs like orientation program time and resources, formal and informal training, socialisation and loss of productivity (Fitz-enz, 2002; Heneman & Judge, 2006; Allen et al., 2010). The estimated replacement costs can range from 90% to 200% of annual pay (Allen et al., 2010).

When added to figures from other countries, the costs of turnover could reach a staggering trillion of dollars annually. Added to the fact that *Newcomers* are constantly and regularly joining organisations for the first time each year, the costs is tremendous.

Turnover not only has serious consequences on organisational performance; like the loss of star performers (Trevor et al., 1997), investments of money, time, training and resources are written off (Nicholson & Arnold, 1991), it also have consequences for organisation-level financial outcomes (Glebbeek & Bax, 2004; Lee & Rwigema, 2005; Shaw & Gupta, 2007). Organisation performance may suffer from replacement, which may not be a better performer and organization citizen, may not enhance

Table 2 Voluntary turnover costs – separation costs

Separation Costs
Tangible
HR staff time (e.g., salary, benefits, exit interview)
Manager's time (e.g. salary benefits, retention attempts, exit interview)
Accrued paid time off (e.g., vacation, sick pay)
Temporary coverage (e.g., temporary employee, overtime for current employees)
Intangible
Loss of workforce diversity
Diminished quality while job is unfilled
Loss of organizational memory
Loss of clients
Competition from quitter if he/she opens a new venture
Contagion – other employees decide to leave
Teamwork disruptions
Loss of seasoned mentors

Source: (Fitz-enz, 2002, Henemand & Judge, 2006, and Allen et al., 2010)

Table 3 Voluntary turnover costs – replacement costs

Replacement Costs
General Costs
HR staff time (e.g., benefits enrollment, recruitment, selection, orientation)
Hiring manager time (e.g., input on new hire decision, orientation, training)
Recruitment
Advertising
Employment agency fees
Hiring inducements (e.g., bonus, relocation, perks)
Referral bonuses
Selection
Selection measure expenses (e.g., costs of RJP, work samples, selection tests)
Application expenses
Orientation and Training
Orientation program time and resources
Formal and informal training (time, materials, equipment, mentoring)
Socialization (e.g., time of other employees, travel)
Productivity loss (e.g., loss of production until replacement is fully proficient)

Source: (Fitz-enz, 2002, Henemand & Judge, 2006, and Allen et al., 2010)

workplace diversity, and may disrupt the work unit (Fitz-enz, 2002; Heneman & Judge, 2006; Allen et al., 2010).

In addition, new employee recruitment is costly. Labour market studies showed that early turnover of *Newcomers* is costly; there are high costs involved in recruitment and replacement of new employees (Dalton & Todor, 1982; Cascio, 2000; Kammeyer-Mueller & Wanberg, 2003; Boushey & Glynn, 2012). Time and money is invested in recruiting and training them in preparation for their role in the organisation and if they leave, the organisations will be unable receive compensation, much less to recover the returns on these investment (Griffeth & Hom, 2001; Hall, 2005).

However, not all turnovers are bad for the organisations. When an employee is retained, the benefits can be seen in Table 3. Table 3 shows some of the benefits when an employee is retained. The impact to the organisations can be from savings achieved by not replacing the leaver, infusion of new skills or creativity into the organisations, creates transfer or promotion opportunity for others, and cost savings from hiring a replacement with less experience or seniority (Fitz-enz, 2002; Heneman & Judge, 2006; Allen et al., 2010).

Predicting turnover intentions is important as it can influence and results in managerial and organisational performances (Hancock et al., 2013; Park & Shaw, 2013) and "it has [been] reported that the most common assumption regarding the relationship between turnover rates and organizational performance is that increasing turnover rates should be dysfunctional in the sense of being associated with decrements in organizational performance" (Hancock et al., 2013). Therefore, Newcomers' turnover intentions

Table 4 Voluntary turnover benefits

Turnover Benefits
Savings may be achieved by not replacing leaver
There is an infusion of new skills or creativity into the organization
Vacancy creates transfer or promotion opportunity for others
Cost savings may be achieved by hiring a replacement with less experience or seniority
Replacement could be a better performer and organization citizen
Replacement could enhance workplace diversity
Departure may offer the opportunity to reorganize the work unit

Source: (Fitz-enz, 2002, Henemand & Judge, 2006, and Allen et al., 2010)

2.4.2 Theory of reasoned action vs theory of planned behaviour

The extant literature shows that perceptions and beliefs are considered as part of human action and the TRA and the TPB are two influential and popular conceptual frameworks commonly used in predicting human behaviour (Kaiser & Schultz, 2009; Ajzen, 2012; Hobbs et al., 2013; Moan, 2013; Ajzen, 2014).

The TRA (1963, 1967, 1980; Fishbein & Ajzen, 1975) (Figure 3) has been used for the understanding and predicting behaviour in the last few decades (Trafimow et al., 2002; Reychav & Weisberg, 2010) and reviews suggest that the theory has considerable predictive power (Ajzen & Fishbein, 1980; Sheppard et al., 1988). The TRA assumes that behaviour is determined by behavioural intention, which in turn, can be determined through their behavioural beliefs, attitude and subjective norm. Trafimow and Duran (1998) defined these as follows:

> "An attitude is a person's evaluation of the behaviour, for example is it good or bad and a subjective norm is a person's opinion about what most others who are important to her/him think she/he should do." (Trafimow & Duran, 1998)

According to Fishbein and Ajzen (1975, 1977, 1980; Fishbein 1980), "a behavioural intention measure will predict the performance of any voluntary act, unless intent changes prior to performance or unless the intention measure does not correspond to the behavioural criterion in terms of action, target, context, timeframe and/or specificity. Intentions have been predicted largely by looking at human

behaviour and research has found that the best single predictor on an individual's behaviour is a measure of his intention to perform that behaviour" (Fishbein and Ajzen, 1975, p. 369).

Similarly, the TPB (Figure 4) has also emerged as one of the most influential and popular conceptual frameworks for the study of human action in the field of social psychology (Ajzen, 2002; Kaiser & Schultz, 2009; Trafimow, 2009; Rise et al., 2010; Ajzen, 2011; Calisir et al., 2011; Hardeman et al., 2011; Manstead, 2011; McEachan et al., 2011; Norman, 2011; Pearson et al., 2011; Ajzen, 2012; Elliott & Ainsworth, 2012; Rhodes & Clinkinbeard, 2013), as it has been shown to be a useful predictor of behaviours in health (Albarracín et al., 2005; de Groot & Steg, 2007; Colémont & Van den Broucke, 2008), turnover (Van Breukelen et al., 2004), sun-related behaviour in Swedish adults (Bränström et al., 2004), occupational intentions (Albarracín et al., 2005; Arnold et al., 2006), consumer behaviour (Kang et al., 2006), entrepreneur intentions (Moriano et al., 2012), job performance (Zimmerman, 2008), evaluation of a tertiary program (Li et al., 2009), healthy eating (Lo et al., 2012), search for health information (Austvoll-Dahlgren et al., 2012), online shopping behaviour (Hsieh & Liao, 2011), understanding parent-child relationships (Resich, 2010), and breast self-examination (Norman & Hoyle, 2004).

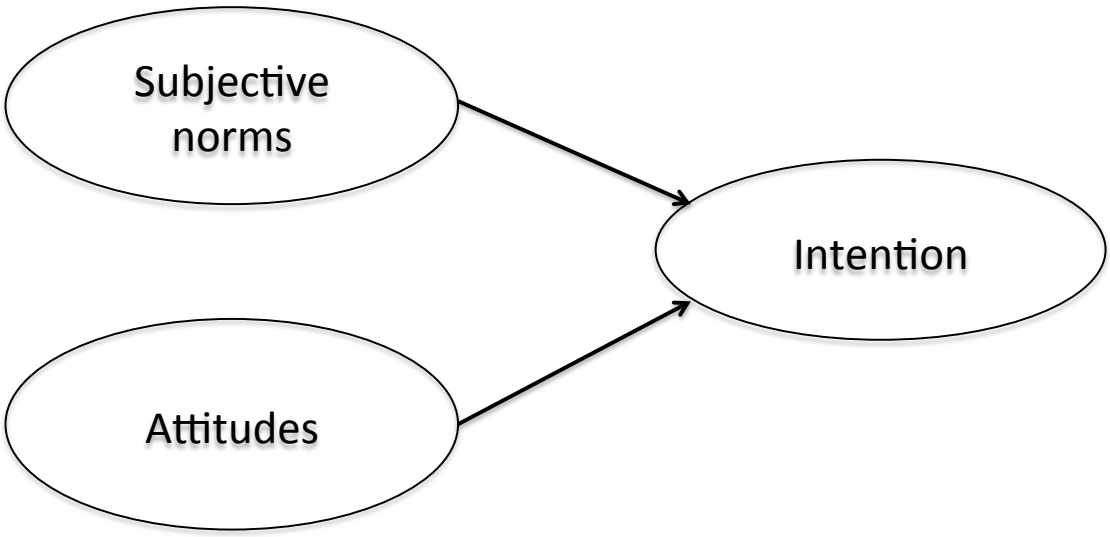


Figure 3 The theory of reasoned action (Hankins 2000 p. 154)

A critical difference between the TRA and the TPB is the strength of volitional control. While the TRA may be adequate for predicting behaviour that is entirely volitional, it may not be accurate enough to evaluate and predict behaviours that fall in the non-volitional range (Ajzen, 1991). Therefore, to overcome this limitation in the TRA, which was found to predict only voluntary behaviour, PBC, which is the extent to which a person believes the behaviour is under his control or a person's belief as to how easy or difficult it would be to perform the behaviour (de Groot & Steg, 2007), perceived behavioural control was added as an additional construct to the TRA (Ajzen & Madden, 1986) (Figure 4) and became known as the TPB (Ajzen, 1991).

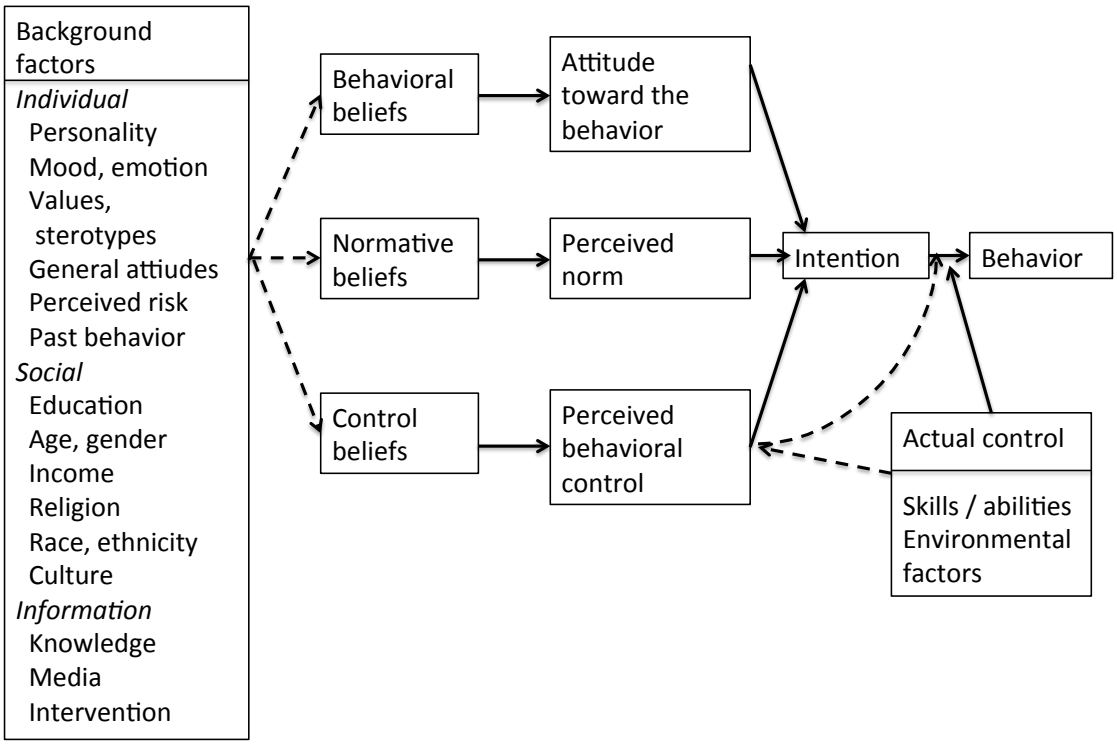


Figure 4 The theory of planned behaviour (Fishbein & Ajzen, 2010)

The TPB is, therefore, an extension to the TRA (Fishbein & Ajzen, 1975) that "allows prediction of behaviours over which people do not have complete volitional control" (Notani, 1998). The added construct of PBC allows non-volitional control to be measured and to a certain extent, allows ease and confidence to be measured when carrying out the intentions (Ajzen, 2002). In fact, meta-analyses showed that the prediction of behaviour is enhanced when PBC is added to the TRA as an additional

predictor variable (Ajzen, 1991; Godin & Kok, 1996; Conner & Armitage, 1998; Armitage & Conner, 1999; Sheeran et al., 1999). Ajzen presented "two possible versions of the theory of planned behavior" (Ajzen and Madden 1986 p. 457). The first model, assumes that: "perceived behavioral control has motivational implications for intentions. People who believe that they have neither the resources nor the opportunities to perform a certain behavior are unlikely to form strong behavioral intentions to engage in it even if they hold favorable attitudes toward the behavior and believe that important others would approve of their performing the behavior. We would thus expect an association between perceived behavioral control and intention that is not mediated by attitude and subjective norm" (Ajzen and Madden 1986 p. 458).

The second model proposed that PBC might have a direct effect on behaviour that is unmediated by behavioural intention and presented two lines of argument to support this proposal (Ajzen, 1985, 1988). First, controlling for intention, high levels of PBC are likely to lead to successful behavioural performance because individuals with high levels of PBC are more likely to persist in the face of obstacles to the behaviour. Second, PBC may be taken as a proxy measure for actual control (Ajzen & Madden, 1986). "However, because many behaviors pose difficulties of execution that may limit volitional control, it is useful to consider perceived behavioral control in addition to intention. To the extent that people are realistic in their judgments of a behavior's difficulty, a measure of perceived behavioral control can serve as a proxy for actual control and contribute to the prediction of the behavior in question" (Ajzen 2002 p. 665). The nature of PBC generally refers to "people's expectations regarding the degree to which they are capable of performing a given behaviour and the extent to which they have the adequate resources and whether they believe they can overcome whatever obstacles they may encounter and whether these resources and obstacles are internal or external to the person is immaterial" (Ajzen, 2002 p. 677). The theory of planned behaviour (TPB) "is only concerned with the extent to which these are believed to be present and are perceived to facilitate or impede performance of the behaviour under consideration" (Ajzen, 2002 p. 677). Thus, PBC can also be "defined as a perceived subjective degree of control over performance of the behaviour itself or alternatively it can be defined as being concerned with the perceived ability to perform a behaviour or sequence of behaviours" (Ajzen, 2002 p. 668). PBC can also be defined "people's perceptions of the degree to which they are capable of, or have control over,

performing a given behaviour" (Fishbein and Azjen 2010 p. 54). In addition, Fishbein and Azjen states that "perceived behavioral control is assumed to take into account the availabity of information, skills, opportunities, and other resources required to perform the behavior as well as possible barriers or obstacles that may have to be overcome" (Fishbein and Azjen 2010 p. 155). And when "attitudes and perception of social pressure support performance of the behaviour, the greater the perceived behavioural control, the stronger should be the intention to perform the behaviour in question" (Fishbein and Azjen 2010 p. 155). To the extent that "if people believe that they do not have control over performance of a behaviour, they may not form strong behavioural intentions to perform it even if they positive attitudes and perceive strong social pressure to do so" (Fishbein and Azjen 2010 p. 155).

According to Fishbein and Ajzen, the conceptualisation of perceived behavioural control (PBC) "owes considerable debt to Bandura's (1977, 1989, 1997) concept of self-efficacy, which carries the major explanatory burden in his social cognitive theory" (Fishbein and Azjen 2010 p. 155). Bandura states that self-efficacy "should be measured in terms of particularized judgments of capability that may vary across realms of activity, under different levels of task demand within a given activity domain, and under different situational circumstances" (Bandura 1997 p. 42). "PBC may act as a proxy measure for actual control, and behaviours that are subject to environmental constraints may be more difficult to perform" (Ajzen, 1985). Thus, "to the extent that perceptions of control over performance of a behaviour are accurate, perceived behavioural control (PBC) will directly predict behaviour" (Ajzen & Madden, 1986).

Researchers have found that the TPB is a better predictive power of behaviour than the TRA (Ajzen, 1991; Pearson et al., 2011). "The construct of perceived behavioural control was added in an attempt to deal with situations in which people may lack complete volitional control over the behaviour of interest" (Ajzen 2002 p. 666). However, "because many behaviors pose difficulties of execution that may limit volitional control, it is useful to consider perceived behavioral control in addition to intention. To the extent that people are realistic in their judgments of a behavior's difficulty, a measure of perceived behavioral control can serve as a proxy for actual control and contribute to the prediction of the behavior in question" (Ajzen 2002 p. 665). *Newcomers'* intention to quit their first job can be considered as not under completely under their volitional control as the lack of control not only resides in them

but is also dependent on other individuals like the interviewer, recruiters and the organisation. The concept of PBC has "accommodate[d] the nonvolitional elements inherent, at least potentially, in all behaviours and even when the behaviour is not particularly realistic, PBC is still likely to affect intentions" (Ajzen 2002 p. 667). At the same time when everything is equal, a high level of perceived control should strengthen a person's intention to perform the behaviour and increase the effort and perseverance (Ajzen 2002 p. 667). At the same time when everything is equal, a person's effort and perseverance to perform the behaviour will increase and strength when there is a high level of perceived control (Ajzen 2002 p. 667).

2.4.3 Problems associated with the theory of planned behaviour

Although support has been found for the strong predictive validity of the TPB in terms of the percentage of variance explained in behaviour and intentions (Sutton, 1988), "several authors have commented on problems of conceptualization and operationalization with the PBC construct (e.g. Beale & Manstead, 1991; Chan & Fishbein, 1993; Sparks, 1994; Terry, 1993; Terry & O'Leary, 1995)" (Sparks et al. 1997 p. 420). Ajzen himself commented that there have been problems in "the nature and measurement of PBC" (Ajzen 2002 p. 666). Others have further commented that "despite the theoretical and practical importance of a perceived behavioural control construct, there remains ambiguity regarding the precise meaning and measurement of items. A central issue is that items used to measure perceived behavioural control often load on two factors, one composed of confidence-framed items and the other of control-framed items" (Yzer 2012 p. 101). "Perceived behavioural control has typically been assessed using two- or three-item scales (e.g. Azjen & Madden, 1986) that have often elicited poor internal reliability (e.g. Beale & Manstead, 1981; Wankel & Mummery, 1993)" (Kidwell and Jewell 2003 p. 626), affecting the proper measurement of the TPB (Manstead & van Eekelen, 1998; Hankins et al., 2000; Ajzen, 2002; Kidwell & Jewell, 2003; Ajzen, 2011) and which raised the issues on the conceptual clarity of the PBC construct (Terry & O'Leary, 1995; Manstead & van Eekelen, 1998; Armitage & Conner, 1999; Ajzen, 2002; Norman & Hoyle, 2004). For example, studies investigating turnover behaviour among Dutch naval professionals found no interactions between PBC and intentions (Van Breukelen et al., 2004). "When we investigated this interaction by means of logistic regression, we found no significant results" (Breukelen et al. 2004 p. 911). Other researchers too reported that

they found independent predictive effects of self-efficacy but not of PBC on behavioural intentions (Sparks, 1994; White et al., 1994). This led Spartks et al. (1994) to conclude that despite that PBC was found to be a significant predictive influence on condom use with new partners, a distinction need to be made in the TPB between PBC and self-efficacy (Sparks et al. 1994 p. 421).

It becomes clear that the construct PBC needs conceptual clarification on whether it is multi-dimensional and also whether SE and PBC are similar or distinct. PBC also needs to be measured reliably.

2.4.4 Hierarchical model of PBC

Early researchers addressed the weaknesses in the operationalisation of PBC by suggesting a dimensionalisation of the single PBC construct into dichotomised components of internal and external control (Conner & Armitage, 1998; Manstead & van Eekelen, 1998) and recognising that PBC is indeed a multi-faceted dimension (Ajzen, 2002; Trafimow et al., 2002; Kidwell & Jewell, 2003; Kraft et al., 2005). Scholars have been continually tried to operationalise and understand PBC better (Bandura, 1977; Sparks & Shepherd, 1992; McCaul et al., 1993; Manstead & van Eekelen, 1998; Ajzen, 2002; Trafimow et al., 2002; Kidwell & Jewell, 2003; Kraft et al., 2005). Studies looked at the constructs of SE and PC (McCaul et al., 1993). The main focus of Bandura's studies was SE (Bandura, 1997). Studies by Kraft et al. (2005) showed that PBC comprises two separate but interrelated constructs; namely, SE and controllability (Kraft et al., 2005). Trafimow et al. (2002) argued that in addition to the attitude and subjective norm constructs suggested by the TRA, and instead of Ajzen's PBC construct, PC and perceived difficulty should be added to the TPB as proximal determinants of behavioural intentions and behaviours. They claimed that there are several advantages to making this change; the theory is more in accordance with the data and the distinction between PC and perceived difficulty has a great deal of heuristic value, enabling a large number of testable predictions, many of which have already been confirmed by experiment (Trafimow et al., 2002). "The distinction would increase the reliability of measurement and instead of measuring PBC in an unreliable way, researchers could measure PC and perceived difficulty in very reliable ways" (Sparks et al., 1997).

Studies have recommended more research to understand, refine, and elaborate the PBC construct (Sparks & Shepherd, 1992; Manstead & van Eekelen, 1998; Van Breukelen et al., 2004). This suggests that support for the TPB depends heavily on the nature, formulation, and adequacy of the PBC construct (Kidwell & Jewell, 2003). As such, there is a need to assess the relationship of underlying control beliefs to perceptions of control measures in PBC. In order for SE to be distinct from PBC, it is necessary to show "the differences in their antecedent beliefs and to determine whether current conceptualisations of control beliefs are sufficient to capture this multi-dimensional facet" (Conner & Armitage, 1998; Manstead & van Eekelen, 1998). In fact, some researchers feel that it is possible to make a distinction between perceptions of one's ability to perform a behaviour (SE) and perceptions of control over a behaviour (PC). This distinction can be seen in Ajzen's (1991) writings on the ways in which PBC may have a direct effect on behaviour. Ajzen initially state that " .. perceived behavioral control and self-efficacy are quite similar: Both are concerned with perceived ability to perform a behavior (or sequence of behaviors)" (Ajzen 2002) and "saw PBC as equivalent to SE, but later he [Ajzen] later moved in a direction that implied that PBC was an indication of the perception of how easy or difficult it would be to perform a behavior" (Kraft et al. 2005 p. 493).

Azjen (2002) proposed a hierarchical model of PBC (Figure 5) in which, to illustrate the relationship between perceived SE and PC. He hoped that this model would be able to measure PBC more accurately and overcome the problems that he felt were present in the TPB. According to Ajzen, a hierarchical model can describe the higher order concept of PBC by showing the relationships among perceived self-efficacy, perceived controllability, and perceived behavioural control, with self-efficacy and controllability being measured separately and by different indicators (Figure 5) (Ajzen 2002 p. 678).

In fact, the empirical case for distinguishing between SE and PC has been examined in a number of studies (Ajzen, 2002). Studies that have attempted to determine whether or not PBC and SE make different contributions to the prediction of intention and behaviour have found that "while there is some degree of overlap between the constructs, which are both, deal with control, the perceived ease or difficulty of performing a behaviour (PBC), and the belief that one is capable of performing a behaviour (SE) are conceptually different" (Manstead & van Eekelen, 1998).

Some scholars have defined SE as "the person's beliefs about his or her capabilities to exercise control over their own level of functioning and over events that affect their lives" (Bandura, 1997) or "individuals' judgements regarding their capability to successfully perform specific tasks and behaviours (Bandura, 1986). Ajzen defined it "as dealing largely with the ease or difficulty of performing a behaviour" (Ajzen, 2002 pp. 672, 680). Ajzen and Madden (1986), considered Bandura's (1977) concept of SE beliefs to be the most similar to the use of PBC (Ajzen & Madden, 1986). From this perspective, "SE affects one's goals and behaviours and is influenced by one's actions and conditions in the environment" (Schunk & Meece, 2006). "Beliefs about SE determine perception of environmental opportunities and impediments" (Bandura, 2006a). They affect choice of activities, how much effort is expended on an activity, and how long people will persevere when confronting obstacles (Pajares, 1997). Studies have shown that when "self-efficacy is measured at career entry, it has a positive impact on salary and status three years later and a positive impact on salary change and career satisfaction seven years later" (Abele & Spurk, 2009). Self-efficacy has been "found to negatively related to newcomer's entry anxiety and positively related to job attitudes and behaviours (Bauer et al. 2007: Saks, 1994, 1995)" (Saks and Gruman 2011 p. 389). According to Saks and Gruman (2011), "self-efficacy is important for engagement. When individuals have greater confidence in their abilities they are more likely to engage themselves in their role" (Saks and Gruman 2011 p. 389).

Perceived control (PC) is part of the multi-dimensionality of PBC. Ajzen claimed that "the extent to which performance is perceived is up to the actor" (Ajzen, 2002 p. 680). Conner & Armitage (1998) described control beliefs as "the perception of factors likely to facilitate or inhibit the performance of the behaviour commonly referred to as control beliefs. These factors can include internal controls (information, personal deficiencies, skills, abilities, emotions) and external control factors (opportunities, dependence on others and barriers)" (Conner & Armitage, 1998). They found that in practice, it was very difficult to gain an objective measure of the degree to which a behaviour is actually under a person's voluntary control, the extent to which a person may strongly intend to perform a behaviour and yet still not perform it. Barriers to actually performing the behaviour may be a lack of ability, external constraints or other variables. Or, positively, "they may perceive that they have access to the necessary resources and that there are opportunities or a lack of obstacles to

performing the behaviour" (Ajzen, 1988). Meta-analysis showed that, on average, perceived difficulties were more important (White et al., 1994; Terry & O'Leary, 1995). If PC and perceived difficulty are measured together, it will be easier to determine exactly what is controlling the targeted behaviours, and the relevance of the constructs.

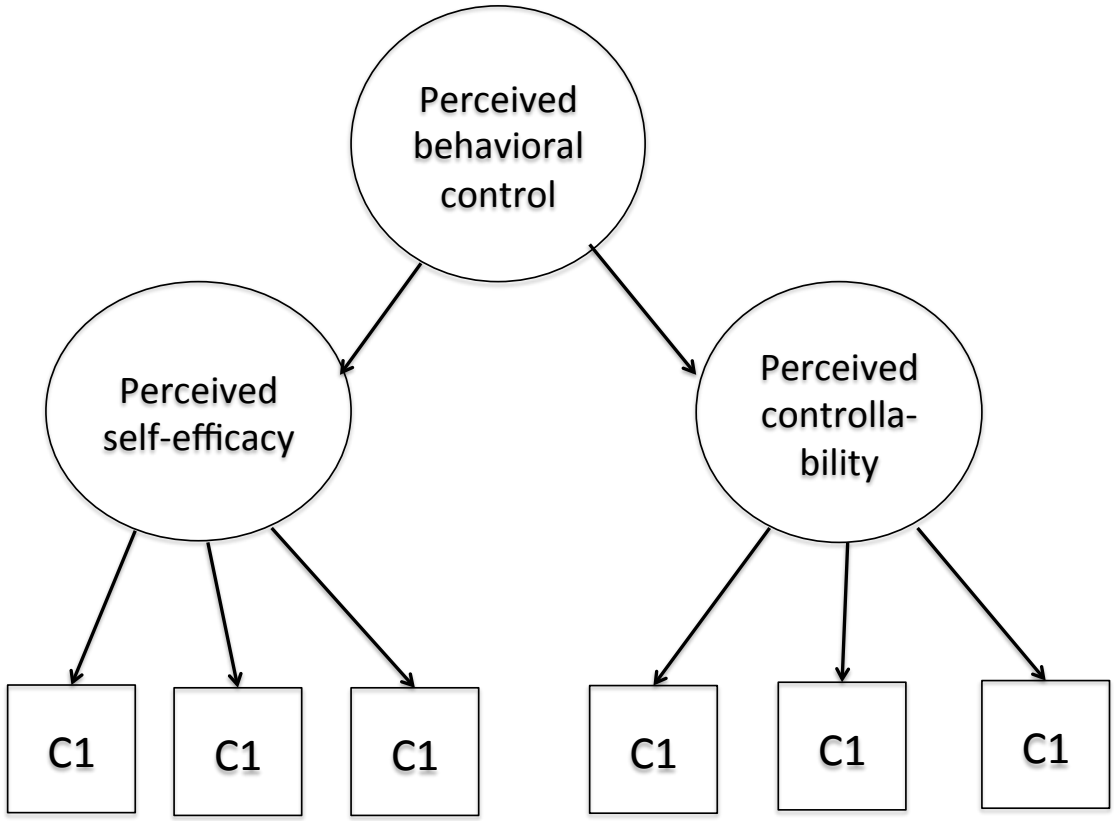


Figure 5 The hierarchical model of PBC (Ajzen 2002 p. 679)

2.4.5 Final choice of theory

The extant literature has shown substantially that intentions can be measured by applying the TPB to many disciplines in health (Albarracín et al., 2005; de Groot & Steg, 2007; Colémont & Van den Broucke, 2008), occupational intentions (Albarracín et al., 2005; Arnold et al., 2006), and consumer behaviour (Kang et al., 2006), but few scholars have applied TPB to the study of turnover.

The TPB has been found to be the most appropriate theory for use in the study of *Newcomers'* TI, as the research literature shows that they may lack the volitional control to determine when they want to quit. It is appropriate to use the TPB to find

out whether *Newcomers* perceive that their turnover behaviour is under their control or whether they believe it is easy or difficult to perform the behaviour (de Groot & Steg, 2007). The literature has shown that there may be some problems associated with using TPB and the problems lie in its nature and measurement, and that more research is needed to understand, refine, and elaborate the PBC construct (Sparks & Shepherd, 1992; Manstead & van Eekelen, 1998; Van Breukelen et al., 2004). As support for the TPB depends heavily on the "nature, formulation, and adequacy of the PBC construct employed in a study (Notani, 1998, p. 254)" (Kidwell & Jewell, 2003), there is a need to assess the relationship of underlying control beliefs of control measures in PBC. Also, in order for SE to be distinct from PBC, it is necessary to show "the differences in their antecedent beliefs and to determine whether or not current conceptualisations of control beliefs are adequate enough to capture this multi-dimensional facet" (Conner & Armitage, 1998; Manstead & van Eekelen, 1998).

2.5 Research conceptual framework

The literature review has revealed some gaps in the understanding of *Newcomers* joining an organisation. Although much is known about newcomers during organisation membership and socialisation, little is known about *Newcomers* before they join an organisation and it remains to be seen whether *Newcomers* have pre-entry expectations in the absence of socialisation and whether their TI can be predicted. The proposed research conceptual framework is shown in Figure 6.

It has been found that *Newcomers*' expectations have a significant impact on their subsequent decision to stay or leave an organisation. Hence, research question 1 (RQ1) seeks to understand and provide clarity on *Newcomers*' pre-entry expectation.

RQ1 Do graduating students, as *Newcomers* from tertiary institutions embarking on their first job, have pre-entry expectations about turnover intention to quit?

If *Newcomers* have pre-entry expectations before they join organisations, and if these pre-entry expectations are not met upon joining organisations, might this prompt them to quit their job? Hence, research question (RQ2) seeks to understand whether or not *Newcomers*' TI can be predicted through their pre-entry expectations.

RQ2 Can *Newcomers*' turnover intention to quit be predicted?

If *Newcomers*' turnover intention to quit can be predicted, the next question is, do they have control over them? If *Newcomers'* control over their intention to quit is strong, then it would answer why *Newcomers* joining organisations leave their jobs in the early years of their career.

RQ3 Do *Newcomers* perceive they have control over their turnover intentions to quit?

To answer the research questions, a conceptual framework and hypotheses testing are presented below (see Figures 6 and 7), based on this literature review. Underlying the whole research paradigm is the question of whether or not *Newcomers'* TI can be predicted. The literature review has shown that the TPB has been used to predict TI (Van Breukelen et al., 2004) and can be used in this research study to predict *Newcomers*' TI, as the TPB is more likely to be more appropriate when behaviour or intentions are non-volitional.

Hence, hypotheses 1, 2, and 3 will seek to understand if *Newcomers*' TI can be predicted through TPB and will answer RQ1. The three basic determinants of TPB have been found to be attitudes, SN and PBC. Therefore, using TPB (Ajzen 1991), the following hypotheses were developed.

Hypothesis 1: *Newcomers*' attitudes have a positive effect on turnover intentions.
Hypothesis 2: *Newcomers*' subjective norms have a positive effect on turnover intentions.
Hypothesis 3: *Newcomers*' perceived behavioural control has a positive effect on turnover intentions.

The literature review has shown that TPB has not always been successful in predicting behaviours and may have very low reliability issues. Researchers have recognised and attributed the problems to the multi-dimensionality of PBC (Sparks & Shepherd, 1992; Manstead & van Eekelen, 1998; Ajzen, 2002; Kidwell & Jewell, 2003; Van Breukelen et al., 2004), a key construct in TPB. Researchers feel that if PBC is measured with the addition of SE and PC, the predictive powers of TPB will

be enhanced (Ajzen, 2002; Kidwell, 2003; Ajzen, 2002; Armitage & Conner, 1999; Manstead & van Eekelen, 1998; Terry & O'Leary, 1995).

Hence, SE and PC will be added to enhance the predictive powers of TPB and hypotheses 4 and 5 will test this relationship to confirm whether or not PBC is really multi-dimensional.

Hypothesis 4: Perceived behavioural control will positively mediate the relationship of self-efficacy on turnover intentions.

Hypothesis 5: Perceived behavioural control will positively affect the relationship of perceived control on turnover intentions.

Although reviews and meta-analyses have demonstrated broad support for the TPB, it has been acknowledged that for some behaviour and contexts, the inclusion of other variables may increase the predictive utility of the model (Terry & Hogg, 1996; Conner & Armitage, 1998; Fielding et al., 2008). In fact, studies have showed that the adding of additional constructs to the TPB can help to significantly increase the explanatory power of the basic model (Bates et al., 2008; Fielding et al., 2008; Lu et al., 2009). With that, turnover expectation was added to enhance the predictive powers of the theory of planned behaviour (TPB).

Hypothesis 6: *Newcomers*' turnover expectations will be positively related to attitudes

Hypothesis 7: *Newcomers*' turnover expectations will be positively related to subjective norms

Hypothesis 8: *Newcomers*' turnover expectations will be positively related to self-efficacy

Hypothesis 9: *Newcomers*' turnover expectations will be positively related to perceived control

From the literature review, the research questions and the hypotheses, the research conceptual model was conceived. The research conceptual framework (Figure 6) is based on the TPB for predicting behaviours and intentions. The nine hypotheses will be tested for the relationships among the constructs (Figure 7).

Figure 6 Proposed research conceptual framework

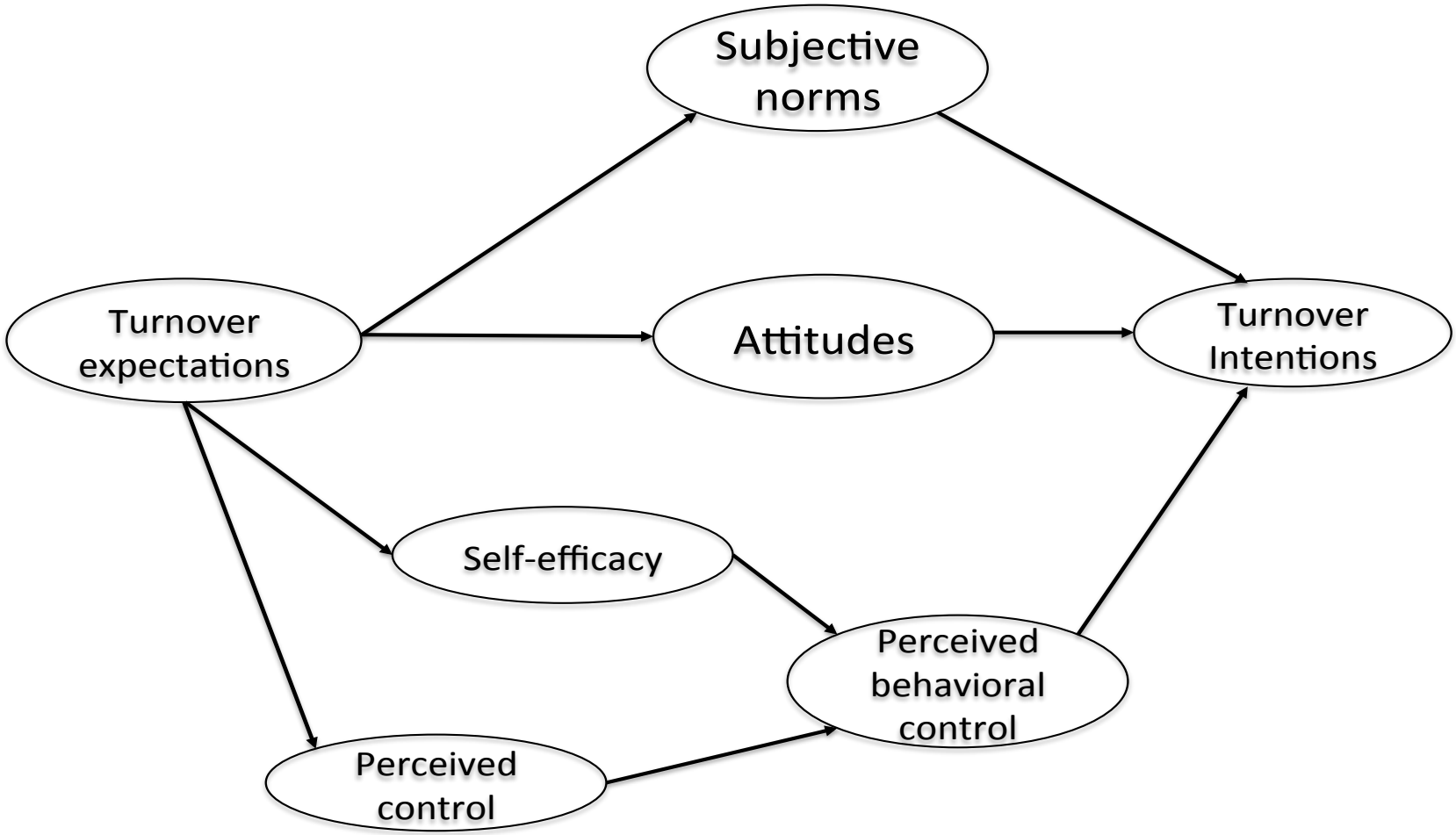
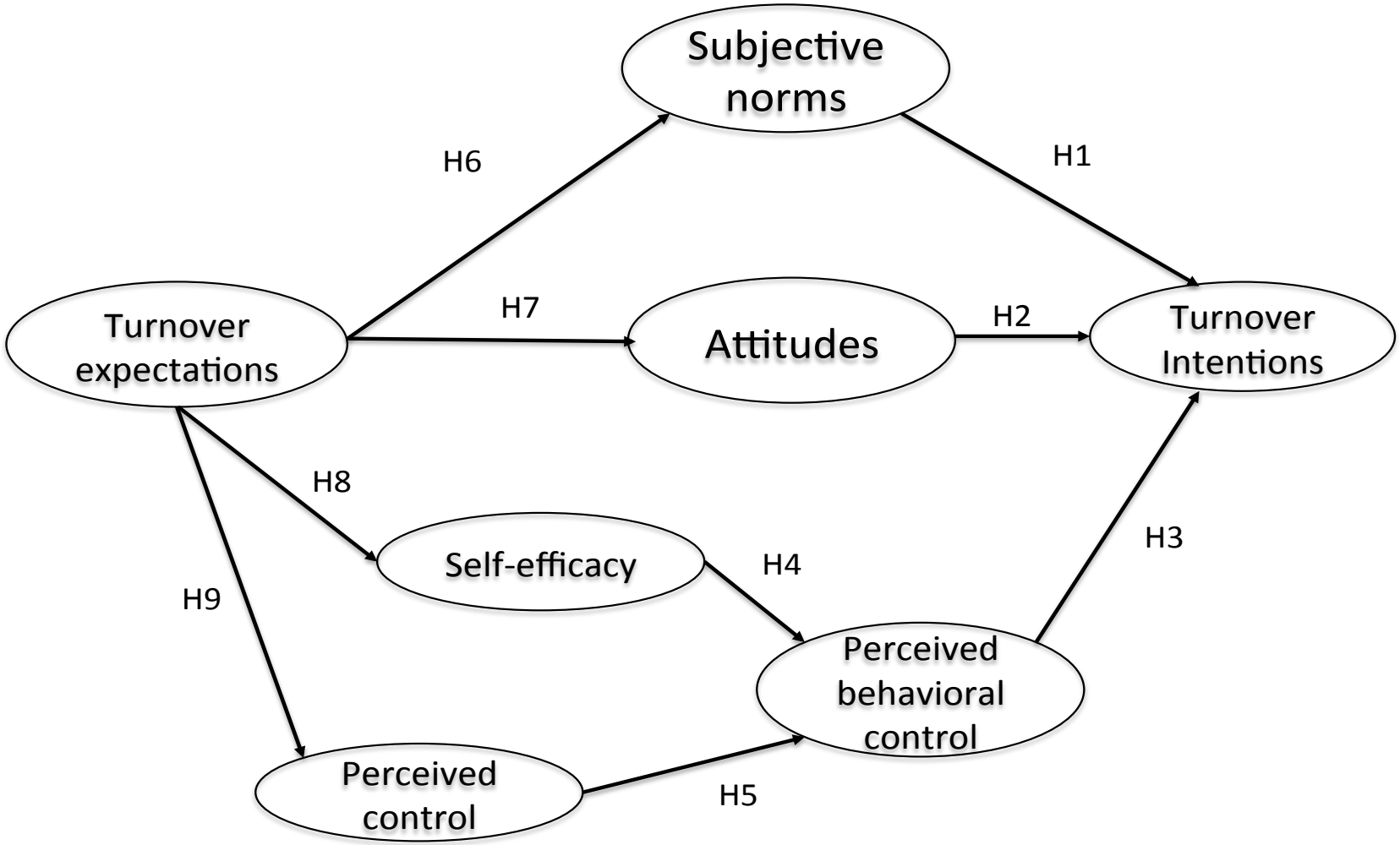


Figure 7 Proposed hypothesis testing



2.6 Chapter summary

The literature review has provided understanding of the three main areas of the research: organisation entry, turnover and planned behaviour.

The literature review shows that organisational entry is an important period for newcomers moving from outside to inside an organisation. *Newcomers* have inflated expectations and unrealistic expectations, which are often based on naïve and faulty information. *Newcomers*, who have yet to start their first job, are likely to have pre-entry expectations. When they are unmet, these pre-entry expectations are likely to lead to turnover intention to quit.

The literature review shows that the most accurate and best single predictor on individual's behaviour is a measure of his intention to perform that behaviour. Owing to their volitional control, TPB was found to be the most appropriate theory for predicting *Newcomers*' TI.

Following the literature review, a research conceptual framework was devised. It incorporated a modified version of the TPB based on recommendations identified in the literature review to improve and enhance its predictive powers. Nine hypotheses were set up to answer the research questions.

3 Methodology

3.1 Introduction

The previous chapter (Literature Review) has dealt with the epistemological aspect of this research. The literature review found what is known and what is not known and the gap between *Newcomers'* expectations and turnover intentions (TI). It identified the research conceptual model and also laid out the research questions and the hypotheses to be tested.

This chapter identifies the research paradigm and the methodological approach that was adopted for this research study. It outlines the sampling plan and the survey instrument, together with the method of data collection and proposes the methods of data analysis.

3.2 Research paradigm

The research paradigm of the research study is: What are *Newcomers'* perceptions and beliefs about TI before joining organisations for the first time? Do they already have expectations about TI and do they perceive that they have control over their TI? Can the TI be predicted?

Newcomers joining organisations have the highest rate of turnover (Scott, 2014), and yet the lack of clear understanding of the TI of *Newcomers*' embarking on their first job creates a paradigm that needs to be discovered and answered. Therefore, it is necessary to begin with an overview of the general epistemological issues, which are the general issues surrounding knowledge acquisition, and then use them to address specific issues of relevance to socialisation researchers (Vancouver & Warren, 2011).

In reflecting on how to structure this research, this researcher was drawn to Crotty's four elements in the foundation of research development (Crotty, 1998, p. 2.): epistemology, theoretical perspective, methodology and methods. The four elements have been used extensively as the basis of many research studies (Licqurish & Siebold, 2011; Joseph, 2013; Cunningham, 2014). Each epistemological position can inform a number of theoretical perspectives, which can then lead to the different types of methodology and methods to be adopted for the research (Table 2). To derive the

appropriate research paradigm, theoretical perspective, methodology and methods, it is necessary to examine each of the four elements.

Table 5 shows the various research paradigms. Under the epistemological framework, there are three approaches to epistemology: objectivism, constructionism, and subjectivism. If the epistemological view is objectivism, then the theoretical perspective adopted can be positivism or post-positivism, which means that in an objective world, scientific methods could represent, measure, predict and explain the causal relations of TI by examining the key variables, like attitudes (AT), subjective norms (SN), perceived behavioural control (PBC), self-efficacy (SE), PC and turnover expectations (TE) (Gephart Jr, 1999; Rynes & Gephart Jr, 2004). "To the positivist, these variables/behaviours exist as meaningful entities which is independent of consciousness and experiences and that they have truth and meaning residing in them as objects, which through careful research, can attain that objective truth and meaning" (Crotty, 1998). The positivist concern is to uncover truths and facts using experimental or survey methods (Gephart Jr, 1999; Rynes & Gephart Jr, 2004). This approach is objective and detached from the objects of research and captures data through research instruments such as survey questionnaires. The positivist approach also holds that "meaning is in the world, and thus values facts over feelings as compared to conceptualism which holds that meaning is in the person" (Savickas, 1993). "The positivist approach would then follow the methods of the natural sciences and, by way of allegedly value-free, detached observation, seek to identify universal features of humanity, society and history that offer explanation and hence control and predictability" (Crotty, 1998, p. 67). "The positivist approach usually holds that all statements need to be verified by observation before being accepted as meaningful but there are also scientific theories which, to be developed, clearly require the acceptance of much more than direct conclusions from sense-data" (Crotty, 1998 p. 30). In this sense, no matter how many examples are being used in support of a general principle, it is not possible to logically to prove it true in absolute terms but it takes only one example at variance with a general law to prove, logically and in absolute terms, that it is false (Popper, 1963). "Popper claimed that by engaging in observation and experiment, scientists are called upon not to prove a theory, which they can never do, but to try to prove it wrong" (Crotty, 1998 p. 32).

Table 5 Research paradigms

Epistemology	Theoretical perspective	Methodology	Methods
Objectivism Constructionism Subjectivism (and their variants)	Positivism (and post-positivism) Interpretivism - Symbolic Interactionism - Phenomenology - Hermeneutics Critical inquiry Feminism Postmodernism etc.	Experimental research Survey research Ethnography Phenomenological research Grounded theory Heuristic inquiry Action research Discourse analysis Feminist standpoint research etc.	Sampling Measurement and scaling Questionnaire Observation - Participant - Non-participant Interview Focus group Case study Life history Narrative Visual ethnographic methods Statistical analysis Data reduction Theme identification Comparative analysis Cognitive mapping Interpretative methods Document analysis Content analysis Conversation analysis

Source: (Crotty, 1998 p. 5)

The positivist view is then compromised," because no matter how faithfully the scientist adheres to scientific method, research outcomes are neither totally objective nor unquestionably certain" (Popper, 1963). However, "it is claims for a higher level of objectivity and certitude for scientific finds than looking for other opinions and beliefs. From the post-positivist view, absoluteness is gone and claims to validity are seen as tentative and qualified. This is a humbler version of the scientific approach and is one that can no longer claim an epistemologically or metaphysically privileged position" (Crotty, 1998 p. 40).

By contrast, the interpretivist and postmodernist theoretical perspectives do not share the view that social life can be studied scientifically as social lives are imbued with many social realities, such as values, experiences and politics that cannot be separated from the data that the research produces (Crotty, 1998). An interpretivist, adopting the epistemological position of constructionism, would claim that meanings are constructed by human beings as they engage with the world that they are interpreting, and that meaning or truth cannot be described simply as objective or subjective (Crotty, 1998). Constructionism also holds that "all knowledge, and therefore all meaningful reality as such, is contingent upon human practice being constructed in and out of interaction between human beings and the world, and developed and transmitted within an essentially social context" (Crotty, 1998 p. 42). The interpretivist approach "looks for culturally derived and historically situated interpretations of the social world and is often linked to the thoughts of Max Weber (1864-1920) who suggested that in the human sciences we are concerned with (*Verstehen* - understanding) in comparison to (*Erklaren* - explaining)" (Crotty, 1998, p. 67). "Interpretivism rests on the emphatic denial that cultural phenomena can be understood in causal terms" (Silverman, 1990 p. 126). "Interpretivist views, then, are often related to constructionism, which is phenomenological in nature" (Crotty, 1998, p. 12).

If subjectivism informs the research, then the doctrine will be adopted that all knowledge is limited to experiences by the self, and that transcendent knowledge is impossible (Crotty, 1998). Subjective phenomena such as intending, conceiving, and repressing can be studied only indirectly through their connections with overt behaviour, if at all. On the other hand, the subjectivists have argued that the essential, unique characteristic of human behaviour is its subjective meaningfulness, and that any science that ignores its meaning and purpose is not a social science (Crotty, 1998). Human action is governed by subjective factors - by images not stimuli, by reasons, not causes (Diesing, 1966).

Postmodernism, on the other hand, does not favour any single authority, method or paradigm and results from the cultural shift of post-industrialism (Savickas, 1993). In fact "postmodernism abandons the entire epistemological basis for any claims to truth and commits itself to ambiguity, relativity, fragmentation, particularity and discontinuity" (Crotty, 1998 p. 185). Rue (1994) shared the view that the philosophical orientation of postmodernism rejects the dominant foundational program

of the Western tradition and contended that there are no absolute truths and no objective values (Rue, 1994). Table 6 shows the different transitions from modern to the postmodern. What is known as the industrial age in the postmodern tradition would be considered as the information age.

Table 6 From the modern to the postmodern

From the Modern to the Postmodern	
Modern	**Postmodern**
Positivism	Postmodernism
Industrial age	Information age
Printing press	Electronic media
Newtonian physics	Quantum physics
Demand singular truth	Appreciate multiple realities
Principles	Particulars
Empiricism	Interpretivism
Objectivity	Perspectivity
Reason	Relationships
Procedural rationality	Interpretive community
Concepts	Constructs
Language reflects reality	Language produces reality
Definitions describe	Definitions inscribe
Discover meaning	Invent meaning
Goal – accurate	Goal – useful, interesting
Clients receive pre-defined services	Clients agentic interpreting

Source: (Savickas, 1993 p. 209)

3.2.1 The choice of qualitative versus quantitative research

The choice between qualitative and quantitative research design usually occurs at the level of method (Crotty, 1998; Rynes & Gephart Jr, 2004; Silverman, 2005; Erickson, 2012). The distinction lies in whether it is objectivist/positivist, constructionist or subjectivist research. While it is possible for either qualitative methods or quantitative methods or both to be used, it would appear contradictory if the research attempts to be objectivist and constructionist or subjectivist all at the same time, creating a paradox in which there is objective meaning and yet at the same time, no objective meaning (Crotty, 1998). Research design is basically the method used to carry out the research (Table 5). Based on the methodology adopted, the various research designs

could be experimental or quasi-experimental, correlational field study (survey) design, case study or action research (Tharenou et al., 2007; Aguinis et al., 2009; Creswell, 2009). Experimental studies are usually conducted away from the phenomenon, for example in a laboratory, and efforts are made to control as many extraneous influences as possible in that setting (Tharenou et al., 2007). Correlational field studies (survey) are studies based on survey data obtained in the field in which the relationships between one or more dependent variables and one or more independent variables are examined (Tharenou et al., 2007) and when the researcher is interested in delineating the important variables associated with the problem and establishing cause and effect relationships (Cavana et al., 2001). Case studies focus on in-depth, holistic and in-content research conducted in the field on a single instance, event, setting or organisation. They offer highly in-depth analyses of specific empirical issues but suffer from the difficulty in generalising to other cases (Punch, 2006; Tharenou et al., 2007). Action research studies iteratively cycle through the processes of diagnosis (research) and intervention (action) until there is understanding of, and change in, the social system under investigation (Tharenou et al., 2007). Although a longitudinal study would be able to generate more data over a longer period of time, such a study cannot be considered here because of time constraint on completing the research.

Following the arguments set out earlier, Figure 8 shows the research framework taken for this research, which is grounded in objectivism with the theoretical perspective moving from positivist to post-positivist; positivist in the sense that the observed behaviour of the *Newcomers* can be measured and statistically described and embedded in a quantitative study; and post-positivist to moderate the research outcomes as not being able to be totally objective nor unquestionably certain (Popper, 1963). This research takes the positivist view that scientific research is able to uncover truths and facts using experimental or survey methods, hence the epistemological framework chosen was objectivism, which will inform a positivist theoretical perspective. This can be achieved through survey research and the results analysed through statistical methods. As the research methodology has informed the method, the method adopted for this research was a quantitative study, which has been found to be best suited to identifying factors that influence an outcome and testing a theory or explanation (Tharenou et al., 2007; Creswell, 2009). Surveys still prove to be a remarkably useful and efficient tool for learning about people's opinions and

behaviour and are the most common approach to collecting quantitative data (Dillman et al., 2009).

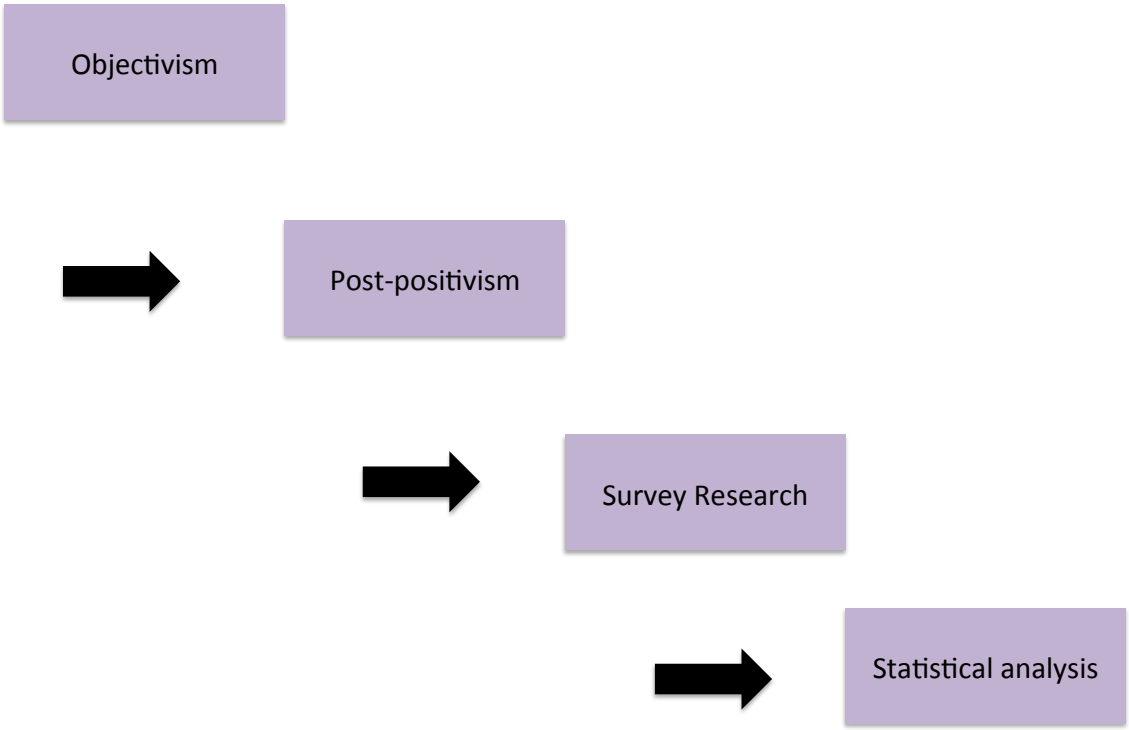


Figure 8 Proposed research framework (Crotty, 1998)

3.3 Sampling plan

3.3.1 Target population

Graduating students are a suitable target population to answer the research paradigm. The target population is likely to be found among graduating students studying in tertiary institutions within Singapore. This group of graduating tertiary students is unlikely to have previously worked in a full-time job and if not proceeding to further studies, will soon be looking for their first job. In most educational systems the age of the tertiary students who are likely to complete their tertiary education is around 19 to 24 years old, and this age group in their final study year will be the research target.

Table 7 provides information about the target population. This table shows the student population in Singapore. The survey was carried out at Kaplan, Singapore.

Kaplan is one of the world's largest diversified education companies with operations in more than 30 countries.

Kaplan provides services for students of all ages, from second-graders learning to read, to professionals seeking postgraduate training. It serves more than one million students each year. The Kaplan Institute in Singapore was chosen as the location for carrying out the survey as there are about 12,000 students enrolled in the school in Singapore during the year 2010. The cohort of students has an international mix of nationalities from China, Myanmar, Indonesia, Malaysia and Singapore. Kaplan offers full-time and part-time studies leading to degrees and professional diplomas. The school is classified as one of the commercial in Singapore (see Table 7) and together; they form the biggest pool of students in Singapore. A typical full-time student at Kaplan attends classes similar to the other tertiary institutions in Singapore; the student age range is similar to other tertiary institutions in Singapore and admission to the school depends on the students' results.

Singapore's educational system closely follows the British educational system and has comparable results worldwide (Peterson, 2004; Goy, 2015). The system is motivated by the Singapore Government's rationale that globalisation and intensifying economic competition are key factors that schools must understand in order to prepare the youths of today to meet the challenges of tomorrow (Ng, 2004). English is the medium of instruction in all schools but a few schools, which may adopt both English and Chinese languages of instruction. The Singapore Government maintains that investment in education will enhance human capacity and underpin Singapore's economic transformation and growth (Goh, 2005).

Table 7 Graduates (full - time) in Singapore

Tertiary institutions	2006	2007	2008	2009	2010	2011	2012	2013
Universities	10427	11171	11472	11947	12541	13325	13456	15634
Polytechnics	16638	17413	19317	20224	21445	22918	23999	24157
Institute of Technical Education (ITE)	10056	10479	10600	10999	11334	11165	11530	11888
LASALLE School of Arts, Nanyang Academy of Fine Arts (NAFA)	834	561	1091	1125	1096	1082	1075	1080
Commercial schools (Kaplan)	284352	435026	416200	408055	*	*	*	*
Total Students	322307	474650	458680	452350	46326	48490	50060	52759

Source: Compiled from Education Statistics Digest, Singapore (Peterson, 2004; Graham, 2006; Ministry of Education Singapore, 2008, 2009, 2010, 2011, 2013, 2014)
* figures not available

Singapore has a strong and robust education system that is recognised for the high levels of achievement of Singaporean students in all courses offered (Tharman, 2003). According to Tharman, Singaporean students aim high and do well by most international comparisons. In addition, the Singapore Government has created the School Excellence Model (Ng, 2003) as a means of quality assurance in education (Ng, 2007). Ng describes the School Excellence Model in detailed, as follows:

> "The School Excellence Model is a self-assessment model for schools, adapted from the various quality models used by business organisations, namely the European Foundation of Quality Management (EFQM), Quality assurance in the Singapore education system the Singapore Quality Award (SQA) model and the education version of the American Malcolm Baldrige National Quality Award model (MBNQA). The SEM aims to provide a means to objectively identify and measure the schools' strengths and areas for improvement. It also aims to allow benchmarking against similar schools, stimulating improvement activities that can positively impact on the overall quality of the school and ultimately the quality of the education system. Using this model which is aligned with the SQA, schools can in fact pitch themselves against national benchmarks for organisational excellence" (Ng (2007 p. 240).

Therefore, the population of graduating students chosen for the research is likely to be representative and generalisable in an Asian context.

3.3.2 Sample size

Sample size plays an important role in the estimation and interpretation of statistical results and sample size is normally the basis for the estimation of sampling error (Hair et al., 1998; Iacobucci, 2010). The determination of the sample size is governed by the extent of precision and confidence desired (Burns & Bush, 1995; Cavana et al., 2001; Coakes et al., 2010) and the amount of variability in the population desired. Most researchers choose 50% level of ***p*** because it results in the most conservative sample size and is also practical (Burns & Bush, 1995; Coakes et al., 2010).

Mathematically, to obtain 95% accuracy at the 95% confidence level, the amount of variability in the population can be written as:

$$\mathbf{N} = \mathbf{Z^2 (pq)/e^2}$$

$$= 1.96^2 (0.5*0.5)/0.05^2$$

$$= 385 \text{ sample size}$$

Where:

n = sample size
Z = standard error associated with chosen level of confidence (95%)
$\boldsymbol{p}$ = estimated variability in the population 50%*
q = (100–p)
e = acceptable error +5%

Cavana et al. (2001) recommended that for a sample size of 1,000,000, N should equal 384. However, the choice of sample size would depend on the number of variables and the sample size suitable for most multivariate data analysis approaches should have a minimum ratio of at least five respondents for each estimated variables (Costello & Osborne, 2005). Therefore, as there are 38 proposed variables in this study, the minimum suitable sample size suitable for the study will be 38 x 5 = 190 samples (Costello & Osborne, 2005). A large sample size is needed for multivariate analysis (MacCallum et al., 1996) and a minimum of 200 samples is recommended in order to produce reasonably good results (Kline, 201; Byrne, 2010) but Hair et al., (1998) maintained that a sample size from 100 to 200 is sufficient. Cavana et al (2001) cautioned that having too large a sample size could become a problem as it may lead to Type II errors where the research findings are accepted when in fact they should be rejected. This problem can be resolved when using AMOS 18 for analysis as the program allows the adequacy of the sample size to be checked statistically. AMOS 18 provides an automatic computation of whether or not the sample size is adequate by looking at the Hoelter's (1983) Critical N (CN). This fit statistic differs substantially from other indices as it focuses directly on the adequacy of sample size rather than on model fit (Arbuckle, 2009). Specifically, its purpose is to estimate a sample size that would be sufficient to yield an adequate model fit for a χ^2 test (Hu & Bentler, 1999). Hoelter proposed that a value in excess of 200 is indicative of a model that adequately represents the sample data (Hoelter, 1983).

Therefore, it appears that the minimum sample size should be a minimum of N=384 as recommended by Cavana et al. (2001) or N=385 as calculated (Burns & Bush, 1995). Although, the sample size appears to be adequate at N = 190 if based on Costello & Osborne (2005), this figure will not meet the minimum sample required for most multivariate analyses (Cavana et al., 2001; Byrne, 2010; Kline, 2010) and may not produce meaningful results during the multivariate analysis. Therefore, the final choice of sample size that is considered adequate was based on the recommendations

N=384, which should be able to give a confidence level of 95% and 95% desired accuracy and also be suitable for multivariate analysis (Pagano, 2000; Cavana et al., 2001; Costello & Osborne, 2005; Carlson & Wu, 2012).

3.3.3 Sample approach

A probability sampling using simple random sampling was carried out at a local career fair at Kaplan. The advantage of a probability sampling is that it allows all elements in the population a chance of being chosen as subjects in the sample (Cavana et al., 2001; Pallant, 2005; Norusis, 2006, 2008; Coakes et al., 2010). The career fair was expected to attract various categories of participants: those who were looking for a job; those who would be graduating soon; those who were interested in changing jobs, and the general public. Respondents were solicited by asking them if they qualify and were interested to participate in the survey. Once respondents agreed to participate, an information sheet with the purpose of the survey was provided to them and the survey questionnaire administered. The survey questionnaire was collected back immediately.

A second survey, utilising judgement sampling, which is actually a form of purposive sampling, involved choosing subjects who were in the best position to provide the information required (Cavana et al., 2001; Creswell, 2009). In order to carry out the purposive sampling at Kaplan, arrangements were made to carry out random sampling of students who would be graduating soon. The intention to carry out the sampling and the criteria were made known to the program manager at Kaplan. Based on the criteria provided, the program manager chose classes randomly for the survey and informed the researcher of the classes and the date the survey could be conducted. A research assistant visited the classes at the appointed date and time and explained to the class the purpose of the survey. Once the respondents agreed to participate, the information sheet and survey procedures were explained and the survey questionnaires distributed. The survey questionnaires were collected back immediately.

3.4 Data collection

3.4.1 Item generation

Most scholars recommend that the literature review be used to form the theoretical basis for the research and to develop item generation (Tharenou et al., 2007; Creswell,

2009; Denscombe, 2010; Leedy & Omrod, 2010; Vancouver & Warren, 2011). As item generation is the most important component of developing sound measures, it must not lack content validity otherwise one cannot be certain that it will reflect the theoretical definition of the construct the scale purports to assess and in turn reflect a lack of construct validity (Tharenou et al., 2007; Leedy & Omrod, 2010).



Figure 9 Item generation and data collection (Vancouver & Warren, 2011)

Figure 9 shows the sequence to obtain the correct item generation and data collection. The literature review has shown that the theory of planned behaviour (TPB) to be suitable for predicting behavioural intentions. The TPB uses direct measurement of key variables affecting behaviour (Fishbein & Ajzen, 1975; Ajzen & Madden, 1986; Ajzen, 1991; Ajzen & Driver, 1992; Ajzen, 2002). Therefore, the key variables for item generation should include AT, SN and PBC with these variables operationalised in terms of TI (Ajzen, 1985; Ajzen, 2002).

Most TPB scholars have used direct measurement as the most appropriate method to measure behaviour (Ajzen, 2002), although some scholars have not accepted that direct measure is a good method to measure met expectations and behaviour (Qi et al., 2010). However, Ajzen (2002) noted that in a meta-analysis of 90 studies carried out by Cheung and Chan (2000) it was shown that reliability varies with PBC, showing a range from low to high reliability and an average alpha coefficient of around .65 when compared to the reliability of AT and SN (Cheung & Chan, 2000).

Similar meta-analysis carried out by Sheppard et al. (1988) investigating the intention-behaviour relationship also showed varied alpha coefficients ranging from low to high reliability (Sheppard et al., 1988). Ajzen concluded that these findings and those of Cheung and Chang (2000) suggested that “it was possible to obtain high

reliability with direct measures of PBC, but some care is needed during the early stages of the research to formulate the appropriate control items" (Ajzen, 2002). Direct measurement, then, can be used successfully in TPB studies and will be adopted as the recommended method for the study of TPB (Ajzen, 1991, 2002; Ajzen, 2012).

Another issue that needs to be considered in the measurement in the TPB is the specificity (Ajzen, 2002). In order to overcome specificity, "it is recommended using scenarios to better inform the participants" (Garling & Fuji, 2002) and "in order to ensure that the predicting intention will lead to behaviour, it is necessary to induce individuals to form an implementation intention that is, to form a specific plan detailing when, where, and how the desired behaviour will be performed (Gollwitzer, 1999). The formulation of such plans will makes it easier for people to carry out their intended actions" (Fishbein & Ajzen, 2010). Scenarios are commonly used in TPB and researchers have created scenarios such as:

"Today I'll use a condom?" (Kiene et al., 2008);
"Do you intend to commit traffic violations?" (Parker et al. 1992);
"Do you intend to carry out leisure activities (beach, jogging, mountain climbing, boating and biking)" (Ajzen & Driver, 1991);
"Predict actual participation in physical activities" (Armitage, 2005);
"Predicting the intention to quit smoking" (Rise et al., 2008);
"Having casual sex" (Conner & Flesch, 2001);
"A closer look at decisions to quit" (Russell, 2012)

With this in mind, a scenario was designed to allow the respondents to understand what they have to do specifically in the survey.

The scenario was as follows:

> "You have completed and passed your exams!!! Assume that you are going to look for your first job. And you have found your first job!!!
> These questionnaires will ask for your thoughts and beliefs prior to getting your first job, your expectations during the first job and how you deal with it.
> There are no right or wrong answers. Please answer truthfully"

3.4.2 Pre-test

It is a good practice to conduct a pre-test to elicit the control factors (Fishbein & Ajzen, 2010). Therefore, in order to understand and accurately measure the tertiary students' responses, a pre-test was carried out to elicit out the control factors relating

to TI and to develop and refine the measures of TE, AT, SN, PBC, SE, and PC. The initial research instrument was designed to ask participants the perceived likelihood and or frequency of a given control factor being present (strength of control belief), and to determine the extent to which the control factor's presence has the power to facilitate or impede performance (power of control belief) of the turnover behaviour (Fishbein & Ajzen, 2010) and expectations (Arnold & Davey, 1992).

The initial control factors identified for studying the turnover behaviour were:

1. quit a job
2. stay in a job
3. happy with the job
4. salary expectations
5. first job – try and see
6. better opportunities
7. better career advancement
8. how long will you stay
9. economic recession
10. worry
11. take a break
12. committed to a job.

3.4.3 Pilot studies

Following the pre-test, a pilot study was used to assess the reliability of multiple measurements and check the content validity of the questionnaire. In choosing a sample group for the pilot study, Gorsuch (1997) advised that an analysis is enhanced if the sample contains a wide variety of people out of whom many would score low on the proposed scale(s) and many would score high. "The sample need not closely represent any clearly identified population, provided those from that population who would score high and those who would score low are well represented" (Gorsuch, 1997 p. 541).

With that in mind, the pilot study was then administered to a small group of tertiary students, working colleagues, classmates, and the research supervisor. This group was able to provide sufficient variety and was likely to present a wide range of results scoring both high and low.

The questionnaire was tested and retested several times to check its content validity before being finally accepted (Gorsuch, 1997). Based on the results of the pilot study, the questionnaire was revised and the presentation format reviewed.

3.4.4 Survey questionnaire

The measurement of theoretical constructs was carefully designed "to contain a variety of direct questions to elicit the respondents' perceptions of the extent to which they were capable of performing their turnover intentions" (Ajzen 2002 p. 671). All measures were formulated based on theory and available research and adapted from established questionnaires used by Price and Bluedorn, (1977); Bluedorn, (1982); Meyer and Allen, (1988); Arnold & Davey, (1992); Ajzen and Driver, (1992); Terry and O'Leary, (1995); Armitage and Conner, (1999); Francis et al., (2004); van Hooft, (2004); de Groot, (2007); Fishbein and Ajzen, (2010).

A few items were negatively worded and reverse-scored (RS), as this can help to prevent the tendency of respondents to mechanically circling the points towards one end of the scale (Finegold et al., 2002; Rovai, 2002; Tharenou et al., 2007). All the items utilised a seven-point Likert scale response format ranging from strongly disagree (7) to strongly agree (1). The seven-point Likert scale was chosen because more categories of response can provide more information and thus can generally be expected to give higher correlations (Gorsuch, 1997). Gorsuch (1997) pointed out that when multiple-point response scales such as the seven-point Likert scale is used, the items' means can vary with greater likelihood of a less skewed distribution, all other things being equal. Five to seven-response format is adequate and is the most commonly used in organisational measures (Hinkin, 1995). The extant literature extant found strong support for the use of seven-point Likert scales in similar studies by (Sager et al., 1998; Conner & Flesch, 2001; Conner et al., 2003; Kidwell & Jewell, 2003; Rhodes & Courneya, 2003; Van Breukelen et al., 2004; Kraft et al., 2005; Arnold et al., 2006; Kang et al., 2006; Yzer, 2012). Van Breukelen et al. (2004) specifically used the 7-point semantic differential scale to measure intentions, AT, SN, and PBC. The use of semantic differential-type measures has been found to be a suitable substitute for expectancy value–type computations of AT and SN (Fishbein & Ajzen, 1975). Yzer (2012), too, used the 7-point response to study the dual aspect interpretation of the perceived behavioral control in the reasoned action theory (Yzer, 2012).

To measure the respondents' profile, their demographic was measured by six items:

1. Previous working experience (1 =Yes, 2=No)
   (Internship, part-time, national service are not counted)

2. When will you graduate (1=After another month; 2=After another 3 months; 3=After another 6 months; 4=After another 12 moths; 5=more than 12 months later; 6=Already graduated)
3. When you graduate, will you prefer to work in:
(1=Engineering; 2=Legal; 3=Banking; 4=Manufacturing; 5=Construction; 6=Tourism; 7=Teaching; 8= Business; 9= Others)
4. Your Gender (1=Male; 2=Female)
5. Your Age (1=18; 2=19; 3=20; 4=21; 5=22; 6=23; 7=24; 8=25; 9=26; 10>27)
6. Your current tertiary school
(1=Polytechnic; 2=Kaplan; 3=SMU; 4=Others)

Turnover intentions were conceptualised by asking the tertiary students on their intention to quit their first job. The measures were adopted from Bluedorn's (1982) Staying or Leaving index (SLI), (Hom et al., 1984), Ajzen and Driver (1992), Vandenberg et al. (1999), Francis et al. (2004) and Fishbein and Ajzen (2010). Fishbein and Ajzen (2010) recommend that intentions be expressed in statements as:

"I will engage in the behavior"

"I intend to engage in the behavior"

"I expect to engage in the behaviour"

"I plan to engage in the behavior"

"I will try to engage in the behavior" (Fishbein and Ajzen 2010 p. 39)

Following studies by Meyer and Allen (1988), Vanderberg et al. (1999) and Fishbein and Ajzen (2010), *Newcomers* were asked for their intentions to quit after a period of 1 month, 3 months, 6 months, and 12 months. Responses ranged on the seven-point ordinal scaling from 1 = "Strongly disagree" to 7 = "Strongly agree". Three questions were reverse-scored (RS).

7. The duration I intend to stay in my first job is (RS)
(1=Less than 1 month; 2=up to 1 month; 3=up to 3 months; 4=up to 6 months; 5=up to 9 months; 6=up to 12 months; 7=more than 12 months)
8. The duration I will consider to actively look for another job in a different organisation after my first job is (RS)
(1=Less than 1 month; 2=up to 1 month; 3=up to 3 months; 4=up to 6 months; 5=up to 9 months; 6=up to 12 months; 7=more than 12 months)
9. I intend to quit my first job if I become unhappy within one month
10. I intend to quit my first job the moment I am dissatisfied with it
11. I intend to quit my first job soon after starting to try out different job for more experiences
12. I do not intend to quit my first job unless it turns out badly (RS)

Following the guidelines on constructing the TPB (Fishbein & Ajzen, 2010), attitude towards the turnover behaviour was measured by five items adopted from

Ajzen and Driver (1992), Francis et al (2004) and de Groot and Steg (2007). Responses ranged on the seven-point ordinal scaling from 1 = "Strongly disagree" to 7 = "Strongly agree".

13. It will be easy for me to get another job later if I quit my first job
14. It is common for people around my age to quit their first job
15. I don't care what people think should I quit my first job
16. I am likely to get another job first before I quit my first job
17. I think that quitting my first job is a normal thing to do
18. Deciding to quit my first job will be a definite mistake on my part (RS)

Subjective norms were measured by three items. Responses ranged on the seven-point ordinal scaling from 1 = "Strongly disagree" to 7 = "Strongly agree" were adopted from Ajzen and Driver (1992), Francis et al. (2004) and van Hooft et al. (2004). One question was reverse-scored (RS).

19. My parents, relatives and friends would approve of my behaviour if I quit my first job
20. Nobody would care if I quit my first job (RS)
21. I will consult people who are important to me before I quit my first job

Based on the TPB, PBC was conceptualised by asking the tertiary students the degree of ease, obstacles or opportunities that must be present in order for them to carry out their intention to quit their first job. This was measured by three items with responses ranged on the seven-point ordinal scaling from 1 = "Strongly disagree" to 7 = "Strongly agree". The questions are adopted from the studies of Ajzen and Driver (1992), Terry and O'Leary (1995), and Francis et al. (2004).

22. If I want to, it will be easy to quit my first job
23. There will be no obstacles if I want to quit my first job
24. There will be plenty of opportunities for me to quit my first job

Self-efficacy can be conceptualised as tertiary students' beliefs in their own ability to plan, organise, and carry out their TI. Self-efficacy was measured by two items, with responses ranging on the seven-point ordinal scale from 1 = "Strongly disagree" to 7 = "Strongly agree". The measures were adopted from Ajzen (2002) and Ajzen and Driver (1992) and followed Bandura's (1977, 1986) recommendation that item construction to measure self- efficacy should contain verbs like 'can' or 'be able to' in order to make clear that the items ask for TE based on personal confidence. Bandura also recommended that the object in each statement should be 'I' as the aim is to assess the participant's own capability, and that each item should contain a barrier.

Responses ranged on the seven-point ordinal scaling from 1 = "Strongly disagree' to 7 = "Strongly agree".

25. I am confident that I can quit my first job anytime I want to
26. For me to quit my first job would not be a problem

Perceived control was measured by seven items with responses ranged on the seven-point ordinal scaling from 1 = "Strongly disagree" to 7 = "Strongly agree". The influence of the labour market and whether or not it had a negative influence on their first job was derived from Mowday et al. (1984), while other questions were adopted from Armitage and Conner (1999), Ajzen (2002), Francis et al. (2004), and Fishbein & Ajzen (2010).

27. The decision to quit my first job would be within my control
28. Whether or not I would quit my first job will be entirely up to me
29. I am worried that I may not be able to get a job in this financial crisis
30. I expect that it will be difficult to find a job in this financial crisis
31. I will take on any job in this financial crisis without hesitation
32. I will quit my first job even in this financial crisis if I am dissatisfied it
33. Quitting my first job in this financial crisis is within my control

Graduate TE was adapted from various studies (Taris et al. 2005; Arnold & Davey, 1992; Keenan & Scotts, 1985). The TE were measured by five items with responses ranging on the seven-point ordinal scale from 1 = "Strongly disagree" to 7 = "Strongly agree". As there had been a financial crisis from 2008 to 2009 (Barrell & Davis, 2008; Goodhart, 2008), questions were adapted with this in mind. Questions related to job satisfaction were measured following similar studies (Clark et al., 2008; Jusoh et al., 2011; Liu et al., 2012).

34. I will take up the first job that offers me a higher salary than market expectations
35. I will only take up my first job if it is related to what I have studied
36. Job satisfaction is an important factor for me to stay on the first job
37. Good career prospect are an important consideration for me to in choosing my first job
38. Good training facilities is an important consideration for me in to choosing my first job

Table 8 summarises the scales used for this research study.

3.4.5 Questionnaire development

In order to improve on the rate of returns, a questionnaire should be well-designed and look professional to encourage and motivate people to respond (Dillman et al., 2009). Therefore, bearing this in mind, the questionnaire was designed to look as professional as possible. Shading and borders were used to improve its presentation. As it was felt

that the participants would be more impressed with a booklet format, the questionnaire was transferred onto a single A3 paper and printed double-sided to form a booklet. The same format was used out for the letter of invitation. Colour was used to help the respondents distinguish quickly between the letter of invitation and the survey questionnaire. In addition, heavier and good quality blue colour A3 paper was used for the questionnaires whereas slightly thinner green A3 paper was used for the letter of invitation.

A copy of the survey instruments is attached in the **Appendix A**.

Table 8 Summary of scale items

Construct	Indicator Name	Scale Items
Turnover Intention	INT7	The duration I intend to stay in my first job (RS)
	INT8	The duration I will consider to actively look for another in a different organisation after my first job (RS)
	INT9	I intend to quit my first job if I become unhappy within one month
	INT10	I intend to quit my first job the moment I am dissatisfied with it
	INT11	I intend to quit my first job soon after starting to try out different job for more experiences
	INT12	I intend to quit my first job unless it turns out badly (RS)
Attitude	AT13	It will be easy for me to get another job later if I quit my first job
	AT14	It is common for people around my age to quit their first job
	AT15	I don't care what people think should I quit my first job
	AT16	I am likely to get another job first before I quit my first job
	AT17	I think that quitting my first job is a normal thing to do
	AT18	Deciding to quit my first job will be a definite mistake on my part (RS)
Subjective norm	SN19	My parents, relatives and friends would approve of my behaviour if I quit my first job
	SN20	Nobody would care if I quit my first job (RS)
	SN21	I will consult people who are important to me before I quit my first job
Perceived behavioural control	PBC22	If I want to, it will be easy to quit my first job
	PBC23	There will be no obstacle if I want to quit my first job
	PBC24	There will be plenty of opportunities for me to quit my first job
Self-efficacy	SE25	I am confident that I can quit my first job anytime I want to
	SE26	For me to quit my first job would not be a problem
Perceived control	PC27	The decision to quit my first job would be within my control
	PC28	Whether or not I would quit my first job will be entirely up to me
	PC29	I am worried that I may not be able to get a job in this financial crisis
	PC30	I expect that it will be difficult to find a job in this financial crisis
	PC31	I will take on any job in this financial crisis without hesitation
	PC32	I will quit my first job even in this financial crisis if I am dissatisfied with it
	PC33	Quitting my first job in this financial crisis is within my control
Turnover expectations	EXP34	I will take up the first job that offers me a higher salary than market expectations
	EXP35	I will only take up my first job if it is related to what I have studied
	EXP36	Job satisfaction is an important factor for me to stay on the first job
	EXP37	Good career prospect are an important consideration for me to in choosing my first job
	EXP38	Good training facilities is an important consideration for me in to choosing my first job

3.4.6 Ethical considerations

Prior to carrying out the research, permission was sought from the University of South Australia's Human Research Ethics Committee. As this research involved human participation, it was important that the research need be conducted in a manner that was consistent with the university's policy, codes and guidelines, as well as relevant national and state legislation and guidelines and without presenting any risk to the participants or to the interviewer.

The participants were invited to participate via an invitation and information sheet and were informed that the survey was anonymous, completely voluntary and they could withdraw at any time. They were also invited to request a set of data results if they wished. The information sheet also informed them that by completing and returning the questionnaire to the researcher, they were deemed to have given consent to participate in the research study.

3.5 Data analysis

The extant literature shows that the common methods of data analysis adopted by researchers using the TPB include multiple regression (Manstead & van Eekelen, 1998); hierarchical regression analyses (Ajzen & Madden, 1986); components factor analysis (van Breukelen et al., 2004); and orthogonal rotation to create separate measures of self-efficacy and controllability (Ajzen, 2002). However, multivariate analysis has been recommended over univariate analysis in the study of turnover (Price, 1977; Hom & Griffeth, 1991; Price, 1999; Guan et al., 2014) and multivariate procedures have almost totally replaced bivariate procedures in most turnover studies. As well, the structural equation model (SEM) has replaced ordinary least square as the preferred analysis strategy (Price, 1977; Hom & Griffeth, 1991; Price, 1999). The popularity of (SEM) can be attributed to the major advantage found in multivariate analysis in that it takes measurement error into account in the analysis, thereby resulting in a more accurate estimation of models (Price, 1999; Schreiber, 2008; Byrne, 2010; Kline, 2010; Vancouver & Warren, 2011). Since then many scholars have adopted SEM as their method of analysis (Arnold & Feldman, 1982; Hom & Griffeth, 1991; Lance, 1991; Kim, 1999; Lambert et al., 2001; Griffeth & Hom, 2004; Murrells et al., 2008; Chau et al., 2009; Park & Kim, 2009). Support for using SEM in turnover studies is found in Parasuraman (1982); Hom et al. (1991); Hom et al. (1992);

Sager et al. (1998); Kim, (1999); Hom et al. (2001); Gaertner (1999); Hooft et al. (2004); Johnson and Hall (2004); Murrells et al. (2008); Madock and Horan (2009); and Joo (2010).

Therefore, both descriptive and multivariate analyses will be carried out to investigate the TI of the students and to test the applicability of TPB to measure these intentions. Descriptive analysis such as means, standard deviations, and percentages will be used to determine information about graduate turnover intention and generate demographic profiles of the survey respondents.

3.5.1 Data screening

Prior to any analysis, the data should be screened and assessed for suitability for analysis, normality and mistakes (Pallant, 2005; Tharenou et al., 2007; Norusis, 2008; Arbuckle, 2009; Coakes et al., 2010). In addition, outliers and the non-existence of collinearity must also be addressed. These are the basic pre-analysis procedures that must be addressed when applying SEM technique (Byrne, 2010; Kline, 2010).

3.5.1.1 Continuous data

An important criterion of SEM is the need for the data to be continuous in order to be able to interpret the data distribution properly (Arbuckle, 2009; Byrne, 2010; Kline, 2010). As most ordinal data are considered to be inherently non-normal (Kaplan, 1989), care must be taken to minimise this. Finney and DiStefano (2006) stated that by creating a covariance matrix based on Pearson product-moment correlation techniques and estimating relations at the observed level, the ordinal data can be treated as if they were continuous. As the number of order categories increases, the data will approach the continuous-level approximately and the obtained correlations will then be closer to their true values (Bollen, 1989). However, the fewer categories are used in the survey, the more severe the attenuation will be in the Pearson product-moment correlations and the greater the discrepancy between the true and obtained values (Finney & DiStefano, 2006). Therefore, if the observed data have many categories, with a minimum of at least five ordered categories, and are approximately normal, the use of maximum likelihood (ML) estimation techniques will not result in severe levels of bias in fit indices, parameter estimates, or standard errors (Finney & DiStefano, 2006). This research therefore, utilised a seven-response Likert scale to ensure that the data are continuous.

3.5.1.2 Missing data

As with all data sampling, there is always a probability of missing data. There are five main techniques that can be used to deal with missing data (Schumacker & Lomax, 2004; Arbuckle, 2009). They are:

1. Listwise deletion
2. Pairwise deletion
3. Mean substitution
4. Expectation minimisation
5. Multiple imputation

Multiple imputation and expectation minimisation are two approaches that have been developed for dealing with missing data, have considerable advantages over the conventional methods like listwise deletion and pairwise deletion or mean substitution (Arbuckle, 2009). The AMOS manual recommends using expectation minimisation to handle missing data (Arbuckle, 2009). The advantage of this technique for dealing with missing data is that it is based on the commonly known statistical properties of ML (Roth, 1994; Allison, 2002) and will find the expected value based on the ML parameter estimation (Schumacker & Lomax, 2004; Jai et al., 2013). It often reduces bias due to non-response, even when the missing-at-random assumption has not been strictly been met (Little & Rubin, 1990).

Therefore, this research will utilise the expectation minimisation method, which uses the ML found in SPSS 18 and AMOS 18 to deal with missing data.

3.5.1.3 Normality of data

Normality is an important criterion in both univariate and multivariate analysis (Byrne, 2010; Kline, 2010) to ensure accuracy in the results of many statistical tests (Tharenou et al., 2007). It is a critically important assumption in the conduct of SEM analyses and in the use of AMOS (Arbuckle, 2009). Thus, before any analysis of data is undertaken, it is important to check that this criterion has been met. It has been found that univariate normality alone is an insufficient condition for multivariate normality (Mardia, 1975; Finney & DiStefano, 2006), and if univariate normality is violated, the multivariate normality will certainly be violated to some extent also (Tharenou et al., 2007).

Simple tests that can be used for univariate normality on a continuous variable's scores are kurtosis and skewness (Tharenou et al., 2007). The absolute values of kurtosis should not be ≥ **5** and absolute values of skewness should not be ≥ **2** (Kendall & Stuart, 1958). If the data are normal, analysis can proceed. Although many statistical techniques are relatively robust, for all practical purposes and due to the nature of data collection, some sense of non-normality may be expected in the data (Finney & DiStefano, 2006).

For tests of multivariate normality, it is possible to use the index of multivariate kurtosis and the critical ratio (CR value), which in essence represents Mardia's (1970, 1974) normalised estimate of multivariate kurtosis. Bentler (2005) has suggested that, in practice, CR values greater than 5.00 are indicative of data that are non-normally distributed.

Non-normal data will be subjected to further tests and depending on the severity of the non-normality, different approaches will be developed to address the problems (Nevitt & Hancock, 2001). One method is bootstrapping (BS), which can be used to check for multivariate normality (Efron, 1979; Bollen & Stine, 1992; Fan & Thompson, 1998; Byrne, 2010; de Bruin et al., 2012). "Bootstrapping, invented by Efron (1979), was based on the idea of jackknife technique (Quenouille, 1949; Tukey, 1958), which is used to reduce the bias of an estimator" (Zhu 1997 p. 45). Some scholars have considered the BS's potential for obtaining robust statistics in SEM and found that BS may be a viable alternative to normal theory methods (Yung & Bentler, 1996; Zhu, 1997; Nevitt & Hancock, 2001; Kline, 2010; Kramer, 2010). "A bootstrap sampling distribution is developed by redrawing a random sample from a population" (Zhu 1997 p. 46). Kline (2010) described BS as a technique that creates multiple subsamples from an original database making it possible to examine parameter distributions relative to each of these spawned samples. When considered cumulatively, these distributions serve as a BS sampling distribution generally associated with parametric inferential statistics (Efron, 1979; Nevitt & Hancock, 2001; Kline, 2010). "The sampling distribution of the inferential approach is based on available analytic formulae that are linked to assumptions of normality, whereas the BS sampling distribution is rendered free from such restrictions" (Kline, 2010)

The main advantage of BS is that it allows the researcher to assess the stability of parameter estimates and thereby report their values with a greater degree of accuracy (Yung & Bentler, 1996; Zhu, 1997; Fan & Thompson, 1998; Kline, 2010).

Zhu (1997) pointed out that "it may be better to draw conclusions about the parameters of the population strictly from the sample at hand than to make perhaps unrealistic assumptions about the population" (Zhu, 1997 p. 50). Certain criteria need to be considered in order to use BS otherwise it can lead to misleading results. One important criterion is that BS should not be used for small samples (Yung & Bentler, 1996) and samples should be reasonably large (Yung & Bentler, 1994; Ichikawa & Konishi, 1995; Yung & Bentler, 1996; Kline, 2010).

Yung and Bentler (1996) cautioned that in using BS, there should not be naïve belief that the results will be accurate and trustworthy. Although studies by Bollen and Stine (1988, 1993) noted that situations might arise where BS may not work, there is yet, however, no way of pinpointing when and how the BS procedure will fail (Kline, 2010 p. 333).

There are no guidelines to establish an appropriate minimum number of BS samples, $B = n^n$ (all possible samples of size *n* drawn from the resampling space, for obtaining accurate results with respect to standard errors and model test statistics in SEM) but studies by Nevitt and Hancock (2001) showed that there is no apparent advantage to using more than $B = 250$ BS resamplings. Their studies showed that the number of BS replications beyond B = 250 seems to be irrelevant in terms of model rejections (Nevitt & Hancock, 2001). Bootstrapping can be carried out through AMOS (Arbuckle, 2009).

3.5.1.4 Outliers

Outliers are extreme data points that can have a disproportionate influence on the conclusions drawn from most statistical techniques (Arbuckle, 2009). Detecting and addressing them is one of the most important tasks before carrying out any multivariate analysis (Arbuckle, 2009; Coakes et al., 2010). Univariate outliers can be identified by the extreme scores on a single variable and can be detected by examining histograms and frequency tables. In many cases, outliers are simply data entry errors that can be easily corrected. For multivariate outliers, which are extreme scores on a set of variables, this is done by computing the squared Mahalanobis distance (D^2) for each case (Arbuckle, 2009). Mahalanobis distance procedure was adopted as it has been found to be superior in performance in detecting multivariate outliers (Dang & Serfling, 2010).

3.5.1.5 Collinearity

Multicollinearity occurs when two or more independent variables are highly correlated and may cause computational and interpretational problems during the statistical analysis (Tharenou et al., 2007). Tabachnick and Fidell (2001) have suggested that if two independent variables are correlated at .70 or higher, they may suffer from multicollinearity and thus the variable that has the least theoretical defensible should be dropped or be combined together in some way (Tabachnick & Fidell, 2001).

One method of checking for multicollinearity is to examine the bivariate correlations. The tolerances and variance inflation factors (VIFs) are often used to examine for evidence of multicollinearity. These two statistics measure the degree to which the variance in one independent variable is explained by the other independent variables. A tolerance of ≤.10 or VIF ≥10 may indicate multicollinearity (Kline, 2010).

3.6 Factor analysis

3.6.1 Exploratory factor analysis

Upon completion of all basic pre-tests, the data will be suitable for further analysis by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Borkenau & Ostendorf, 1990; Costello & Osborne, 2005).

Table 9 shows a comparison of EFA and CFA. An important consideration when using EFA is that EFA is data-driven (Albright & Park, 2009). It is used where links between the observed and latent variables are unknown or uncertain and it is needed to identify the minimal number of factors that underlie or account for covariation among the observed variables. It is considered exploratory when the researcher has no prior knowledge that the items do, indeed, measure the intended factors (Byrne, 2010 p. 6).

Table 9 EFA and CFA

	EFA (Data-driven)	CFA (Theory-driven)
Constraint	N/A	Yes
Unstandardised solution	N/A	Yes
Standardised solution	Yes	Yes
Factor rotation	Yes	N/A
Factor scores	Yes	N/A
Hypothesis test	N/A	Yes
Goodness of fit	N/A	Yes
Software packages	General purpose software	Mplus, LISREL, AMOS, EQS, SAS CALIS

Source: (Albright & Park, 2009)

3.6.2 Confirmatory factor analysis

To answer questions such as whether the instrument has the same structure across certain population subgroups, it is possible to place substantively meaningful constraints on the factor model (Costello & Osborne, 2005). With CFA, researchers can specify the number of factors or set the effect of one latent variable on observed variables to particular values (Costello & Osborne, 2005). This method allows researchers to test hypotheses about a particular factor (Costello & Osborne, 2005; Byrne, 2010; Kline, 2010). Unlike EFA, CFA produces many goodness-of-fit measures to evaluate the model but does not calculate factor scores. Studies by Little et al. (1990) showed that when a priori understanding of the domain allows, modelling and estimation should incorporate known information rather than rely on data representations. Their results also showed that confirmatory analysis produces less biased estimates of the constructs than exploratory analyses (Little & Rubin, 1990). Because the CFA model focuses solely on the link between factors and their measured variables, within the framework of SEM, it represents what has been termed a measurement model (Bagozzi & Yi, 1988; Hooper et al., 2008; Byrne, 2010; Kline, 2010). However, the full model comprises both a measurement model and a structural model (Bagozzi & Yi, 1988; Hooper et al., 2008; Byrne, 2010; Kline, 2010). The measurement model depicts “the links between the latent variables and their observed

measures, which is the CFA model, and the structural model depicts the links among the latent variables themselves" (Kline 2010, p. 7.)

Turnover studies has begun using SEM and multivariate analysis has started to replace bivariate procedures to become the preferred analysis procedure by turnover scholars (Price & Mueller, 1986; Price, 1999), many scholars have adopted SEM as their method of analysis (Arnold & Feldman, 1982; Parasuraman, 1982; Hom & Griffeth, 1991; Irving & Meyer, 1994; Hom et al., 1999; Kim, 1999; Lambert et al., 2001; Griffeth & Hom, 2004; Chiu et al., 2005; Murrells et al., 2008; Chau et al., 2009; McGowan et al., 2009; Park & Kim, 2009; Calisir et al., 2011; Iyer, 2011; Zhang & Feng, 2011; Lai & Chen, 2012; Zhao et al., 2012; Allen & Shanock, 2013).

3.7 Structural equation modelling

The measurement model SEM is considered to be a CFA. It depicts the pattern of observed variables for those latent constructs in the hypothesised model, whereas the structural model depicts the links among the latent variables themselves (Byrne, 2010; Iacobucci, 2010). A full model comprises both a measurement model and a structural model. The objective for the CFA is to test the reliability of the observed variables and provide a rigorous test of convergent and discriminant validity. The measurement model examines the extent of interrelationships, covariation or lack thereof, amongst the latent constructs themselves (Schreiber, 2008).

Byrne (2010) suggested four ways of fitting the hypothesised models for both the measurement models and structural models.

They are:

1. Model fitting process
2. Statistical significance
3. Estimation process
4. Goodness-of-fit statistics

> "The final model should be parsimonious containing the least number of variables and yet explaining the greatest possible amount of variance in the outcome(s) of interest" (Buhi et al., 2007).

3.7.1 The model fitting process

The model fitting process of SEM is succinctly described in the flowchart illustrated at Figure 10. The flowchart describes six steps that are commonly used in the model fitting process (Kline, 2010).

3.7.2 Statistical significance

Statistical significance, which is the *p*-value, is a test used by statisticians to reject the null hypotheses when $p \geq .05$. In SEM, in which it is commonly referred to as the model test, it tests whether the covariance matrix implied by the researcher's model is close enough to the sample covariance matrix such that the differences might reasonably be considered as being due to sampling error (Kline, 2010, p. 193). According to Kine, if the differences cannot be attributed to sampling error, then the data covariances may contain information that speaks against the model and model-data discrepancies that may exceed those expected by chance. Most model tests statistics are generally scaled as 'badness-of-fit' statistics because the higher their values, the worse the model's correspondence with the data. This means that a statistical result of $p < .05$ will indicate problematic model-data correspondence, which is the failure to reject the null hypothesis at $p \geq .05$.

The parameter estimates are reviewed to check their feasibility, the appropriateness of the standard errors and the statistical significance. In order to test for statistical significance, the parameter estimate will be represented by the CR and needs to be >±1.96 (Norusis, 2008).

3.7.3 Evaluating model fit

Because there is no single statistical significance test that identifies a correct model given the sample data, it is necessary to take multiple criteria and to evaluate model fit on the basis of various measures simultaneously (Schermelleh-Engel & Moosbrugger, 2003).

Therefore, for each estimation procedure, a large number of goodness-of-fit indices are needed to judge whether or not the model is consistent with the choice of the estimation procedure for the type of data included in the model (Schermelleh-Engel & Moosbrugger, 2003; Hayduk et al., 2007; Hooper et al., 2008; Iacobucci, 2010).

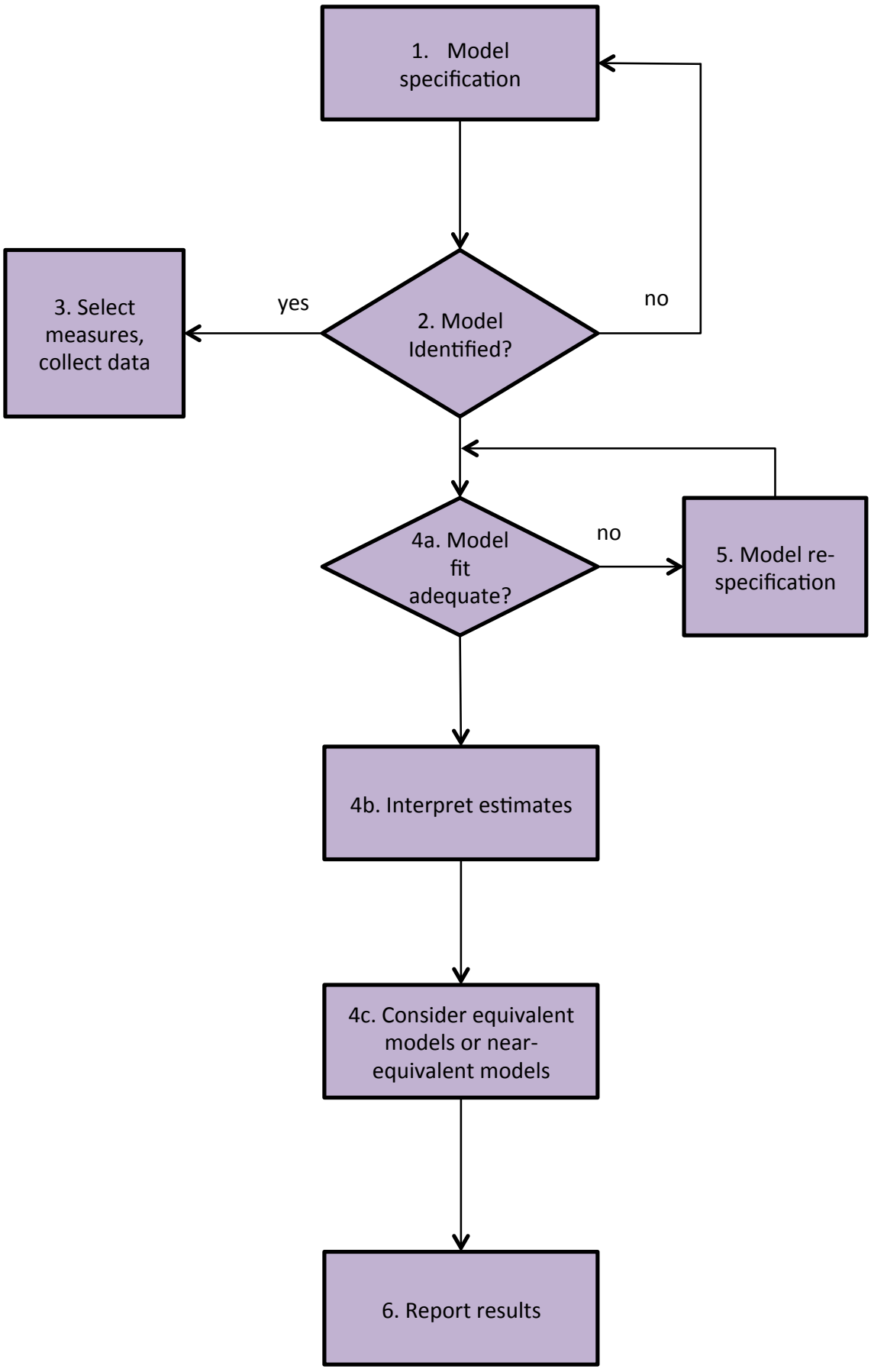


Figure 10 Flowchart of basic steps of SEM (Kline 2010 p. 92)

"For inferential statistical evaluation, only the χ^2 test has an associated significance test; the remaining evaluation tests are descriptive and fall into three main classes of criteria: measures of overall model fit, measures based on model comparisons, and measures of model parsimony" (Schermelleh-Engel & Moosbrugger, 2003).

3.7.4 The goodness-of-fit statistics

According to Kline (2010), approximate fit indices are intended as continuous measures or to retain a null hypothesis unlike model test statistics. Approximate fit indices do not distinguish between what may be sampling error and what may be real covariance evidence against the model. Further, the outcome of an approximate fit index is not the dichotomous decision to reject or retain a null hypothesis (Hooper et al., 2008; Kline, 2010)

Although fit indices are the basis for accepting or rejecting the structural model (Schermelleh-Engel & Moosbrugger, 2003; Schreiber, 2008; Byrne, 2010; Kline, 2010), one of the most important steps in SEM is assessing whether or not a specified model 'fits the data' (Yuan, 2005). The most commonly used cut-off thresholds for approximate fit indices are the criteria proposed by Hu and Bentler (1999), which have become regarded as the golden rules by most SEM scholars (Markland, 2007). Most researchers (e.g. Hu & Bentler, 1999; Schreiber, 2008) recommend reporting the comparative fit index (CFI) (Bentler, 1990), Tucker-Lewis index (TLI or non-normed fit index) (Tucker & Lewis, 1973), and root mean square error of approximation (RMSEA) (Steiger, 1990).

Although there are many indexes of goodness-of-fit, the χ^2 statistic is the most fundamental test to appraise an entire model (Bagozzi & Yi, 2012). The χ^2 statistic can be used to test the null hypothesis that the estimated or implied variance-covariance matrix of indicators reproduces the observed or sample variance-covariance matrix" (Bagozzi and Yi 2012 p. 28). Kline (2010) "recommended that the model chi-square (χ^2) value and degrees of freedom be reported because some fit indices are based on those values. The model chi-square is a badness-of-fit index because in general, the higher the chi-square value, the more likely a statistically significant result, indicating the worse the data fit the model" (Kline, 2010). Some researchers are unanimous that the chi-square (χ^2) be reported (Marsh et al., 2004; Markland, 2007). "A good fit is obtained when the χ^2 statistic is non-significant, which by convention is taken to

happen for p-values ≥.05" and "the χ^2 test is the most direct and obvious test of model fit and "is the ONLY statistical test for SEM models at the moment" (Bagozzi and Yi 2012 p. 28). Studies have shown that the scaled χ^2 statistic outperformed the standard ML estimator (Chou et al., 1991; Curran et al., 1996), and robust standard errors yielded the least biased standard errors, especially when the distributions of the observed variables were extremely non-normal (Chou & Bentler, 1995). But as robust ML estimation needs relatively large sample sizes of at least N ≥ 400 (Boomsma & Hoogland, 2001) or even N ≥ 2,000 (Yang-Wallentin & Jöreskog, 2001), there are few studies determining the advantages and disadvantages of these methods in small to moderate sample sizes (Schermelleh-Engel & Moosbrugger, 2003).

The root mean square residual (RMR) represents the average residual value derived from fitting the variance-covariance matrix for the hypothesised model $\Sigma(\theta)$ to the variance-covariance matrix of the sample data (S) (Byrne, 2010). The standardised RMR (SRMR) then represents the average value across all standardised residuals, and ranges from zero to 1.00; in a well-fitting model, this value will be small (<.05) (Byrne, 2010). The RMSEA (Steiger, 1990) is also a badness-of-fit index, wherein the higher the value the worse the data fit the model. Values of ≤.05 indicate a close fit, values between .05 and .08 an acceptable fit and values that are ≥.10 a poor fit (Weston & Gore, 2006; Schreiber, 2008; Byrne, 2010; Kline, 2010).

MacCullum and Austin (2000) strongly recommended the use of the RMSEA because they claim that:

- RMSEA is adequately sensitive to model misspecification (Hu & Bentler, 1999)
- commonly used interpretative guidelines yield appropriate conclusions on model quality (Hu & Bentler, 1999)
- it is possible to build confidence intervals (CI) around RMSEA values.

When ML estimation is the only method used, RMSEA should always be reported because it has been found to yield consistent results across estimation procedures when the model is well-specified (Schermelleh-Engel & Moosbrugger, 2003). This index is regarded as relatively independent of sample size, and additionally favours parsimonious models (Browne & Cudeck, 1993; Kaplan, 2000). Browne and Cudeck (1993) define a 'close fit' as an RMSEA value ≤ .05. According to Browne and

Cudeck (1993), RMSEA values ≤ .05 can be considered a good fit, values between .05 and .08 an adequate fit, and values between .08 and .10 a mediocre fit, whereas values > .10 are not acceptable. Although there is general agreement that the value of RMSEA for a good model should ≤ .05, Hu and Bentler (1999) suggested that a RMSEA of ≤ .06 is a better cut-off criterion. In addition, the CI around the point of estimate enables an assessment of the precision of the RMSEA estimate. On the basis of the CI, it is possible to say with a certain level of confidence that the given interval contains the true value of the fit index for that model in the population (MacCallum et al., 1996). The lower boundary on the left side of the CI should contain zero for exact fit and be ≤ .05 for close fit (Schermelleh-Engel & Moosbrugger, 2003).

The CFI is based on a ratio of the chi-square of the tested model and the independent or null model (Schreiber, 2008). The range of values for the CFI is from 0 to 1, but a value of 1 does not indicate a perfect fit, just that the chi-square of the model is less than the degrees of freedom of the model tested (Byrne, 2010). Generally, a value ≥ .95 has been considered a good fit. Bentler (1990) has suggested that, of the two, CFI and NFI, the CFI should be the index of choice.

Goodness-of-fit index (GFI) (Jöreskog & Sõrbom, 1984) is relevant because it has a simple relationship to the noncentrality parameter of the χ^2 distribution of the test statistic used for model testing MacCallum (1997). The rationale for the Goodness of Fit Index (GFI) index as discussed by Mulaik et al. (1989) and others, is based on the same principles as a coefficient of determination in regression analysis. The GFI can be thought of as 1 minus the ratio of residual (weighted) sum of squares to total (weighted) sum of squares. For a perfectly fitting model, the residual sum of squares is zero and GFI is 1. As lack of fit increases, the GFI should decrease accordingly

Given a multitude of choices for reporting fit indices, the choice of fit indices will have to be consistent with the past studies. According to Kline (2010), the four approximate fit indices that are among the most widely reported in the SEM literature are:

1. Steiger – Lind, RMSEA (Steiger, 1990) a parsimony-corrected index, with its 90% CI
2. Jöreskog-Sörbom, GFI
3. Bentler, CFI
4. Standardised SRMR, a statistic related to the correlation residuals

In addition, the model chi-square and chi-square/degree of freedom will also be reported (Hooper et al., 2008; Schreiber, 2008). The threshold limits in Table 10 will be adopted.

3.7.4.1 Cut-off thresholds

Table 10 provides a list of some of the major indices with the acceptable cut-off range for a good fit. Although most goodness-of-fit indices are deemed acceptable when greater > .90 (MacCallum & Hong, 1997; Hu & Bentler, 1999; MacDonald & Ho, 2002; Schreiber et al., 2006; Schreiber, 2008), the values had been revised by Hu & Bentler and values ≥ .95 have been considered as a more rigorous model fit (Hu & Bentler, 1999; Byrne, 2010).

Table 10 Fit indices for structural model

	Recommended values	
Model-Fit Index	**Minimum**	**Rigorous**
$\chi 2$	$P > .05$	
$\chi 2$/df	≤ 3.00	≤ 2.00
CFI	≥ .90	≥ .95
TLI	≥ .90	≥ .95
GFI	≥ .90	≥ .95
RMSEA	≤ .08	≤ .05
SRMR	≤ .08	≤ .05

Compiled from Hu and Bentler (1999), Byrne (2010), and Kline (2010)

3.7.5 Model specification and model respecification

Model respecification is needed when the parameter(s) within the hypothesised measurement model produce an inadequate or poor model fit. It is important that the specified model fits the data (Yuan, 2005). Arbuckle's (2009) AMOS guidebook recommends using AMOS to identify alternative measurement models by removing indicators from the model after taking into account the theoretical, statistical and practical considerations.

The primary focus is to locate the source of misfit in the model and using either theory- or data-drive respecification (Jöreskog & Sõrbom, 1984; Arbuckle, 2009), "determine a model that better describes the sample data and that is both substantively meaningful and statistically well-fitting" (Byrne, 2010 p.8).

3.8 Reliability and validity

3.8.1 Reliability

After the overall model fit has been evaluated, the measurement of each construct can then be assessed for unidimensionality and reliability. The fit of the measurement model is assessed by significant indicator loadings, Cronbach alpha and average variance extracted (AVE).

Reliability refers to the consistency of a measure (Price & Mueller, 1986) and is an assessment of the degree of consistency between multiple measurements of variables (Hair et al., 1998). Internal consistency should show that the indicators positively associated with the same concept are positively correlated with one another (Bollen & Stine, 1992). Although there is no measurement device that will be able to continually produce the same results, a reliable measurement will be able to produce repeated results that do not differ from the true value and the unreliable results can be referred to as random measurement error (Price & Mueller, 1986).

In highlighting the importance of a good research design, Cavana et al. (2001), recommended that the Cronbach's alpha reliability coefficients be used to measure the internal reliability of the measures when testing the reliability and validity of the measurement. Cronbach's coefficient alpha has been used as the benchmark for internal consistency and the value of .60 has been recommended as the minimum threshold (Kline, 2010).

3.8.2 Validity

Validity refers to the extent to which a scale or set of measures can accurately represents the concept of interest (Hair et al., 2006). The two types of validity checks are content validity and construct validity (Tharenou et al., 2007). To ensure the content validity of the questionnaire, both a pre-test and a pilot test were conducted with a small sample. Construct validity is the extent to which a measure adequately assesses the theoretical concept it is meant to assess (Phetvaroon, 2006;

Tharenou et al., 2007; de Guinea et al., 2013) and factor analysis is used to check for construct validity (Goodwin & Goodwin, 1991). For this research, the SEM method of the CFA will be used to ascertain the construct validity (Kline, 2005, 2010).

In addition to content and construct validity, convergent and divergent validity also needed to be tested. Convergent validity is established when the scores obtained by two different instruments measuring the same concept are highly correlated (Cavana et al., 2001). Convergent validity exists when a researcher's proposed scale items correlates with the same construct. The scale used in this study was adapted from established existing measures that have been used and validated in previous research. Standardised loadings and the squared multiple correlations can be used to detect large factor loadings for a specified construct, which are likely to suggest evidence of convergent validity (Bollen, 1989; Bollen & Stine, 1992). The convergent validity of the measures with values between 0 and 1 is represented by both the CR and AVE, with the closer the value is to 1, the better the variable acts as an indicator of the latent construct (Richardson et al., 2009; Byrne, 2010). The validity of the construct is questionable when the AVE of a construct is < 0.5 because it indicates that the variance, due to measurement error, is larger than the variance captured by the construct (Byrne, 2010). Bollen (1989) stated the means for assessing validity when using SEM relies on rule of thumb. At the most basic level, the measurement model itself offers evidence of convergent and discriminant validity (Anderson & Gerbing, 1984), assuming it is found to be acceptable with significant factor loadings > .70 and fit indices > .90. An acceptable convergent validity is achieved when the AVE is > 50%, which roughly corresponds to the Eigenvalue in EFA.

"Discriminant validity is established when two variables based on the theory are predicted to be uncorrelated, and the scores obtained by measuring them are indeed empirically found to be so" (Cavana et al., 2001). A common method of assessing discriminant validity in the measurement model is to "calculate the shared variance between two constructs and use that to verify that it is lower than the AVE for each individual construct" (Fornell & Larcker, 1981).

3.9 Confirmatory bias

Structural equation modelling (SEM) is often susceptible to confirmatory bias, which is a prejudice in favour of the model being evaluated (Greenwald et al., 1986;

MacCallum & Austin, 2000). It can occur in a moderately frequent, overly positive evaluation of model fit or in a routine reluctance to consider alternative explanations of data (MacCallum & Austin, 2000).

Kline (2010) (Figure 10) recommends that testing for equivalent models is one of the recommended basic steps of SEM. Equivalent models are models that yield the same predicted correlations or covariances but with a different configuration of paths among the same observed variables (Kline, 2010). For any given model, there will exist alternative models that generate identical estimates of population covariances matrices and, as a result fit the observed data equally well (Bentler, 1980; Jöreskog & Sõrbom, 1981; James et al., 1982; Steizl, 1986). They are called equivalent models when they reproduce the same set of covariance matrices (Lee & Hershberger, 1990). Identifying equivalent models will yield support for a given model if the equivalent models are ruled out or can reveal previously unrecognised plausible alternative models (Lee & Hershberger, 1990). "Equivalent models should have equal values of fit statistics, including $\chi 2_{,}$ *df* and all approximate fit indexes" (Kline 2010 p. 225).

Stelzl (1986) developed four rules to generate equivalent models, but the rules were restricted to recursive models. Since then, Lee and Hershberger (1990) have developed a simple rule that incorporates Stelz's four rules and is suitable for both recursive and non-recursive models. Lee and Hershberger's (1990) rule generates equivalent models through the replacement of direct paths with residual correlations with direct paths, or through the inversion of path directions.

In addition to test for equivalent models, "alternative models that are equivalent but based on the same observed variables and fitted to the same data matrix could also be considered" (Kline 2010 p. 292).

3.10 Chapter summary

The research framework is grounded in objectivism and a post-positivist theoretical approach, utilising a survey instrument to collect the data. Statistical analysis using SPSS and AMOS was used to carry out CFA and SEM. All data were pre-screened for suitability, adequacy of sampling size, internal consistency and univariate normality. CFA tested for unidimensionality, reliability, validity and multivariate normality in the measurement models. Bootstrapping was to be carried out if multivariate normality was not met. Upon achieving an acceptable measurement model fit, a structural model

was constructed. The a priori structural model was used to test the hypothesis and new paths were identified. Confirmatory bias of the SEM was evaluated through equivalent models before the final structural model was deemed acceptable. The final structural model had the best model-fit-indices, was most parsimonious and fit the data.

4 Results

4.1 Introduction

This chapter presents the results of the data analysis based on the methods described in Chapter 3: Methodology. First, the descriptive statistics were reported and discussed, as well as the respondents' intentions. The data were tested to determine whether or not they satisfy the basic assumptions underlying the method of analysis used. Upon satisfying the basic assumptions, the data were subjected to tests of conventional internal consistency, convergent and discriminant validity and confirmatory factor analysis (CFA) with the hypothesised measurement models. Structural equation modelling (SEM), model specification and re-specification was carried out to identify and satisfy a good-fit measurement model by considering the theoretical implications of adding and/or removing the indicators or variables to the hypothesised model. Once an accepted measurement model satisfied the stringent goodness-of-fit model and was determined to be theoretically sound, it was used to construct the structural model that is analysed using conventional maximum likelihood (ML) estimates analysis. The measurement model, which satisfied both theoretical and recommended procedures with the stringent goodness-of-fit test was used to test the hypotheses developed in the research framework. Finally, equivalent and alternative models (EM and AM) were considered to test for confirmatory bias present in the SEM models.

4.2 Descriptive statistics

The survey was carried out in two stages at Kaplan Institute, Singapore, from December 2010 to February 2011. The first survey was administered at a one-day local career fair (n = 117) held at Kaplan Institute. The second survey was carried out at Kaplan Institute in a classroom survey (n = 285). The second survey took about ten days to complete. Responses at the fair were moderate, with about 60% response rate, whereas the response in the classroom was about 90%. The two surveys were administered within three months of each other. The collected sample (N = 402) exceeded the minimum sample size requirement of N = 384 as specified in the methodology chapter. Researchers have determined that in order for ML estimation to be robust, the sample sizes should be relatively, at least $N \geq 400$ (Boomsma & Hoogland, 2001; Schermelleh-Engel & Moosbrugger, 2003; Norusis, 2008; Byrne,

2010; Coakes et al., 2010). The samples size collected was N = 402, and therefore meets the minimum requirement for SEM studies (Costello & Osborne, 2005; Kline, 2010).

4.2.1 Respondents profile

The demographic data and the descriptive statistics of the respondents are presented in Table 11. The respondents were predominantly female (61.4 %, as opposed to 37.8% male) and their ages were from 20 (19.7%), 21 (18.2%), 22 (14.7%), 23 (11.2%), and 24 (8%) years old, with the largest group those aged 20. Half of the respondents (203, 50.5%) reported that they had no any previous working experience. The majority (80.6%) was studying at Kaplan Institute. Upon graduation, 22.6% reported that they preferred to work in the tourism industry, 19.4% in the business sector, and 14.2% in banking. However, 31.8% of the respondents did not want to work in any of the industries indicated. A third (32.1%) of the respondents expected to graduate in 12 months' time, 18.9% in more than 12 month, 14.4% in 6 months' time, 12.9% in 3 month, and 9.5% in 1 month. Some (10.7%) reported that they had already graduated.

4.2.2 Item analysis

4.2.2.1 Turnover intentions

Table 12 shows that most of the respondents expected that after beginning their first job, they would consider changing jobs to gain more work experiences. Also, if not satisfied with their first job, they would not hesitate to quit, particularly within the first month. Almost half (43%) of the respondents intended to stay in their first job for more than 12 months. Just as many, however expected to actively look for another job in a different organization, 22.9% within 12 months and 19.2% within 3 months.

Table 11 Respondents' descriptive statistics

Characteristics	Categories	Percentage (%)
Gender	Male	37.8
	Female	61.4
Age (years)	18	3.7
	19	5.5
	20	19.7
	21	18.2
	22	14.7
	23	11.2
	24	8
	25	6.7
	26	4.5
	>27	8
Education Institution	Polytechnic	10.7
	Kaplan	80.6
	SMU	4.2
	Others	3.5
Preferred industry to seek employment	Engineering	3.5
	Legal	0.5
	Banking	14.2
	Manufacturing	1.2
	Construction	0.7
	Tourism	22.6
	Teaching	2
	Business	19.4
	Others	31.8
When would you graduate	After another month	9.5
	After another 3 months	12.9
	After another 6 months	14.4
	After another 12 months	32.1
	More than 12 months later	18.9
	Already graduated	10.7
Previous working Experience	With experience	49.5
	Without experience	50.5

Table 12 Descriptive statistics of turnover intentions

Variable	Code	Name and survey item	Mean	SD
Turnover intentions	INT7A	The duration I intend to stay in my first job (RS)	2.53	1.79
	INT8A	The duration I will consider to actively look for another in a different organisation after my first job (RS)	3.90	2.11
	INT9	I intend to quit my first job if I become unhappy within one month	3.61	1.59
	INT10	I intend to quit my first job the moment I am dissatisfied with it	3.54	1.65
	INT11	I intend to quit my first job soon after starting to try out different job for more experiences	4.33	1.59
	INT12A	I intend to quit my first job unless it turns out badly (RS)	3.06	1.42

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.2.2 Respondents' intentions to quit

Table 13 shows how long the respondents intended to stay in their first job. Almost half (43%) indicated that they would stay for more than 12 months before quitting, one-fifth (21.9%) for up to 12 months, and less than 2.5% of the respondents would stay for less than 1 month. When asked when they would actively start to look for a job in another organisation, the majority response (22.9%) was that would be more than 12-months before they would decide to do that. However, 19.2% responded that it would only take them up to 3 months to get to that point. If unhappy with their first job, 26.9% indicated they would take up to 6 months (26.9%), and 20.6% would take up to 1 month before quitting. If dissatisfied with their first job, 23.6% would take up to 6 months and 21.4% would take up to 1 month to decide to quit. Once in their first job, 25.1 % intended to wait up to 6 months before to try out different jobs and 20.1% would wait up to 12 months. If their first job turns out badly, 35.1% expect to take up to 12 months and 22.4% up to 6 months before deciding to quit.

Table 13 Intention to quit

Characteristics	Categories	Percentage
The duration I intend to stay in my first job	LESS THAN 1 MONTH	2.5
	UP TO 1 MONTH	6.5
	UP TO 3 MONTH	9.0
	UP TO 6 MONTH	12.9
	UP TO 9 MONTH	4.0
	UP TO 12 MONTH	21.9
	MORE THAN 12 MONTH	43.0
The duration I will consider to actively look for another job in a different organisation after my first job	LESS THAN 1 MONTH	11.9
	UP TO 1 MONTH	15.4
	UP TO 3 MONTH	19.2
	UP TO 6 MONTH	12.4
	UP TO 9 MONTH	5.7
	UP TO 12 MONTH	10.7
	MORE THAN 12 MONTH	22.9
I intend to quit my first job if I become unhappy wtihin one month	LESS THAN 1 MONTH	9.0
	UP TO 1 MONTH	20.6
	UP TO 3 MONTH	15.9
	UP TO 6 MONTH	26.9
	UP TO 9 MONTH	12.9
	UP TO 12 MONTH	11.4
	MORE THAN 12 MONTH	3.2
I intend to quit my first job the moment I am dissatisfied with it	LESS THAN 1 MONTH	11.4
	UP TO 1 MONTH	21.4
	UP TO 3 MONTH	15.2
	UP TO 6 MONTH	23.6
	UP TO 9 MONTH	13.2
	UP TO 12 MONTH	12.2
	MORE THAN 12 MONTH	3.0
I intend to quit my first job soon after starting to try out different job for more experiences	LESS THAN 1 MONTH	3.7
	UP TO 1 MONTH	13.4
	UP TO 3 MONTH	10.7
	UP TO 6 MONTH	25.1
	UP TO 9 MONTH	19.4
	UP TO 12 MONTH	20.1
	MORE THAN 12 MONTH	7.2
I intend to quit my first job unless it turns out badly (RS)	LESS THAN 1 MONTH	1.2
	UP TO 1 MONTH	6.5
	UP TO 3 MONTH	6.7
	UP TO 6 MONTH	22.4
	UP TO 9 MONTH	17.7
	UP TO 12 MONTH	35.1
	MORE THAN 12 MONTH	9.5

4.2.2.3 Attitudes

Table 14 reveals that the means of responses on the 7-point Likert scale are > than 4, which shows that the respondents clearly intend to find another job before quitting their first job and that they believe it is common for people around their age to quit their first job. They do not think it would be a mistake to quit their first job or care about what people might think; in fact, they consider it to be a normal thing to do. They believe it would be easy for them to get another job.

Table 14 Attitudes

Variable	Code	Name and survey item	Mean	SD
Attitudes	AT13	It will be easy for me to get another job later if I quit my first job	4.04	1.41
	AT14	It is common for people around my age to quit their first job	4.67	1.46
	AT15	I don't care what people think should I quit my first job	4.62	1.54
	AT16	I am likely to get another job first before I quit my first job	5.38	1.36
	AT17	I think that quitting my first job is a normal thing to do	4.33	1.65
	AT18A	Deciding to quit my first job will be a definite mistake on my part (RS)	4.64	1.39

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.2.4 Subjective norms

In Table 15, the means are again all above 4. The respondents feel strongly about consulting people who are important to them before quitting their first job. They also think that parents, relatives and friends would approve of their behaviour if they quit the first job. They do not think people would care if they quit their first job.

Table 15 Subjective norms

Variable	Code	Name and survey item	Mean	SD
Subjective norms	SN19	My parents, relatives and friends would approve of my behaviour if I quit my first job	4.34	1.33
	SN20A	Nobody would care if I quit my first job (RS)	4.47	1.53
	SN21	I will consult people who are important to me before I quit my first job	5.49	1.33

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.2.5 Perceived behavioural control

In Table 16, the means are all above 4. As perceived behavioural control basically measures the ease of carrying out the activity, the respondents generally feel that it is easy for them to quit their first job and that there will be plenty of opportunities for them to do that. They do not really think that there will be any obstacles to stop them from carrying the act.

Table 16 Perceived behavioural control

Variable	Code	Name and survey item	Mean	SD
Perceived behavioural control	PBC22	If I want to, it will be easy to quit my first job	4.31	1.42
	PBC23	There will be no obstacle if I want to quit my first job	3.99	1.43
	PBC24	There will be plenty of opportunities for me to quit my first job	4.27	1.34

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.2.6 Self-efficacy

In Table 17, the means are either above 4 or very close to 4. The respondents feel that quitting their first job will not be a problem and they can quit any time they want to.

Table 17 Self-efficacy

Variable	Code	Name and survey item	Mean	SD
Self - efficacy	SE25	I am confident that I can quit my first job anytime I want to	3.91	1.45
	SE26	For me to quit my first job would not be a problem	4.29	1.38

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.2.7 Perceived control

In Table 18, almost all of the means are above 4. The respondents feel that quitting their first job is within their control. On the other hand, the respondents also expect that it will be difficult to get a job and worried that they may not get one within the financial crisis. Nonetheless, they perceive that they have control over deciding to quit their first job.

Table 18 Perceived control

Variable	Code	Name and survey item	Mean	SD
Perceived Control	PC27	The decision to quit my first job would be within my control	4.97	1.31
	PC28	Whether or not I would quit my first job will be entirely up to me	4.83	1.40
	PC29	I am worried that I may not be able to get a job in this financial crisis	4.85	1.59
	PC30	I expect that it will be difficult to find a job in this financial crisis	4.90	1.46
	PC31	I will take on any job in this financial crisis without hesitation	4.02	1.39
	PC32	I will quit my first job even in this financial crisis if I am dissatisfied with it	3.99	1.44
	PC33	Quitting my first job in this financial crisis is within my control	4.38	1.37

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.2.8 Turnover expectations

In Table 19, the means are all above 4. The respondents feel that good career prospects, good training, and job satisfaction are important considerations in choosing their first job. They indicate that they would go for higher salary than market expectations for their first job, but would take into account whether or not the first job is related to what they have studied.

Table 19 Turnover expectations

Variable	Code	Name and survey item	Mean	SD
Turnover Expectations	EXP34	I will take up the first job that offers me a higher salary than market expectations	4.95	1.40
	EXP35	I will only take up my first job if it is related to what I have studied	4.36	1.52
	EXP36	Job satisfaction is an important factor for me to stay on the first job	5.71	1.26
	EXP37	Good career prospect are an important consideration for me to in choosing my first job	5.78	1.11
	EXP38	Good training facilities is an important consideration for me in to choosing my first job	5.75	1.11

Note: The mean score is based on a 7-point Likert scale. Scale: 1 = strongly disagree, 7 = strongly agree

4.2.3 Pre-testing

The initial pre-testing includes screening the data for reverse scores, missing data, and outliers. In addition, tests for normality of data and the presence of collinearity are important steps before commencing any testing of assumptions (Kendall & Stuart, 1958; Mardia, 1975, 1985; Pallant, 2005; Finney & DiStefano, 2006; Norusis, 2006, 2008).

The samples with reverse scores were treated according to SPSS procedures (Savickas, 2002; Pallant, 2005; Norusis, 2006, 2008). Missing data were detected during the screening and treated by using the SPSS expectation minimisation method (Norusis, 2006, 2008). This method was recommended and found to be the closest to

the ML estimation to be used in the SEM (Arbuckle, 2009). The data were checked for outliers using the Mahalanobis distance (D^2) procedure found in AMOS. One outlier was subsequently removed and the remaining sample size (N = 401) was used for the statistical analysis.

4.2.4 Test of collinearity

Multicollinearity will occur when one independent variable becomes a linear function of another independent variable. It can result in over-fitting in regression analysis that reduces its reliability (Kline, 2010) and the data redundancy of the variable (Tharenou et al., 2007). Collinearity of indicators can be tested using a formal detection-tolerance and the Variance Inflation Factors (VIF) as suggested by the SPSS manual (Pallant, 2005; Norusis, 2006, 2008).

Where:

$$\text{Tolerance} = 1 - R^2 \text{ , VIF} = 1/\text{tolerance}$$

A variable with a VIF > 10 is usually indicative of a collinearity problem and the variable may be redundant (Kline, 2010). The indicators are subject to a linear regression test with previous work experience (PWE) as the dependent variable to generate the test statistics. An inspection of Table 20 shows that none of the indicators have tolerance < 0.1 nor VIF > 10. Therefore, this confirms that the data has no collinearity issues.

Table 20 Test of collinearity

Observed indicators	Tolerance	VIF
INT7A	.687	1.456
INT8A	.750	1.333
INT9	.536	1.866
INT10	.535	1.869
INT11	.730	1.37
INT12A	.818	1.222
AT13	.728	1.373
AT14	.744	1.343
AT15	.711	1.407
AT16	.815	1.227
AT17	.641	1.559
SN18A	.798	1.254
SN19	.669	1.495
SN20A	.718	1.393
SN21	.704	1.420
PBC22	.540	1.853
PBC23	.472	2.119
PBC24	.518	1.93
SE25	.510	1.961
SE26	.514	1.944
PC27	.503	1.989
PC28	.504	1.984
PC29	.426	2.346
PC30	.421	2.373
PC31	.754	1.327
PC32	.626	1.599
PC33	.566	1.766
EXP34	.725	1.378
EXP35	.797	1.255
EXP36	.414	2.417
EXP37	.373	2.679
EXP38	.462	2.162

4.2.5 Assessment of data normality (univariate)

The recommended tests for univariate normality and for data, which are on a continuous variable's scores, are tests for kurtosis and test for skewness (Kendall & Stuart, 1958; Mardia, 1974; Yuan et al., 2005; Tharenou et al., 2007). In a normal distribution the skewness and kurtosis are zero and a common rule -of -thumb used to test for data normality is to divide the skewness and kurtosis with their respective standard errors. The result of the absolute values of kurtosis, known as the kurtosis index (KI), should not be > 5 and the absolute values of skewness, known as the skewness index (SI), should not be > 2 (Kendall & Stuart, 1958; Finney & DiStefano, 2006; Gao et al., 2008). However, Kline (2010) stated that skewness with variables with absolute values of SI > 3.0 are described as 'extremely' skewed. There is less consensus about the KI. Absolute KI values from 8.0 to more than 20.0 have been described as indicating 'extreme' kurtosis (Kline, 2010). According to Kline (2010), a conservative rule of thumb is that there is a problem when the absolute value of KI is > 10.0 and a more serious problem when it is > 20.0.

In addition, the Shapiro-Wilk, W, can be used to test each indicator for normality (Steiger et al., 1985; Gao et al., 2008). When the Shapiro-Wilk, W is significantly smaller than 1, the data does not meet the assumption of normality. Therefore, SI, KI and Shapiro-Wilk Mardia's number, also known as the CR value, were used to test the data for normality.

Table 21 reveals some indicators with a slightly non-normal score. However, no indicators displayed severe non-normality across all three tests and because all the latent variables are measured with at least two indicators, the normality of the data is considered acceptable. In addition to this, the probability plots including histogram, d-trend were inspected (as recommended by Mardia, 1975) and revealed no visible abnormality.

However, until they generalise to a more diverse set of models under a broader range of conditions found in multivariate testing (Bollen, 1989), the findings of collinearity and univariate normality can be treated only as a preliminary method of assessing asymptotic normality of statistics (Mardia, 1975; Finney & DiStefano, 2006). Therefore, the univariate normality and collinearity of the data were acceptable for further use in multivariate testing.

Table 21 Univariate normality

Variance	N	Mean	SE	SD	Skew-ness (a)	SI (b)	(a/b)	Kurtosis (c)	KI (d)	(c/d)	Shapiro-Wilk (W)
INT7A	401	5.48	.09	1.79	-.92	.12	-7.53	-.44	.24	-1.83	.80
INT8A	395	4.10	.11	2.12	.12	.12	.96	-1.40	.25	-5.69	.89
INT9	402	3.61	.08	1.59	.17	.12	1.3	-.78	.24	-3.23	.94
INT10	402	3.54	.08	1.65	.18	.12	1.44	-.92	.24	-3.78	.94
INT11	401	4.33	.07	1.59	-.24	.12	-1.93	-.78	.24	-3.20	.94
INT12A	398	4.94	.07	1.42	-.64	.12	-5.27	-.24	.24	-.99	.90
AT13	399	4.04	.07	1.41	-.16	.12	-1.34	-.39	.24	-1.59	.93
AT14	399	4.67	.08	1.47	-.47	.12	-3.85	-.27	.24	-1.10	.93
AT15	401	4.62	.07	1.54	-.36	.12	-2.93	-.62	.24	-2.55	.94
AT16	399	5.38	.07	1.36	-.78	.12	-6.39	.15	.24	.60	.89
AT17	402	4.33	.08	1.65	-.34	.12	-2.77	-.77	.24	-3.16	.93
SN18A	400	3.35	.07	1.38	.05	.12	.39	-.39	.24	-1.61	.92
SN19	401	4.32	.07	1.36	-.28	.12	-2.30	-.15	.24	-.62	.93
SN20A	399	3.53	.07	1.53	.24	.12	1.94	-.66	.24	-2.69	.94
SN21	401	5.50	.07	1.33	-1.13	.12	-9.28	1.21	.24	4.97	.86
PBC22	400	4.31	.07	1.43	-.24	.12	-1.98	-.45	.24	-1.85	.94
PBC23	401	3.99	.07	1.43	-.11	.12	-.92	-.54	.24	-2.24	.94
PBC24	401	4.27	.07	1.34	-.20	.12	-1.65	-.32	.24	-1.30	.93
SE25	401	3.91	.07	1.45	.05	.12	.43	-.61	.24	-2.49	.95
SE26	401	4.28	.07	1.38	-.29	.12	-2.37	-.41	.24	-1.67	.94
PC27	402	4.95	.07	1.31	-.56	.12	-4.57	-.09	.24	-.37	.92
PC28	401	4.83	.07	1.42	-.45	.12	-3.72	-.37	.24	-1.51	.93
PC29	402	4.85	.08	1.60	-.66	.12	-5.37	-.32	.24	-1.30	.91
PC30	400	4.90	.07	1.48	-.69	.12	-5.63	.03	.24	.11	.92
PC31	401	4.00	.07	1.41	-.14	.12	-1.14	-.56	.24	-2.28	.95
PC32	401	3.97	.07	1.45	-.16	.12	-1.29	-.54	.24	-2.23	.95
PC33	402	4.37	.07	1.37	-.34	.12	-2.80	-.10	.24	-.42	.94
EXP34	402	4.96	.07	1.41	-.53	.12	-4.31	-.21	.24	-.85	.92
EXP35	402	4.32	.08	1.54	-.27	.12	-2.18	-.71	.24	-2.93	.94
EXP36	402	5.70	.06	1.27	-1.07	.12	-8.77	.98	.24	4.05	.85
EXP37	402	5.78	.06	1.11	-.94	.12	-7.72	.73	.24	2.98	.85
EXP38	402	5.76	.06	1.13	-.81	.12	-6.63	.24	.24	.97	.86

4.3 Reliability and validity

Reliability and validity should be assessed when using SEM (Shook et al., 2004; Bagozzi & Yi, 2012) and must be maintained at each stage of the analysis to ensure that the analysis can be replicated and validated (Price, 1977; Price & Mueller, 1986; Bagozzi & Yi, 2012).

4.3.1 Construct validity

Because each latent construct has multi-items, Cronbach Alpha was used to test construct validity. Cronbach Alpha is a common test used to test for internal

consistency and with a value of .70 and above, and has been deemed to satisfy the criteria for internal consistency (Kendall & Stuart, 1958; Mardia, 1974; Helms et al., 2006; Gravetter & Wallnau, 2007). Table 22 shows low reliability for attitudes and subjective norms, therefore they were discarded.

The average variance extracted (AVE) can be used to reflect the overall amount of variance in the indicators accounted for by the latent construct with higher values (>.50). The AVE reveals that the indicators are well represented by the latent constructs. Table 22 also reveals that the AVE estimates ranging from .670 (turnover intentions) to .799 (turnover expectations), all are higher than the acceptable range of .50 (Ajzen & Fishbein, 1980; Tabachnick & Fidell, 2001; Teo, 2009; Bagozzi & Yi, 2012).

Discriminant validity is normally assessed and tested by calculating the shared variance between two constructs and verifying that it is lower than the average variances extracted for each individual construct in the measurement model (Teo, 2009; Coakes et al., 2010). The results of the discriminant validity tests are presented in Table 23. None of the constructs are correlated to each other except perceived behavioural control and self-efficacy, which exceeded the AVE. Both appear to be strongly correlated. This is not surprising, as perceived behavioural control and self-efficacy are sometimes used to refer to the same construct; however, self-efficacy "refers to people's beliefs about their ability to exercise control over their own level of functioning and over events that affect their lives" (Bandura 1991, p. 257). It differs greatly perceived behavioural control, which focuses on the ability to perform a particular behaviour (Ajzen, 2002). Therefore, in these definitions, "the concern is clearly with control over the behaviour itself, not with control over outcomes or events, and thus self-efficacy differs greatly from perceived behavioural control" (Ajzen 2002, p. 667).

The reliability and the AVE estimates of the constructs show that the items to be used have satisfied tests for internal consistent and discriminant validity. Next to be tested was construct validity, using the SEM method of CFA (Kline, 2005, 2010).

Table 22 Construct validity for measurement model

Construct	Item	Cronbach Alpha (≥ .70)	AVE (≥ .50)
Attitudes	AT13 AT14 AT15 AT17	.611 **	.532
Subjective norms	SN19 SN21	.315 **	-
Perceived behavioural control	PBC22 PBC23 PBC24	.744	.703
Self-efficacy	SE25 SE26	.731	.760
Perceived control	PC27 PC28 PC32 PC33	.727	.636
Turnover expectations	EXP36 EXP37 EXP38	.836	.799
Turnover intentions	INT9 INT10 INT11	.744	.670

** Removed due to low reliability

Table 23 Discriminant validity for the measurement model

Construct	SE	PC	PBC	TO Int	TO Expt
SE	(.760)				
PC	.682	(.636)			
PBC	.847 *	.49	(.703)		
TO Int	.296	.082	.202	(.670)	
TO Expt	.096	.268	.166	-0.026	(.799)

Note: Diagonal in parentheses: AVE from observed variables (items); Off-diagonal: variance shared between the construct and other constructs.
** p < .01

4.4 Assessment of data normality (multivariate)

In practice, few data are normally distributed (Micceri 1989) and univariate normality does not guarantee multivariate normality (Gao et al., 2008). Therefore, the data need to be subjected to a more stringent multivariate normality test.

The test for multivariate normality can be obtained during the AMOS analysis by looking at the Mardia's number, also known as the CR value (Mardia, 1970, 1975). Byrne (2010) recommended that multivariate normality is acceptable when the CR value is < 5. Table 24 shows the multivariate normality, with the kurtosis at 56.591 and the CR value at 25.090, which is > 5. The data are considered multivariate non-normal. Multivariate non-normality may pose a problem during ML, as it is one of the limitations of that method. Violations of distributional assumptions are common and in practice, often unavoidable. Simulation studies have suggested that under conditions of severe non-normality, ML parameter estimates are still consistent but not necessarily efficient (Schermelleh-Engel & Moosbrugger, 2003) and that ML seems to be quite robust against violation of the normality assumption (Chou & Bentler, 1995; West et al., 1995; Curran et al., 1996; Boomsma & Hoogland, 2001; Gao et al., 2008).

Table 24 Assessment of multivariate normality (Group 1)

Variable	Min	Max	Skew	CR	Kurtosis	CR
EXP38	1.000	7.403	-.837	-6.843	.392	1.602
EXP37	2.000	7.000	-.938	-7.666	.708	2.893
EXP36	2.000	7.000	-1.086	-8.881	1.028	4.202
INT11	1.000	7.000	-.244	-1.993	-.777	-3.174
INT10	1.000	7.000	.171	1.395	-.927	-3.790
INT9	1.000	7.000	.169	1.385	-.780	-3.187
PBC24	1.000	7.000	-.196	-1.598	-.314	-1.283
PBC23	1.000	7.000	-.122	-1.000	-.550	-2.249
PBC22	1.000	7.000	-.247	-2.018	-.443	-1.809
PC33	1.000	7.000	-.349	-2.849	-.090	-.370
PC32	1.000	7.000	-.175	-1.430	-.559	-2.286
PC28	1.000	7.000	-.462	-3.780	-.325	-1.327
PC27	1.000	7.000	-.538	-4.396	-.154	-.629
SE26	1.000	7.000	-.309	-2.526	-.385	-1.573
SE25	1.000	7.000	.064	.525	-.623	-2.546
Multivariate					56.591	25.090

In multivariate non-normal data, the data need to be subjected to further tests by bootstrapping to check on the levels of severity and acceptability (West et al., 1995; Kupek, 2006; Byrne, 2010; Kline, 2010). Bootstrapping (BS) is a method that is used to assess the difference of the regression estimate and the standard error and to provide bias-corrected confidence intervals (at 90%) for each of the bootstrap (BS) estimates (Finney & DiStefano, 2006; Byrne, 2010; Kline, 2010).

4.4.1 Bootstrapping

Bootstrapping can be applied to address the presence and potential issues of multivariate non-normal distribution of data (Byrne, 2010). Finney and DiStefano (2006) recommended using the bootstrapping procedure if the data are non-normally distributed and the variables have five categories or more. As this study utilised a Likert scale comprising seven categories, the bootstrapping procedure is suitable.

Therefore, if the sample data is found to be non-normal, then bootstrapping can be adopted as it is a re-sampling technique that can be used to construct an empirical distribution of the model test statistics by taking into consideration the non-normality of the data (Fishbein & Ajzen, 1975; Cheung & Lau, 2008). The sample data can be inspected for bias-corrected confidence intervals by verifying that the item range, between the lower and upper limit, does not include zero, and thus the assumption that the regression weight is equal to zero in the sample population can be rejected (Byrne, 2010). The use of bootstrapping to compensate for the non-normal distribution can fulfilled the basic assumption of using data that are deemed multivariate normal for SEM (Byrne, 2010; Kline, 2010; Iyer, 2011; Jansen, 2011).

4.5 Confirmatory factor analysis (CFA)

4.5.1 Measurement models

After the data were found to satisfy all pre-tests of normality, collinearity, reliability and validity, construct assessment was able to carried out through CFA. Structural equation modelling was used to evaluate the CFA. The full structural model comprises a measurement model and a final structural model. The final measurement model was tested for construct validity and before being used for structural modelling. Both were analysed using conventional ML estimates analysis, which is the default method in almost all the SEM software (Shook et al., 2004) and is found in AMOS 18.

Drawing a two-headed arrow linking the constructs among the observed variables together creates the measurement model. Two types of output information generated by AMOS, the standardised residuals and the MI, were used to detect model misspecification (Byrne, 2010; Kline, 2010). AMOS provided specification search tools that displayed the MIs to show the impact of the change against various goodness-fit measures. The resulting 23 items were submitted to CFA.

The measurement model is the first step in CFA. Building congeneric models to assess the constructs is the simplest form of measurement model that can be used to provide an estimate of the correlation between the unobserved variable and the observed variables (Reuterberg & Gustafasson, 1992; Sager et al., 1998). Bagozzi (2012) suggested that a multi-factor measurement model, which involves testing a number of constructs together at a time, be employed initially. Similarly, multi-dimensionality can also be tested among the items if more than one-factor congeneric

models are constructed (Reuterberg & Gustafasson, 1992). In fact, congeneric models with different items relations with ability and error variances will not produce any problems in the model fit but if each underlying dimension in the model is represented by only observed variable, the test is likely to fail to reject the model, because the multi-dimensionality will be absorbed in the error variances of the observed variables (Reuterberg & Gustafasson, 1992). If, however, the different dimensions are represented by two or preferably more observed variables, the test have the power to reject the hypothesis that a one-factor congeneric model fits the data (Reuterberg & Gustafasson, 1992).

4.5.1.1 Congeneric model: Perceived behavioural control, self-efficacy and perceived control

A three-factor congeneric model comprised of perceived behavioural control, self-efficacy and perceived control was constructed by linking two-headed arrows to the variables (Figure 11). Perceived behavioural control has been found to be multi-dimensional and comprised of self-efficacy and perceived control (Ajzen, 2002). The results of the models are shown in Table 25. Model 1, which has 12 items, did not achieve a good model fit. There was low residual loading among some of the items, which were progressively removed, individually. After five iterations, the model was found to be of acceptable model fit and thus retained.

The model fit (see Figure 11) is as shown.

χ^2 (17) = 58.760, χ^2/df = 3.456, p = .000,
GFI † = .964, TLI ‡ = .940, CFI § = .964
RMSEA ‖ = .079

†goodness-of-fit index; ‡Tucker Lewis index; §comparative fit index; ‖root mean square error of approximation

Table 25 Selected AMOS text output for hypothesised CFA model for PBC-Self-efficacy-PC Variable

Model	Reason for changes (Modification processes)	χ^2	χ^2/df	GFI	TLI	CFI	RMSEA
Model 1 (12 items)		507.105	9.943	.838	.623	.708	.150
Model 2 (11 items)	Remove PC29 low loading	204.512	4.988	.915	.837	.878	.101
Model 3 (10 items)	Remove PC31 low loading	141.729	4.429	.929	.880	.915	.093
Model 4 (9 items)	Remove PC30 low loading	106.814	4.451	.941	.902	.934	.094
Model 5 (8 items)	Remove PC32 low loading	58.760	3.456	.964	.940	.964	.079

χ^2 (17) = 58.760, χ^2/df = 3.456, p = .000,
GFI = .964, TLI = .940, CFI = .964
RMSEA = .079

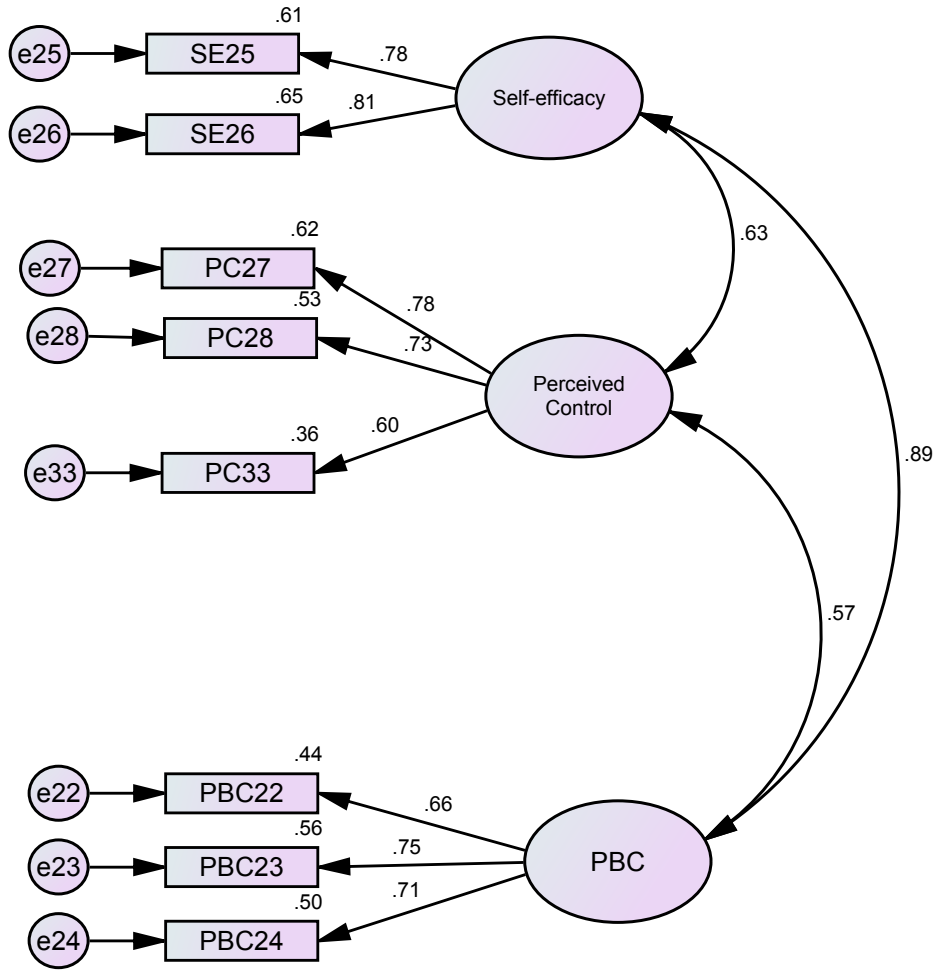


Figure 11 Hypothesised three-factors CFA model of PBC-SE-PC

4.5.1.2 Congeneric model – Turnover intentions and turnover expectations

The next congeneric model was constructed out of a two-factor model of turnover intentions and turnover expectations (Figure 12). Because turnover intentions and turnover expectations have been correlated in many studies (Porter & Steers, 1973; Van Breukelen et al., 2004; van Hooft et al., 2004b), they are linked together to check for uni-dimensionality. The results of the models are shown in Table 26. Inspection of MIs showed low residual loadings and the affected variables were removed as indicated in Table 26. After six iterations, the estimation yield a model of good fit as shown and was retained.

The model fit (Figure 12) is as shown.

χ^2 (8) = 21.360, χ^2/df = 2.670, p = .000,
GFI = .982, TLI = .967, CFI = .982
RMSEA = .065

Table 26 Selected AMOS text output for hypothesised CFA model for turnover intentions and turnover expectations

Model	Reason for changes (Modification processes)	χ^2	χ^2/df	GFI	TLI	CFI	RMSEA
Model 1 (11 items)		206.704	4.807	.910	.782	.830	.098
Model 2 (10 items)	Remove INT12A low loading	157.524	4.633	.927	.822	.866	.096
Model 3 (9 items)	Remove INT8A low loading	60.765	2.337	.967	.942	.958	.058
Model 4 (8 items)	Remove INT7A low loading	51.387	2.705	.968	.942	.961	.066
Model 5 (7 items)	Remove EXPT34 Low loading	36.672	2.821	.973	.952	.970	.068
Model 6 (6 items)	Remove EXPT35 low loading	21.360	2.670	.982	.967	.982	.065

χ^2 (8) = 21.360, χ^2/df = 2.670, p = .000,
GFI = .982, TLI = .967, CFI = .982
RMSEA = .065

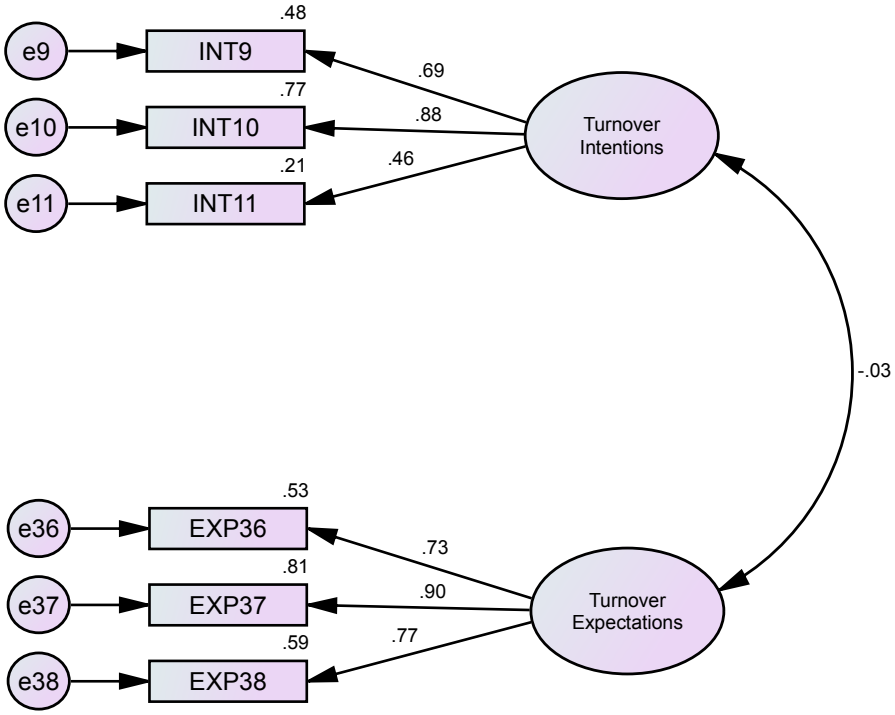


Figure 12 Hypothesised two-factors CFA model of turnover intentions and turnover expectations

4.5.1.3 A priori measurement model

Finally, the constructs representing the 14 measures were used to form the a priori measurement model after being purified through the congeneric models. They were linked together by drawing a two-headed arrow to provide an estimate of the correlation between all the unobserved variables and the observed variables as shown in Figure 13. The results of the a priori measurement model, together with the bootstrapping adjustment are shown. Although, the a priori measurement model shows a good model fit, the Bollen-Stine bootstrap p = .010 shows that the model must be rejected. An inspection of the results of the a priori measurement model shows the following model fit.

A priori measurement model (Figure 13)

χ^2 (67) = 139.516, χ^2/df = 2.082, p = .000,
GFI = .952, TLI = .949, CFI = .962
RMSEA = .052 (CI .040 -.064), PCLOSE = .376
SRMR = .0451, Bollen-Stine bootstrap p = .010
Bootstrap χ^2 = 81.632, Adjusted χ^2/df = 1.338

Kline (2010) suggested that respecifications of CFA models should be guided by an inspection of the correlation residuals and the MIs. The MI of PBC 23 was higher than all corresponding indicators and cross-loading on other factors. However, if PBC 23 is removed, then the factor PBC is left with only two indicators. Kline (2010) suggested that two indicators are acceptable and that two indicators per factor is the minimum needed for identification. Therefore, PBC 23 was removed for parsimony and the model yields the following model fit after the removal.

Final measurement model (Figure 14)

χ^2 (55) = 91.960, χ^2/df = 1.672, p = .000,
GFI = .966, TLI = .969, CFI = .978
RMSEA = .041 (CI .026 -.055) PCLOSE = .840
SRMR = .0369
Bollen-Stine bootstrap p = .050
Bootstrap χ^2 = 91.960, Adjusted χ^2/df = 1.506

The model fit (GFI = .966, TLI = .969, CFI = .978) all meet the rigorous threshold of > .95 (Hu & Bentler, 1999). The root mean square error of approximation, RMSEA (.041), and standardised root mean square residual, SRMR (.0369), were below the acceptable threshold of < .05. The 90% confidence interval associated with the RMSEA was reported in parantheses. The bootstrap Bollen-Stine (p = .050, $p > .05$) was indicative of a model that fits the data well (Weston & Gore, 2006; Kline, 2010).

Table 27 shows the results of all the measurement models. Therefore, having satisfied the construct assessment, the final measurement model (Figure 14) was found to be the most parsimonious and was retained as the final measurement model.

χ^2 (67) = 139.516, χ^2/df = 2.082, p = .000,
GFI = .952, TLI = .949, CFI = .962
RMSEA = .052 (CI .040 -.064) PCLOSE = .376
SRMR = .0451Bollen-Stine bootstrap p =.010,
Bootstrap χ^2 = 81.632, Adjusted χ^2/df = 1.338

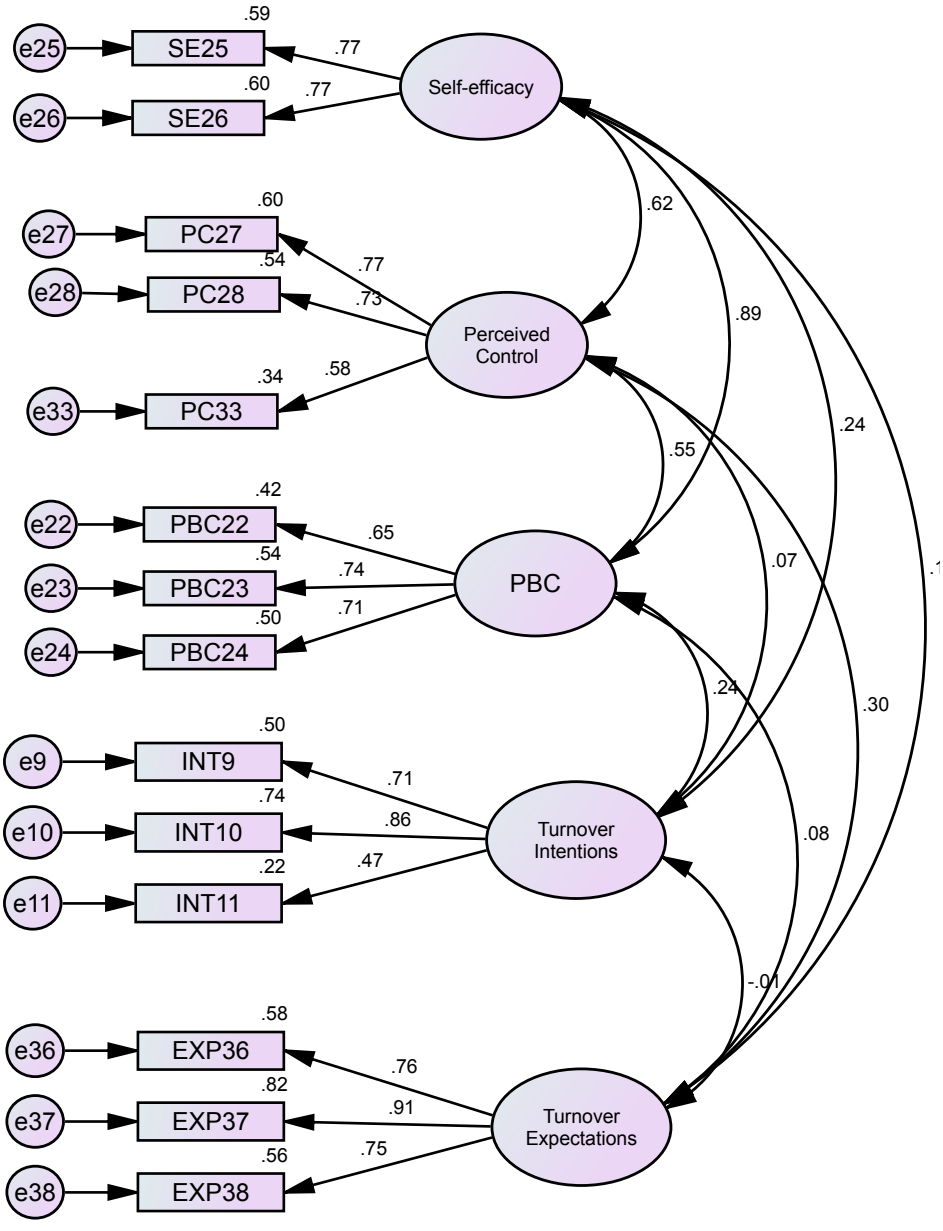


Figure 13 Hypothesised a priori measurement model

χ^2 (55) = 91.960, χ^2/df = 1.672, p = .000,
GFI = .966, TLI = .969, CFI = .978
RMSEA = .041 (CI .026 -.055) PCLOSE = .840
SRMR = .0369 Bollen-Stine bootstrap p =.050,
Bootstrap χ^2 = 91.960, Adjusted χ^2/df = 1.506

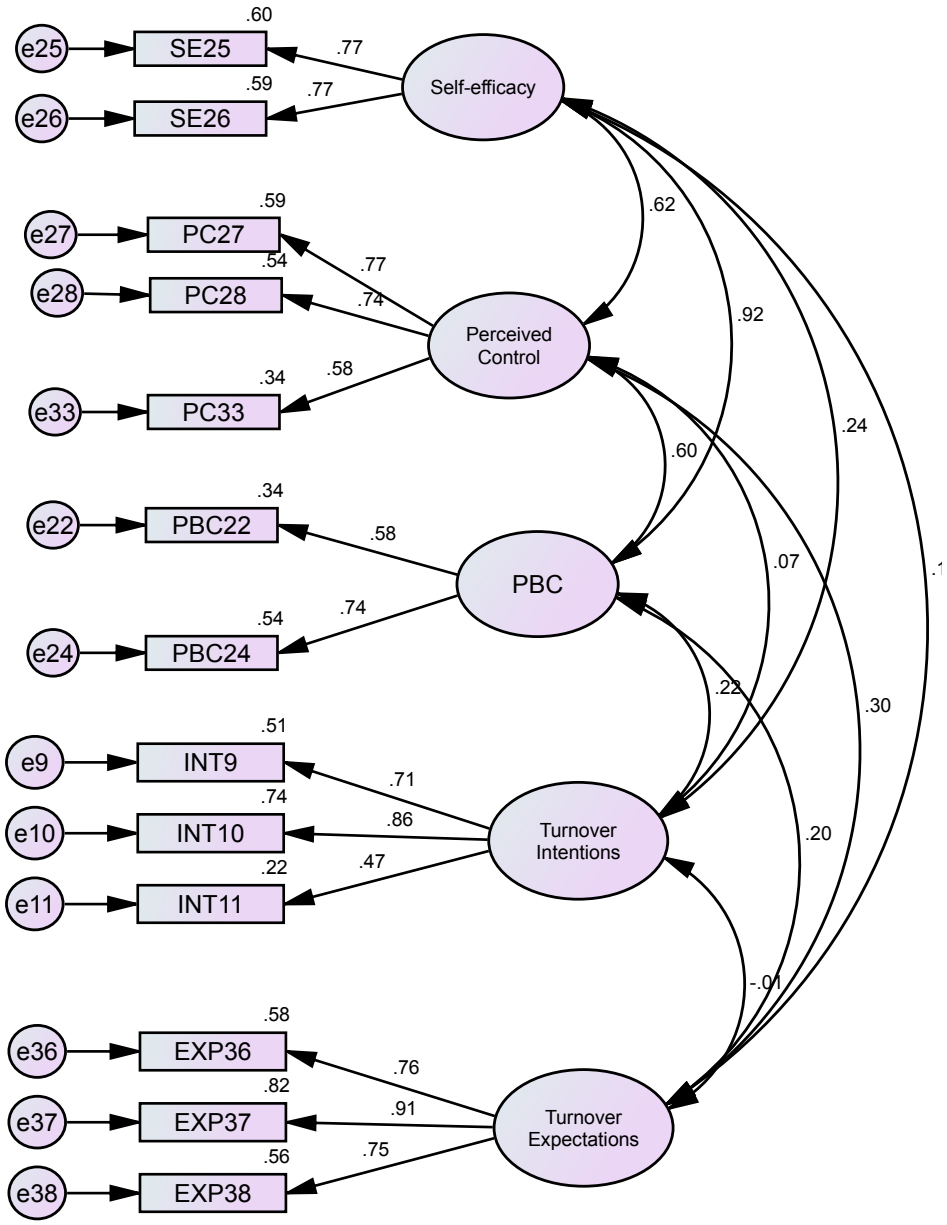


Figure 14 Hypothesised final measurement model

Table 27 Description of measurement models

Measurement Model	Reasons for change (Modification processes)	ML			Bootstrap			GFI	TLI	CFI	RMSEA	SRMR
		χ^2	χ^2/df	*p*	χ^2	Adjusted χ^2/df	*p*					
			< 2.00			**< 2.00**		**> .95**	**> .95**	**> .95**	**< .05**	**< .05**
a priori (14 items)	PBC23 found to have cross-loading and removed	139.5	2.082	.00	81.6	1.338	.01	.952	.949	.962	.0451	.052
B (13 items)	Final model	91.96	1.672	.00	66	1.082	.05	.966	.969	.978	.0369	.041

4.5.2 Convergent validity

Bootstrapping was carried out on 200 samples using the ML estimation in AMOS, following the guidelines recommended by Byrne (2010) and Kline (2010) before carrying out the test of convergent validity. The purpose of the bootstrapping was to assess the difference of regression estimates and standard errors and to provide bias-corrected confidence intervals (at 90% level) for each of the bootstrap estimates.

The test of convergent validity is necessary to assess whether or not the items in the measurement model load significantly (t-value > 1.96) on their corresponding latent construct (Byrne, 2010; Bagozzi & Yi, 2012). If all the t-values are significant then all indicators are effectively measuring the same construct.

The t-values were compared for both the ML and the bootstrap for the a priori structural model (Table 28). Table 28 shows that all t-values are > 1.96. Thus all indicators are significantly related to their specified constructs, and the convergent validity of the measurement items can be said to be satisfied. The differences in estimates and standard errors between the ML and bootstrap are plotted for comparison in Table 29. Table 29 shows the confidence level for bootstrapping and is acceptable without any severe deviation. The differences are relatively low and hence the results of the ML can be interpreted as suitable and posing no concern that they depart from multivariate normality. In addition, Table 29 shows there is no deviation from any normality in the confidence level.

The t-values for the final structural model for both the ML and the bootstrap were compared in Table 30. Table 30 shows that all t-values are > 1.96 with no indicators significantly related to their specified constructs. The convergent validity of the measurement items can be said to be satisfied. Table 31 shows the confidence level for bootstrapping and is acceptable without any severe deviation. The differences in estimates and standard errors between the ML and bootstrap are plotted for comparison in Table 31. The differences are relatively low and hence the results of the ML can be interpreted as suitable and posing no concern that they depart from multivariate normality.

Table 31 shows the bias-corrected confidence intervals for confidence level of bootstrapped samples. As none of the items range between the lower and upper limit,

which includes zero, the assumption that the regression weight is equal to zero in the sample population can be rejected (Byrne, 2010).

Table 28 Comparison of estimates and standard errors for a priori structural model

	ML			Bootstrap		
Factors / Observed variables (indicators)	**Estimate**	**SE**	**CR (t-values)**	**Estimate**	**SE**	**CR (t-values)`**
SE < TO Expt	.167	.072	2.323	.167	.080	2.086
PC < TO Expt	.322	.064	5.035	.322	.068	4.735
PBC < SE	.601	.073	8.271	.601	.080	7.513
PBC < PC	.174	.054	3.190	.174	.062	2.806
TO Int < PBC	.318	.095	3.338	.318	.102	3.118
Self-efficacy						
SE 25	1.000	NA		1.000	.000	
SE26	.894	.075	11.848	.894	.090	9.933
Perceived control						
PC27	1.000	NA			.000	
PC28	1.100	.106	10.409		.120	9.17
PC33	.759	.083	9.115		.104	7.300
Perceived behavioural control						
PBC22	1.000	NA			.000	
PBC24	1.199	.122	9.822		.126	9.516
Turnover intentions						
INT10	1.231	.138	8.903		.172	7.157
INT11	.665	.082	8.123		.091	7.308
INT9	1.000	NA			.000	
Turnover expectations						
EXP36	1.000	NA			.000	
EXP37	1.034	.066	15.783		.075	13.787
EXP38	.857	.059	14.595		.089	9.630

Table 29 Output for bootstrapping samples of a priori structural model: Confidence level for new path

Factors / Observed variables (indicators)	Estimate	Lower	Upper	P
Perceived control	.304	.226	.431	.002
Self-efficacy	.687	.545	.858	.009
Perceived behavioural control	.703	.573	.824	.019
Turnover intentions	.317	.182	.526	.004
Self-efficacy				
SE 25	1.000	1.000	1.000	…
SE26	.952	.812	1.046	.025
Perceived control				
PC27	1.000	1.000	1.000	…
PC28	1.039	.870	1.156	.021
PC33	.797	.630	.984	.012
Perceived behavioural control				
PBC22	1.000	1.000	1.000	…
PBC24	1.184	1.053	1.488	.001
Turnover intentions				
INT10	1.234	.995	1.500	.013
INT11	.665	.552	.864	.003
INT9	1.000	1.000	1.000	…
Turnover expectations				
EXP36	1.000	1.000	1.000	…
EXP37	1.047	.929	1.202	.009
EXP38	.859	.718	.999	.007

Table 30 Comparison of ML and bootstrap t-values at the final structural model

	ML			Bootstrap		
Factors / Observed variables (indicators)	**Estimate**	**SE**	**CR (t-values)**	**Estimate**	**SE**	**CR (t-values)**
PC << TO Expt	.304	.064	4.780	.304	.064	4.780
SE << PC	.687	.078	8.833	.687	.088	7.807
PBC << SE	.703	.073	9.621	.703	.074	9.500
TO Int << PBC	.317	.094	3.360	.317	.100	3.170
Self-efficacy						
SE 25	1.000	NA		1.000	.000	
SE26	.948	.071	13.289	.948	.074	12.811
Perceived control						
PC27	1.000	NA		1.000	.000	
PC28	1.042	.085	12.286	1.042	.092	11.326
PC33	.803	.083	9.630	.803	.120	6.692
Perceived behavioural control						
PBC22	1.000	NA		1.000	.000	
PBC24	1.194	.122	9.801	1.194	.130	9.185
Turnover intentions						
INT10	1.252	.143	8.774	1.252	.165	7.588
INT11	.666	.082	8.142	.666	.093	7.161
INT9	1.000	NA		1.000	.000	
Turnover expectations						
EXP36	1.000	NA		1.000	.000	
EXP37	1.048	.067	15.666	1.048	.070	14.971
EXP38	.861	.059	14.602	.861	.090	9.567

Table 31 Output for bootstrapping samples of final structural model: Confidence level

Factors / Observed variables (indicators)	Estimate	Lower	Upper	P
Self-efficacy				
SE 25	1.000	1.000	1.000	…
SE26	.948	.885	1.010	.016
Perceived control				
PC27	1.000	1.000	1.000	…
PC28	1.042	.966	1.165	.009
PC33	.803	.701	.900	.016
Perceived behavioural control				
PBC22	1.000	1.000	1.000	…
PBC24	1.194	1.101	1.380	.003
Turnover intentions				
INT10	1.252	1.133	1.385	.020
INT11	.666	.584	.739	.010
INT9	1.000	1.000	1.000	…
Turnover expectations				
EXP36	1.000	1.000	1.000	…
EXP37	1.048	.980	1.097	.020
EXP38	.861	.801	.950	.006

4.6 Analysis of structural model

4.6.1 Assessment of a priori structural model

Having obtained an acceptable measurement model with an adjusted bootstrap, the a priori structural model was constructed to further explore the direct and indirect effects among the variables. It was constructed by estimating the expected directional associations among the latent variables (Weston & Gore, 2006; Byrne, 2010; Kline, 2010). This was indicated with unidirectional arrows using AMOS. The associations closely followed the conceptual framework and hypotheses developed in Chapter Three. The double arrows in the final measurement model were replaced with straight-line unidirectional arrows (Weston & Gore, 2006; Arbuckle, 2009). Residual errors were added, reflecting the unexplained variance in the latent endogenous variables due to all unmeasured. Four residual errors were added to the a priori structural model: r1 (residual error for turnover intention variable), r2 (residual error for perceived behavioural control), r3 (residual error for self-efficacy) and r4 (residual error for perceived control). The a priori structural model (a priori SM)(Figure 15) is derived from the final measurement model (Figure 14). The estimation of the a priori structural model yields a model fit:

Model a priori SM (Figure 15)

χ^2 (60) = 186.459, χ^2/df = 3.108, p = .000,
GFI = .937, TLI = .902, CFI = .925
RMSEA = .073 (C.I. .061 - .085), Pclose = .001
SRMR = .1004
Bollen-Stine bootstrap p = .005
Bootstrap χ^2 = 72.464, Adjusted χ^2/df = 1.208

Upon inspection of the results of the model fit, the goodness-of-fit measures GFI = .937; TLI = .902; CFI = .925, were found to have met the minimum threshold but did not meet the stringent threshold set by Hu and Bentler (1999). The chi-square (χ^2 (60) = 186.459), were above the < 2.0 threshold.

The standardised root mean square residual, SRMR (.1004) was found to exceed the threshold of < .05 and the RMSEA (.073) were at an acceptable level at < .08. The RMSEA (.073) has a confidence interval of .061 to .085. Because the lower boundary of this interval (.061) was > .05, the close-fit hypothesis is rejected (Kline, 2010). However, the upper boundary of the same confidence interval (.085) is not > .10, so the poor-fit hypothesis can be rejected. Pclose was .001, less than the recommended value of > .50. Bootstrapping improved the chi-square but the Bollen-Stine, (p = .005) was not > .50 and thus this model was not parsimonious, was likely to be incorrectly specified and must be rejected. Kline (2010) cautioned that the specification search must not be guided entirely by statistical criteria such as MIs, which may not lead to the correct model, but should also consider the relevant theory and research findings. Bentler, however, viewed MIs as being very useful and even necessary, helping to isolate unanticipated ways in which a model can be improved (Bentler, 2010). Following these recommendations, a specification search was carried out utilising AMOS software based on AMOS procedures for model respecification (Arbuckle, 2009). The final structural model (Figure 16) was found to have the best model fit and theoretical relevance.

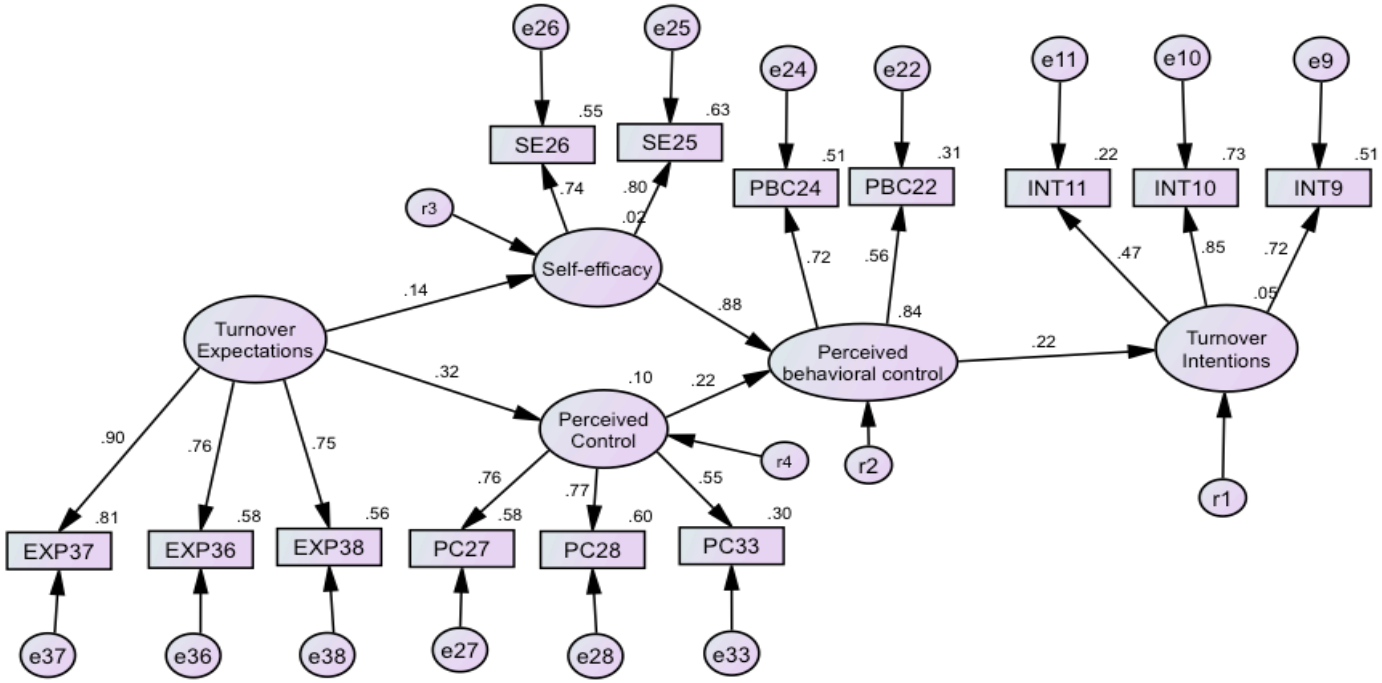
The model fit has the following model indices.

Final structural model (Figure 16)
χ^2 (61) = 98.716, χ^2/df = 1.618, p = .02,
GFI = .963, TLI = .971, CFI = .977
RMSEA = .039 (C.I. .024-.053), Pclose= .894
SRMR = .0391
Bollen-Stine bootstrap p = .075,
Bootstrap χ^2 = 73.955, Adjusted χ^2/df = 1.212

The goodness-of-fit measures (GFI, TLI, CFI) were all >.95, indicating a close fit. The results of RMSEA (.039), was < .05 of the threshold indicating a very good fit. The confidence interval of .024 - .053, with the lower boundary (.024) < .05, indicates that the close-fit hypothesis was not rejected (Kline, 2010). The upper boundary of the same confidence interval (.053) did not exceed .10, so the poor-fit hypothesis can be rejected. The probability (Pclose, .894), which is >.50, indicates that the hypothesised model fits the data well. The goodness-of-fit indices (GFI) (Jöreskog & Sõrbom, 1981), Tucker Lewis Index (TLI), and comparative fit index CFI (Bentler, 1990)

Figure 15 Hypothesised a priori structural model
All numbers reflect standardised path coefficients.

χ^2 (60) = 186.459, χ^2/df = 3.108, p = .000,
GFI = .937, TLI = .902, CFI = .925
RMSEA = .073 (C.I. .061 - .085), Pclose = .001
SRMR = .1004
Bollen-Stine bootstrap p =.005,
Bootstrap χ^2 = 72.464, Adjusted χ^2/df = 1.208



all exceeded the conventional .95 threshold value (Hu & Bentler, 1999). The SRMR was .0391, less than the .05 threshold indicating that the hypothesised model is an excellent fit. The mean chi-square value obtained for the 200 bootstrap samples was 73.955, with a Bollen-Stine bootstrap $p = .075$. A significant mean χ^2 (bootstrap) with the Bollen-Stine bootstrap p-value > .005 (p= .075) implies that the final structural model (Figure 16) fits the data well. The results of the structural modelling are shown in Table 32. Because the goodness-of-fit measures suggested that the final structural (Figure 16) is well fitted and acceptable in all the calculation modes, the individual paths can be examined in more detail and the a priori structural model (Figure 15) can be used to test the hypotheses as presented in Chapter 2.

The results showed the final structural model (Figure 16) to be the most parsimonious, showing a close model fit and theoretical relevance and thus acceptable as a final structural model (Figure 16) and retained. However, test for confirmatory bias was carried out to confirm that the retained final structural model (Figure 16) was the only acceptable one, and no other equivalent or alternative models were present.

Figure 16 Hypothesised final structural model

All numbers reflect standardised path coefficients.

χ^2 (61) = 98.716, χ^2/df = 1.618, p = .02
GFI = .963, TLI = .971, CFI = .977
RMSEA = .039 (.024-.053), Pclose= .894
SRMR = .0391, Bollen-Stine bootstrap p = .075
Bootstrap χ^2 = 73.955, Adjusted χ^2/df = 1.212

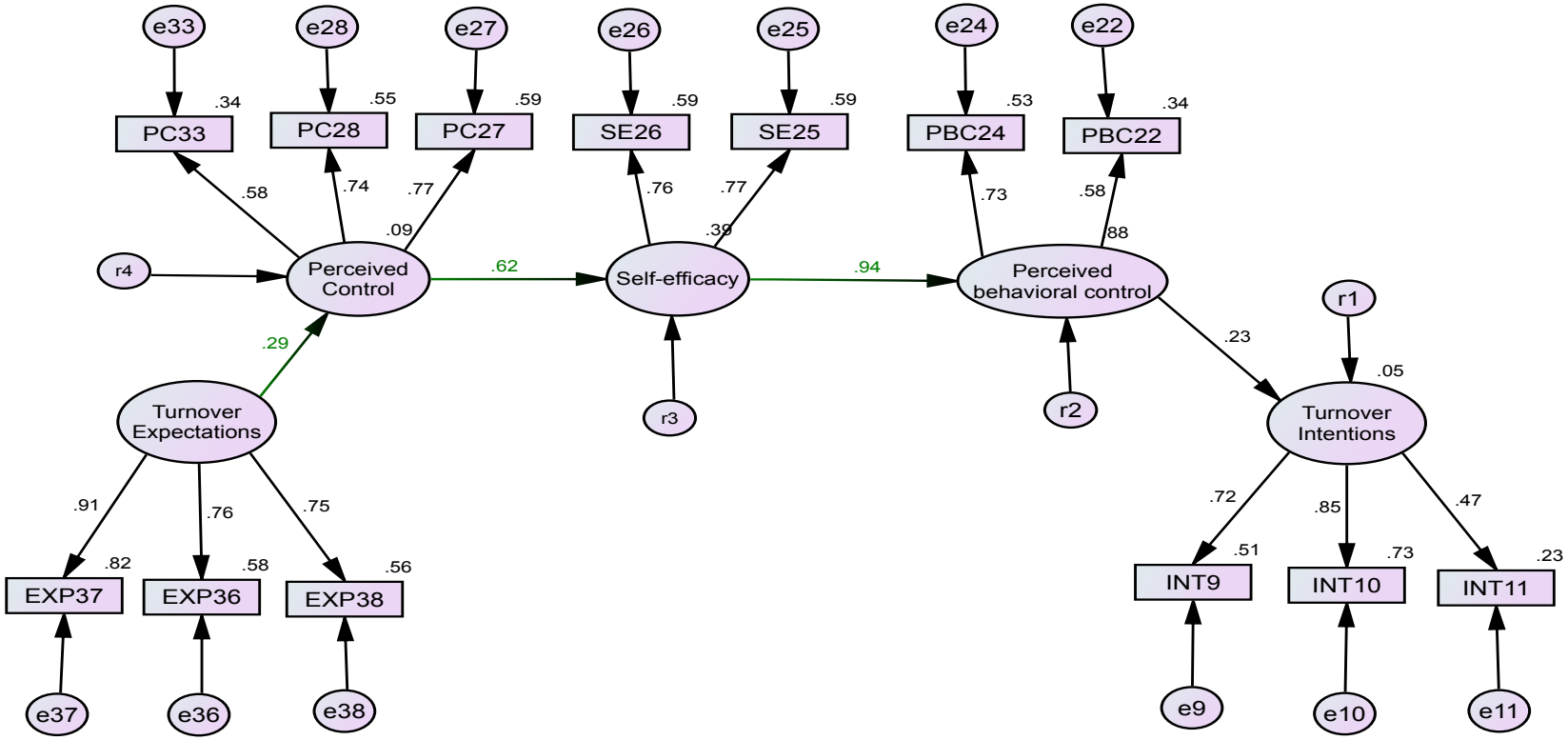


Table 32 Results of a priori and final structural models

Structural Model	ML			Bootstrap			df	GFI	TLI	CFI	RMSEA	SRMR
	χ^2	χ^2/df	*p*	χ^2	Adjusted χ^2/df	*p*						
		< 2.00			**< 2.00**			**> .95**	**> .95**	**> .95**	**< .05**	**< .05**
A priori	186.459	3.108	0	72.46	1.208	.005	60	.937	.902	.925	.073	.1004
Final Model	98.716	1.618	.002	73.96	1.212	.075	61	.963	.971	.977	.039	.0391

4.7 Assessment of confirmatory bias

4.7.1 Equivalent model

After the final structural model has been found following respecifications and testing of theoretical relevance, many SEM scholars recommend a check for confirmatory bias, as there may be equivalent or near-equivalent models that can explain the same data just as well and the real goal is to test a theory by specifying a model that represents predictions of that theory among plausible constructs measured with the appropriate indicators (Hayduk et al., 2007; Gao et al., 2008). Therefore, it is necessary to explain which of the plausible models with equal or near-equal fit may actually be the correct model (Kline, 2010; Byrne, 2010). Equivalent models occurred when, for any given model, there are existing alternative models that generate identical estimates of population covariance matrices and, fit the observed data equally well (Jöreskog & Sõrbom, 1981; Steizl, 1986), reproducing the same set of covariance matrices (Lee & Hershberger, 1990). Equivalent model is an effective way to further understand the structural models (Kline, 2010). The role of the equivalent model (EM) is to provide alternative models (AM) that may be statistically sound but may not be in line with the literature or hypothesis (Kline, 2010). In considering alternative models, Kline (2010) suggested that "in addition to dealing with equivalent models, a form of alternative models that are equivalent but based on the same observed variables and fitted to the same data matrix could also be considered" (Kline 2010 p. 292). These alternative models may be radically different, leading MacCallum et al. (1993) to assert that the existence of equivalent models could call into question the conclusions drawn from most SEM studies, and the possible existence of equivalent models can be seen as a limitation of the results obtained via SEM (Shook et al., 2004; Kline, 2010). According to Kline, "when there are competing theories about the same phenomenon alternative models should be considered, which may reflect them" (Kline 2010 p. 365).

Therefore, for the proposed structural model, other structural models (SM) were tested using the same data. To test for confirmatory bias, the a priori structural models were tested following the methods recommended by Lee and Hershberger (1990). The hypothesised equivalent models created are shown in Table 33.

Equivalent models can be created by replacing the variables (Lee & Hershberger, 1990; Byrne, 2010).

Table 33 Replacement paths for equivalent and alternative models

	Models	Path	Path	Path	Path	Path
	SM a priori	TO EXPT	PC	SE	PBC	TO INT
Replacement 1	EM A	TO EXPT	SE	PBC	PC	TO INT
Replacement 2	EM B	TO EXPT	PBC	PC	SE	TO INT
Replacement 3	AM A	TO EXPT	PBC + SE		PC	TO INT
Replacement 4	AM B	TO EXPT	PBC+SE+PC			TO INT

4.7.1.1 Equivalent model A

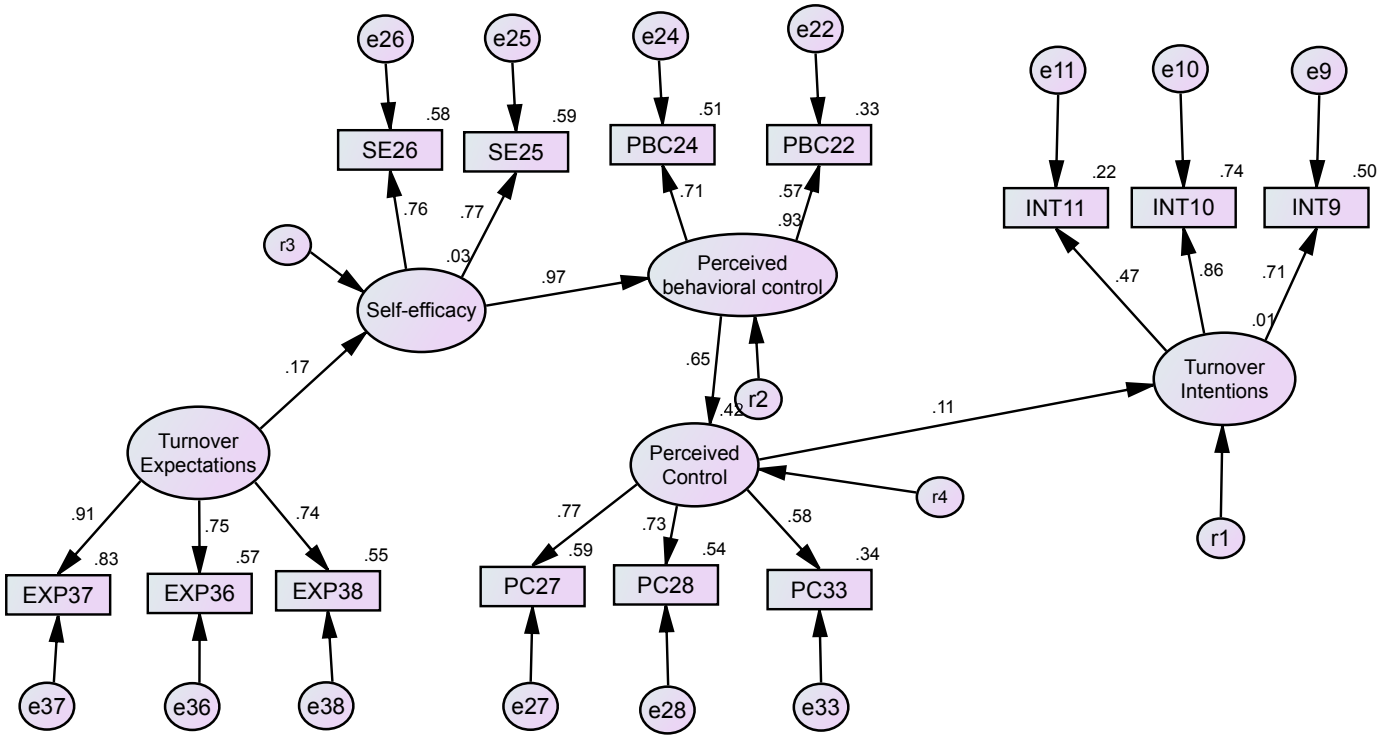
Equivalent model A was created by rearranging the paths for PC, SE and PBC based on theoretical relevance, to consider the different effects and the roles of SE, PC and PBC. The results yielded a model fit of:

Equivalent model A (Figure 17)
χ^2 (61) = 186.459, χ^2/df = 2.058, p = .000,
GFI = .953, TLI = .951, CFI = .961
RMSEA = .051
SRMR = .0631
Bollen-Stine bootstrap p =.015,
Bootstrap χ^2 = 73.455, Adjusted χ^2/df = 1.212

Figure 17 Hypothesised equivalent model A

All numbers reflect standardised path coefficients.

χ^2 (61) = 186.459, χ^2/df = 2.058, p = .000
GFI = .953, TLI = .951, CFI = .961
RMSEA = .051, SRMR = .0631
Bollen-Stine bootstrap p = .015
Bootstrap χ^2 = 73.455, Adjusted χ^2/df = 1.212



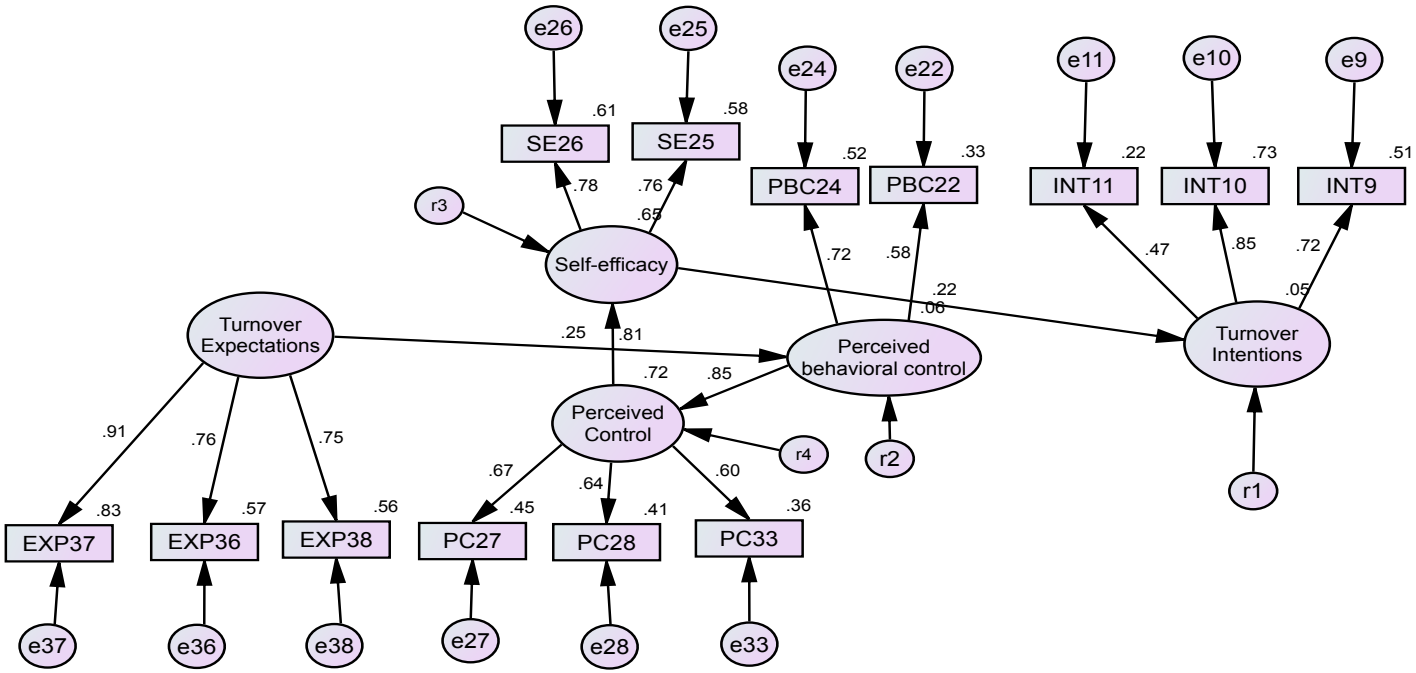
4.7.1.2 Equivalent model B

Equivalent model B was created by rearranging the paths for PC, SE and PBC based on theoretical relevance, to consider the different effects and the roles of SE, PC and PBC. The results yielded a model fit of:

Equivalent model B (Figure 18)
χ^2 (61) = 195.770, χ^2/df = 3.209, p = .000,
GFI = .925, TLI = .897, CFI = .20
RMSEA = .073, SRMR = .0578
Bollen-Stine bootstrap p = .005,
Bootstrap χ^2 = 73.956, Adjusted χ^2/df = 1.212

Figure 18 Hypothesised equivalent model B
All numbers reflect standardised path coefficients.

χ^2 (61) = 195.770, χ^2/df = 3.209, p = .000,
GFI = .925, TLI = .897, CFI = .20
RMSEA = .073, SRMR = .0578
Bollen-Stine bootstrap p = .005
Bootstrap χ^2 = 73.956, Adjusted χ^2/df = 1.212



The results of the equivalent models are tabulated and compared with the final structural model in Table 34. Inspection of Table 34, shows that test of confirmatory bias for equivalent models did not yield any models with the same statistic model fit. Hence, the final structural model (Figure 16) was found to be the most parsimonious model with the best model fit and thus retained. However, another confirmatory bias for alternative model will be needed for further confirmation.

Table 34 Results for equivalent models

Equivalent A	Equivalent B	Final structural Model
χ^2 61) = 186.459 χ^2/df = 2.058 p = .000 GFI = .953 TLI = .951 CFI = .961 RMSEA = .051 SRMR = .0631 Bollen-Stine bootstrap *p* = .015 Bootstrap χ^2 = 73.445 Adjusted χ^2/df = 1.212	χ^2 (61) = 195.770 χ^2/df = 3.209 p = .000 GFI = .925 TLI = .897 CFI = .920 RMSEA = .073 SRMR = .0578 Bollen-Stine bootstrap *p* = .005 Bootstrap χ^2 = 73.956 Adjusted χ^2/df = 1.212	χ^2 (61) = 98.716 χ^2/df = 1.618 p = .02 GFI = .963 TLI = .971 CFI = .977 RMSEA = .039 (.024-.053), Pclose = .894 SRMR = .0391 Bollen-Stine bootstrap *p* = .075 Bootstrap χ^2 = 73.955 Adjusted χ^2/df = 1.212

4.7.2 Alternative model

Kline (2010) suggested that "in addition to dealing with equivalent models, a form of alternative models that are equivalent but based on the same observed variables and fitted to the same data matrix could also be considered" (Kline 2010, p. 292). These alternative models may be radically different. This led MacCallum et al. (1993) to assert that the existence of equivalent models could call into question the conclusions drawn from most SEM studies. The alternative models are constructed in accordance with the guidelines set as well as theoretical considerations. The extant literature has shown that perceived behavioural control and self-efficacy can be considered as being the same construct (Ajzen & Madden, 1986; Sheppard et al., 1988; Ajzen, 1991; Terry & O'Leary, 1995; Manstead & van Eekelen, 1998; Kidwell & Jewell, 2003).

The literature review has substantiated that perceived behavioural control and self-efficacy can be considered to be the same construct (Ajzen & Madden, 1986; Sheppard et al., 1988; Ajzen, 1991; Terry & O'Leary, 1995; Manstead & van Eekelen, 1998; Kidwell & Jewell, 2003). In view of this, an alternative model was constructed by combining the variables SE and PBC. During the test for discriminant validity, SE and PBC were found to measure the same construct, thus the alternative model is appropriate to confirm this relationship. The results of the alternative models are shown in Table 35.

4.7.2.1 Alternative model A

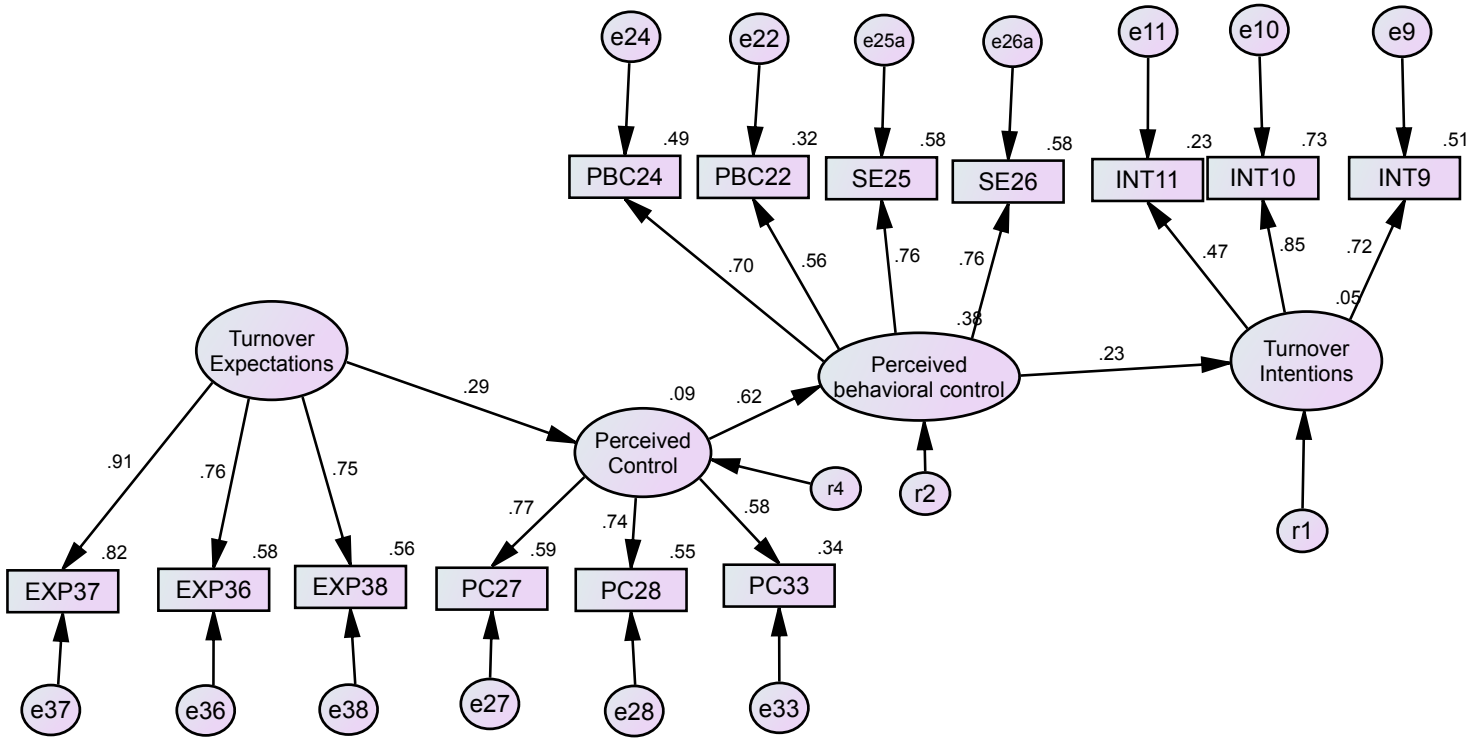
Alternative model A was constructed by combining the variables of SE and PBC to form a unified construct of PBC. The results of the alternative model are shown in Table 35.

Alternative model A (Figure 19)

χ^2 (63) = 100.756,
χ^2/df = 1.625, p = 0.01,
GFI = .963, TLI = .971, CFI = .977
RMSEA = .040, SRMR = .0393
Bollen-Stine bootstrap p = .065, Bootstrap χ^2 = 75.822,
Adjusted χ^2/df = 1.223

Figure 19 Hypothesised alternative model A
All numbers reflect standardised path coefficients.

χ^2 (63) = 100.756, χ^2/df = 1.625, p = 0.01,
GFI = .963, TLI = .971, CFI = .977
RMSEA = .040, SRMR = .0393
Bollen-Stine bootstrap p = .065
Bootstrap χ^2 = 75.822, Adjusted χ^2/df = 1.223



4.7.2.2 Alternative model B

Alternative model B was constructed by combining the variables SE, PC and PBC to form a unified variable, PBC. There are mixed reviews in the literature on whether the variables of SE, PC and PBC are considered indistinguishable as one construct or are distinct (Conner & Armitage, 1998; Manstead & van Eekelen, 1998). The results of the alternative model are shown in Table 35.

Alternative model B (Figure 20)

χ^2 (63) = 222.728
χ^2/df = 3.535, p = 0.00,
GFI = .915, TLI = .882, CFI = .905
RMSEA = .080, SRMR = .0617
Bollen-Stine bootstrap p = .005, Bootstrap χ^2 = 78.110,
Adjusted χ^2/df = 1.240

Figure 20 Hypothesised alternative model B.

All numbers reflect standardised path coefficients.

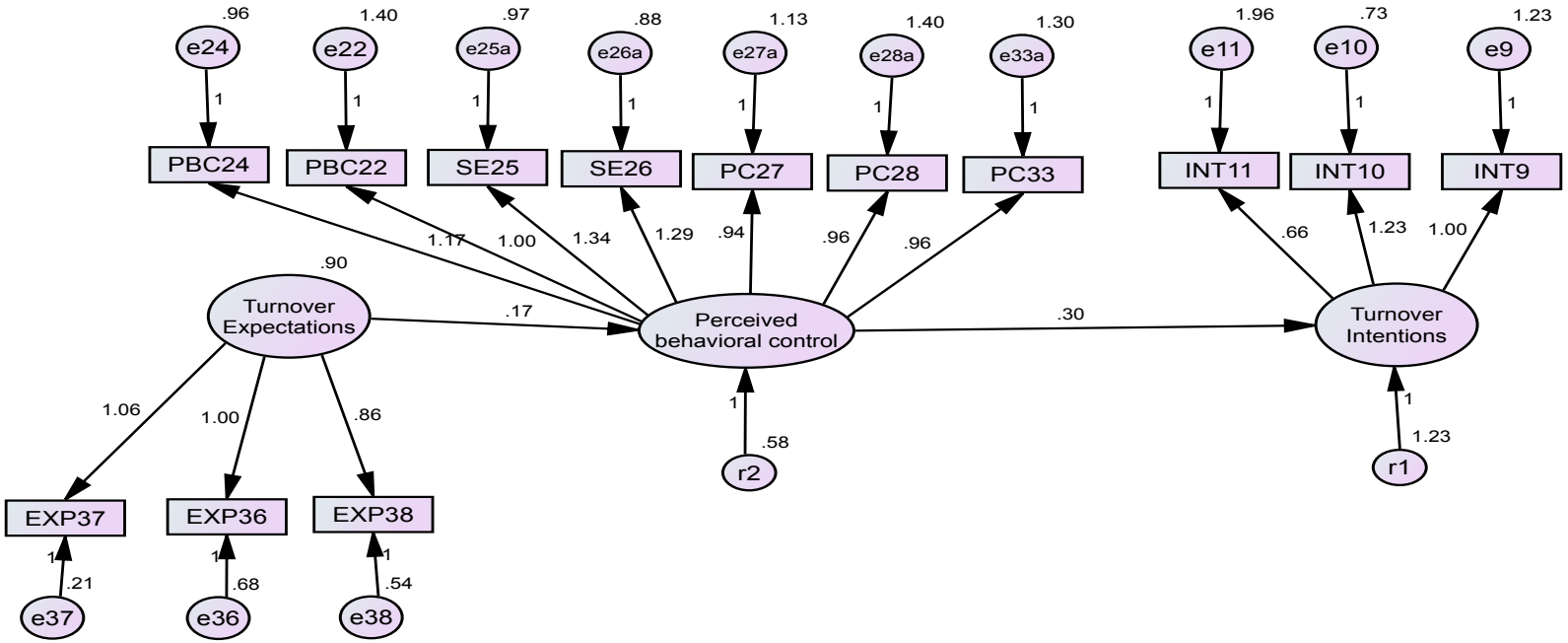
χ^2 (63) = 222.728, χ^2/df = 3.535, p = 0.00,

GFI = .915, TLI = .882, CFI = .905

RMSEA = .080, SRMR = .0617

Bollen-Stine bootstrap p =. 005,

Bootstrap χ^2 = 78.110, Adjusted χ^2/df = 1.240



The results of the alternative models are tabulated and compared with the final structural model in Table 35. Inspection of Table 36 shows that the test of the confirmatory bias for alternative models yielded a similar fit to alternative model A. The model fit indices for GFI, TLI, and CFI were similar to the final structural model. However, when compared with the χ^2, the final structural model fit was lower, indicating a better model fit. Similarly, the *p*-value, RMSEA, and SRMR were all lower for the final structural model. The adjusted bootstrap χ^2 and *p*-values are also lower for the final structural model. Thus, the final structural model (Figure 16) was found to be more parsimonious compared to alternative model A and was retained as the best model fit.

Table 35 Results for alternative models

Alternative A	**Alternative B**	**Final Structural Model**
χ^2 (62) = 100.756	χ^2 (63) = 222.728	χ^2 (61) = 98.716
χ^2/df = 1.625	χ^2/df = 3.535	χ^2/df = 1.618
p = .001	p = .000	p = .02
GFI = .963	GFI = .915	GFI = .963
TLI = .971	TLI = .882	TLI = .971
CFI = .977	CFI = .905	CFI = .977
RMSEA = .040 (.025-.053)	RMSEA = .080 (.068-.091)	RMSEA = .039 (.024-.053),
Pclose = .891	Pclose = .000	Pclose= .894
SRMR = .0393	SRMR = .0617	SRMR = .0391
Bollen-Stine bootstrap *p* = .065	Bollen-Stine bootstrap *p* = .005	Bollen-Stine bootstrap *p* = .075
Bootstrap χ^2 = 75.822	Bootstrap χ^2 = 78.110	Bootstrap χ^2 = 73.955
Adjusted χ^2/df = 1.223	Adjusted χ^2/df =1.240	Adjusted χ^2/df = 1.212

Table 36 Summary of alternative models

Alternative Model	ML			Bootstrap			df	GFI	TLI	CFI	RMSEA	SRMR
	χ^2	χ^2/df	*p*	χ^2	Adjusted χ^2/df	p						
		< 2.00			**< 2.00**			**> .95**	**> .95**	**> .95**	**< .05**	**< .05**
A	100.756	1.625	.001	75.82	1.223	.065	62	.963	.971	.977	.04	.0393
B	222.728	3.535	0	78.11	1.240	.005	63	.915	.882	.905	.08	.0617

Table 37 Summary of all structural, equivalent and alternative models

Models		ML			Bootstrap			df	GFI	TLI	CFI	RMSEA	SRMR
		χ^2	χ^2/df	*p*	χ^2	Adjusted χ^2/df	*p*						
			< 2.00			**< 2.00**			**> .95**	**> .95**	**> .95**	**< .05**	**< .05**
SM	A priori	186.459	3.108	.000	72.46	1.208	.000	60	.937	.902	.925	.073	.1004
SM	Final model	98.716	1.618	.002	73.96	1.212	.075	61	.963	.971	.977	.039	.0391
EM	A	186.459	2.058	.000	73.45	1.212	.015	61	.935	.951	.961	.051	.0631
EM	B	195.77	3.209	.000	73.96	1.212	.005	61	.925	.897	.920	.073	.0578
AM	A	100.756	1.625	.001	75.82	1.223	.065	62	.963	.971	.977	.04	.0393
AM	B	222.728	3.535	.000	78.11	1.240	.005	63	.915	.882	.905	.08	.0617

Table 37 shows all the structural, equivalent and alternative models. It shows that the final structural model has the best model fit among all the models including equivalent and alternative models. Therefore, the final structural model can be considered and accepted as the best fitting model.

4.8 Test of hypotheses

Having obtained an acceptable structural model fit, an adjusted bootstrap model fit and confirmation with equivalent and alternative models for confirmatory bias, it was possible to test the hypotheses set out in Chapter 2, through the a priori structural model. The hypotheses were verified through testing of the estimates.

The research framework set out in Chapter 2 has, a total of nine hypotheses (Table 38) representing the causal relationships among one independent variable, four intervening variables, and one dependent variable. Table 39 presents the research hypotheses and their path coefficients with the parameter estimates and the critical ratio (t-value) for each hypothesis path. Support for a hypothesis is obtained when parameters with the CR are greater than ±1.96, which signifies a significant path at $p <$ .05. Four hypotheses, (H1, H2, H3, and H4) have non-significant parameters (attitudes and subjective norm) and t-value < 1.96. They can be considered unimportant to the model and excluded and discarded for reasons of parsimony and reliability. Five hypotheses (H3, H4, H5, H8, H9) have t-values > 1.96, are therefore supported.

Table 38 Research hypotheses

No.	Hypotheses
Hypothesis 1	*Newcomers' attitudes have a positive effect on turnover intentions.*
Hypothesis 2	*Newcomers' subjective norms have a positive effect on turnover intentions.*
Hypothesis 3	*Newcomers' perceived behavioural control has a positive effect on turnover intentions.*
Hypothesis 4	*Perceived behavioural control will positively mediate the relationship of self-efficacy on turnover intentions.*
Hypothesis 5	*Perceived behavioural control will positively mediate the relationship of perceived control on turnover intentions.*
Hypothesis 6	*Turnover expectations will be positively related to attitudes.*
Hypothesis 7	*Turnover expectations will be positively related to subjective norms.*
Hypothesis 8	*Turnover expectations will be positively related to self-efficacy.*
Hypothesis 9	*Turnover expectations will be positively related to perceived control.*

Table 39 Research hypotheses and its path coefficients

No.	Path relationship	UnStd Estimate	Std. Estimate	CR t- value	H Direction	Result
H1	Turnover Intentions ← Attitudes			-		Not tested
H2	Turnover Intentions ← subjective Norm			-		Not tested
H3	Turnover intentions ← Perceived behavioural control **	.318	.22	3.338	+	Supported
H4	Perceived behavioural control ← Self-efficacy **	.601	.88	8.271	+	Supported
H5	Perceived behavioural control ← Perceived control	.174	.22	3.190	+	Supported
H6	AT ← Turnover expectations			-		Not tested
H7	SN ← Turnover expectations			-		Not tested
H8	SE ← Turnover expectations	.167	.14	2.323	+	Supported
H9	PC ← Turnover expectations **	.322	.32	5.035	+	Supported

Note: Value represents standardised regression values. All estimates have a CR of > 1.96, and are significantly different from zero at the .05 level or better
** $p < .001$
* < .05

4.9 Significant paths

The following significant paths were found from the hypotheses testing. When CR is > 1.96 for a regression weight, that path is significant at the .05 level or better, which means the estimated path parameter is significant. It also implies that when comparing the CR and the significance of factor covariances, the factor covariance is significant when CR > 1.96 (Mardia, 1974, 1985).

Figure 21 shows the relationship between turnover expectations and self-efficacy, the standardised regression weights = .14 and the CR = 2.323, showing that the estimated path parameter is significant at the .05 level or better.

Figure 22 shows the relationship between turnover expectations and perceived control, the standardised regression weights = .32 and the CR = 5.035 showing that the estimated path parameter is significant at the .05 level or better.

Figure 23 shows the relationship between turnover expectations and perceived behvioural control, the standardised regression weights = .22 and the CR = 3.190 showing that the estimated path parameter is significant at the .05 level or better.

Figure 24 shows the relationship between self-efficacy and perceived behavioural control, the standardised regression weights = .88 and the CR = 8.271 showing that the estimated path parameter is significant at the .05 level or better.

Figure 25 shows the relationship between perceived behavioural control and turnover intentions, the standardised regression weights = .22 and the CR = 3.338 showing that the estimated path parameter is significant at the .05 level or better.

Turnover Expectations	H8+	**Self-efficacy**
• Job satisfaction is important • Good career is important • Good training is important	Standardised regression weights = .14, CR = 2.323	• I am confident I can quit my first job anytime if I want to • To quit my first job would not be a problem

Figure 21 Path between turnover expectations and self-efficacy (H8)

Turnover Expectations	H9+	Perceived Control
• Job satisfaction is important • Good career is important • Good training is important	Standardised regression weights = .32, CR = 5.035	• Decision to quit my first job would be within my control • Whether or not I quit my first job will be entirely up to me • Quitting in this financial crisis is within my control

Figure 22 Path between turnover expectations and perceived control (H9)

Perceived Control	H5+	Perceived Behavioural Control
• Decision to quit my first job would be within my control • Whether or not I quit my first job will be entirely up to me • Quitting in this financial crisis is within my control	Standardised regression weights = .22, CR = 3.190	• No obstacles if I want to quit my first job • Plenty of opportunities for me to quit my first job

Figure 23 Path between perceived control and perceived behavioural control (H5)

Self-efficacy	H4+	**Perceived Behavioural Control**
• I am confident I can quit my first job anytime if I want to • To quit my first job would not be a problem	Standardised regression weights = .88, CR = 8.271	• No obstacles if I want to quit my first job • Plenty of opportunities for me to quit my first job

Figure 24 Path between self-efficacy and perceived behavioural control (H4)

Perceived Behavioural Control	H3+	**Turnover intentions**
• No obstacles if I want to quit my first job • Plenty of opportunities for me to quit my first job	Standardised regression weights = .22, CR = 3.338	• Intention to quit within 1 month • Intention to quit if dissatisfied • Intention to quit to try out different job

Figure 25 Path relationship between perceived behavioural control and turnover intentions (H3)

4.10 Summary of research questions and hypotheses

Table 40 Research hypotheses and their path coefficients

Significant paths	Regression weight / CR	Correspond to Hypothesis	Research questions (RQ)	Measuring
TO Expt → SE	.14, CR = 2.323	H8	RQ-1 Do graduating students, as *Newcomers* from tertiary institutions embarking on their first job, have pre-entry expectations about turnover intention to quit?	Pre-entry expectations
TO Expt → PC	.32, CR = 5.035	H9		
SE → PBC	.88, CR = 8.271	H4	RQ-3 Do *Newcomers* have control over their turnover intentions to quit?	Control over behaviour
PC → PBC	.22, CR = 3.190	H5		
PBC → TO Int	.22, CR = 3.338	H3	RQ-2 Can *Newcomers*' turnover intention to quit be predicted?	Prediction of intention to quit

From Table 40, the hypothesis testing can be summarised as follows:

- H3: that links newcomers' perceived behavioural control and turnover intentions (t-value = 3.338, $p < .001$), is supported.
- H4: that links perceived behavioural control, self-efficacy and turnover intentions (t-value = 8.271, $p < .001$), is supported.
- H5: that links perceived behavioural control, perceived control and turnover intentions (t-value = 3.190, $p < .001$), is supported.
- H8: that links turnover expectations and self-efficacy (t-value = 2.323, $p < .020$), is supported.
- H9: that links turnover expectations and perceived control (t-value = 5.035, $p < .001$), is supported.

4.11 Chapter Summary

The results show that the survey was completed with a very good response rate of more than 90%, with N = 402, enabling a meaningful analysis of the data. The descriptive statistics show that nearly all respondents were young adults studying in tertiary education. The pre-analysis test results found no collinearity issues. Although the data were found to be univariate normal, some form of multivariate non-normality was found. Bootstrapping (BL=200) was applied to check for the severity of multivariate normality. The differences in estimates and standard errors between the ML and bootstrap were relatively low and hence the results of the ML can be interpreted as suitable and posing no concern that they depart from multivariate normality. The confidence level showed no deviation from normality. The Cronbach Alpha test for internal consistency showed low reliability for constructs of attitudes and subjective norms and they had to be discarded. The test for discriminant validity for all constructs was satisfied, except between SE and PBC, which exceeded slightly. CFA was carried out on the data in the form of measurement models. Convergent validity was achieved within the 15 measures. A final measurement model with the best model fit was produced and was used for evaluating the final structural modelling. The a priori final structural model was used to test the hypotheses. Five of the tested hypotheses were supported but four were discarded due to low reliability. All of the five supported hypotheses show that the regression weight and critical values above 1.96, which means the estimated path parameter was significant. The results show

empirically that perceived behavioural control is a multi-dimensional construct comprising self-efficacy and perceived control distinctly. A causal direction is also found, indicating that the path of PBC is PC → SE → PBC. Alternative model testing showed the presence of a model that point to self-efficacy and perceived behavioural control being very similar and possibly measuring the same construct. The final model shows a new significant path: turnover expectations → perceived behavioural control → turnover intention to quit, indicating that turnover intentions is affected by turnover expectations and can be measured directly by perceived behavioural control.

5 Discussion

5.1 Introduction

This chapter presents the discussion of the results and its findings and implications for the whole research study. The discussion looks at the implications of findings in the business context, research context and the new contributions to the pool of knowledge. Finally, the managerial contributions and practical implications, limitations of the research and future research direction are set out.

5.2 Discussion on findings related to the initial conceptual framework

The findings of the research will be discussed together with the initial conceptual model, which was developed from the research questions and the literature review in Chapter 2. The research questions were used to formulate the development of the initial research conceptual framework and can now be answered through the results and findings of the analysis. Note that the sequence of the questions has been adjusted, as shown below, to follow the final research conceptual model.

RQ 1: Do graduating students, as *Newcomers* from tertiary institutions embarking on their first job, have pre-entry expectations about turnover intention to quit?

RQ 3: Do *Newcomers* have control over their turnover intentions to quit?

RQ 2: Can *Newcomers*' turnover intention to quit be predicted?

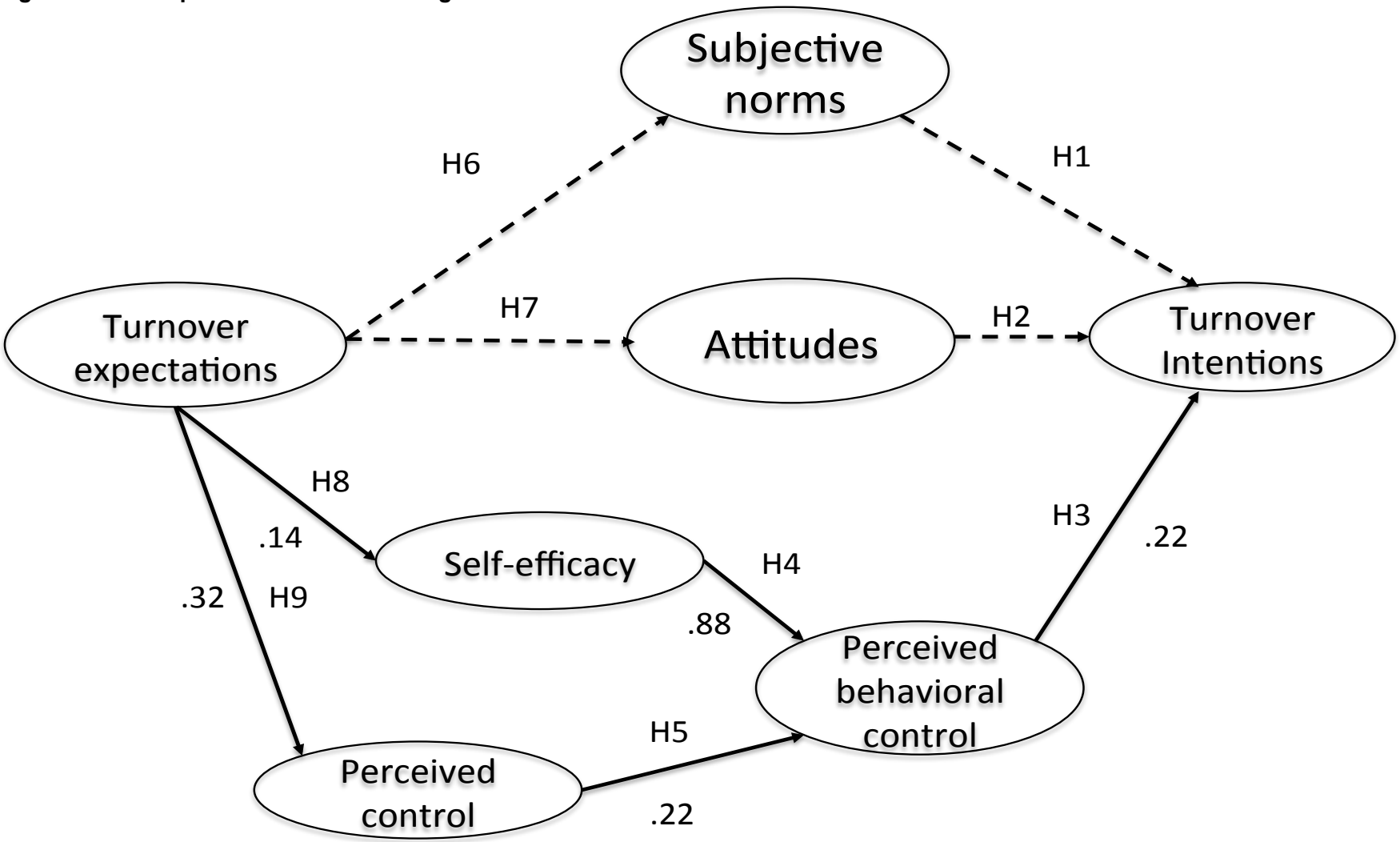
The initial research conceptual model (Figure 6) was found to be different after findings obtained from hypothesis testing and structural equation modelling (SEM). The initial research conceptual model was based on the literature review and included predictions that unmet expectations will affect turnover intentions (TI) (Porter & Steers, 1973; Steers & Mowday, 1979; Louis, 1980; Arnold & Davey, 1992, 1994b; Qi et al., 2010; Xi & Hwang, 2011). It also suggested that intentions can be predicted by the theory of planned behaviour (TPB) (Ajzen, 2002; Van Breukelen et al., 2004; van Hooft et al., 2004a; Arnold et al., 2006; Ajzen, 2011; Ajzen et al., 2011; Ajzen, 2012). Figure 26 shows the final conceptual model after data collection and testing. The results of the research hypotheses and their path coefficients are summarised and

shown in Table 41. The critical ratios are all above +2.33, indicating a .01 level of significance.

Table 41 Summary of research hypotheses and path coefficients

Significant Paths	Regression Weight	Critical Ratio (CR)	Correspond to Hypotheses	Research Questions (RQ)	Measuring
TO Expt → SE	.14	2.323	H8	RQ-1 Do graduating students, as *Newcomers* from tertiary institutions embarking on their first job, have pre-entry expectations about turnover intention to quit?	Pre-entry expectations
TO Expt → PC	.32	5.035	H9		
SE → PBC	.88	8.271	H4	RQ-3 Do *Newcomers* have control over their TI to quit?	Control over behaviour
PC → PBC	.22	3.190	H5		
PBC → TO Int	.22	3.338	H3	RQ-2 Can *Newcomers*' turnover intention to quit be predicted?	Prediction of intention to quit

Figure 26 Conceptual model after testing



5.2.1 Newcomers and their turnover intentions

5.2.2 Pre-entry expectations and Newcomers

At the beginning of the research study, little was known about *Newcomers* and their expectations or their TI and whether they have any pre-entry expectations about turnover intention to quit (RQ1). *Newcomers* belong to a special group for turnover studies as they have special characteristics that are unique to them. They are likely to be joining organisations for their first job without any prior working experience. Studies have shown that the turnover rates are the highest during the first few years of joining organisations after graduating from tertiary institutions (Qi et al., 2010; Jansen, 2011; Jusoh et al., 2011; Qi & Yue, 2011; Cooper-Thomas et al., 2012; Saks & Gruman, 2012) and yet little has been known about how or why this is so.

The research study findings reveal that *Newcomers* do have pre-entry expectations and these are present even before organisation entry and socialisation. Evidence of the presence of pre-entry expectations can be found in the support of hypotheses H8 and H9. H8, that turnover expectations (TE) will be positively related to self-efficacy (SE), was supported with the standardised regression weights of .14 CR of 2.323, showing that the estimated path parameter is significant at the .05 level or better. H9, that TE will be positively related to perceived control (PC), was supported with the standardised regression weights of .32 and CR of 5.035, showing that the estimated path parameter is significant at the .05 level or better.

The extant literature reports the following characteristics of typical newcomer organisation entry; naive expectations and with faulty information (Wanous, 1976, 1977); a state of unfamiliarity and uncertainty (Saks & Gruman, 2012); a sense-making process to coping or making sense of the entry experiences (Louis 1980); the need to learn the necessary attitudes (AT), behaviours, and social knowledge necessary to assume an organisational role (Van Maanen & Schien, 1979); and the need to adjust to the norms of the organisation (Ashforth et al., 2007b; Bauer et al., 2007; Saks et al., 2007).

Typically, newcomers fresh with educational experiences were thought to bring naïve optimism and unrealistic expectations to organisations (Wanous, 1976, 1977; Louis, 1980; Wendlandt & Rochlen, 2008). However, these research findings have shown that *Newcomers* do not enter organisation with naïve expectations and

faulty information. Contrary to studies by Wanous (1976, 1977), this research has found that *Newcomers* does not enter organisations in a state of unfamiliarity and uncertainty. They already have a pre-determined set of expectations, which are formulated even before joining organisations. They expect organisations to provide good training, good career and job satisfaction in their first job. These expectations are in line with studies on graduates who have already joined organisations and consistent with earlier studies showing the reasons graduates gave for joining organisations are long-term career prospects (Arnold & Davey, 1994a), training (Arnold & Davey, 1994a; Stanford, 2002) and job satisfaction (Arnold & Davey, 1994a; Cho et al., 2012; Arakawa & Togo, 2013). Recent studies have confirmed that job dissatisfaction is still a strong determinant of turnover among new graduates (Cho et al., 2012) and is the most representative antecedent variable to directly affect TI (Marchand, 2009; Holtom et al., 2013). In a study on career expectations and retention factors of Gen Y engineers in Africa, training and development were found to be an important set of expectations that translates into a clear retention factor (Vieira, 2010).

Recent studies on career expectations of undergraduate hospitality students also reveal that they expect their future employers to provide them with a safe work environment, trust and respect, training when they start work, open and honest communication, and fair treatment (Dale, 2013). The current research study found training to be an important set of pre-entry expectations, in line with earlier findings by Arnold and Davey (1994b). This may be the reason for *Newcomers'* fears that their studies may not have prepared them adequately for their first job.

A surprising outcome of the findings of this investigation was that *Newcomers* placed little emphasis on salary or on taking up jobs that were related to their studies. It would be reasonable to assume that *Newcomers* would be more likely to look for a job that is closely related to what they have studied so that they can easily adapt, learn and assimilate into the organisation quickly and derive the best job satisfaction. However, the findings proved this not to be so. Taking up jobs that were related to their studies did not appear to be important to them. When asked if a salary higher than market expectations was important to them, *Newcomers* appeared to place little importance on income, confirming Chew's (1993) findings, that newcomers do not seek jobs that pay well but offer few career prospect (Chew, 1993). Consequently, these two factors were eliminated during confirmatory factor analysis (CFA).

While this was not expected, it may reflect *Newcomers'* desires to be open to any jobs that are available rather than specifically restricting themselves only to what they have studied. It could also reflect their desires to take up a job that offers them a reasonable salary that is on par with market value and not necessarily one that pays a salary above market value. Another factor could be the financial crisis at the time of the research data collection, which could affect their intention to secure a job quickly rather than to wait for their ideal job. However, recent studies have shown that newcomers place little expectation on yearly salary increases despite the fact that the financial crisis being over (Dale, 2013), so the influence of the financial crisis may not be critical.

Findings from the research study revealed a positive relationship between TE and SE and PC. This is not surprising, as both constructs are related to perceptions of control, SE measures *Newcomers'* confidence in carrying out their actions (Figure 21) and PC measures the perception of control within the *Newcomers* (Figure 22). Both constructs are belief-based constructs based on individual control (Bandura, 1977; Ajzen, 2012). They are in line with arguments by Sutton and Griffin (2004) that pre-entry expectations are belief-based and have an indirect influence on individuals, compared with experiences and post-entry experiences, which are control-based and influenced by the organisation (Figure 2). They also confirm "new hires with greater self-efficacy are more likely to feel secure and psychologically available to engage themselves in their new role" (Saks and Gruman 2011 p. 389). Therefore, positive SE and PC implies that *Newcomers* feel confident and have control over their TI and are likely to carry out their TI to quit their first job if their pre-entry expectations are not met.

In addition, the findings showed that age is strongly related to turnover in line with findings by Price (1977), Ng and Feldman (2009), de Lange et al. (2010), Brewer et al. (2012), and Liu et al. (2012). Ng and Feldman (2009) recommended that research in turnover should "in addition to further examining why age should relate to turnover, researchers should also carefully investigate who is more likely to voluntarily leave their organizations, not only among older workers but among younger workers as well" (p. 290). It can be seen that *Newcomers,* who are aged 20 years old, have indicated that they are likely to leave their first job when their expectations are unmet. This is also in line with descriptions by Solnet and Hood (2008) that Gen Y are "extremely technologically literate, self-reliant, independent

and looking for instant rewards, where long-term means 12 months" (p. 61). Even as researchers reported that Gen Y are the hardest to retain in the workplace compared to other generations (Brown et al., 2015), the findings provide one explanation on why this is so. It can be seen that *Newcomers* perceive that they have the confidence and control in making their own decisions about their first job. And they carried with them expectations which if becomes unmet, will lead them to decide to quit their first job. This is clearly in line with definition on the met expectations "that when an individual's expectations —whatever they are — are not substantially met, his propensity to withdraw would increase" (Porter & Steers, 1973, p. 152). This confidence and control over their turnover intentions confirmed that *Newcomers* have the highest turnover rates within the first few years of joining an organisations (Dunnette et al., 1973; Porter & Steers, 1973; Bray et al., 1974; Wanous, 1980; Yang, 2008; Vancouver & Warren, 2011; Brewer et al., 2012; Kim, 2014; Scott, 2014).

Therefore, the findings provide empirical evidence that even before *Newcomers* start to join organisation for their first job, their expectations of their future jobs revolved around good career, good training and job satisfaction. They perceive that they have control over their expectations and are confident that if their expectations are not met, they will carry out their intention to quit. Thus, RQ-1 is answered.

5.2.3 Are Newcomers in control over their turnover intentions?

The discussion in the previous section revealed that *Newcomers* were found to have pre-entry TE even before organisation entry and socialisation, but do they have control over their TI? This query underlies RQ3.

The findings reveal that *Newcomers* perceive that they are in control of their TI. Evidence was found of the presence of SE and PC as part of the perceived behavioural control (PBC), which supports H4 and H5. H4, that PBC positively mediates the relationship of SE on TI, showed an estimated path parameter significant at the .05 level or better (standardised regression weights = .22 and the CR = 3.190). H5, that PBC will also positively mediates the relationship of PC, an estimated path parameter significant at the .05 level or better (standardised regression weights = .88 and the CR = 8.271). Both SE and PC were shown to be positively related to PBC (Figures 23, 24). This provides empirical confirmation that PBC is multi-dimensional and comprises SE and PC. The findings are in line with and support Ajzen's (2002)

proposal that PBC is a hierarchical model comprising SE and PC. Ajzen proposed the following tests to meet the requirements of the hierarchical model (Ajzen, 2002).

Firstly, PBC must be reliably made up of SE and PC. Secondly, it must be reliably distinguishable from the constructs. Thirdly, SE and PC must correlate with each other. Fourthly, there must be considerable internal consistency between the constructs of SE, PC and PBC. And lastly, the internal consistency should be acceptable. In fact, earlier tests to determine the extent to which PBC directly affects behaviour required that predicted behaviour "must not be under complete volitional control' and "perceptions of behavioural control must reflect actual control in the situation with some degree of accuracy" (Ajzen and Madden 1986 p. 459). And when this is not the case, "the measure of perceived behavioral control can add little to the prediction of behavior" (Ajzen and Madden 1986 p. 460).

The findings provide empirical confirmation that PBC is comprised of SE and PC and that they are reliably distinguishable. This can be seen in the final structural model, SM (Figure 18), which shows that SE and PC are part of PBC. The model-fit indices show that this is both the best model fit and the most parsimonious model. Further, the findings confirmed that SE and PBC correlate with each other, thus fulfilling another condition of the hierarchical model (Ajzen, 2002). During the test for discriminant validity (Table 23), it was shown that SE and PBC are correlated with each other. Further implications of this are presented in later part of this discussion. Evidence of sufficient and acceptable internal consistency, Ajzen's (2002) final test for a hierarchical model, is shown in Table 42 by the Cronbach alpha values for each constructs of PBC (.744), SE (.731), PC (.727), TE (.836), TI (.744), all of which are > .70. The results, therefore, provide strong evidence that the internal consistency is acceptable when SE and PC are added to PBC. The findings have not only provided clear support for the hierarchical model of PBC but also show that the introduction of SE and PC in the hierarchical PBC model does allow PBC to be measured more accurately.

This is one of the few studies to provide direct proof for the hierarchical model of PBC. Early publications had been unable to find enough substantiation to prove that PBC is multi-dimensional, despite many scholars arguing the case (Conner & Armitage, 1998; Manstead & van Eekelen, 1998; Notani, 1998; Ajzen, 2002; Trafimow et al., 2002; Kidwell & Jewell, 2003; Kraft et al., 2005). Studies by Kidwell and Jewell (2003) showed that internal control (similar to SE) and external control

(similar to PC) are distinct constructs within the theory of planned behavior (Kidwell and Jewell 2003 p. 638). However, their studies deal only with two constructs, mainly, internal and external control, and does not follow after the hierarchical model of PBC, which has self-efficacy and perceived control as a second factor order of perceived behavioral control.

Another study by Rhodes and Courneya (2003) did utilise a second order model of perceived behavioural control, self-efficacy and controllability in their studies to investigate the multiple components of attitude, subjective norm, and perceived control. In their studies on 300 undergraduates (M age=20) and 272 cancer survivors (M age=61), they found that "a general subjective norm factor was an optimal predictive conceptualization over two separate injunctive and descriptive norm components. In contrast, a specific self-efficacy component, and not controllability or a general factor of PBC, predicted intention optimally for both samples" (Rhodes and Courneya 2003 p. 129). Their studies found evidence for the support of measurement distinctiveness between perceived behavioural control, self-efficacy, and controllability (similar to perceived control). However, they did not apply the tests of the hierarchical model of PBC. Nonetheless, their studies provided the closest proof similar to the current research study that PBC is a multi-dimensionality construct.

More recently, in a study to predict undergraduates' binge-drinking behaviour, Elliott and Ainsworth (2012) found that adding SE and PC helped to account for a significant and better fit to the data. However, their studies did not measure or use PBC specifically as a construct and only used the constructs of SE and PC, thus making it difficult to test the results against the hierarchical model of PBC. At the same time, it was not possible to distinguish SE and PC clearly as being part of PBC (Elliott & Ainsworth, 2012). Therefore, the results of the study by Elliot and Ainsworth, may not be comparable with the results of this research study. An earlier study by Kraft et al. (2005) on 232 undergraduate students undertaking regular exercise and recycling drinking cartons, found evidence showing that PBC was composed of SE and PC but Ajzen's (2002) stringent tests for a hierarchical model of perceived behavioural control were not performed.

There are implications for validating the hierarchical model of PBC. If PBC can be measured with more certainty and accuracy, the conceptual and methodological ambiguities surrounding the concept can be minimised (Ajzen, 2002). Many studies

have found that whenever there are problems with the TPB, PBC was almost always used as a unitary construct (Terry & O'Leary, 1995; Manstead & van Eekelen, 1998; Van Breukelen et al., 2004) and this tended to affect its internal consistency (Ajzen, 2002).

The introduction of SE and PC within the order of PBC has helped the measurement of PBC (Ajzen, 2002; Kraft et al., 2005; Elliott & Ainsworth, 2012) and confirmed researchers' suspicion that results with large Cronbach Alphas occur only when the two variables are highly correlated, and low Cronbach Alphas occur when they are not (Beale & Manstead, 1991; Chan & Fishbein, 1993; Sparks, 1994; Trafimow et al., 2002).

Table 42 Construct validity for measurement model

Construct	Cronbach Alpha (≥ .70)	Average Variance Extracted (AVE) (≥ .50)
Perceived behavioural control	.744	.703
Self-efficacy	.731	.760
Perceived control	.727	.636
Turnover expectations	.836	.799
Turnover intentions	.744	.670

As perceived behavioural control has been known to be able to measure behaviour both directly and indirectly (Ajzen, 2002; Sheeran et al., 2003; Armitage, 2005; Kang et al., 2006) and intentions directly (Ajzen, 2013), the strength of PBC will indicate the likelihood of carrying out the intention. "PBC refers to the individual's perception of control over his or her behaviour and is assumed to reflect the obstacles that encountered in past behavioural performances" (Ajzen, 1985) and "a high level of PBC is likely to lead to successful behavioural performance because such individuals are more likely to persist in the face of obstacles to the behaviour" (Ajzen, 1988).

The findings from this study have shown that PBC is reliable, accurate and conceptually correct. Therefore, it can be said that *Newcomers'* perceptions that they have control over their TI are accurate. And when perceived control is strong, the likelihood that they will carry out their intentions to quit their first job as "people with higher perceived control are more likely to form intentions to perform a particular action than those who perceive that they have little or no control" (Albarracin et al. 2001). So it is likely that *Newcomers* with a high level of PBC will carry out their intention to quit their first job despite the lack of organisation influences, and poor labour market conditions. Many *Newcomers* felt that they had control over their TI and that there would be no obstacles to quitting their first job (M=3.99, SD=1.429) if they wanted to; that it would be easy for them to quit their first job (M=4.31, SD=1.426); and there would be plenty of opportunities for them even if they do quit (M=4.27, SD=1.345). Not surprisingly, *Newcomers* were confident that they could quit their first job anytime they wanted to (M=3.91, SD=1.445) and it would not be a problem (M=4.28, SD=1.384). They felt that the decision to quit their first job was within their control (M=4.95, SD=1.308) and it was entirely up to them to decide whether to quit it or not (M=4.83, SD=1.418).

Newcomers' perceptions that their intention to quit may reflect their actual control of the situation with some degree of accuracy, even though they have yet to join any organisation. That is because if *Newcomers* feel that quitting their first job is a veridical perception, (i.e. they consider it to be truthful, not illusory or delusory), they are likely to carry out their intention (Fishbein & Ajzen, 2010). And when perceived behavioural control corresponds with reality or facts, it can provide useful information about the actual control a person can exercise in the situation and can therefore be used as an additional direct predictor of behaviour (Ajzen 2002 p. 667).

Therefore, RQ-3 is answered.

5.2.4 Predicting Newcomers' turnover intentions

Newcomers' TI to quit were predicted using a modified TPB with added variables such as perceived control (PC), self-efficacy (SE), and expectations to enhance the predictive powers of the theory. At the basic and fundamental level, this raises the question of whether or not the TPB has predicted the respondents' intentions as set out to do. Figure 28 shows the conceptual model after testing.

The findings showed that the modified TPB failed to predict *Newcomers*' TI but PBC predicted TI directly. This failure could be due in part to the addition of the constructs self-efficacy (SE), perceived control (PC) and expectations, which are new and had not been tested. Nonetheless, other studies have shown that perceived behaviour control is able to measure behaviour directly or indirectly and intentions directly (Ajzen, 2002; Sheeran et al., 2003; Armitage, 2005; Ajzen & Sheikh, 2013). The current research confirms that PBC can measure intentions directly and supports arguments proposed by Kidwell & Jewell (2003) and Fishbein & Ajzen (2010).

Table 41 shows that H1 and H6, which reflect AT towards the behaviour, while H2 and H7, which reflects subjective norm behaviour, were not tested as these were found to have low reliability during the data analysis and had to be discarded (see Chapter 4). This was not surprising. Despite the success of the TPB, Ajzen (1991) had "reported that explaining human behaviour in all its complexity was a difficult task and it was found that there are cases where the TPB was not supported, especially in areas with general attitudinal dispositions, such as job satisfaction or prejudice" (Ajzen, 1991). "These areas have been found to be generally poor predictors of the specific actions when investigated in different domains" (Fishbein and Ajzen, 2010). Fishbein and Ajzen (2010) further explained that "it was possible that AT for measuring TI may be general AT and may be explanatory constructs" (Fishbein 2010 p. 257) and therefore, "low attitude-behaviour relations are neither unexpected, nor do they imply that AT are irrelevant" (Fishbein & Ajzen, 2010). The constructs TI and TE may be classified as, or "represent[ing] a broad behavioural domains criterion, and as such represent broad dispositions to respond favourably or unfavourably to the target in question" (Fishbein and Ajzen 2010 p. 257). But once beliefs related to a particular behaviour have been formed, they provide the basis for AT, SN, and perceptions of control, which, in turn, lead to intentions and actions (Fishbein & Ajzen, 2010). According to Holland et al. (2002) "if an attitude is strong and easily retrieved from memory, it may affect behavior. On the other hand, if an attitude is weak and inaccessible, it will less likely guide action" (Holland et al. 2002 p. 870).

Consequently, one plausible explanation for the weak AT in this study could be that as the respondents may not yet have actual turnover experiences and lack previous working experience to which they can relate their experiences to, their decision could be based on all kinds of factors other than direct experience. Such an explanation would be consistent with the argument that strong AT are better predictors

of behaviour than weak AT, that AT based on direct experience are more predictive of subsequent behaviour than are AT based on second-hand information (Fazio & Zanna, 1981), and this is "indicative of the moderating role of attitude strength" (Ajzen 2010 p. 263).

Table 22 shows that Cronbach Alpha for SN was .315. A plausible explanation for why *Newcomers*' SN towards turnover intentions (H2) and TE (H7) were measured weakly could be the perceptions or expectations of the respondents. Studies have found that SN are usually based on perceptions of expectations of relevant reference groups' expectations about the behaviour and the motivation to comply with these reference groups (de Groot & Steg, 2007). Other researchers using quantitative research methods (French et al. 2007) have found questions relating to the normative questions in the TPB to be particularly problematic. Groups such as 'friends' or 'people who are important to me' comprised subgroups with different opinions, making it difficult for them to give a single answer (French et al., 2007). At the same time, participants tended to comply by answering all types of normative questions, but particularly those concerning motivation to comply, by verbally indicating disagreement and then choosing the middle response option. It also appears not to be socially acceptable or desirable to be consciously influenced by other people or to give certain responses and may simply reflect problems in formatting responses (French et al., 2007). According to Armitage and Conner (2001), questions used to assess the normative aspects of the TPB have been found to be particularly more problematic and less predictive of intentions when compared to the other TPB constructs (Armitage & Conner, 2001). In addition, the subjective norm construct has a much less predictive power than attitude and PBC constructs (Godin & Kok, 1996; Armitage & Conner, 2001). Consistent with this argument, Bates et al. (2008) reported that a "behavior that affects the individual alone, with little impact on others, however, is less likely to be influenced by subjective norms" (Bates et al. 2008 p. 376). Some scholars suggest that most research on normative influences often does not consider whether the behaviour of interest occurs within a public or private setting and that positive normative influences will happen only when the research occurs in a public setting (Lapinski & Rimal, 2005).

Some turnover studies using the TRA did find support for turnover (Hom & Huilin, 1981; Prestholdt et al., 1987; Lane et al., 1988), but these studies may be not comparable to the current research study as there are major differences. While those

studies used the TRA to predict the turnover of guardsmen and nurses, the studies did not include the perceived behavioural control construct. The sample group does not include *Newcomers* and are dated. *Newcomers'* beliefs then would be very different from the current research study. Consequently, there may be little comparative value between studies of Hom & Huilin (1981), Prestholdt et al. (1987) and Lane et al. (1988) and this current research study.

Interestingly, while AT and SN represent the constructs of theory of reasoned action (TRA), adding PBC to TRA permits dealing with situations in which people may lack complete volitional control over the behaviour of interest. So the results are not unexpected, as *Newcomers* intending to quit their first job may lack complete volitional control over the intention to quit. The lack of control over this intention resides in the fact that quitting their first job is dependent on many internal and external factors. The addition of PBC is to accommodate the non-volitional elements inherent in this type behaviour. Therefore, even if quitting their first job before joining an organisation sounds unrealistic, PBC can affect behaviour indirectly by its impact on intention (Fishbein & Ajzen, 2010). According to Fishbein and Ajzen (2010), when "attitudes and perception of social pressure support performance of the behavior, the greater the perceived behavioural control the stronger should be the intention to perform the behavior in question" (Fishbein and Azjen 2010 p. 155). And "if people believe that they do not have control over performance of a behavior, they may not form strong behavioral intentions to perform it even if they hold positive attitudes and perceive strong social pressure to do so" (Fishbein and Azjen 2010 p. 155). "PBC may act as a proxy measure for actual control, and behaviours that are subject to environmental constraints may be more difficult to perform" (Ajzen, 1985). Thus, "to the extent that perceptions of control over performance of a behaviour are accurate, perceived behavioural control (PBC) will directly predict behaviour" (Ajzen & Madden, 1986).

Therefore, the findings showed that the addition of SE, PC and expectations did not enhance the predictive powers of the theory of planned behaviour (TPB) but that PBC was able to predict intentions directly. Thus, for those behaviours that are low in control, individuals' ability to translate their intentions into behaviour may be reduced (Norman & Hoyle, 2004). The findings showed that the addition of SE and PC resulted in PBC being measured more accurately and with good reliability and internal consistency.

RQ-2 has been answered.

5.2.5 Summary of discussions on research questions

The three research questions have been answered and the antecedent factors affecting *Newcomers'* intention to quit are summarised in Table 43. In answering the questions on whether *Newcomers* have pre-entry expectations, it was found that pre-entry expectations exist even before organisation entry and socialisation. The pre-entry expectations are good training, good career and job satisfaction. Other factors like salary, financial crisis do not appear to be important to *Newcomers*.

Newcomers' control beliefs showed that they are confident that they can quit any time without any problems, that there are no obstacles and there are plenty of opportunities for them to quit their first job. The decision to quit is within their control and is entirely up to them, even in the presence of a financial crisis. They are prepared to quit within 1 month, whenever they are dissatisfied or unhappy, and will quit if they want to try a different job.

The research study, therefore, has shown why *Newcomers'* do not stay long in their first job. Even before they join an organization for their first job, they are filled with pre-entry expectations. *Newcomers* expect their first job to provide them with a good career, good training and job satisfaction and when these expectations are unmet, turnover will occur. They perceive that they have control over their turnover intentions, which can be predicted directly by measuring their perceived behavioural control. The accuracy of measuring perceived behavioural control was enhanced by self-efficacy and perceived control, when the two are measured as distinct constructs and fixed in a causal direction. If *Newcomers'* expectations and turnover intentions are understood, changing their behaviour could potentially retain them longer in their first job. "Despite the fact that intentions are probably our best single predictor of whether one will or will not perform a given behavior, intentions do not always predict corresponding behaviors" (Albarracin et al 2005 p. 838), but the fact that PBC was measured reliably and accurately, means that *Newcomers* are likely to carry out their intention to quit their first job. As PBC was found to be high, it is likely that *Newcomers* intend to perform their turnover intentions and are likely to act on their intention as a high level of PBC has been shown to lead to successful behavioural

performance. This knowledge can help in developing interventions programs and ultimately result in retaining *Newcomers* longer in their first job.

Table 43 Antecedent factors affecting *Newcomers* intention to quit

Pre-entry expectations	Control beliefs	Intention to quit
Job satisfaction Good career Good training	*PBC* No obstacles Plenty of opportunities *SE* Confident can quit any time Quit my first job would not be a problem *PC* Decision to quit is within my control Quitting is within control and entirely up to me Quitting in a financial crisis is not a problem	Quit within 1 month Quit when dissatisfied Quit to try out different job

5.3 New contributions to knowledge

The research study has produced some new contributions to the pool of knowledge in organisation entry, turnover and the theory of planned behaviour (TPB). The two main contributions are the hierarchical model of PBC and the expectation–PBC-intention model. The contributions are summarised in Table 44. The following sections discuss their contributions in detail.

5.3.1 Summary of Contributions to knowledge

A summary of the contributions to knowledge is shown in Table 44. The contributions are divided into three areas: organisation entry, turnover and planned behaviour. The present status of understanding is listed and the corresponding new contributions are added.

Table 44 Summary of new contributions to knowledge

Aspect	Present status	New contributions
Organisation entry		
Socialisation of *Newcomers*	• Not known • Learning and adaptation happen during socialisation. The outcome of socialisation is turnover • Age is strongly related to turnover	• Socialisation exists even before organisation entry • *Newcomers* (Age = 20) have turnover intentions before socialisation
Turnover		
Pre-entry expectations of *Newcomers* leading to TI	• Limited studies on pre-entry expectations of *Newcomers*. • Literature not specific on what pre-entry expectations exist. • Dated studies	• Shows *Newcomers* pre-entry expectations are good career, good training and job satisfaction
TI of *Newcomers* before joining organisation	• Not available	• Shows that *Newcomers* have pre-entry expectations even before they join organisation
Use of TPB to study *Newcomers* turnover	• Limited studies	• Shows that a modified TPB can only measure TI partially • Shows that PBC can predict intentions directly • Provides a clear methodology on the study of turnover using PBC • Present a model that may be able to predict intentions directly through PBC with the addition of SE, PC, and expectations
TPB		
Interaction between PBC in turnover studies	• No interaction between PBC	• PBC found to be significantly measure intentions
Hierarchy model of PBC	• Limited studies • Lack empirical proof that SE and PC are part of PBC	• Validate hierarchical model of PBC • Provides empirical evidence that PBC is multi-dimension, made up of SE and PC • Shows causal direction of SE and PC within PBC • Enhance the predictive powers of PBC
SE and PBC	• No clear support that SE and	• Provides evidence that SE and PBC are

	PBC are distinct or similar constructs	distinct constructs • Provides empirical evidence that SE and PBC can be similar constructs
Expectations-PBC-intention model	• Not available	• Present a model that may be able to predict intentions directly through PBC accurately

5.3.1 Contributions to understanding about organisation entry

The findings of the research study on *Newcomers'* behaviour contribute to the pool of knowledge on organisation entry and socialisation. The following are the new contributions to organisation entry.

- Understanding of *Newcomers* before joining organisation
- *Newcomers'* socialisation occurs before organisation entry
- *Newcomers'* pre-entry expectations are good training, good career and job satisfaction

Current studies on organisation entry tend to focus on new members moving from the outside to the inside of an organisation (Wanous, 1976, 1977, 2013), but little is known about *Newcomers* before they first join any organisation. The results of the research study found that *Newcomers'* have pre-entry TE before they first join an organisation.

Organisational socialisation is often described as "the process by which an individual comes to appreciate the values, abilities, expected behaviours, and social knowledge essential for assuming an organisational role and for participating as an organisational member" (Louis, 1980, pp. 229–230). Socialisation has been found to be an important phase as it enables *Newcomers* to discover what the organisation is about, why it is important and their place within in it and it helps to facilitates work adjustment (Ashforth et al., 2007b). *Newcomers* bring to the organisation a set of expectations about a possible future relationship and these expectations can influence their long-term success and career in that organisation (Sutton & Griffin, 2004).

According to most studies, the socialisation process begins only at organisation entry (Wanous, 1977; Wanous & Colella, 1989). During the process of socialisation, unrealistic expectations can lead to turnover (Porter & Steers, 1973; Louis, 1980; Wanous et al., 1983; Wanous et al., 1992). However, *Newcomers* who have yet to join

any organisation for the first time have yet to undergo this organisation socialisation process and are thus unable to appreciate the values, abilities, expected behaviours, and social knowledge essential for them to assume an organisational role and to participate as an organisational member. It thus raises the questions of where *Newcomers* acquire their perceptions of quitting their job. Where do they learn them?

The findings of this investigation show clearly that *Newcomers* are about to work in their first job upon graduation. There was no indication that AT and SN were responsible for influencing them. However, the research did find a strong role for PBC in the respondents'expectations. It shows that *Newcomers* are capable of performing the given behaviour and are adequately resourced to carry out their intentions. "It is immaterial to them that these resources and obstacles are internal or external" (Ajzen 2002 p. 677).

The findings from analysis of the pre-entry expectations provide further answers. The CFA shows that training, career and job satisfaction are important expectations for *Newcomers* before organisation entry, that these are factors with which they are comfortable and familiar. It also shows that if these expectations are unmet, they intend to quit their first job. Because these perceptions are formed prior to organisational entry, they are referred to as pre-entry expectations. The results of the CFA are in line with studies by Sutton and Griffin (2004) as well studies on unmet expectations, which are strongly associated with turnover (Vroom, 1964; Porter & Steers, 1973; Louis, 1980). This suggests that if the *Newcomers* pre-entry expectations are unmet, it will lead them to quit their first job. These perceptions exist despite not yet having had the opportunity to learn from their future employers.

The findings of the current research study close this gap by showing that *Newcomers* have pre-entry expectations about their TI even before they join organisations. This implies that socialisation, which was always thought of as process of learning and adaptation that takes place only during organisation entry, exist even before organisation entry. It clarifies that the understanding of college-to-work transition is not just a process of anticipation, adjustment, and achievement for *Newcomers* (Wendlandt & Rochlen, 2008), but also contains pre-expectations. And when *Newcomers* were asked about their TI and their perceptions about how they would affect them when they first join an organisation upon graduation, they responded that training, career and job satisfaction were the important expectations that would affect their TI behaviour.

5.3.2 Contributions to understanding of turnover

The second contribution of this research is to the pool of knowledge on turnover. The new contributions to turnover to this area are:

- *Newcomers'* pre-entry expectations may lead to turnover
- *Newcomers* are aware of their TI
- The use of TPB for predicting *Newcomers'* TI
- The use of SEM to study *Newcomers'* TI

It is not easy to add anything new to the pool of knowledge about turnover, as over the years turnover scholars have conceived numerous theories and constructs to better understand and predict employees' intention to quit (Hom et al., 2012). Some scholars claim that there is not much insight into the process and content of employee decisions to quit (Maertz Jr & Campion, 2004) and many scholars urge a refocus on employee voluntary turnover decision-making processes (Hom & Griffeth, 1991; Lee & Mitchell, 1994; Steel, 2002; Maertz Jr & Campion, 2004). In fact, recent scholars are saying that "it is time to voluntarily turn over theories of voluntary turnover as most turnover studies suffer from a range of problems: weak criterion validity or low predictive validity; excessive exuberance with survey predictor measures; low rigour or the absence of tests of incremental contributions to prediction" (Russell 2013 p. 156). Russell (2013) claimed that "current theories and measures simply have very little to offer managers facing voluntary turnover problems – there is little or no knowledge to transfer" (Russell 2013 p. 161).

Contrary to Russell's arguments, the current research study proves that turnover studies still have validity and there are gaps in the pool knowledge on turnover studies. The current research study addresses an important gap. Most turnover studies tend to focus on understanding TI only after the employee has joined an organisation. Little is known about TI before organisation entry. Most turnover models tend to focus on job AT caused directly by job satisfaction and organisation commitment (Zheng et al., 2010). However, this normally occurs after they have joined organisations. *Newcomers*, who have not joined organisations, have no past experience or organisational influences and cannot be studied according to those factors.

The current research study used the TPB to directly measure *Newcomers* perceptions and beliefs, which were then used to predict their TI. A lack of detailed studies to predict *Newcomers*' TI means little is understood about *Newcomers'* pre-

entry expectations and how they lead to turnover (Wanous, 1977; Louis, 1980; Arnold, 1986; Arnold & Davey, 1991, 1994a; Holton & Russell, 1999). The extant literature does not specifically address what pre-entry expectations are before *Newcomers* join an organisation for their first job (Sutton & Griffin, 2004). Studies investigating newcomers' expectations are therefore dated (Louis, 1980).

The findings have provided empirical evidence that pre-entry expectations affect turnover. Evidence of the significance of the findings can be seen in the congeneric model constructed out of a two-factor model of TI and TE (Figure 13). The results show that it is a good fit to the data, with the following model-fit indices: χ^2 (8) = 21.360, χ^2/df = 2.670, p = .000, GFI = .982, TLI = .967, CFI = .982, RMSEA = .065 hypothesising that it is a good fit to the data. Further evidence can be seen in the model indices of the final SM which shows χ^2 (61) = 98.716, χ^2/df = 1.618, p = .002, GFI = .963, TLI = .971, CFI = .977, RMSEA = .039 (.024-.053), Pclose= .894, SRMR = .0391, Bollen-Stine BS p = .075, BS χ^2 = 73.955, adjusted χ^2/df = 1.212. In addition, a confirmatory-bias testing shows that the final SM was the most parsimonious.

As previously stated, the findings of the research study are able to contribute to the understanding of turnover, showing that *Newcomers'* pre-entry expectations before joining an organisation for the first time are good career, good training and job satisfaction.

The literature shows that the use of the TPB to study turnover has been limited, and is absent for understanding *Newcomers'* turnover behaviour. It is believed that this is the first research study of its kind. It is believed that it is also the first to use a modified TPB together with the constructs of expectations, SE and PC. The findings of the research study show that the modified TPB did not fully predict respondents' intentions, although PBC predicted them directly. The findings of the research study show a clear methodology for using the multi-dimensionality of PBC to measure PBC accurately and reliably. As PBC is a construct of control, it indicates that *Newcomers* are in control of their TI even before joining an organisation. Studies in turnover have concentrated on determinants such as organisation commitment and job satisfaction, which are only found after joining organisations.

The findings of the research study therefore, contribute to the understanding of turnover by showing that for the first time, PBC can be used to understand *Newcomers'* TI before joining an organisation for the first time, PBC can be used to understand *Newcomers'* TI before joining an organisation through a newly evolved

model incorporating SE, PC, PBC, expectations and intentions. The merits and demerits of this model will be discussed in detail in the next section.

Whilst the findings of this research may appear to have provided a small portion of variances in turnover studies, they nonetheless play an important part in understanding turnover as the study is based on a special group that has been found to have the highest rate of turnover. Recent arguments appears to call for the retirement of "theories of voluntary turnover" (Russell, 2013). Russell (2013) argued that most turnover studies have used predictors that explain the same small portion of variance in turnover studies; the use of predictors such as expectations and intentions in the current research study has produced a different type of variance. There is concern that turnover studies have weak criterion validity or low predictive validity, with low rigour (Russell, 2013).

Expectancy theory tests have found that employees might not quit if an alternative job merely has higher expected utility than that of the current job, as they would incur certain losses by leaving (Hom and Griffeth 2013 p. 171). However, they have been unable to explain how it is that *Newcomers* have already started to perceive when and how they will quit their first job in an organisation when they, have no expected utility, no current job to compared to any other job with, and no losses to gain (that are tangible to them).

However, turnover studies using multivariate analysis have produced rigorous results. As such, multivariate analysis has started to replace bivariate procedures and has become turnover scholars' preferred analytical procedure (Price & Mueller, 1986; Price, 1999). Since then many scholars have adopted SEM as their method of analysis (Arnold & Feldman, 1982; Parasuraman, 1982; Hom & Griffeth, 1991; Irving & Meyer, 1994; Hom et al., 1999; Kim, 1999; Lambert et al., 2001; Griffeth & Hom, 2004; Chiu et al., 2005; Murrells et al., 2008; McGowan et al., 2009; Park & Kim, 2009; Calisir et al., 2011; Zhang & Feng, 2011; Lai & Chen, 2012; Zhao et al., 2012; Allen & Shanock, 2013). The results in this research study contradict Russell's (2013) argument that turnover studies produce low rigour results. Both the measurement and final SM have produced results with model-fit indices that are above the recommended cut-off threshold limits (Hu & Bentler, 1999; Marsh et al., 2004; Yuan, 2005).

Table 45 tabulates the SEM results of the current research study against meta-analytical studies carried out by Hom et al. (1992). Although dated, Hom et al. present

a comprehensive study of turnover studies that used SEM as the method of analysis (Mobley et al. 1978; Hom et al. 1984; Bannister & Griffeth 1986; Dalessio et al. 1986). These SEM results predate the stringent model-fit-indices set out by later SEM scholars such as Hu and Bentler (1999). Inspection of Table 45 shows that the meta-analyses of the SEM results presented have a wide range of model-fit indices. Of concern are the raised values of the chi-square, χ^2. The chi-square, χ^2 has been used as an indicator of misspecified (rejected) models (Mulaik, 2007; Marsh et al., 2004). When the chi-square value is high, the result is likely to be statistically significant, indicating the worse the data fit the model, as it is a badness-of-fit index (Schreiber, 2008). Table 45 shows a significantly lower χ^2 for the current research study and are significantly lower than those in the other meta-analytical studies, indicating that the model-fit indices of the current research study are rigorous and a better fit to the data.

The new knowledge derived from this study's contribution can indeed benefit managers hoping to retain *Newcomers* longer in their first job, challenging Russell's (2013) argument that "current theories and measures simply have very little to offer managers facing voluntary turnover problems as there is little or no knowledge to transfer" (Russell 2013 p. 161). With this new knowledge, managers can develop intervention programs to keep *Newcomers* longer. A recent study by Amin et al. (2014) showed that TPB constructs significantly influenced the intention towards sugar resistance, following the completion of an intervention program to improve students' AT and knowledge about sugar snack consumption. At the same time, the findings of the current research study show that new contribution to the turnover studies can help to extend the usefulness of turnover theories, removing the need to retire them, as has been suggested (Rothman, 2004; Hom & Griffeth, 2013; Russell, 2013). According to Rothman (2004), "theory should [is] be treated as a dynamic entity whose value depends on it being not only applied and tested rigorosly, but also refined based on the findings afforded by those tests" (Rothman 2004 p. 2). Studies using turnover theory are still being developed, are providing new knowledge and refinements to the theory (Laschiner, 2012; Zhao et al., 2012; Albattat et al., 2013; Allen & Shanock, 2013; Chen, 2013; Hancock et al., 2013; Holtom et al., 2013; Malek, 2013; Mayers, 2013; Park & Shaw, 2013; Riley, 2013; Shukla & Sinha, 2013; Veldman, 2013; Beenen & Pichler, 2014; Guan et al., 2014; Kim, 2014; Kumar et al., 2014; Lee et al., 2014; Scott, 2014; Shipp et al., 2014; Takase et al., 2014; Tomietto et al., 2014; Tschopp et al., 2014; Wittmer et al., 2014; Phillips et al., 2015). Thus far,

Russell (2013) has not proven that the many countless turnover theories are wrong; he has only argued that turnover theories have low rigour and low predictive value and are of little use to practitioner. In fact, Popper's theory of falsification posit that it is not possible to prove a theory right but it is only possible to try to prove it wrong (Popper, 1963).

Table 45 Comparison of SEM results

Model	*df*	χ^2	NFI	IFI	CFI	PFI
Current research study (2015) Final SM	61	98.716	.944**	.978**	.963	.764**
Mobley, Homer & Hollingsworth (1978)	6	903.88*	.916	.916	.916	.366
Meta-analytical corrections for attenuation						
SM corrections for attenuation	6	363.63*	.947	.947	.947	.379
Dalessio, Silverman & Schuck (1986)	8	414.78*	.961	.962	.962	.513
Meta-analytical corrections for attenuation						
SM corrections for attenuation	8	219.68*	.968	.969	.969	.516
Bannister & Griffeth (1986)	8	1,274.92*	.881	.882	.882	.470
Meta-analytical corrections for attenuation						
SM corrections for attenuation	8	543.49*	.920	.921	.921	.491
Hom, Griffeth, & Sellaro (1984)	8	653.07*	.939	.940	.940	.501
Meta-analytical corrections for attenuation						
SM corrections for attenuation	8	315.64*	.954	.955	.955	.509

* $p < .05$
** These values are not reported in this study.
Source: Hom et al. (1992) p. 900

5.3.3 Contributions to the theory of planned behaviour

The third contribution is to the pool of knowledge on the TPB. The following are the new contributions to this theory.

- TPB can be used to predict *Newcomers'* TI
- PBC can be used to predict intentions directly
- PBC fulfils the test for the hierarchical model of PBC
- PBC is multi-dimensional, comprising SE and PC
- There is a causal direction of PC and SE within PBC
- PBC and SE are very similar and could be measuring the same construct.

Despite its success in predicting most health-related behaviour (Armitage, 2005; Bai, 2007; Hobbs et al., 2013), TPB's track record for predicting turnover has been mixed (Van Breukelen et al., 2004; van Hooft et al., 2004a). Support has been limited in studies on job-search behaviour (van Hooft et al., 2004a), while studies by van Breukelen et al. (2004) found little interaction between PBC and TI in Dutch naval men. However, although the current research study could not fully predict *Newcomers'* TI, PBC was found to predict intentions directly. It must be noted unlike the current study, neither of those studies modified the TPB. The extant literature is ambivalent on the predictive value of adding constructs to the TPB. Mixed results have been obtained. Few studies were found that support the addition of SE, PC and expectations to TPB to enhance its predictive powers. In fact, studies by Arnold et al (2006) found limited support when two additional variables, moral obligation and identification, were added to the TPB in their studies on intentions to work for the UK's National Health Service as a nurse, physiotherapist or radiographer.

Therefore, it appears that the addition of extra constructs may not fully added to the TPB. The new knowledge derived from using the modified TPB to predict *Newcomers* TI in this study shows that only PBC can predict intentions directly.

The finding that PBC is a direct predictor of intentions is an important contribution, as PBC has been known to play an important role in the TPB. It has been shown to be able to measure behaviour and intentions directly or indirectly (Ajzen, 2002; Fishbein & Ajzen, 2010; Ajzen, 2011; Yzer, 2012). It has also been shown that whenever PBC is measured poorly, it will produce low reliability and internal consistency (Ajzen, 2002). In this study, turnover intention to quit was not under the *Newcomers'* complete volitional control. *Newcomers* do not have any previous work

experience to fall back on; to them quitting a job is only a perception. In addition, many factors might influence their decision to quit their first job. As an example, the job might not match their expectations and one *Newcomer's* expectations may be different from another's. Two *Newcomers* could "have the same ability, resources, opportunity and yet have different perceptions of how much control they have, and there is no way of knowing who is correct" (Sheeran et al., 2003). Despite the non-volitional control, the findings clearly show that *Newcomers*' perceive and are confident that they have control over quitting their first job.

A further contribution of this study to the pool of knowledge is the confirmation of other researchers' claims (Terry & O'Leary, 1995; Manstead & van Eekelen, 1998; Ajzen, 2002) that PBC is a multi-dimensional construct comprising SE and behavioural control. Whereas many researchers have agreed that PBC is multi-dimensional, some have disputed that it is made up of SE and PC as they argued that the two variables measure the same construct is known to be a significant contributor to subsequent performance over and above the influence of other factors, including past performance (Bandura, 1997; Bandura & Locke, 2003). But the findings of this study provide empirical evidence that PBC comprises SE and PC. Evidence to support can be seen in the three-factor congeneric model made up of PBC, SE and PC (Figure 9). The model-fit indices show a model fit of χ^2 (17) = 58.760, χ^2/df = 3.456, p = .000, GFI = .964, TLI = .940, CFI = .964, RMSEA = .079, supporting the hypothesis that it is a good fit to the data. Further evidence can be seen from the test for internal consistency, which showed acceptable results when SE and PC were added to PBC. The findings are in line with studies that have reported PBC is multi-dimensional and make up of SE and PC (Manstead & van der Pligt, 1998; Ajzen, 2002). They also confirm Ajzen's "view of the control component in the theory of planned behavior [which] implies that measures of perceived behavioral control should contain items that assess self-efficacy as well as controllability" (Ajzen 2002 p. 680) and "supports the idea that PBC could be conceived of as consisting of two separate but interrelated constructs, namely self-efficacy and controllability (Ajzen, 2002; Trafimow et al., 2002)" (Kraft et al. 2005 p. 493).

The discovery of a causal direction of self-efficacy, perceived control and PBC contributes further to the pool of knowledge. Although researchers are debating whether or not PBC is multi-dimensional, the extant literature does not show that a causal direction within the multi-dimensional construction of perceived behavioural

control. Nonetheless, in the tests for the hierarchical model of PBC, Ajzen (2002) argued that certain conditions must be satisfied. The findings here not only satisfied the tests for the hierarchical model but also found that there is a causal direction to the constructs and that the most parsimonious model is ordered PC → SE → PBC. If the position and direction of the constructs are changed, a parsimonious model is not possible.

The findings confirm that SE and PBC are distinct constructs and are in line with studies by Terry and O'Leary (1995), Sparks et al. (1997), Manstead and van and Eekelen (1998), Armitage Conner (1999), and Rhodes and Courneya (2003). Evidence can be seen from the results on the tests of the hierarchical model of PBC. In addition, all conditions for the hierarchical model of PBC were fully satisfied. However, although there was strong theoretical support for SE and PBC as distinct constructs, evidence was also found for the possibility that both SE and PBC measure the same construct. During a test for confirmatory bias to support the final SM, an alternative model was discovered. Alternative model A shows a model fit that is very close and similar to the final SM. The final SM has a chi-square, χ^2 of 98.716 and a degree of freedom of 61, and alternative model A has a chi-square, χ^2 of 100.756 and degree of freedom of 62. The final SM has lower value of chi-square and degree of freedom values, making it more parsimonious than the alternative model A. However, despite the model-fit indices showing a very small difference between SE and PBC, the tests for parsimony showed that the best and most parsimonious model occurs when SE and PBC are considered as separate construct. As such, the final model was accepted and alternative model A was rejected.

Early attempts to model PBC on multi-dimensional relationships that impact on behavioural intentions have failed to yield consistent results (Manstead & van Eekelen, 1998). Their attempts are based on the use of internal controls and external controls to predict intention and behaviour respectively (White et al., 1994; Terry & O'Leary, 1995; Kidwell & Jewell, 2003). Studies to determine whether or not PBC and SE can be distinguished empirically and whether they make different contributions to the prediction of intention and behaviour have found that, although:

> "there is some degree of overlap between PBC and SE (both constructs being concerned with control), the perceived ease or difficulty of performing a behaviour (PBC), and the belief that one is capable of performing a behaviour (SE) are conceptually different" (Manstead & van Eekelen, 1998).

Ajzen (2002) stated that although studies have distinguished between self-efficacy and controllability, "self-efficacy measures accounted for additional variance in intentions as well as behaviors but controllability items predicted intentions only when combined with self-efficacy items" (Ajzen 2002 p. 675). Recent studies by Yver (2012) uses perceived capacity and perceived autonomy to study the dual interpretation of PBC. In their study, perceived capacity "is the degree to which one believes that one is able to perform a behavior" while perceived autonomy "is the degree to which one believes that one has control over behavioral performance" (Yver 2012 p. 102). Their definition of perceived capacity is similar to SE, while perceived autonomy is similar to PBC respectively. In their study on the dual interpretation of PBC, participants (N=200) were asked about perceived capacity, perceived autonomy, and intention regarding about five behaviors and seven goals. They showed that:

> "perceived capacity and autonomy can be combined or analyzed separately but also that even when separable, perceived capacity and autonomy items reflect the same overarching construct. The dual-aspect interpretation of perceived behavioral control clarifies its conceptual meaning and refocuses attention to the possibility of additive contributions of perceived capacity and autonomy to behavioral prediction rather than superiority of one theoretical construct over another" (Yzer 2012 p. 115).

Yzer's studies showed that perceived capacity (similar to SE) and perceived autonomy (similar to PBC) could be combined or analysed separately but separable they reflect the same "overarching construct". His dual interpretation of PBC has some similarity to the current research study. The findings of this research study, too, showed that SE and PBC could be combined together. However, the research study is more conclusively and showed that only when SE and PBC are measured as distinct constructs will that produce the best and most parsimonious final structural model with the best model fit. And when SE and PBC are combined together, the model fit is not as parsimonious as compared to the final structural model. In addition, the findings of the research study shows that there is a causal direction between the constructs of perceived control, self-efficacy and perceived behavioural control.

Over the past three decades, TPB has been the dominant theoretical approach used to guide research on health-related behaviour. However, recently scholars have

claimed that TPB has outlived its usefulness in the health psychology domain and proposed that it is time to retire it so that younger theories can take its place. According to Sniehotta et al. (2014), "there has been no shortage of criticism towards the TPB. The balance between parsimony and validity has been questioned; is a theory of all volitional behaviour based on only four explanatory concepts sufficiently elaborated?" (Sniehotta et al. 2014 p. 2). They claimed that "the static, explanatory nature of TPB does not aid understanding of the evidential effects of behaviour on cognitions or future behaviour" (Sniehotta et al., 2014). Although the results of an experimental study supported TPB's assumptions about intention prediction, they were insufficient to explain behaviour, leading her to question the theory's leading role in the health psychology literature (Sniehotta, 2009a, 2009b).

Other scholars disagree and feel strongly that the TPB is still alive and not ready to retire (Ajzen, 2014), some suggesting that it should be extended (Conner & Armitage, 1998; Conner, 2014). Recent studies have shown that new knowledge is constantly validating TPB (Topa & Moriano, 2010; Liao et al., 2011; McEachan et al., 2011; Norman, 2011; Elliott & Ainsworth, 2012; Griepentrog et al., 2012; Marcinkowski et al., 2012; Yzer, 2012; Adams, 2013; Ajzen & Sheikh, 2013; Hobbs et al., 2013; Kautonen et al., 2013; Moan, 2013; Rhodes & Clinkinbeard, 2013) and TPB has been used successfully in predicting the intention to apply for a job (Adams, 2013).

The findings of this research study show that the TPB is still useful in predicting social behaviours. In fact, studies have shown that one of TPB's great strengths has been its ability to predict a great range of behaviours across different populations, using only four variables (Hagger & Chatzisarantis, 2009; Topa & Moriano, 2010; Cestac et al., 2011; Hardeman et al., 2011; Kim et al., 2011; Luszcynska et al., 2011; Kautonen et al., 2013; Conner, 2014). Nevertheless, some scholars claim that researchers are not using their data to challenge existing theory or to critically inform theory development (Head & Noar, 2014). They provide examples of how data that has been collected and used to test the TPB and possible extensions to it, should be used to critically test, refine, and amend the theory to heighten its explanatory power (Noar & Head, 2014) rather than to simply extol the virtues of new models that appear to contain many of the same variables but which place little value in extended TPB models such as those proposed by Sniehotta et al. (2014)(Conner, 2014). Whereas planned behaviour scholars have argued that PBC's multi-

dimensionality may be the cause of low consistency and reliability, more research is needed to substantiate this argument.

Another area where more research can be carried out utilising the TPB is "to assess the moderating impact of sample characteristics on the effectiveness of the TPB" (McEachan et al. 2014 p. 4). In a meta-analysis, McEachan et al., (2014) selected their samples as adult, student or adolescent, as the "differences between such groups are of interest for theoretical and practical reasons" (p. 4). They go on to say:

> "it has been speculated that adolescents compared to adults are driven less by rational considerations and more by affective associations, impulsivity and direct social pressure (e.g. Gibbons, Houlihan, & Gerrard, 2009); Hofmann, Friese, & Wiers, 2008) perhaps because of a less-well developed executive function (Hall, Fong, Epp, & Elias, 2008). As such one might expect attitudes to be less important and SN more important predictors in adolescent samples. The TPB has also been widely applied in student samples. Such samples are known to be younger, better educated, from higher socio-economic status groups and more motivated to accurately respond than the general adult population (Hooghe, Stolle, Maheo, & Visser, 2010; Sears, 1986). It is therefore of interest to know whether such differences translate into a better fit for the TPB in student compared to adult samples" (McEachan et al. 2011 p. 4).

The findings of the research study provide new information to assess the moderating impact of age-related characteristics and effectiveness of the TPB. First, TPB did not successfully predict the intentions of graduating tertiary students and only PBC was able to measure intentions directly. It shows that attitudes and SN are not important predictors in student samples, which are not clearly understood previously (McEachan et al., 2011). It is known attitudes are less important predictors as compared to SN in adult samples (McEachan et al., 2011). It can be implied that as young students, attitudes and SN are not important to them, which tends to fit Gen Y behavior. And as they grow older into adult, SN becomes more important to them. SN has been defined as "an individual's perception that most people who are important to her think she should (or should not) perform a particular behavior" (Fishbein and Ajzen 2010 p. 131). Therefore, it would imply that the influence of people who are important to them (which could be their parents, friends, relatives) would increase, as the students grow older.

Interestingly, it would appear that the findings of this research study provide support for some of the arguments set out by Ogden (2014), Sniehotta et al. (2014), and Conner (2014). First, the research study did not use the TPB for health-related studies but instead applied it to the study of TI among *Newcomers*. Many of the disagreements are related to the question of the TPB's leading role in predicting health-related behaviours (Sniehotta, 2009a, 2009b; Sniehotta et al., 2014). Yet, meta-analysis by McEachan et al. (2011) showed that:

> "prospective tests of the TPB provide strong predictions of intention and behaviour across a range of health behaviours. It was found that behaviour type moderated relationships amongst the model components and that physical activity and dietary behaviours were better predicted by the model" (McEachan et al. 2011 p. 33).

There was no indication in MacEachen et al.'s study that the TPB had failed to predict intentions in health-related behaviours. The findings of this research study show the application of the TPB in turnover other than in health-related behaviours. Although the health social sciences may be saturated in with studies using TPB, this research study shows it to be the most appropriate theory for use in the study of *Newcomers'* TI, owing to their non-volitional nature and the fact that they have not yet started working.

The research study was conducted with rigour using SEM and the results validated and challenge the multi-dimensionality of PBC. The findings confirmed empirically that PBC is a multi-dimensional construct. It not only confirmed that PBC comprises PC and SE, but also established that there is a causal direction of the constructs, contrary to what is proposed at the hierarchical model of PBC. The model-fit indices strongly support the causal direction. These findings have strong implications for the TPB as most problems associated with the theory arise from the inaccurate measurement of PBC. If measured accurately, PBC will improve the consistency and reliability of TPB. In addition, arising from the data, a new hypothesised model (the expectation–PBC–intention model) was proposed, modified from the TPB. This supports arguments that a critical aspect of theory testing should be to ensure that theories are proposed, empirically tested and then modified, based upon the findings of those empirical tests (Rothman, 2004; Crosby & Noar, 2010).

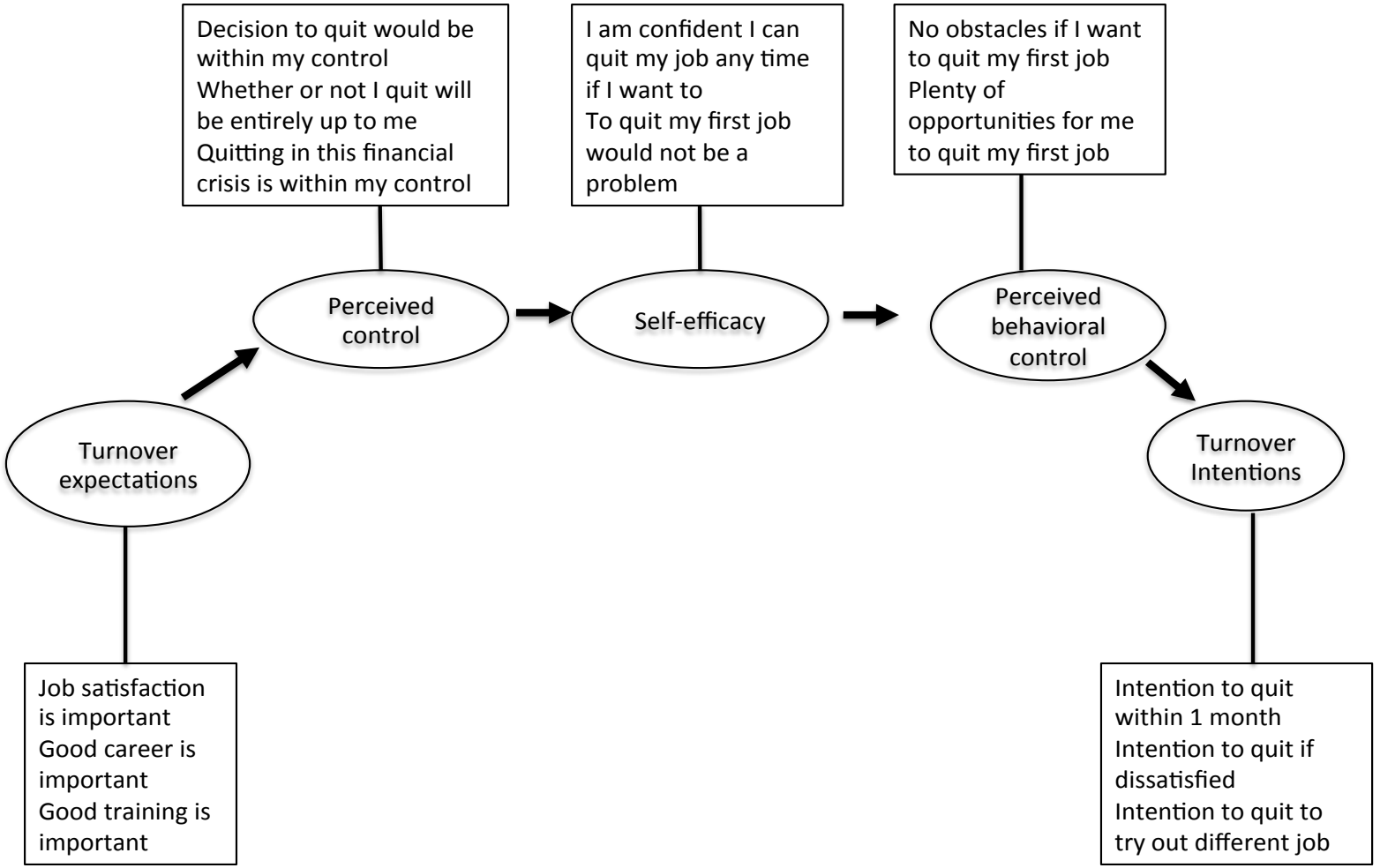
This research study's new contributions validate TPB's usefulness and the study's reliable and accurate methodology for the measurement of PBC and its new hypothesised model, showing that TPB is not ready to be retired. The value of a theory "rests on its ability to provide an accurate account of the factors that regulate people's behavior" (Rothman 2004 p. 2) and as a theory can never be proved right, it is only by observation and experiment that scientists can try to prove it wrong (Popper, 1963). The current research study has proven the contrary and therefore, the theory of planned behaviour should not be retired but extended or refined with the new contribution provided from the research study. Theory development is an ongoing process where:

> "theory development and empirical aspects of the research enterprise are brought together in a way that promotes speculation but is guided by appraisals and scientific standards, thereby making research an ongoing process of interconnected steps of inquiry, confirmation, refutation, and (temporary) synthesis" (Bagozzi and Yi 2012 p.14).

5.3.4 Towards an expectation-PBC-intention model for predicting turnover intentions

The final SM has produced a new hypothesised theoretical expectation- PC-SE-PBC-intention model (Figure 27). The final SM presents predictions of the theory using the plausible constructs of expectations, PBC and turnover, which were measured with the appropriate indicators and found to have both theoretical support and parsimony (Hayduk et al., 2007; Byrne, 2010; Kline, 2010). Support for expectations is grounded in expectancy theory (Vroom, 1964) and unmet expectations (Porter & Steers, 1973) while TI is supported by the strong use of intentions as a predictor of turnover (Steers, 1977; Mowday et al., 1979; Muchinsky & Tuttle, 1979; Mueller & Price, 1989). Perceived behavioural control is supported by TPB and the hierarchical model of PBC (Ajzen, 1991, 2002; Ajzen, 2012). Earlier sections have shown that the hierarchical model of PBC comprises PC and SE; hence, the constructs PC, SE together with perceived behavioural control, will be known as PBC in the expectation–PBC–intention model.

Figure 27 New predictive hypothesised theoretical expectation-PBC-intention model



5.3.4.1 Merits and demerits of the expectation–PBC–intention model

The hypothesised new predictive theoretical expectation-PBC-intention model must be examined on its merits and demerits. There are two clear merits; strong theoretical and statistical support. The expectation-PBC-intention model has strong derivations from expectancy, planned behaviour and turnover theories. "According to expectancy-value model, a person's overall attitude toward a psychological object is determined by the subjective values or evaluations of the attributes associated with the object and by the strength of these associations" (Ajzen 2012 p. 12). The TRA (Fishbein & Ajzen, 1975) and the TPB (Ajzen, 1991; Fishbein & Ajzen, 2010) are the two most prevailing expectancy value models. The study of voluntary employee turnover has been found in many turnover models (Mobley, 1977; Mobley et al., 1978; Mobley et al., 1979; Baysinger & Mobley, 1982; Mobley, 1982 ; Hom et al., 1984; Bannister & Griffeth, 1986; Lee & Rwigema, 2005; Albattat et al., 2013). Discussions in the earlier sections have shown that the contributions to turnover and to TPB have closed the gap on the understanding of *Newcomers'* TI. Unlike other turnover models, this model allows for the prediction of TI before joining an organisation.

The expectation-PBC-intention model can be used to predict *Newcomers'* TI accurately as the multi-dimensional issues of the perceived behavioural control construct have been resolved. Perceived behavioural control is an important construct in the theory of planned behaviour and it affects reliability and internal consistency if it not measured properly. The model specifications showed that the expectation-PBC-intention model has the best model-fit-indices, hypothesises a good fit to the data and is the most parsimonious model.

Another merit of this expectation-PBC-intention model proposed in this thesis lies in the use of SEM for the quantitative analysis. SEM has been known to demonstrate higher predictive validities (Hom & Griffeth, 2013) and to help researchers to be more precise in their specification of hypotheses and operationalisations of constructs (Bagozzi & Yi, 2012). "It also takes into account the reliability of measures in tests of hypotheses in ways that go beyond the averaging of multi-measures of constructs and guides exploratory and confirmatory research in a manner combining self-insight and modelling skills with theory" (Bagozzi & Yi, 2012). Evidence of the robustness of the analysis can be seen in the CFA, the final SM and the use of confirmatory bias to check for equivalent or near-equivalent models and

alternative models that may explain the same data just as well (Hayduk et al., 2007; Gao et al., 2008). Data non-normality was treated with BS and Bayesian Estimate. The final SM was considered the most parsimonious model and was supported by the path diagram, TO Expt → PC → SE → PBC → TO Int (Figure 27). Further evidence of robust data can be seen in a number of analyses. The model indices of the final SM: χ^2 (61) = 98.716, χ^2/df = 1.618, p = .002, GFI = .963, TLI = .971, CFI = .977, RMSEA = .039 (.024-.053), Pclose= .894, SRMR = .0391, Bollen-Stine BS p = .075, BS χ^2 = 73.955, Adjusted χ^2/df = 1.212, indicating a good fit to the data. The low value of chi-square (χ^2 = 98.716) in the final SM is a good indicator that the final structural is the correct one (Byrne, 2010). Chi-square is often used as an indicator that will outperform the other goodness-of-fit indexes (GFI) in terms of rejecting misspecified models (Mulaik, 2007; Marsh et al., 2004). The goodness-of-fit measures (GFI, TLI, CFI) are all > .95, indicating a close fit. Other measures supporting an excellent fit of the model to the data are the low value of the RMSEA (.039), which is lower than the recommended threshold of < .05; SRMR (.0391) less than the threshold of .05; and probability (Pclose = .894), greater than .50 of the recommended threshold. Thus, this model meets the test of parsimony and surpasses all the recommended thresholds of the goodness-of-fit indexes and is accepted (Hu & Bentler, 1999; Marsh et al., 2004; Yuan, 2005; Mulaik, 2007).

The expectation-PBC-intention model is clearly derived from robust statistical methods and the results have yielded benefits not possible with first-generation statistical methods (Bagozzi & Yi, 2012). Nevertheless, the expectation-PBC-intention model is not without any demerits. One demerit lies in the fact that it is a newly hpyothesised model and has not been validated under any other different conditions nor had it previously been tested. Another possible demerit is the discovery of an alternative model during the test for confirmatory bias. This may be a limitation of the SEM. However, the confirmatory bias test, highly recommended by SEM scholars (Byrne, 2010; Kline, 2010; Bagozzi & Yi, 2012), was used to prevent any over-specifications or insistence that the final model is the only viable one. The differences between the model-fit indices of the final SM and the alternative model were very small. In constructing the alternative model and in the presence of theoretical support (Terry & Hogg, 1996; Bandura, 1997; Manstead & van der Pligt, 1998), SE and PBC were set to measure the same construct, although researchers are divided on whether they are similar or distinct. However, this demerit can be overcome by the strong

model-fit-indices, which indicate that the final SM is more parsimonious model than the alternative model and proves conclusively that SE and PBC are distinct constructs. The merits of the model, seen from the model-fit indices and robustness of the SEM, outweigh its demerits.

5.3.4.2 Generalisability of the expectation-PBC-intentions model

The expectation-PBC-intention model established in this research study is based on a representative sample that comprises mostly young adults, also known as *Newcomers*. They have yet to graduate and upon graduation will be joining organisations for the first time. Although the samples are obtained within Singapore, Singapore is well known for its rigorous educational system that is comparable to many countries including the United Kingdom and the United States of America (Ng, 2003, 2004; Pearson & Chatterjee, 2004; Goh, 2005; Ng, 2007). In a recent survey conducted by OECD (Organisation for Economic Co-operation and Development), Singapore topped the biggest global school rankings (Goy, 2015). Not surprisingly, Singapore's investment in education to enhance human capacity is known to underpin its economic transformation and growth. Singapore Senior Minister, Mr Goh Chok Tong, said, "investment in education was, is and will continue to be a key national strategy for economic competitiveness"(Goh, 2005). The then Education Minister, Tharman Shanmugaratnam (Tharman, 2003) echoed his comments:

> "We have a strong and robust education system. It is a system well recognized for the high levels of achievement of our students, in all the courses we offer. Our students aim high, and do well by most international comparisons." (Ng 2007 p. 236)

Therefore, the samples obtained from Kaplan Institute can be considered to be representative as it has a large pool of international and local students undertaking a wide range of courses in the English language.

One difficulty in generalising may lie in the fact that *Newcomers* are known to have different perceptions of work-related characteristics, values and AT (Davidson et al., 2010) than Gen X, who grew up in a world in which working life did not promise any job security (Jansen, 2011). Gen Y are continuously utilising improved technology, living in a world with few physical boundaries (country or location), one in which communication does not depend on physical closeness (Jansen, 2011). Their world is a fast-moving and ever-changing environment in which information is easily accessible and mobility is required (Greenberg & Weber, 2008; Jansen, 2011). At the

same time, the perceptions and beliefs of *Newcomers* may differ in countries other than Singapore. In addition, *Newcomers* may not be homogeneous and may contain personal variations, which can be affected by other factors such as socio-economic, cultural, personal aspirations. Triandis reported that there are three aspects of the self (private, public, collective) with different probabilities in different kinds of social environments (Triandis, 1989). There may also arise situations where a number of *Newcomers* who do not wish to continue in their first jobs because they are "fill-in-jobs", that is, they are waiting for graduate entry level position to open up and they will quit their first jobs once graduate school position opens up. However, the research study has addressed these concern and taken them into consideration during the design and methodology stages.

It had been a concern that during measurement, that the issue of specificity might occur (Ajzen, 2002). To counter this possibility, a scenario with specific instructions was given for respondents to base their answers on. The findings show that the respondents appear to have responded to the scenario and questionnaire appropriately. The test for outliers in the answers detected no large variations. In addition, the concepts of TI and expectations are not expected to differ from country to country. The findings showed that the TE affecting *Newcomers* are job satisfaction, career and training. These factors are not new and have been reported by many scholars (Arnold & Davey, 1994a; Chen, 2004; Sutton & Griffin, 2004). Turnover intentions have also been reported to be consistently the strongest predictor of behaviour and are also the antecedent of behaviour (Steers & Mowday, 1979; Ford et al., 2013; Moan, 2013; Kim, 2014; Tschopp et al., 2014). Given that Gen Y are highly connected to the Internet and do not face any physical barriers between countries and tertiary institutions, it is likely that the model is generalisable to all *Newcomers'* pre-entry expectations and control over their TI, and the prediction of their TI.

Taken as a whole then, the demerits do not affect the expectation-PBC-intention model significantly and are outweighed by the merits pointing to the generalisation of the model. The expectation-PBC-intention model is strongly supported, both methodologically and conceptually. It has origins in attitudinal behaviour models such as the TPB, TRA, and expectancy theory, all of which have been proven extensively. The strength of this model lies in the measurement of PBC, with strong theoretical support from the hierarchical model of PBC proposed by Ajzen (2002) and strong validation of the final SM after equivalent and alternative models

have been thoroughly examined. The addition of SE and PC to enhance PBC has clearly shown the multi-dimensionality of PBC. As Ajzen (2012) stated, "When PBC is measured accurately and PBC is high, the more likely it is that intentions will predict behaviour." In this case, given that PBC has been captured strongly, a higher and more accurate PBC implies that *Newcomers* are likely to carry out their turnover intention to quit their first job and their TI is likely to lead to actual turnover behaviour, "for if they do not intend to perform it, then there should be a negative correlation between control and behaviour" (Ajzen, 2012).

5.4 Managerial contribution and practical implications

Businesses want to know how to stop voluntary turnover, reduce it and retain *Newcomers* for as long as possible. Businesses are desperate for a solution to help reduce voluntary employee turnover, as it disrupts business, causes monetary losses, puts a strain on existing resources, creates loss of productivity, and hinders their ability to expand (Bendapudi & Leone, 2001; Garman et al., 2005; Hall, 2005; Cascio, 2006; Finlay, 2007; O'Connell & Kung, 2007; Allen et al., 2010; Davidson et al., 2010). Empirical evidence has shown that "lost productivity resulting from staff turnover may account for more than two-thirds of the total turnover cost" (Hinkin & Tracey, 2008) and that "as turnover increases, service quality may decline because filling positions and train new staff takes time and resources" (Lynn, 2002). But most businesses are at a loss to know what to do. The causes and permutations for voluntary turnover occurs are seemingly endless and can be attributed to job satisfaction, organisational commitment, salaries, expectations and many other factors.

The descriptive statistics for the respondents in this study depict important contextual characteristics that can become instrumental in helping businesses to understand TI among *Newcomers*. Up until now, businesses have no idea on how to handle *Newcomers* as they enter organisations for their first job. *Newcomers* were left simply to follow through the process of socialisation, to adjust, adapt and learn by seeking information through feedback (Van Maanen & Schein, 1979; Saks & Gruman, 2011c; Tomietto et al., 2014; Phillips et al., 2015).

The findings of the current research study provide help for businesses to understand *Newcomers* better. Businesses need to ensure attention is paid to the socialisation process during organisation entry, as *Newcomers* have no prior working experiences to fall back on. Businesses have typically acted as though *Newcomers*

often enter the organisation with naïve optimism, faulty information and unrealistic expectations, assumptions that the current research study suggests may be inaccurate. What is more likely is that *Newcomers* will enter an organisation with pre-entry expectations, anticipating good training, good career prospects and job satisfaction.

Businesses can begin by reviewing their recruitment policy. Recruiters and human resource managers should be taught to treat *Newcomers* with more care when interviewing them. During selection, in particular, interviewers should be aware that *Newcomers'* expectations are often unrealistic and attempt to tone them down. Realistic job previews are necessary, designed specifically with *Newcomers'* expectations in mind. During the socialisation process, businesses should provide careful monitoring of *Newcomer's* job satisfaction. At the same time, training should be provided to equip them with the correct skillsets related for the job. Career paths should be emphasised early so that they are aware of their future with the company. Given the right environment, businesses can expect that *Newcomers* are likely to stay for about 12 months before changing jobs but should be aware that they would not hesitate to leave within a month if they are dissatisfied and unhappy. More strikingly, businesses should also be aware that *Newcomers* will want to try out different jobs to acquire more experiences within six months and will actively start looking for another job in 12 months.

Therefore, understanding *Newcomers*' expectations can help businesses to retain them, reduce turnover costs and disruption to the business, and improve and maintain existing resources. The findings of the research have opened up several areas of importance and interest to both businesses and research scholars. There are managerial and practical implications arising from this research study. Managers looking to retain their employees, especially *Newcomers*, will be in a better position to do so as they now understand and clarify *Newcomers'* expectations. According to Porter and Steers (1973), "clarifying newcomers expectations can reduce turnover". Managers can now be aware that *Newcomers* have specific pre-entry expectations before they even start their first job: Good training, good career prospect and job satisfaction. Managers should now understand that *Newcomers'* assimilation needs are considerably different from those of more experienced hires (Polach, 2004). At the same time, the positive experiences can help to improve *Newcomers'* organisational commitment later on.

Previously, *Newcomers* were left to learn, adapt and adjust to the organisation after joining it. Socialisation processes were not specifically tailored to them, neither

were they given guidance on how to manage their unrealistic expectations. Managers should be aware that *Newcomers* perceive that they are in control of their TI and do not foresee any obstacles to quitting their first job, although they do perceive financial crisis to be an obstacle to quitting. They believe there are plenty of opportunities to take up other employment. Managers should be fully aware that the decision to quit is entirely up to the *Newcomers,* who will decide to quit if unhappy or dissatisfied, even in the presence of a financial crisis.

The practical implications are twofold: when managers improve the understanding of the socialisation process, they will be in a better position to improve employee satisfaction, engagement, commitment, and *Newcomer* retention (Korte, 2009). When *Newcomers'* expectations are met, they are likely to stay longer in their first job. At the same time, their early work experiences are known to affect their future work choices and their organisational commitment. Therefore, it is important for managers to identify *Newcomers*' behaviour early so that interventions can be developed to help to retain them longer in their first job. "Intervention are valuable because they " are designed to alleviate a social problem that has been identified in a given population or segment of the population" (Fishbein & Ajzen, 2010). They are also used "to address important practical problems (e.g. obesity) and thus their value is inextricably linked to their ability to alleviate the targeted problem" (Rothmans 2004 p. 2). Understanding the practical problems that lead *Newcomers* to quit their jobs can have implications for the nature and content of the intervention program, such as realistic job previews, programs to develop socialisation practices that produce engaged *Newcomers* (Saks et al., 2011), programs to outline clear career paths and improve training, and programs to improve job satisfaction. In addition, according to Ajzen (2012), "behavior change interventions must accomplish two major objectives: they must motivate individuals to perform the behavior, and once this has been accomplished, they must ensure that the behavior will be carried out" (Ajzen 2012 p. 22). Therefore, interventions to prevent *Newcomers* from quitting their first job will have need to motivate them to stay by offering a good career, good training and job satisfaction. And if *Newcomers'* early experiences are positive, they are likely to lead to stronger organisational commitment later on, which will lead to better employee retention (Meyer & Allen, 1988).

While these implications appear to be more appropriate to managers within an Asian setting as set out by the research data and research analysis, the literature review

has covered extensive reviews of turnover intentions, perceptions and beliefs throughout different countries and different multicultural societies. In addition, the methodology adopted is common worldwide. Hence, the implications for managers can also be applied to organisations that may have multicultural societies or Western countries such as Australia, and United States of America.

Thus, the findings of the research study will help managers understand *Newcomers* better and therefore retain them longer in their first job. With *Newcomers* staying longer, managers will be able to cut recruitment costs; productivity losses, improved organization performance and most importantly, reduce the high costs associated with turnover.

5.5 Limitations of the research

There are several limitations associated with this research study. First, given the limited time available for the research, there are inevitable and common trade-offs on practicality, relevance, accuracy, generalizability and simplicity. The time constraint for the research study enabled only a sectional study to be carried out. Ideally, a longitudinal study would allow more in-depth understanding of the whole organisational entry process, including pre-organisation entry, organisation entry, during and after organisation entry. Second, the perceptions of young adults can be difficult to predict and measure. In addition, "this generation grew up with technologies such as cell phones, Blackberries, the internet, "blogs", e-mail and other forms of information age media" (Chen and Choi 2008 p. 603) which keeps them 'connected' with friends and peers (Chen & Choi, 2008). This makes them susceptible to rapid changes. Although many factors could affect *Newcomers*' expectations and turnover intentions, the research study limited its examination to a few factors specifically affecting *Newcomers*, based primarily on the results of the pilot study. The factors were elicited from a small sample group, which may not have provided a broader or sufficient range of control beliefs. Additionally, the factors elicited may really just be showing that *Newcomers*, who have not been in the workforce, may simply not know what they want. The time constraints and limitations do not allow study of national, cultural or gender differences.

5.6 Future research direction

As with all research, there are questions that cannot be answered within this research study. Future research could consider pursuing the following avenues to extend the pool of knowledge.

The current research study used the theory of planned behaviour to study *Newcomers'* TI. However, additional constructs of expectations, SE, and PC, were added to enhance the TPB. The findings of the research study show that the modified TPB did not predict *Newcomers'* TI fully. To explore any deviation in findings, future studies might use the same theory to study *Newcomers'* TI, but without the added constructs.

Future research might consider a longitudinal study that is able to measure both pre-entry expectations and post-entry experiences. The current study has focused on the pre-entry expectations. Findings from the current study show that *Newcomers'* pre-entry expectations are good training, good career and job satisfaction; however these are merely perceptions and beliefs, as the *Newcomers* have not yet joined any organisations. Longitudinal studies could help to understand how these pre-entry perceptions and expectations translate into experiences during organisation entry. They can also show whether or not these pre-entry expectations are important during socialisation.

As the study has only collected quantitative data from *Newcomers*, future studies can consider a qualitative study to add on and follow up on the quantitative study. The quantitative studies have provided a epistemological view that is objectivism and a positivism theoretical perspective. However, the positivist view may be compromised, as the research outcomes may neither be totally objective or unquestionably certain. Therefore, one theoretical perspective may be insufficient to explain the phenomenon fully. A second study, especially an exploratory study, can help to explain further the initial results and generalize exploratory findings. Another theoretical perspective can help to enhance the findings of the current research study.

Perceived behavioural control has been an important concern for many scholars, especially as it is an important construct of the TPB. Future research could validate the current research study's empirical findings that PBC is a multi-dimensional construct comprising SE and PC. Although the research study has provided evidence that PBC is multi-dimensional, confirmatory bias has shown the

presence of an alternative model with a very small difference in model-fit indices. Although, the final model indicates that PBC, SE and PC are distinct constructs, the alternative model reveals that the constructs of PBC and SE are very similar. Future research could investigate this similarity and confirm whether PBC and SE measure similar or distinct constructs.

The development of a new expectation-PBC-intention model shows that it can predict intentions directly. Future studies can validate this. As this model was derived from the studies of *Newcomers*, future studies can also validate the usefulness of this model test in other samples. For example, the expectation-PBC-intention model could be used on samples of those who have already joined organisations. Such validation would strengthen the model, establishing that it is not only valid for predicting *Newcomers'* TI but can be generalised to other samples.

The expectation-PBC-intention model was modelled on the expectations and TI of *Newcomers*, but future studies could seek to validate social behaviour other than turnover. Just as the TRA and TPB have been used successfully to predict other social behaviours directly, future studies could validate this.

As this study has been limited in time and constraints, a quantitative approach was carried out to understand *Newcomers'* turnover intentions. Future studies can consider it from a qualitative approach, where different sub-set groups can be analysed for their perceptions on turnover intentions, expectations and beliefs and most importantly, their perceptions of control over the turnover behaviour. The qualitative approach can also be used to further validate the expectation-PBC-intention-model.

5.7 My personal reflections

When I look back at the past seven years, it seems like it was only yesterday that my PhD journey had just begun. It has been a tough journey; I did not truly understand the kind of commitment or work that is needed to complete the PhD journey, especially as when working a full-time regular job as CEO of a group of companies, while also working part-time on the PhD. Yet, it has been an eye opening and enriching experience, like a butterfly emerging from a cocoon. A PhD is not about yourself; it is all about understanding the underlying paradigm and where and how it fits in. A PhD is but a vehicle. The journey and the destination are the enriching experiences. And the completion of the PhD may not even be the end of the journey. The contributions that we make should not stop, as knowledge is as vast as the universe itself. With every

small piece of knowledge added, we are only just a little closer realising that we actually know nothing in the first place (Socrates).

'The only true wisdom is in knowing you know nothing.' - Socrates

5.8 Conclusions

The research study began by investigating *Newcomers'* behavioural intentions with three research questions: whether or not: (a) they have pre-entry expectations that affect their intention to quit their first job; (b) their perceived TI can be predicted; and (c) they perceive they have control over their future turnover.

Newcomers, who are about to embark on their first job, were found to have pre-entry expectations and the intention to quit. They expected their future organisation to provide them with good training, a good career and job satisfaction. *Newcomers* perceived their pre-entry expectations to be important to them despite having no previous work experience to fall back on or refer to. Clarifying *Newcomers'* pre-entry expectations could be a key to reducing turnover. It appears that they prefer a job that provides them with a good career, training and job satisfaction to one that offers none of these but pays a high salary.

Newcomers' turnover intentions were predicted directly through perceived behavioural intentions. *Newcomers* perceived that they were in control of their decision to quit their first job if their pre-entry expectations were not met. They perceived no obstacles to stop them and plenty of opportunities to quit. *Newcomers* were prepared to quit their first job within a month if dissatisfied or unhappy with it, but would consider staying up to 12 months before considering applying for a new job to gain different experience.

The research study findings indicate that PBC is able to predict intentions directly. As it is an important construct, PBC must be measured accurately for the findings to be reliable. The findings show that PBC can be measured accurately and reliably, as the research design was able to tackle the issues of the multi-dimensionality of PBC. In fact, the research study not only confirmed PBC's multi-dimensionality, but it also confirmed and satisfied Ajzen's test for the hierarchical model of PBC, which was shown to comprise PC and SE. A surprise finding was the discovery of a causal direction within the multi-dimensionality of PBC. Model specifications showed that when the causal direction was shown as PC → SE → PBC,

it produced the best and most parsimonious model-fit indices. Model specifications did not produce any best model fit when the directions were altered.

The findings of the research study also confirmed that SE and PBC are distinct and measure different constructs. The model-fit indices established that when they are shown to measure different constructs, the result is a theoretically sound and parsimonious model. Alternative model A was found during a test for confirmatory bias. It shared the same goodness-of-fit indices and differed very slightly from the final SM in χ^2 and degree of freedom. The test for significance in χ^2 showed that the final SM must be accepted and the alternative model A rejected. This implied that self-efficacy and PBC should be treated as distinctly different constructs.

Arising from the findings was the development of an expectation-PBC- intention model from the final structural model. The expectation-PBC-intention model has both merits and demerits. As it is derived from theoretical groundings in expectations, turnover and planned behaviour, the model is theoretically sound. In addition, SEM produced a final structural model with excellent model-fit indices that surpassed the threshold requirements set forth by Hu and Bentler (1999).

The research study, therefore, has shown why *Newcomers* do not stay long in their first job. Even before *Newcomers* join an organisation for their first job, they have many pre-entry expectations. They expect their first job to provide them with a good career, good training and job satisfaction and unmet expectations will lead to turnover. They perceive that they have control over their turnover intentions, which can be directly predicted by measuring their perceived behavioural control. The accuracy of measuring perceived behavioural control was enhanced by the inclusion of self-efficacy and perceived control, when self-efficacy and perceived behavioural control are measured as distinct constructs and fixed in a causal direction. If *Newcomers'* expectations and turnover intentions can be understood, changing their behaviour could potentially retain them longer in their first job. The difficulty in previous research has been the inability to pin down the predictive link. "Despite the fact that intentions are probably our best single predictor of whether one will or will not perform a given behavior, intentions do not always predict corresponding behaviors" (Albarracin et al 2005 p. 838). However, the fact that PBC was measured reliably and accurately means that *Newcomers* are likely to carry out their intention to quit their first job. As PBC was found to be high and a high level of PBC (as opposed to a low level) has been shown to lead to successful behavioural performance, it is

likely that *Newcomers* intend to perform their turnover intentions, and are likely to act on their intention. This knowledge can help in developing interventions programs and ultimately result in longer retention of *Newcomers* in their first job. In addition, the knowledge that PBC comprises of perceived control and self-efficacy provides important clarification to TPB.

Appendix A Survey instrument

Each question assumes that you have **SECURED YOUR FIRST JOB**

This questionnaire adopts the following simple scenario :-

You have completed and passed your exams!!! Assume that you are going to look for your first job. And you have found your first job!!!

These questionnaires will ask for your thoughts and beliefs prior to getting your first job, your expectations during the first job and how you deal with it.

There is no right or wrong answers. Please answer truthfully

(Please tick **X for** your answers. Please choose only 1 answer)

1 Previous working experience : **YES** ☐ **NO** ☐
(Internship, part-time, national service are not counted)

2 When will you graduate?

After another month ☐ After another 3 months ☐ After another 6 months ☐

After another 12 months ☐ more than 12 months later ☐ Already graduated ☐

3 When you graduate, where will you prefer to work in? (Please tick one only)

Engineering ☐ Legal ☐ Banking ☐ Manufacturing ☐

Construction ☐ Tourism ☐ Teaching ☐ Others ☐

Business ☐

4 Your Gender

Male ☐ Female ☐

5 Your Age

18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐

25 ☐ 26 ☐ >27 ☐

6 Your current tertiary school:

Poly ☐ Kaplan ☐ SMU ☐ Others _____

(Please tick **X** for your answers. Please choose only 1 answer)	Months	Less than	Up to	Up to	Up to	Up to	Up to	More than
		<1	1	3	6	9	12	>12
7	The duration I intend to stay in my first job is							
8	The duration I will consider to actively look for another job in a different organization after my first job is							

(Please tick **X** for your answers. Please choose only 1 answer)		Strongly disagree	Disagree	Moderately Disagree	Neutral	Moderately agree	Agree	Strongly agree
		1	2	3	4	5	6	7
9	I intend to quit my first job if I become unhappy within one month							
10	I intend to quit my first job the moment I am dissatisfied with it							
11	I intend to quit my first job soon after starting to try out different job for more experiences							
12	I do not intend to quit my first job unless it turns out badly (RS)							
13	It will be easy for me to get another job later if I quit my first job							
14	It is common for people around my age to quit their first job							
15	I don't care what people think should I quit my first job							
16	I am likely to get another job first before I quit my first job							
17	I think that quitting my first job is a normal thing to do							

	(Please tick **X** for your answers. Please choose only 1 answer)	Strongly disagree	Disagree	Moderately Disagree	Neutral	Moderately agree	Agree	Strongly agree
		1	2	3	4	5	6	7
18	Deciding to quit my first job will be a definite mistake on my part (RS)							
19	My parents, relatives and friends would approve of my behavior if I quit my first job							
20	Nobody would care if I quit my first job (RS)							
21	I will consult people who are important to me before I quit my first job							
22	If I want to, it will be easy to quit my first job							
23	There will be no obstacles if I want to quit my first job							
24	There will be plenty of opportunities for me to quit my first job							
25	I am confident that I can quit my first job anytime I want to							
26	For me to quit my first job would not be a problem							
27	The decision to quit my first job would be within my control							
28	Whether or not I would quit my first job will be entirely up to me							
29	I am worried that I may not be able to get a job in this financial crisis							
30	I expect that it will be difficult to find a job in this financial crisis							
31	I will take on any job in this financial crisis without hesitation							
32	I will quit my first job even in this financial crisis if I am dissatisfied it							
33	Quitting my first job in this financial crisis is within my control							
34	I will take up the first job that offers me a higher salary than market expectations							

	(Please tick **X** for your answers. Please choose only 1 answer)	Strongly disagree	Disagree	Moderately Disagree	Neutral	Moderately agree	Agree	Strongly agree
		1	2	3	4	5	6	7
35	I will only take up my first job if it is related to what I have studied							
36	Job satisfaction is an important factor for me to stay on the first job							
37	Good career prospect are an important consideration for me to in choosing my first job							
38	Good training facilities is an important consideration for me in to choosing my first job							

THANK YOU FOR YOUR PARTICIPATION

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