

**Understanding the Prevalence of the Boundaryless Career Perspective and its
Implications for Employee Turnover and Talent Retention**

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ABSTRACT

Most contemporary firms are now unable to offer traditional 'organisation man' careers (first articulated by Whyte in 1956) because the prerequisites for building these careers, such as stable economic and organisational environments, relatively tall organisational hierarchies and long-term reciprocal loyalty between employers and employees, are unlikely to be found in the current organisational environment. A new career model, the boundaryless career, emerged in the mid-1990s to replace the traditional career pathway. This career perspective has been considered the new employment principle for a new organisational era by various scholars (e.g., Arthur & Rousseau, 1996; Banai & Harry, 2004; Inkson, 2006, 2008; Sullivan & Arthur, 2006).

Despite its significance for contemporary work environments, empirical research on this new career model has been relatively limited. One plausible explanation is the lack of a reliable scale that can measure all of the core features embedded in a boundaryless career. To advance research on boundaryless careers this thesis developed and validated a scale that assesses individuals' attitudes towards and intentions to pursue this type of career. This scale was then used to assess the prevalence of this new career perspective in the Asia-Pacific region and explore its possible effects on employee turnover and talent retention issues.

This thesis comprises two major studies. In the first study, a four-dimensional 21-item scale was developed utilising the theory of planned behaviour (Ajzen, 1991, 2002) and validated to gauge boundaryless career attitudes and pursuit intentions. In the second study, the scale was used to examine the structural relationship between individuals' attitudes towards pursuing boundaryless careers and their subsequent voluntary turnover intentions and behaviour. Given that this new career perspective may trigger higher voluntary turnover and shorter employee tenure, the thesis also identified talent retention factors that are crucial for those who want to pursue boundaryless careers.

Declaration

I hereby declare that this thesis is my own work and that, to the best of my knowledge and belief, it reproduces no material previously published or written, nor material that has been accepted for the award of any other degree or diploma, except where due acknowledgement has been made in the text. Ethics Committee approval was granted for the primary data collection component of this thesis. The Ethics Protocol number is: 5201000684(D).

Signature :

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Chapter 1: Introduction

1.1 Background of the Study

This research sets out to gain an in-depth understanding of how organisations and individuals respond to changes in contemporary employment relationships through the lens of a novel career conceptualisation, i.e., the boundaryless career (BC hereafter). It examines the nature and prevalence of this new career perspective, and the possible gains and losses that this new career form may bring to both individuals and organisations.

Researchers conceptualise careers and employment relationships in various ways. In the field of strategic human resources (HR) management, scholars have theorised the employment relationship as a strategic long-term partnership between employers and employees with shared common interests and goals (Barney, 1991; Cappelli, 2008; Lado & Wilson, 1994; Larkan, 2009; Wright, McMahan, & McWilliams, 1994). From this perspective, one of the core tasks of HR function is to retain members and limit employee mobility. Thus, as Wright et al. (1994) noted, “the essence of strategic human resource management is to ensure that HR practices such as reward systems, communication systems, training programmes and socialisation systems can be levered to develop the human capital to behave in ways congruent with firm goals” (p. 301).

A different perspective of the employment relationship stems from the field of economics and industrial relations, in which the employment relationship is viewed in terms of systematic power inequalities among various groups such as employers, employees, regulators and labour unions. Employment relationships are seen to be transactional in nature and conflicts between employers and employees are inevitable. Within this view, costs and benefits, institutional arrangements, collective bargaining and negotiation are key issues in understanding the employment relationship (Budd & Bhawe, 2010; Kaufman, 2004). Despite these differences in how to conceptualise and

interpret employment relationships, there is a common recognition of the changing nature of such relationships brought about by globalisation and technology advancement (Ashkenas, 1995; Cappelli, 2008).

Traditionally, the dominant form of the employment relationship has manifested as the “organisation man career”¹ (first articulated by Whyte in 1956, hereafter referred to as the traditional organisational career), which comprises an orderly progression of promotions and career advancements following the vertical hierarchical structure, most typically in a single, large, stable firm (Levinson, 1978; Super, 1957; Whyte, 1956). However, an increasing number of contemporary firms have become reluctant to offer such a career form because the prerequisites for building these traditional organisational careers (e.g., a very stable economic and organisational environment, relatively tall organisational hierarchies and long-term reciprocal loyalty between employers and employees) are being eroded within the new era of globalisation. Organisations have initiated new types of employment relationships such as project-based, contract-based and other contingent employment arrangements to maintain the strategic flexibility needed to cope with uncertainties and alterations in the business landscape (Kalleberg, 2000). As a consequence, new conceptualisations of career models, such as the BC, that are seen as more appropriate in the contemporary working world, have emerged.

BC has been advocated as “a new employment principle for a new organizational era” (Arthur & Rousseau, 1996) in western cultures. The potential appeal and attractiveness of this new form of career are largely based on the outlook of lower employer dependency and higher career autonomy in one’s work life (Arthur & Rousseau 1996; Inkson, 2006). The term “boundaryless” has been used to distinguish it from the “bounded” characteristics of a traditional organization-man career, which is usually composed of an orderly linear employment arrangements achieved through

¹ The ‘organisation man career’ has become the blueprint of the organisational career since the late 1950s, and therefore the term ‘traditional organisational career’ is often used for such career types in the literature. Therefore, rather than ‘organisation man career’, the term ‘traditional organisational career’ is used in this thesis.

vertical hierarchical progression in one single large, stable firm (Whyte, 1956). In contrast, boundaryless careerists act proactively in pursuing their own career paths across corporate boundaries. The emergence of boundaryless careers has been regarded as employees' response towards the adoption of project-based or contract-based work and as response to organizational strategies such as mergers and acquisitions, outsourcing, downsizing and the increasing collaboration of industry network (Kalleberg, 2000). In the midst of organizational turbulences and the intricacies in knowledge societies, some industrial regions, such as Silicon Valley (Saxenian, 1994) and in project-based industries, such as film and broadcasting industry (DeFillippi & Arthur, 1996; Jones, 1996), this new type of career has become one of the most prominent approaches by employees in dealing with their contemporary career management or employment relationships issues (Inkson, 2006).

In addition to the BC perspective, several other career forms such as portfolio (Handy, 1989), protean (Hall, 1996), post-corporate (Peiperl & Baruch, 1997), kaleidoscope (Mainiero & Sullivan, 2005), chameleon (Ituma & Simpson, 2006) and butterfly (McCabe & Savery, 2007) have also come to light in the past two decades (see Table 2.1 in Section 2.2 of Chapter 2 for brief descriptions of these career models). These new models have been proposed to encapsulate the changes to careers brought about by globalisation and technology advancement in the workplace. Unlike the assumed stability and continuity in the employment relationship stressed by traditional organisational careers, all of the abovementioned new career models share the view that modern careers are increasingly casting away organisational boundaries and are characterised by discontinuity (Ashkenas, 1995; Kalleberg, 2000).

Despite the variety of new career models discussed within the literature, the BC construct has received the most attention from scholars and researchers (e.g., Arthur & Rousseau, 1996; Banai & Harry, 2004; Baruch, 2004; DeFillippi & Arthur, 1996; Eby, Butts, & Lockwood, 2003; Inkson, 2006, 2008; Sullivan & Arthur, 2006) as the primary way to think about the emerging employment relationship.

As the name suggests, the BC perspective argues that individuals' careers are becoming more 'boundaryless' compared to the 'bounded' career perspective embedded in a traditional organisational career. Thus, as DeFillippi and Arthur (1996) described, the BC is "a sequence of job opportunities that goes beyond the boundaries of single employment settings" (p. 116). This new career form has been considered to have a distinctive capacity for meeting the modern challenges presented by changing employment conditions and for offering better career success prospects. For example, BCs profit organisations by enhancing HR flexibility and allowing the leverage of different types of expertise across organisations and even industries, which is an essential human capital strategy for contemporary organisations (Arthur & Rousseau, 1996; Inkson, 2006, 2008). BCs are also beneficial to employees because they reduce dependency on employers and result in higher career autonomy (Arthur & Rousseau, 1996; Hall, 2002; Inkson, 2006, 2008). Pursuing a BC can also enrich individuals' career competencies by expanding their social and career capital in a given profession or industry through diverse working experiences (Bird, 1994; Ellig & Thatchenkery, 1996; Jones, 1996; Miles & Snow, 1996). Ellig and Thatchenkery (1996) even suggested that the entrepreneurial and autonomous elements inherent in BCs provide individuals with a platform on which to 'create themselves', which can help an individual find his/her own meaning.

The emergence of the BC perspective may not solely be in response to changing socio-economic and employment conditions; it may also be driven by employees' desire to fulfil their needs for autonomy within their own career domains (Pink, 2011). This perspective matches with the propositions suggested by self-determination theory (Deci & Ryan, 2004, 2008), which states that the desire for autonomy is an innate human need that must be satisfied to ensure well-being.

Despite the potential benefits offered by BCs, this new career form is not without its drawbacks. Within organisations, the greater emphasis on career autonomy and inter-organisational mobility embedded in a BC could result in a higher voluntary turnover rate. Further, discontinuity and instability within an organisation's

human capital could undermine various business strategies and traditional HR practices (Al-Kazemi & Ali, 2002; Gemmill & Heisler, 1972; Thite, 2001; Yamashita & Uenoyama, 2006). For example, a high voluntary turnover rate could create organisational problems or managerial concerns in areas such as succession planning, knowledge creation and transfer in addition to organisational learning. In short, this new career form could be problematic for employers and organisations.

Consequently, while one could theoretically argue for the widespread adoption of BCs in the coming years, it is unclear if this new career construct will be as promising and widely accepted among organisations. At present, the effect of BCs on organisations' HR practices, and more specifically on the issues of voluntary turnover and talent retention, remain unknown. Thus, its adoption as the mainstream career form is uncertain.

Despite the significance and possible effects of this new career perspective on organisations and individuals, empirical studies on BCs have been limited. Due to the novelty of the construct, the research to date has included only one scale measuring two dimensions related to this new career perspective: the boundaryless mindset and organisational mobility² (Briscoe & Hall, 2006). Other dimensions or characteristics embedded in the BC construct have not yet been explored, as there is no scale available to measure them.

1.2 Purpose of the Research

The purpose of this research is to address limitations in the understanding of the BC perspective, specifically the extent of its adoption and its effects on organisations' HR issues such as voluntary turnover and talent retention.

² A boundaryless mindset is one's general attitude towards working across organisational boundaries and mobility preferences. Organisational mobility is one's strength and interest in remaining with a single or multiple employers.

Understanding the prevalence of the BC perspective would provide better information on contemporary career changes. Knowledge of BCs' possible effects on vocational intentions and decisions, such as voluntary turnover issues, would also provide insights into developing more appropriate organisational policies to deal with this emerging employment relationship.

This research has three major objectives. The first is to develop and validate a scale that can assess individuals' attitudes towards and intentions to pursue BCs so as to facilitate the understanding of the prevalence of this new career form. The second is to use the newly developed scale to investigate the possible effects of BCs on vocational intentions, specifically on the issues of voluntary turnover intentions and behaviour. In other words, this research seeks to find out whether the BC perspective really contributes to discontinuous and unstable employer-employee relationships. In addition to understanding the prevalence of the BC perspective and its possible effects on employee turnover, the third purpose of this research is to identify factors that may reduce the possibility of voluntary turnover intentions and behaviour initiated by individuals who have a BC orientation.

1.3 Research Questions

These broad research objectives are conceptualised as the following core research questions.

Question 1: What are the crucial factors affecting individuals' attitudes towards pursuing BCs and how can they be measured?

Question 2: How prevalent is the BC perspective, especially in the Asia-Pacific region?

Question 3: What relationship exists between the BC perspective and vocational intentions and decisions, specifically regarding the issue of voluntary turnover behaviour?

Question 4: Which factors, if any, might reduce the possibility of voluntary turnover intentions and behaviour initiated by those with a BC orientation?

1.4 Research Methodology

To answer these research questions, both quantitative and qualitative research methods were used including questionnaire surveys, one-to-one pilot interviews, focus group interviews and literature reviews. The use of mixed methods is considered necessary to explore the complex and multifaceted nature of a new construct such as the BC (Creswell, 2009).

Two studies were conducted in this research. In Study 1, a scale was designed to assess individuals' attitudes towards and intention to pursue BCs. Churchill's (1979) scale development protocol and DeVellis' (2003, 2009) scale development guidelines were adopted to guide the process. Data consisting of 677 university student responses were collected from Hong Kong, China and Sydney, Australia. This sampling design allowed for the exploration of the cross-cultural use of the scale. Including both local Hong Kong and Australian students in the study facilitated the assessment of the prevalence and significance of the BC perspective in both Eastern and Western cultures within the region, with Hong Kong and Sydney representing these cultural categories, respectively (Harrison, Kelley, & Gant, 1996; Hofstede & Bond, 1984). During the scale development process, one-to-one pilot interviews, focus group interviews and document reviews were used for item generation while data obtained from questionnaire surveys were used to purify and validate the scale items. The details of the scale development process and the methods used in the first study of this research are discussed in Chapter 3.

In Study 2, the relationship between individuals' attitudes towards pursuing BCs and their subsequent voluntary turnover intentions and behaviour were investigated. A hypothesised structural equation model has been developed to examine the possible effects. Data from a substantive survey of 331 local supervisors and managers in Hong Kong, using the scale developed in Study 1 conducted for this research, were collected to test the hypothesised model. In the survey, questions about the importance of

various retention factors, elicited from the extant HR management literature, were also included to identify factors that may reduce employees' voluntary turnover behaviour. The details of the methodology, survey design, hypothesised model and the associated findings in this study are highlighted in Chapter 4.

1.5 Contributions and Significance of this Research

This research seeks to make a number of methodological, theoretical, empirical and practical contributions.

1.5.1 Methodological contributions

The methodological contribution of this research is related to the development and validation of a scale that can assess individuals' attitudes towards pursuing BCs. As discussed, due to the novelty of the BC construct, the research to date has included only one scale measuring two dimensions related to this new career perspective: the boundaryless mindset and organisational mobility. Therefore, the scale developed here addresses this research gap by operationalising an assessment of all major features of the BC construct, as suggested by the extant literature, to more fully measure individuals' attitudes towards pursuing BCs. With this newly developed scale, the prevalence and significance of this new career perspective can be better understood.

1.5.2 Theoretical contributions

This research also helps advance BCs and voluntary turnover theories by empirically testing the possible effects of individuals' personal attitudes towards pursuing BCs on voluntary turnover intentions with a hypothesised structural equation model. The structural equation model findings suggested that the path for forming a positive attitude towards and intention to pursue this new career form was more likely to start with individuals who had high self-efficacy in career decision-making, along with social approval and support from their significant others. These two constructs then influence individuals' personal attitudes towards and intentions to pursue BCs,

which in turn positively affect their subsequent voluntary turnover intentions and behaviour. Offering empirical evidence and the structural model strengthen the theoretical development of this new career construct. The details on how the scale and the model developed in this research contribute to the advancement of career studies and employee turnover theories are discussed in Chapter 5.

1.5.3 Empirical and practical contributions

In regards to the empirical and practical contributions, this research sought to provide corporate leaders and HR managers with empirical information on attitudes towards and intention to pursue BCs and practical insights into ways of dealing with voluntary turnover and talent retention issues that could subsequently arise through the spread of this new career perspective.

The empirical findings in this research revealed a preference for the BC perspective among the respondents in both studies. While the traditional organisational career offers employees job security and orderly career advancement arrangements in a single, large, stable firm in exchange for their loyalty and commitment (Levinson, 1978; Super, 1957; Whyte, 1956), the BC perspective highlights employees' desire to achieve career autonomy and reduce dependency on employers while increasing work-life mobility (Arthur & Rousseau, 1996; Hall, 2002; Inkson, 2006, 2008; Sullivan & Arthur, 2006). Thus, with the rise of the BC perspective, corporate leaders and HR managers may need to review the validity and applicability of existing HR policies to accommodate the increasing preferences for pursuing BCs. Given that higher voluntary turnover and shorter employee tenure are possible due to the spread of the BC perspective, talent retention is expected to be an increasingly valuable but challenging endeavour for organisations.

In this regard, the empirical findings related to the employee retention factors revealed in the second study of this research provide practical insights for organisations into how to address this managerial problem. The survey findings indicated the significance of social factors (e.g., quality of colleagues, quality of

leadership, good social networks and support) in motivating all types of manager respondents (regardless of their attitudes towards pursuing BCs) to stay with an employer. As a consequence, modern and innovative HR practices that could increase employees' social support (e.g., work-life balance programmes), and improve the quality of human capital within the organisation (e.g., the use of stringent recruitment practices, employees on lease or teamwork with a diverse workforce) are likely to encourage members to stay with an organisation, and therefore should receive more attention.

Additional empirical findings from this research address the differences in retention factors between those with low and high BC orientation. The survey findings indicated that employees who have favourable attitudes towards BCs identify learning opportunities and an alignment of personal and company goals as higher priorities than employees who have unfavourable attitudes towards BCs in making decisions to stay with an employer. Therefore, companies may need to be aware that individuals with different career orientations expect different rewards and incentives to stay. A 'one-size fit all' retention strategy is unlikely to be effective in the contemporary organisational era. The details on the empirical contributions and practical implications of the findings on talent retention issues are discussed in Chapter 5.

1.6 Outline of the Chapters

This thesis is composed of five chapters.

Chapter 1 briefly introduces the study domain. The background and purpose of the study, core research questions, research methodology and contributions made to both theory and practice are discussed.

Chapter 2 provides a review of the literature related to BCs and voluntary turnover. It begins by describing the genesis and characteristics of the BC perspective, and provides a discussion of the factors contributing to its rise. Next, a discussion of

the prevailing voluntary turnover models and theories, and the behavioural theories relevant to constructing the conceptual framework for the research is presented. Based on the literature review, a conceptual model that measures individuals' attitudes towards and intentions to pursue BCs is proposed. The conceptual model serves as a theoretical framework for designing the scale for Study 1 and provides a basis to develop the structural equation model needed to investigate the relationship between BCs and voluntary turnover intentions and behaviour for Study 2. The last section of Chapter 2 discusses 12 retention factors that may influence individuals, especially those with a BC orientation, to stay with their employers. The rationale as to why these employee retention factors are being examined in this research is also discussed.

Chapter 3 highlights the methods and procedures adopted in Study 1, which aimed to develop and validate a scale that measures individuals' BC attitudes and pursuit intentions. Methodologies such as one-to-one pilot interviews, focus group interviews and document reviews were used prior to the item generation stage. Data collected from the questionnaire surveys were used for scale validation. The details of sampling strategies, assessment arrangements and the psychometric properties of the proposed scale are presented.

Chapter 4 describes and discusses the methods and findings related to Study 2, which sought to investigate the structural relationship between individuals' attitudes towards pursuing BCs and voluntary turnover issues. The details of the hypothesised model, sampling strategies, data collection and statistical analyses are presented. The responses collected from a substantive survey were further calculated and analysed to test the hypothesised model. Employee retention factors that could reduce voluntary turnover behaviour, especially for those with a BC orientation, are also discussed.

Chapter 5 provides a summary of the findings and insights from Studies 1 and 2. The practical implications of the findings and the theoretical contributions of this research are also highlighted. This chapter also discusses the limitations of the study

and suggests directions for further research. The last section of the chapter concludes with an overview of the research.

Chapter 2: Literature Review

2.1 Outline of this Chapter

In this chapter, the literature that addresses the theoretical nature and characteristics of the BC, and the possible benefits and costs to organisations and individuals are discussed. Previous research on voluntary turnover behaviour is also examined to enhance the development of a conceptual model for understanding the relationship between BCs and voluntary turnover intentions and behaviour.

This chapter is divided into five sections.

The first provides an outline of the chapter's organisation. The second presents an overview of the nature and evolution of the BC perspective in which the differences between the BC and the traditional organisational career are highlighted. Discussions of the driving forces (both external and internal) that have contributed to the rise of the BC perspective are also covered in the section. In terms of external forces, the discussion draws attention to changing global economic conditions, shifting socio-cultural values, the implementation of new organisational strategies and the adoption of new talent management approaches and employment practices. In regards to the internal forces that influence the adoption of BCs, issues associated with intrinsic motivation and self-determination theory (Deci & Ryan, 2008) are also accentuated.

In the third section, the process and procedures used in identifying the three commonly accepted characteristics of a BC are highlighted. The section provides the background required developing a scale for measuring individuals' attitudes towards and intentions to pursue BCs and the major components within the BC construct are presented.

The logic and rationale behind the construction of the conceptual framework of

the proposed scale are described in the fourth section, which focuses on exploring Ajzen's (1991) theory of planned behaviour, Bandura's (1977, 1982) self-efficacy concept and Betz, Klein and Taylor's (1996) career decision-making scale to understand the mechanisms and critical factors that drive career-related behaviour.

In the fifth section, eleven of the prevailing voluntary turnover theories and models are discussed and examined to understand the possible effects of the BC perspective on employees' voluntary turnover intentions and behaviour. A proposed conceptual framework outlining the possible relationship between individuals' personal attitudes towards pursuing BCs and voluntary turnover behaviour is also presented. Given that the spread of the BC perspective may produce higher voluntary turnover rates, twelve retention factors that might influence employees with a BC orientation to stay with their employers are identified, and the rationales for why these factors were selected and examined in this research are also discussed.

2.2 The Rise and Significance of the Boundaryless Career

2.2.1 The origin of the boundaryless career perspective

The BC perspective has been considered 'the new employment principle for a new organisational era' (Arthur & Rousseau, 1996) in Western cultures, especially in the US. The term 'boundaryless' is used to distinguish this new career form from the 'bounded' characteristics of the conventionally dominant 'traditional organisational career', which comprises an orderly progression of promotions and advancement arrangements following the vertical hierarchical structure in a single, large, stable firm (Levinson, 1978; Super, 1957; Whyte, 1956). Individuals with a BC orientation are usually proactive in their pursuit of career goals, and prepare to cross beyond organisational boundaries to gain diverse working experiences. Thus, this new career form is expected to reduce one's dependency on employers and increase career autonomy and mobility in one's work life (Arthur & Rousseau, 1996; Hall, 2002;

Inkson, 2006, 2008; Sullivan & Arthur, 2006).

The genesis of the conceptualisation of BC can be traced back to 1993. This new construct accompanied the notion of “boundaryless organisations”, a form of organisation articulated by Jack Welch, former Chief Executive Officer of General Electric (Inkson, 2008). Boundaryless organisations are corporations that are willing to make necessary adjustments in organisational structures and processes (e.g., to remove conventional building blocks such as vertical hierarchical levels and horizontal functional areas when structuring an organisation) to meet the demands of a fast-moving and boundaryless world (Ashkenas, 1995) created by the increasing intensity of globalisation and technological advancement.

Along with the BC, a variety of new career forms such as portfolio (Handy, 1989), protean (Hall, 1996), post-corporate (Peiperl & Baruch, 1997), kaleidoscope (Mainiero & Sullivan, 2005), chameleon (Ituma & Simpson, 2006) and butterfly (McCabe & Savery, 2007) have emerged in the past two decades in response to changes brought about by globalisation and technological innovation in the workplace. Like the BC, all of these career models (see Table 2.1 for brief descriptions of the various career forms) share as a feature that modern careers are less restricted by organisational boundaries and characterised by discontinuity.

Table 2.1 Brief Descriptions of Various Career Forms

Career types	Brief descriptions
Portfolio Career	Portfolio careerists do not enter a sequence of hierarchically arranged positions. They are hired to accomplish specific tasks instead (Handy, 1989).
Protean Career	Based on the metaphor of the Greek god Proteus. A protean careerist is able to rearrange and repackage his/her knowledge, skills and abilities to meet the demands of a changing workplace and his/her need for self-fulfilment. The individual, not the organisation, has full control of his/her (own) career management and development (Hall, 1996).
Post-corporate career	Refers to careers that take place outside large organisations, whereby individuals enact a multitude of alternative career options, including employment with smaller, more agile firms, self-employment, working in small project teams or other ad hoc arrangements. Some individuals leave large organisations because they are unable or unwilling to pursue corporate careers due to uncertainty. Post-corporate careerists have a permanent career rather than a permanent job (Peiperl & Baruch, 1997).
Kaleidoscope career	Describes how individuals focus on three career parameters when making decisions, thus creating a kaleidoscopic pattern for their career. The three parameters are (a) authenticity, defined as being true to oneself; (b) balance, defined as the balance of work and non-work demands; and (c) challenge, defined as stimulating work and career advancement (Mainiero & Sullivan, 2005).
Chameleon career	Implies a series of adaptation to changing personal circumstance and socio-cultural obligations. It also captures the contextual constraints that shape career paths (Ituma & Simpson, 2006).
Butterfly Career	Indicates that individuals 'butterfly' among industry sectors in pursuit of careers rather than making a clear progression (McCabe & Savery, 2007).
Boundaryless Career	A sequence of job opportunities that goes beyond the boundaries of single employment settings (DeFillippi & Arthur, 1996).

Despite the variety of new career models, the BC construct has received the most attention from scholars and researchers (e.g., Arthur & Rousseau, 1996; Banai & Harry, 2004; Baruch, 2004; DeFillippi & Arthur, 1996; Eby et al, 2003; Inkson, 2006, 2008; Sullivan & Arthur, 2006). As evidence of the significance of and attention gained by this new construct, the Academy of Management (AoM) annual conference in 1993 chose “managing the boundaryless organisation” as its conference theme (Inkson, 2008). Since then, the BC perspective has been adopted as the primary way to think about emerging employment relationships and BCs have been identified as the mainstream career form of the future (Arthur & Rousseau, 1996).

2.2.2 Driving forces contributing to the rise of the boundaryless career perspective

Broadly speaking, both external and internal forces have contributed to the rise of the BC perspective. In terms of external forces, there are four major environmental changes related to contemporary employment conditions. They are: 1) a changing global economic structure, 2) shifting socio-cultural values, 3) the adoption of new organisational strategies and 4) new talent management approaches and employment practices. These external environmental forces are considered the major underlying causes for the rise of the BC perspective (Arthur, Inkson, & Pringle, 1999; Arthur & Rousseau, 1996; Miles & Snow, 1996; Sullivan, 1999).

Regarding internal forces, issues associated with individuals' intrinsic motivations, their desire for career autonomy and self-determination in career development (Deci & Ryan, 2004; Hall, 1996; Pink, 2011; Weick, 1996) have been used to explain the spread of the BC perspective. The following subsections discuss each of the above external and internal forces that have paved the way to the rise of this new career perspective.

2.2.2.1 External environmental forces: Changes in the global economic structure

Changing global economic conditions is a major force leading to the rise of BC. Broadly speaking, there are two significant changes including the increase of employment in the service sector, and the transition of Western developed countries to a knowledge economy. These changes have altered the global economic structure and hence affect the global employment conditions. The following two subsections describe and discuss how these two changes have led to the rise of the BC perspective.

2.2.2.1.1 The increase of employment in the service sector

The deregulation in trade and investment in past decades has stimulated a continuing transition from agricultural to industrial economies and hence economic

growth in emerging economies (Ahlstrom, 2010). While many agricultural economies have transitioned into industrial economies, some developed countries have become increasingly important service economies. In the mid-1990s, less than 70% of workers were employed in the service sector in industrialised countries (Lee, 1996). According to OECD data, in 2011, over 77% of workers were employed in the service sector in the Netherlands, 74% in the US and 73% in the UK (OECD, 2012), signalling a continuous increase in service employment in developed countries over the last decade.

As demand within the service industry is more unpredictable and spontaneous than that within the manufacturing industry, service providers tend to hire more contingent workers. Freedman (1985) defined contingency workers as employees who are not given explicit or implicit contracts for long-term employment. Contingency employment relationships are thus much more short-lived than the traditionally perceived norm of a full-time job, and they do not offer the stability and continuity of the traditional organisational career. Edwards and Grobar (2001) found that less than 3% of contingent workers were employed in the manufacturing industry in California while about 10% of contingent workers were hired in the service industry in the same state. Furthermore, the increasing demand for personal services such as healthcare, education and personal finance services prompted by the growth of per capita income (Bhide, 2008) also implies a foreseeable increase in the service employment in developing economies. In response to these changes, companies began to develop new forms of organisation and employment practices to replace those that had been successful in earlier industrial economies. Among the various options, boundaryless organisation emerged as a possible solution (Hall, 1996) for coping with increases in service provision needs and service sector employment, setting the scene for the rise of the BC perspective.

2.2.2.1.2 The transition to a knowledge economy in developed economies

In addition to the increase in service sector employment, the transition to a knowledge economy in most developed nations (Porter, 1998) has also paved the way

for the rise of the BC perspective (Acemoglu, 2002; Berg & Kalleberg, 2001; Budros, 1997; Hollister, 2004; Jacoby, 2001; Lindbeck & Snower, 2000; Zuckerman, 2000). Unlike the industrial or post-industrial eras, in which organisations' core assets and competitive advantages were contained in the work processes, equipment and structural design (Hammer, 1990), the key success factors in knowledge economies place significant emphasis on the importance of networks and the knowledge creation, transfer and sharing capabilities of firms' human capital (Rooney, Hearn, & Ninan, 2005).

In a knowledge society, value is created and shared by all members of a network rather than the sole members within an individual organisation (Kelly, 1998; Boyett & Boyett, 2001). Successful global knowledge clusters such as the IT industry in Silicon Valley (USA), aerospace and automotive engineering in Munich (Germany), biotechnology in Hyderabad (India) and electronics and digital media in Seoul (South Korea) are all examples of the importance of inter-connectedness and linkages between different organisations within and across industries (Porter, 1991, 1998). A cluster connects and links industries, manufacturers and other entities (e.g., research and development (R&D) centers, universities and labs) that are related by skills, technologies and other common inputs to create competitive advantages (Porter, 1991).

As a consequence of the importance of industry clusters and networks, a boundaryless and open system, which typically has more nodes (connecting points) to encourage more knowledge-sharing and creation possibilities, is preferred to a closed system perspective by organisations in a knowledge economy (Kelly, 1998). Hence, collaboration and interdependence across companies are expected in such systems, prompting a shift to the notions of boundarylessness and openness in structure and process designs (Ashkenas, 1995).

Organisations' acceptance of the notions of boundarylessness and open systems also drives employees to acquire diverse working experiences (probably with different

employers) to improve their 'career capital' (DeFillippi & Arthur, 1996). Changing work roles and employers allows employees to expand their social networks and generate multiple skills and competencies useful in knowledge creation and sharing. The BC perspective reveres experiences gathered in multiple work roles and different organisations and considers them a source for boosting innovation. Employees pursuing BCs thus have better employability because they are expected to be capable of developing new knowledge and providing fresh ideas based on experiences outside of the company or even the industry.

2.2.2.2 External environmental forces: Changes in socio-cultural conditions

The recent changes in socio-cultural expectations towards new employment practices also contribute to the emergence of BCs. According to social cognitive theory (Bandura, 1986), individuals' attitudes, values, motivation and behaviour are significantly affected by social norms and expectations. Accordingly, socio-cultural values are also likely to influence individuals' career perspectives. In the following section, two such important changes in the socio-cultural norms and expectations are discussed.

The first concerns the decline in the number of full-time jobs and the growing acceptance of contingent employment practices in different societies. Due to the decline in the number of full-time jobs, the number of part-time employees in the overall working populations of the G7 nations has increased from 44.7% in 2000 to 47.9% in 2011 (OECD, 2012). In addition to an increase in part-time jobs, a study conducted in 2007 by Manchester's Centre for Research on Socio-Cultural Change revealed that 57% of the 2.2 million new but temporary jobs in the UK between 1998 and 2007 were created in the public sector. A shift from long-term employment practices to significantly more flexible and short-term practices was also observed in the public sector.

Furthermore, a report published by Adecco, a temporary placement service

provider, estimated that the growth rate in contingent workers would be three to four times more when compared with the growth rate among traditional workforces. The report also predicted that contingent workers would make up about 25% of the global workforce in the near future (Adecco, 2012). According to a study conducted by Bergemann (2010), the primary reason given by the 74% of respondents who chose to adopt a contingent work style was the lack of employer engagement. The above findings suggested that employees expected less stable employment relationships and became less committed to any single organisation.

Taken together, the acceptance of contingent employment practices and work style are signalling a change in social expectations towards employment relationships. The changes discussed above reflect employees' willingness to adopt a more boundaryless and self-reliant approach in their career development, and hence lead to inter-organisational mobility. These attitudinal changes towards contingent employment practices are likely to reinforce the kind of work attitudes and behaviour associated with the BC perspective.

Another socio-cultural change is related to a substantial increase in the global supply of highly skilled workers due to educational expansion and a rising middle class in developing countries. According to Brown, Lauder and Ashton (2007), while the growth of global labour force has remained relatively stable from 1998 to 2007, the number of university enrolments has increased more than two times, reaching close to 140 million in 2007.

This emerging better-educated, wealthier and younger workforce is likely to have different expectations about work and careers compared with those held by older generations of workers who are usually less educated and less affluent. These younger employees' superior skills and educations render them increasingly empowered with greater career autonomy that makes the BC career perspective more appealing and acceptable. Many career-related studies (e.g., Crepeau, Crook, Goslar, & McMurtrey, 1992; Schein, 1978) have suggested that an individual's work experience in the early

years of employment is particularly influential in forming the individual's career orientation. Thus, these highly educated younger workers with the predisposition to pursue BCs are more likely to adopt and maintain the BC perspective in the later stages of their career. This may explain why the BC is postulated as the mainstream career form of the future.

2.2.2.3 External environmental forces: Changes in organisational strategies

Apart from the changes in social expectations and values of employment relationships outlined previously, alterations in business landscapes and organisational strategies in recent decades have also paved the way for the emergence of the BC perspective. In the post-industrial era, the approach to formulating corporate strategies for business organisations was typically to expand rather than downsize, and promote independence rather than collaboration (Hall, 1996; Pfeffer & Salancik, 1978; Porter, 1980; Williamson, 1975). In other words, competitiveness was associated with internal growth and economies of scale. As a result, organisations grew in size, wherein the provision of traditional organisational careers was feasible and desirable.

However, with increasing globalisation and technological advancement, firms face more unstable, unpredictable and highly competitive environments. Consequently, the traditional approach to strategy associated with internal growth and scale is becoming less significant. Instead, firms seek to be more fluid and flexible. For example, many large firms have incorporated subcontracting and outsourcing within their business strategy to maintain strategic flexibility and remain competitive. If outsourcing or subcontracting is not feasible, firms tend to decentralise into autonomous units and force the supporting departments to compete with outside suppliers (Bridges, 1994). Furthermore, restructuring and reengineering have been common practices to reduce hierarchical structure and save costs (Hammer, 1990). These new strategies streamline the organisational process and hence reduce company size and staff numbers, leaving firms unable to offer the traditional organisational careers and long-term employment they once did.

In contrast to the traditional internal growth and scale strategy, employee mobility, inter-firm networks, flexible specialisation and new-firm formation are now believed to be the keys to nurturing regional or company success (Saxenian, 1994). Moreover, peripheral rather than giant firms are considered the seedbed for innovation (Friedman, 1988). Thus, a firm's or even a country's competitive advantage can come from an industry cluster of firms, and from employment mobility within the cluster (Jones, 1996; Porter, 1990; Saxenian, 1994). This new business strategy perspective further deters the provision of traditional organisational careers and hence gives rise to new employment arrangements and practices, such as the BCs.

2.2.2.4 External environmental forces: Changes in talent management approaches and employment practices

In addition to the changes in global economic structure, socio-cultural values towards work styles and career expectations and new organisational strategies, the spread of the BC perspective has also been accelerated by substantial changes in talent management approaches and employment practices (Acemoglu, 2002; Berg & Kalleberg, 2001; Budros, 1997; Cappelli, 2008; Hollister, 2004; Jacoby, 2001; Lindbeck & Snower, 2000). In the new business landscape brought about by globalisation and technology advancement, organisations are constantly searching for new employment practices to remain competitive. For example, between the 1980s and 1990s, i.e., during the first wave of globalisation (Friedman, 2005), companies sought to outsource and create cross-national value chains. At that time, only the low-skilled, low-value work was outsourced to other developing and emerging countries, where highly skilled workers were in short supply. Because all higher value activities remained close to the home country (Brown et al, 2007), staffing strategies and talent management practices tended to follow the employment norms and customs of one's national environment.

However, since 2000, as the gap in talent quality has narrowed between developed and developing worlds, an increasing number of companies have been outsourcing their higher value business activities such as applied R&D, product design

and even branding to other collaborators within and across developing countries (Brown et al, 2007). Furthermore, organisations have sought to reduce the power of labour unions by adopting more contingent employment relationships, such as temporary, contract, casual and project work, to promote greater flexibility in the employment of labour and to cut costs.

However, while the increased use of contingent workers increases organisations' HR flexibility, the practice also lowers employees' advancement prospects and employment security, resulting in reduced organisational commitment (Kalleberg, 2000). Such an outcome is undesirable and forces both companies and individuals to search for new employment practices and relationships. This situation makes BCs more desirable because they allow employees to develop multiple transferable competencies that aid their employability while maintaining organisations' HR flexibility.

2.2.2.5 Internal forces: Individuals' intrinsic factors

Although most of the literature supports changes in the external environmental factors as explanations for the rise of the BC perspective, employees' internal intrinsic factors must also be considered. The following section discusses the intrinsic motivations in pursuing BCs through the lens of self-determination theory (Deci & Ryan, 2004, 2008).

2.2.2.5.1 Self-determination theory

Self-determination theory suggests that satisfying the needs for competence, relatedness and autonomy are important to one's well-being (Deci & Ryan, 2008). Within self-determination theory, competence refers to an individual's ability to achieve his/her goals; relatedness denotes his/her ability to connect to others in a warm, positive and interpersonal manner; and autonomy is an individual's ability to be volitional and responsible for the initiation of his/her behaviour (Deci & Ryan, 2008).

These needs are identified as important contributing factors to the intrinsic motivation in maintaining individuals' behaviour. Following this logic, individuals tend to be willing to take on more responsibility and make decisions related to their career development to the degree that they can to fulfil the innate need for autonomy. Various researchers (e.g., Arthur & Rousseau, 1996; Eby et al., 2003; Inkson, 2006, 2008; Sullivan & Arthur, 2006) have suggested that career autonomy and self-determination in one's career development are the major motivations for individuals to pursue BCs. In other words, for those who want to pursue BCs can be motivated by an intrinsic need for autonomy and self-determination. As mentioned previously, the present employment environmental context supports and reinforces the intrinsic drive for autonomy, especially among the highly educated, wealthier and younger workforce, accelerating the spread of the BC perspective. Consequently, the likelihood of the BC becoming a mainstream career in the near future increases when employees are motivated to satisfy this intrinsic need.

In summary, the emergence and significance of BCs stem from their capacity to satisfy individuals' innate need for autonomy and provide a new career solution in coping with changing employment conditions and practices. Due to the need to maintain strategic HR flexibility, contemporary organisations increase their interdependency on a larger community and magnify the importance of networks across organisations and industries. All of these changes accelerate the acceptance of the notion of boundarylessness in running businesses and pursuing careers and hence set the scene for the rise of this new career perspective.

Despite the BC's position as a mainstream career in the coming decades, scholars have presented diverse viewpoints on how to define, interpret and understand this new career form due to its profound effect on individuals, organisations, industries and societies. Considering the interdisciplinary nature of career studies, it is understandable that researchers in different fields with varying focal points have been using their own definitions and interpretations for this new career form (Arthur & Rousseau, 1996; Bird, 1994; Hall, 2002; Hirsch & Shanley, 1996; Sullivan & Arthur,

2006; Teff, 1997). Although this is common for a novel construct, clarity and consensus on the meaning of the BC is crucial to the theory's advancement, scientific study of this new career perspective and the development of appropriate BC scales. In the following section, the literature related to BCs is examined to draw out the broadly held features of BC conceptualisation.

2.3 Identifying the Commonly Held Components of the Boundaryless Career Construct

To examine the commonly held features of the BC construct across different fields, the dominating approaches to career studies research (Baruch, 2004) were identified and used as the basis to determine the scope of the literature review. According to Inkson (2008), there are three main approaches to examining career domains: mainstream, management and sociological. In broad terms, the mainstream approach, which is developed by psychologists and educationalists working together, focuses on answering how individuals should develop and manage their own careers to achieve long-term personal success and satisfaction. In the management approach, researchers seek to develop strategies to influence the careers of employees and subordinates to maximise their contributions to the organisation. The sociological approach views careers as social outcomes that are largely determined by economic development, social class, education level and gender variables, and therefore it tends to view career domain through the lens of institutional factors and social demographics (see Table 2.2 for brief descriptions on the major concerns and viewpoints of these three approaches).

Table 2.2 Brief Descriptions of the Three Major Approaches to Examining Careers

Approaches	Brief descriptions
Mainstream approach	This approach is developed mainly in the schools of psychology, education and counselling and focuses on individuals. It usually answers the following question: how should employees develop and manage their own careers to achieve long-term personal success and satisfaction?
Management approach	This approach is often used in business schools from the perspective of organisations and targets corporate leaders and managers. It usually tries to answer questions such as the following: how should managers develop strategies to influence the careers of employees and subordinates to maximise their contribution to the organisation?
Sociological approach	From a social structures perspective, the sociological approach sees careers as forms of social reproduction that are largely determined by economic development, social class, education and gender variables such that both individuals' and organisations' influences on careers are relatively constrained. When adopting the sociological approach to examine career, it usually tries to answer questions such as the following: what institutional and social factors affect the career decision?

Note: This table is adapted from Inkson, K. (2008). The Boundaryless Career. In Susan Cartwright and Cary L. Cooper (Eds.), *The Oxford Handbook of Psychology* (pp. 545-583). Oxford: Oxford University Press.

As a result, 70 career-related journal articles dating from 1993 to mid-2009 from the domains of psychology, education, sociology and management were reviewed to identify the broadly held features of the BC construct across disciplines. In addition to the journal article reviews, a number of books³ relating to careers were examined to deepen the general understanding of careers, particularly the nature of BCs.

2.3.1 Three major theoretical perspectives

According to the literature reviewed, some scholars have put more emphasis on the motivations and goals involved in pursuing BCs (e.g., Arthur & Rousseau, 1996; Cheramie, Sturman, & Walsh, 2007; Mirvis & Hall, 1994; Thite, 2001). Some have stressed the skills and competencies required (e.g., Crocitto, 1998; Hall, 1996;

³ Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless career: A new employment principle for a new organisational era*. Oxford University Press on Demand. Collin, A., & Young, R. A. (Eds.). (2000). *The future of career*. Cambridge University Press. Peiperl, M. A., & Anand, N. (2002). *Career creativity: Explorations in the remaking of work*. Oxford University Press on Demand.

Lichtenstein, Jennifer, & Olson, 1998; Seibert, Kraimer, & Crant, 2001; Yamashita & Uenoyama, 2006) and others have focused on the career patterns and paths that BCs produce (e.g., Baruch, 2006; Gunz, Evans, & Jalland, 2000; Lips-Wiersma & McMorland, 2006; Sullivan & Arthur, 2006). Therefore, three broad categories were identified in regards to the ways in which these researchers describe and define BCs: motivation and goal, skill and competency and pattern and path (see Appendices A, B and C for quotations and citations from each perspective). The following subsections briefly discuss these three major theoretical perspectives in understanding the BC and the common features of its conceptualisation.

2.3.1.1 The motivation and goal perspective

According to the motivation and goal perspective, BCs tend to be considered manifestations to fulfil the desire for career autonomy and self-determination in career development (Arthur & Rousseau, 1996; Cheramie et al, 2007; Mirvis & Hall, 1994; Thite, 2001). Therefore, one of the major defining characteristics of individuals with a BC orientation is whether they want to achieve career autonomy and self-determination in their career development (Baruch, 2004; Enache, Sallan, Simo, & Fernandez, 2011; Granrose & Baccili, 2006; Peiperl & Arthur, 2000; Smith, 2001; Smith-Ruig, 2008).

In other words, the major motivation in pursuing a BC, from the goal and motivation perspective, is the desire to take back control over and ownership of one's career, which is almost always in the custody of the organisation or employer in the traditional organisational careers employment setting (Mirvis & Hall, 1994; Thite, 2001; Yamamoto, 2006). As discussed in Section 2.2, the aspiration to be more self-reliant in one's career development is likely triggered by the changing employment conditions and practices, or attributed to satisfying the innate need for autonomy suggested by self-determination theory (Deci & Ryan, 2008), or a combination of both forces (Pink, 2011).

2.3.1.2 The skill and competency perspective

Another set of common features for defining the BC relates to the unique career competency development strategies adopted by those with a BC orientation. Boundaryless careerists prefer to acquire multiple transferable, rather than firm-specific, skills and competencies to enhance their career capital (Crocitto, 1998; Hall, 1996; Lichtenstein et al, 1998; Seibert et al, 2001; Yamashita & Uenoyama, 2006). They also improve their career capital through building relationships in networks that are external to their current employing organisation (Arthur & Rousseau, 1996; Peiperl & Arthur, 2000).

In pursuing these career competency development strategies, boundaryless careerists aim to achieve career autonomy. As a consequence, long-term employment and job security are of a much lower priority compared with the learning opportunities and social connection embedded in a job position (Arthur & Rousseau, 1996; Yamashita & Uenoyama, 2006) for those who want to pursue BCs.

2.3.1.3 The pattern and path perspective

The third commonly shared feature of BCs identified in the literature review is related to the patterns of individuals' career paths and histories. Unlike the linear and continuous pattern of traditional organisational careers, the career paths of boundaryless careerists tend to be non-linear and discontinuous (Arthur & Rousseau, 1996; Baruch, 2006; Lust, 1998; Seibert et al, 2001). A 'zigzag' career pattern is common among individuals who pursue BCs due to the diverse and even discontinuous working experiences in different employment settings throughout their career histories. This non-linear pattern originates in an individual's positive attitude towards boundarylessness in his/her career domain (Sullivan & Arthur, 2006). Boundarylessness in this context could refer to individuals' psychological readiness and willingness to cross organisational, occupational or even geographical boundaries in pursuit of their desired careers. This inter-organisational or 'physical' mobility is

considered an outcome of an inherent psychological attitude about becoming independent of any single employment setting (Baruch, 2006; Gunz et al, 2000; Lips-Wiersma & Mcmorland, 2006; Sullivan & Arthur, 2006). Those holding a positive attitude towards BCs embody both physical and psychological mobility in their career development, which creates a unique pattern in their career paths.

To summarise, the three broadly held components of a BC are the desire for career autonomy and self-determination in career development, the pursuit of multiple transferable skills and knowledge along with the building of relationships that are external to current employers and the crossing of organisational boundaries and attitudes towards boundarylessness in the career development process. These components are logically connected and interdependent. They also reveal a sequential relationship in the process of developing a particular type of career; that is, by knowing what an individual wants in his/her career and why (the propositions advocated by the motivation and goal perspective), individuals set out to fulfil their career aspirations through unique 'how-to' strategies (the propositions advocated by the skill and competency perspective), creating a special pattern or form in their career histories (the propositions advocated by the pattern and path perspective). Because different scholars from various disciplines hold these components to be important BC characteristics, all three were used in this research to develop items related to personal attitude towards BCs in the proposed BC attitudes and pursuit intention scale. The details of the item generation for the proposed scale and its psychometric properties are discussed in Chapter 3. To develop a valid and reliable scale, a conceptual framework is needed. The following section presents the theoretical underpinnings in designing the scale proposed in this research.

2.4 Conceptual Framework in Designing the Scale

Specifically, to construct the conceptual framework for the proposed scale, Ajzen's (1991, 2002) theory of planned behaviour, Bandura's (1977, 1982, 1986) self-efficacy construct and the career decision-making self-efficacy scale of Betz et al (1996)

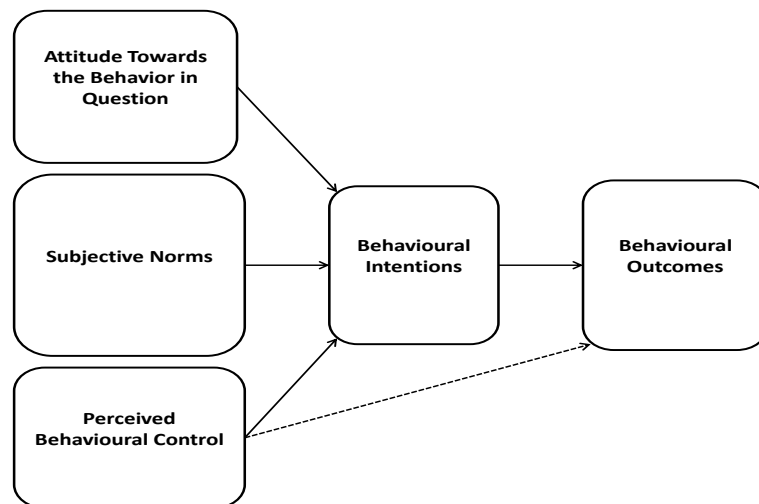
were integrated and adopted as the theoretical framework in the scale's design.

The following three subsections discuss and describe the nature and propositions of the aforementioned theories and concepts and how they are used to design the proposed BC attitude and pursuit intention scale.

2.4.1 Ajzen's theory of planned behaviour

Ajzen's (1991) theory of planned behaviour proposes that behavioural outcomes are related to behavioural intentions. It also suggests that the behavioural intention variable alone can also be used independently to directly predict behavioural outcomes. In addition to the relationship between behavioural intentions and outcomes, Ajzen (1991) also stressed that personal attitude towards the behaviour in question, subjective norms and perceived behavioural control are the three antecedents for behavioural intentions that lead to a desired behavioural outcome. Figure 2.1 depicts the relationships of the aforementioned variables.

Figure 2.1 Ajzen's (1991) Theory of Planned Behaviour



According to this theory, individuals' perceived behavioural control could lead directly to behavioural outcome, and that individuals with higher perceived

behavioural control usually had stronger behavioural intentions. However, behavioural intentions are also influenced by two other dimensions including the attitude towards the behaviour in question, which in this research refers to individuals' personal attitudes towards BCs, and the subjective norms, which in this research relates to how individuals perceive the values of others whom they regard as significant (e.g., family members and local employers) and how they think about the behaviour in question, i.e., pursuing BCs. Due to the effects of these two factors (i.e., the attitude towards the behaviour in question and the subjective norms), different perceptions of behavioural control can result in equally strong behavioural intentions.

Deci and Ryan's (2004, 2008) self-determination theory and Ajzen's theory of planned behaviour (1991, 2002) share a common view in explaining the likely occurrence of behaviour. As discussed previously in Section 2.2.2.5.1, self-determination theory explicitly states that the needs for autonomy, competence and relatedness are important contributing factors to the intrinsic motivations in maintaining individuals' behaviour. Both theories stress the support of significant others (i.e. the need for relatedness in self-determination theory and the subjective norms in the theory of planned behaviour) and individuals' perceived competence (i.e. the need for competence in self-determination theory or the perceived behavioural control in the theory of planned behaviour) as motivations for performing a specific form of behaviour. Therefore, the two dimensions, i.e., the subjective norms in the theory of planned behaviour (or the dimension of relatedness in the self-determination theory) and perceived behavioural control in the theory of planned behaviour (or the dimension of competence in the self-determination theory) are crucial and likely to affect behavioural intentions and outcomes along with individuals' attitudes towards a particular form of behaviour (i.e., pursuing BCs in this research). Therefore, in developing a scale that measures individuals' BC attitudes and pursuit intentions, the dimensions of subjective norms and perceived behavioural control should be examined because they could be crucial factors in affecting personal attitudes towards and intentions to pursue BCs.

In summary, items that correspond to the three abovementioned dimensions as highlighted in Figure 2.1 are needed to design the proposed scale.

2.4.2 Bandura's concept of perceived self-efficacy

Among the different constructs related to the dimension of perceived behavioural control within Ajzen's theory of planned behaviour, Bandura's (1982, 1986) concept of self-efficacy is considered to be the most compatible. Indeed, Ajzen (1991) states explicitly that much of his theory about the role of perceived behavioural control was built on the concept of self-efficacy. According to Bandura (1986), self-efficacy refers to an individual's judgment or belief about how well he/she can execute the courses of action required to achieve a goal or outcome.

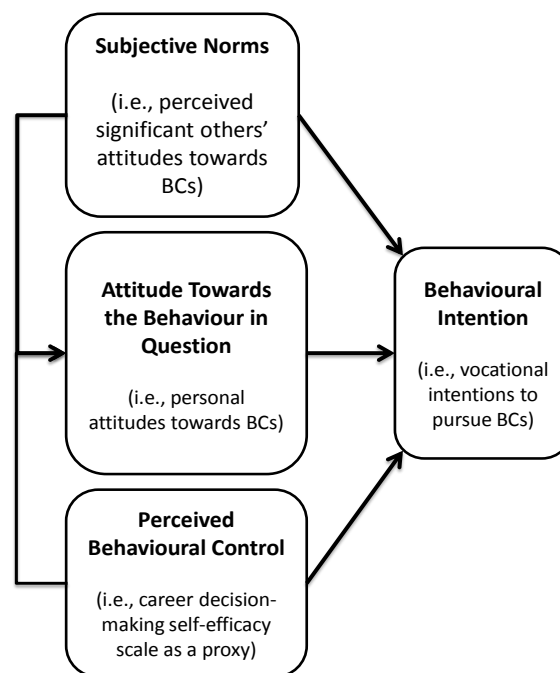
As a result, the level of self-efficacy that an individual has is likely to influence activity choices and preparation, the effort expended on the performance, the nature of thought patterns, and emotional reactions associated with performance (Bandura, 1986). As such, self-efficacy plays a significant role in affecting an individual's perceived behavioural control. Therefore, Bandura's self-efficacy concept is useful for the development of a subscale that could represent and measure the perceived behavioural control components associated with individuals' attitudes towards and intentions to pursue BCs.

2.4.3 Betz, Klein and Taylor's career decision-making self-efficacy scale

Bandura's self-efficacy concept was specifically adopted in the vocational career domain by Betz et al. (1996) to develop a scale related to career decision-making. This scale was adopted in this research to assess the perceived behavioural control over pursuing BCs that was suggested in the theory of planned behaviour. Previous studies have supported the reliability of this career decision making self-efficacy scale with subscales in which the alpha values ranged from 0.86 to 0.89, and 0.97 overall. The 6-

week test-retest of the scale reliability was 0.83 (Luzzo, 1993). With proven reliability, this scale was adopted in this research to assess the dimension of perceived behavioural control over pursuing BCs that was suggested in the theory of planned behaviour. Therefore, the items that were developed in the career decision-making self-efficacy scale proposed by Betz et al. (1996) were used as the proxy to represent the extent of the perceived behavioural control over pursuing BCs. Because the career decision-making self-efficacy scale developed by Betz et al. (1996) targeted college students, only items suitable for both university students and employees were adopted from the scale. Ultimately, eight such items⁴ were chosen and used to represent the dimension of perceived behavioural control.

Figure 2.2 The Conceptual Framework for Designing a Scale to Measure Individuals' Boundaryless Career Attitudes and Pursuit Intentions



Based on the theories and concepts discussed above, the conceptual framework

⁴ The rationales for choosing the eight items were also based on Crites' (1978) five dimensions of career-choice competencies: accurate self-appraisal, goal selection, making plans for the future, gathering occupational information and problem solving.

for designing the proposed BC attitude and pursuit intention scale is presented in Figure 2.2. As indicated in the framework, the proposed scale should cover subscales representing attitudes towards behaviour, i.e., individuals' personal attitudes towards BCs; subjective norms, i.e., individuals' perceptions of significant others' attitudes towards BCs; and perceived behaviour control over pursuing BCs. For the first two subscales, sets of items were developed to represent the respective dimensions, and the career decision-making self-efficacy scale of Betz et al. (1996) was used for the third dimension.

2.5 Models and Theories on Voluntary Turnover

As discussed in Section 2.3, researchers expect the career paths of boundaryless careerists to differ from those of traditional organisational careerists. Instead of working for a single, large, stable firm, individuals with a BC orientation are likely to work for multiple employers (Arthur & Rousseau, 1996; Baruch, 2006; Lust, 1998). Thus, this research argues that there may be a relationship between individuals' attitudes towards pursuing BCs and their voluntary turnover behaviour. Therefore, a review of the voluntary turnover literature was conducted with the aim of developing a theoretical framework for investigating the relationship between individuals' attitudes towards pursuing BCs and their voluntary turnover behaviour.

The following subsections commence by outlining Bluedorn's (1978) turnover taxonomy and definitions. Then, a summary and discussion of 11 theories and models that account for the occurrence of voluntary turnover behaviour are highlighted. The conceptual model for understanding the possible effects of individuals' BC attitudes and pursuit intentions on voluntary turnover issues developed for this research is then presented. Given that more frequent voluntary turnover behaviour may be initiated by those with a BC orientation, the final subsection presents brief descriptions of the 12 retention factors considered crucial to employees making the decision to stay with their employers and the rationale in choosing these factors is also stated.

2.5.1 Definitions of voluntary turnover

Bluedorn (1978) identified four main types of turnover behaviour within an organisation and proposed a taxonomy of turnover based on the initiator and direction of movement (see Table 2.3 for details).

Table 2.3 The Taxonomy of Turnover

<u>Initiator of movement</u>	<u>Direction of movement</u>	
	<i>In the organisation (accessions)</i>	<i>Out of the organisation (separations)</i>
<i>The individual (voluntary)</i>	Type II Voluntary accessions	Type I Voluntary separations
<i>Other than the individual (involuntary)</i>	Type III Involuntary accessions	Type IV Involuntary separations

Adopted from Bluedorn, A. C. (1978). Taxonomy of turnover. *Academy of Management Review*, 3, 647-651.

In this research, the focus is on type I, i.e., voluntary separation (see Table 2.3), which refers to turnover behaviour initiated by the individual, rather than others, in leaving the organisation. Table 2.4 outlines the behaviour associated with other types of turnover. However, even though there are three turnover actions in the voluntary separations category, in this research ‘voluntary turnover’ refers exclusively to quitting a job voluntarily.

Table 2.4 Examples of the Four Types of Turnover

Type I	Type II	Type III	Type IV
<i>Voluntary separations</i>	<i>Voluntary accessions</i>	<i>Involuntary accessions</i>	<i>Involuntary separations</i>
1. Non-statutory retirement 2. Quitting a job 3. Suicide	1. Joining a church 2. Joining a political party 3. Taking a job with a business	1. Conscription into the armed forces 2. Membership in a union shop 3. Slavery 4. Students in American elementary and secondary schools 5. Inmates in prison	1. Firing of an employee 2. Court-martial of a member of the armed forces (sentence includes expulsion from organisation) 3. Statutory retirement 4. Death (except suicide)

Adopted from Bluedorn, A. C. (1978). Taxonomy of turnover. *Academy of Management Review*, 3, 647-651.

2.5.2 Prevailing voluntary turnover models and theories

Table 2.5 summarises the major propositions of the 11 theories and models that account for the occurrence of voluntary turnover behaviour, all of which have been published in prominent journals and have reached at least 100 citations as evidence of their prevalence. Details on the number of citations (reported by Google Scholar) and publications associated with these 11 theories and models are listed in Appendix D.

As shown in Table 2.5, most of the theories and models on voluntary turnover and their associated studies conducted in the 1970s and 1980s followed March and Simon's (1958) argument that the primary cause for voluntary turnover behaviour was the low level of job satisfaction and availability of external job opportunities. These subsequent studies supported and substantiated this argument, analysing the antecedents or major causes that led to job dissatisfaction, which were largely related to individual-level factors such as unmet expectations (Porter & Steers, 1973) and job stress (Sheridan & Abelson, 1983) or to organisation-level factors such as unfavourable organisational policies, low pay, lack of promotional prospects, communication flow and distributive injustice (Price, 1977).

Table 2.5 A Summary of the Major Propositions of Eleven Voluntary Turnover Models and Theories

Year	Authors	Theory/ Model name	Major propositions
1958	March & Simon	Process model of turnover	When both the 'ease of move' and 'desire to move' are high, the employee quits the job.
1973	Porter & Steers	Met expectations model	The discrepancy between what the individual has encountered in the job and what he/she expected to encounter prior to organisational entry influences his/her propensity to withdraw.
1977	Price	Causal model of turnover	An organisational policy (such as routinisation, participation, instrumental communication, integration, pay, distributive justice, promotional opportunity, professionalism, generalised training and kinship responsibility) affects the level of satisfaction and intention to stay. The four major determinants of turnover

			in the nursing occupation are the intent to stay, opportunity, generalised training and job satisfaction. When job satisfaction and the intent to stay drop to a low level and other opportunities exist, voluntary turnover occurs.
1977	Mobley	Intermediate linkages model	Job evaluation and job satisfaction/dissatisfaction could lead to voluntary turnover behaviour. However, a number of variables mediate the process. These include the development of withdrawal cognition, job searches and alternative evaluations prior to the intention to quit, which are associated with the decision to leave and ultimately lead to the occurrence of voluntary turnover.
1981	Steers & Mowday	Turnover model	Individual characteristics and the following sequence of variables lead to an employee's decision to stay with or leave an organisation: (1) job expectations are met, and values influence an individual's affective responses to the job; (2) affective responses affect the desire and intention to stay or leave, with the choice depending on a variety of non-work influences such as a spouse's job and the time left for family; and (3) an intention to leave an organisation leads to the individual actually leaving.
1983	Sheridan & Abelson	Cusp catastrophe model of employee turnover	The employee withdraws when the combination of job stress and dissatisfaction reach a significant level. Only this combination leads to the employee leaving the company.
1984	Jackofsky	Integrated process model	When the ease of and desire for movement reach a certain level, voluntary turnover occurs. Job performance is critical; as it could affect both while in turn being affected by organisational, job and personal characteristics.
1991	Hom & Griffeth	Alternative linkages model of turnover	The individual experiences withdrawal cognition if job dissatisfaction exists in his/her position or team. The withdrawal cognition makes the individual seek alternatives and eventually leads to volunteer turnover.
1994	Lee & Mitchell	Unfolding model of voluntary employee turnover	The individual follows different paths in voluntary turnover decisions. When he/she experiences shock, engages in scripts and image violation and receives a likely offer, voluntary turnover will occur.
1997	Aquino, Griffeth, Allen, & Hom	Referent cognitions model	When referent cognitions occur with inadequate justification and the likelihood of amelioration is low, the withdrawal cognition appears and increases the chance of voluntary turnover.
2001	Mitchell, Holtom, Lee, Sablinski, & Erez	Job embeddedness model	When the benefit from a new job is greater than the cost or 'sacrifice' of leaving an existing job, the inadequacy of 'link' from different social groups and the poor 'fit' of the existing job lead to voluntary turnover.

In the 1990s, empirical studies on voluntary turnover began to suggest that the influence of the aforementioned organisational policies and practices at the job dissatisfaction level was diminishing. For example, Zabusky and Barley (1996) found that knowledge workers valued career achievement rather than advancement prospects, and preferred personal growth and work challenges to job promotions. Moreover, other studies (e.g., Altman & Post, 1996; Tsui, Pearce, Porter, & Tripoli, 1997) had revealed that an increasing number of employees sought career commitment and flexibility over organisational commitment and job security. These findings signalled a change in causes and factors that could lead to employees' job dissatisfaction and turnover.

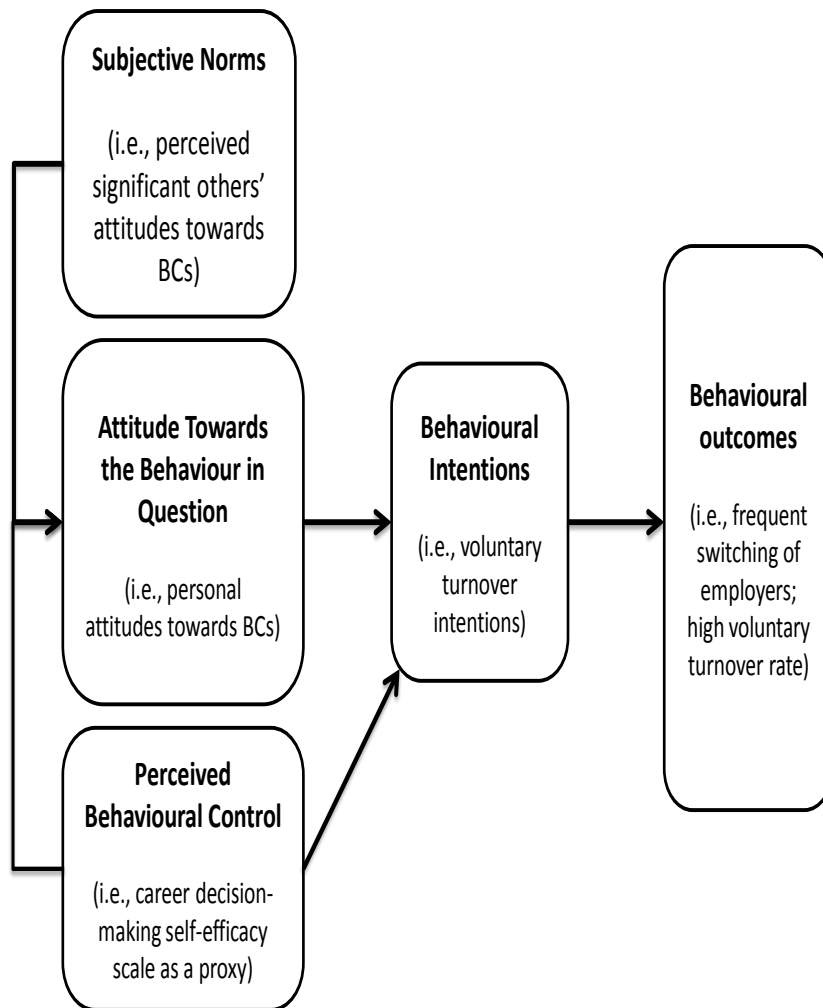
More recent studies have suggested additional causes of voluntary turnover behaviour. Inadequate job embeddedness (Mitchell et al, 2001), shock (Lee & Mitchell, 1994), procedural injustices and future alteration prospects (Aquino et al, 1997) are all proposed reasons driving employees to initiate voluntary turnover behaviour and leave their current jobs.

In addition to the emergence of new causes of voluntary turnover behaviour, one notable finding in these studies has been that the initiation of voluntary turnover behaviour involves sequential steps within a decision process. A common finding is that a stage designated 'intention to leave' was typical before the actual voluntary turnover behaviour was performed. For example, the intermediate linkage model (Mobley, 1977), turnover model (Steers & Mowday, 1981) and alternative linkage model of turnover (Hom & Griffeth, 1991) have all observed an 'intention to leave' stage before the actual leaving behaviour. Such findings are consistent with Ajzen's theory of planned behaviour (1985, 1987, 1991), which suggests that the stage of behavioural intention occurs prior to the behavioural outcomes. As a result, voluntary turnover behavioural intentions can be used as a good predictor for actual voluntary turnover behaviour.

Thus, in examining the relationship between the possible effects of personal

attitudes towards and intentions to pursue BCs on voluntary turnover behaviour, voluntary turnover intentions are assessed in this research. Figure 2.3 delineates the major components of the conceptual framework in understanding the above relationship.

Figure 2.3 Conceptual Framework for Investigating the Possible Effects of Boundaryless Career Attitudes and Pursuit Intentions on Voluntary Turnover Issues



As shown in Figure 2.3, based on the framework used in designing the proposed scale to measure individuals' attitudes towards and intentions to pursue BCs

(denoted previously in Figure 2.2), voluntary turnover intentions and voluntary turnover behaviour were added to the conceptual framework for investigating the relationship between the individuals' attitudes towards pursuing BCs and voluntary turnover issues.

As discussed in Chapter 1, this research comprises two studies. The first aimed to develop a scale to assess individuals' personal attitudes towards pursuing BCs. Utilising the scale developed in Study 1, the second study focused on examining the structural relationship between individuals' attitudes towards pursuing BCs and their voluntary turnover intentions through a hypothesised structural equation model. The details of the structural equation model and its associated hypothesis for Study 2 based on the above conceptual framework are discussed in Chapter 4.

Given that higher voluntary turnover rate may be triggered by the prevalence of the BC perspective, the second study also aimed to investigate the employee retention factors that may limit voluntary turnover behaviour. The factors influencing employees' decisions to stay with their current employers, especially the decisions of employees with a BC orientation, are discussed in the following subsections, along with the rationale as to why these factors were chosen to be examined in the study.

2.5.3 Maertz and Griffeth's eight categories of motivational forces in explaining voluntary turnover

In this section, a review of the literature related to retention factors that may influence employees' decisions to stay with their employers is presented. The section commences with a discussion of the eight categories of motivational forces in explaining employees' decisions to stay or leave an organisation suggested by Maertz and Griffeth (2004). The categories are affective, calculative, contractual, behavioural, alternative, normative, moral and constituent forces. Brief descriptions of these forces are listed in Table 2.6.

Table 2.6 Brief Descriptions of the Eight Motivational Forces in Explaining Voluntary Turnover Identified by Maertz and Griffeth (2004)

Categories	Brief descriptions
Affective forces	A mechanism involving a hedonistic approach and avoidance response. An individual's positive or negative emotional responses toward an organisation are caused by psychological comfort/discomfort. If an individual receives emotional comfort, he/she is more likely to approach or stay in the organisation. On the contrary, if one experiences emotional discomfort, avoidance or quitting is more likely to result.
Calculative forces	The rational calculation of the probability of attaining important values and goals in the future through continued membership. A favourable calculation indicating that goals are likely to be achieved in the current organisation creates the motivation to stay, while an unfavourable calculation creates the motivation to quit.
Contractual forces	Related to the norm of reciprocity, i.e., perceptions of what are owed to the organisation by the employee and vice versa. A psychological contract is characterised by a reciprocal exchange. An employee's obligation to an organisation falls under contractual forces, which are acted to hold a person to a particular system until his/her debts is repaid, thus encouraging the employee to stay. A perceived organisational breach of the psychological contract reduces or negates the employee's perceived obligation.
Behavioural forces	Related to the tangible and psychological costs of leaving the organisation, which individuals desire to avoid, and brought about by investments in membership or by past behaviour that favours or opposes membership. Higher costs encourage staying, while lower costs or behaviour opposing membership motivate quitting.
Alternative forces	Refer to an employee's self-efficacy, or in other words, an employee's belief in his/her ability to obtain a valued alternative to the current employment. While a low self-efficacy leads to employees' staying, a high self-efficacy results in their quitting.
Normative forces	An employee's perceptions of what family or friends expect him or her to do in terms of turnover behaviour are considered. Individuals who tend to meet the perceived expectations of salient others outside the organisation could either stay or quit, with the assumption that their motivations comply with these expectations.
Moral forces	Concern an employee's internalised values on turnover behaviour in general. The values range from 'quitting is bad/persistence is a virtue' to 'changing jobs regularly is good/staying a long time causes stagnation'. Employees maintain consistency between their behaviour and values on turnover, as it convinces them that they have done right and behaved consistently.
Constituent forces	Account for an employee's relationship with individuals or groups within the organisation. Their motivation to stay or quit depends on their attachment to co-workers or groups within the organisation. A stronger attachment to a constituent group could increase the employee's attachment to the organisation

Among these eight forces categorised by Maertz and Griffeth (2004), the alternative, normative and moral forces are very similar to the propositions in the

theory of planned behaviour (Ajzen, 1991, 2002) in explaining how a particular form of behaviour, specifically voluntary turnover behaviour, is performed. For example, alternative forces refer to an individual's self-efficacy in obtaining a better career alternative to his/her current employment. While having low self-efficacy in this respect leads to employees staying with a firm, high self-efficacy of this sort allows employees to entertain the option of quitting. The proposition of this motivational force is consistent with the dimension of perceived behavioural control described in the theory of planned behaviour. Both highlight the cognitive beliefs associated with one's capacity to leave an organisation.

The 'normative forces' category relates to an individual's perceptions of what family or friends expect in relation to his/her voluntary turnover behaviour. Individuals who tend to meet the perceived expectations of others whom they regard as significant (usually people outside the organisation) are more likely to follow these expectations in deciding to quit or stay. Again, this force is comparable to the theory of planned behaviour in that it highlights the role that subjective norms play in employee behaviour.

The 'moral forces' category suggests that an employee's internalised values on turnover behaviour would lead to voluntary turnover decisions. Maertz and Griffeth (2004) proposed that if employees' values shift from 'quitting is bad/persistence is a virtue' to 'changing jobs regularly is good/staying a long time causes stagnation', they would tend to change jobs more often. The BC perspective shares the same view and suggests that there is a shift of internalised values on turnover behaviour among employees in the contemporary era. Instead of working for one or a few employers in their work lives, i.e., the traditional organisational career perspective, individuals are searching for a new career form, such as BCs, that removes single-employer restrictions.

Even though these three motivational forces suggest that voluntary turnover behaviour is more likely to occur under the influence of the BC perspective,

organisations are still able to exercise influence by using retention strategies to motivate employees to stay. The following section describes and discusses 12 retention factors that might motivate employees with a BC orientation to stay with their current employers.

2.5.4 The twelve employee retention factors investigated

Drawing on the previous literature review, a total of 12 retention factors that might motivate employees with a BC orientation to stay with employers were identified. The following are brief descriptions of these factors and the reasons they were investigated. The 12 retention factors can be broadly divided into the following categories: work-related 'hygiene factors', people (non-work) factors, personal career goals and perceived moral obligations. Table 2.7 lists the 12 retention factor items in each of these categories and the principle references supporting their influence over employees, especially for those with a BC orientation.

The rationale for selecting the work-related 'hygiene factors' was based on the calculative forces advocated by Maertz and Griffeth (2004). The calculative forces suggested that some of the traditional work-related 'hygiene factors' such as financial compensation, advancement prospects and a good physical working environment could affect employees' decision to stay because these factors helped to eliminate job dissatisfaction. Hygiene factors are postulated to help eliminate job dissatisfaction in the two-factor theory (Herzberg, Mausner, & Snyderman, 1959). Maertz and Griffeth (2004) called them 'calculative forces', as they reflected employees' 'calculations' of the costs associated with leaving their employers. Because 'hygiene factors' such as financial compensation, advancement prospects and a good physical working environment are generally under the direct control of an organisation's managers, they traditionally serve as the core means of retaining employees (Kaye & Jordan-Evans, 2008). However, whether these measures are still applicable and valid in retaining employees under the influence of the BC perspective, especially those with a BC

orientation, may need to be re-examined.

Table 2.7 The Categories and Principle References of the 12 Retention Factors Investigated in the Study 2

Categories	The Corresponding Retention Factor	Principle References
Work-Related Hygiene Factors	<ol style="list-style-type: none"> 1. Financial Compensation 2. Advancement Prospects 3. A Good Physical Working Environment 4. Learning Opportunities 	<ul style="list-style-type: none"> - 'Calculative Forces' (Maertz & Griffeth, 2004) - Two Factor theory (Herzberg et al, 1959)
People(non-work) Factors	<ol style="list-style-type: none"> 1. Quality Leadership 2. Quality of Colleagues 3. Family Influence 4. Good Social Networking and Support 	<ul style="list-style-type: none"> - Unfolding model (Lee & Mitchell, 1994) - Job Embeddedness Model (Mitchell et al., 2001) -Social capital (Coleman, 1988,1990)
Personal Career Goals	<ol style="list-style-type: none"> 1. Acceptance of Organizational Values and Mission 2. Alignment of Personal and Company Goals 	<ul style="list-style-type: none"> - Career development (Caruth & Handlogten, 1997) - Career goals (Inkson, 2006, 2008)
Perceived Moral Obligations	<ol style="list-style-type: none"> 1. Perceived Obligations to Supervisor(s) 2. Perceived Obligations to the Company 	<ul style="list-style-type: none"> - Leader-member exchange model (Dansereau, Graen, & Haga, 1975; Graen, 1976; Graen & Cashman, 1975) - Moral engagement (Bandura, 1999)

Despite the wide use of 'hygiene factors' as the core means of retaining employees, some researchers have also expressed concerns about the disproportionate emphasis on the dimension of work-related 'hygiene factors' in explaining voluntary turnover, relative to other causes (e.g., Lee, Gerhart, Weller, & Trevor, 2008; Steel, 2002). For example, Lee and Mitchell's (1994) unfolding model and related studies repeatedly identified family-related pressures and responsibilities (Lee et al, 2008; Mitchell et al, 2001) as affecting individuals' decisions and intentions to stay with an employer. According to Kaye and Jordan-Evans (2008), 50% of work satisfaction is determined by the relationship between employee and supervisor. From

these perspectives, the factors affecting decisions to stay or leave are obviously not exclusively determined by an individual's own volition. Factors related to social support and influence have also played a significant role in such career decisions. In addition to family influence, other studies (e.g., Allison, Gorringer, & Lacey, 2006; Coleman, 1988; Meyer & Allen, 1991) have pointed out the significance of 'people factors' that can create social capital and expand social networks, motivating employees to stay on with an employer. Various studies (e.g., Allison et al, 2006; Meyer & Allen, 1991; Mitchell et al, 2001) have suggested that social connections within and outside organisations are becoming more important in making people stay. Furthermore, as mentioned previously, one of the core career competencies development strategies adopted by individuals with a BC orientation is to expand social networks external to their current employer. Therefore, the 'people factors' that help build social capital and social networks are particularly relevant in motivating boundaryless careerists' decision to stay. As such, 'people factors' is one of the retention factor categories investigated in this research. Items related to quality leadership, quality of colleagues and good social networking and support are thus included in the 12 retention factors investigated.

The 'personal career goals' category was largely investigated due to the changes in employees' expectations within contemporary organisations. As discussed in Section 2.2, the global workforce generally has higher skills and mobility due to rising educational qualifications and technological advancement in the workplace (Brown et al, 2007). Employees, especially those with professional skills and higher education qualifications, tend to expect more autonomy and control in their career development and have specific career goals (Crocitto, 1998; Hall, 1996; Lichtenstein et al, 1998; Seibert et al, 2001; Yamashita & Uenoyama, 2006). Therefore, companies that display an active interest in fostering career development that aligns with employees' personal career goals have a much better chance of retaining skilled personnel (Caruth & Handlogten, 1997). While self-determination in career development and autonomy (Arthur & Rousseau, 1996; Cheramie et al, 2007; Mirvis & Hall, 1994; Thite, 2001) are the prime motivators for individuals to pursue BCs, an alignment of employees'

personal career goals and values can be another incentive to stay. Thus, the 'personal career goals' category in this research examines the factors related to an alignment of personal and organisational goals.

Furthermore, according to Kaye and Jordan-Evans (2008), recent retention studies have indicated that the most typical reasons professionals leave a job are not money and benefits, but conflicts in values. Although high voluntary turnover rates have often been blamed on inadequate compensation, poor hiring practices or unattractive benefits packages, companies often overlook employees' values as one of the most influential contributors (Kaye & Jordan-Evans, 2008). A disconnection between an organisation's values and those of the employee inevitably leads to lower organisational commitment and higher voluntary turnover behaviour (Reitman, 2007; Kaye & Jordan-Evans, 2008). Acceptance of the organisation's values and mission not only motivates staff, but also better facilitates individuals in pursuing their desired career goals, influencing their decision to stay or go. Therefore, factors related to the acceptance of an organisational values and mission were included in this research.

The last category of retention factors chosen for this research is related to 'perceived moral obligations'. Theoretical models such as the leader-member exchange model (Dansereau et al, 1975; Graen, 1976; Graen & Cashman, 1975) and the job embeddedness model (Mitchell et al, 2001) suggest that individuals' subjective perceptions of their obligations to their organisations or supervisors might affect their decisions to stay with an organisation. Some researchers (e.g., Zavodny, 2000; Ornstein & Isabella, 1993) have argued that people with a BC orientation may be less loyal or have a lower perceived moral obligation to their supervisors and companies. Perceived moral obligations can influence or block behavioural intentions and outcomes even when an individual has a favourable attitude and high self-efficacy towards a particular form of behaviour (Bandura, 1999). Therefore, understanding the perceptions of employees' perceived moral obligations to organisations or supervisors could provide important insights into retention issues because increased perceived moral obligations may imply a decreased chance that employees will initiate voluntary turnover

behaviour.

In summary, the 12 selected retention factors investigated in relation to understanding individuals' decisions to stay with or leave an organisation include the following: the traditional work-related 'hygiene factors' category which includes financial compensation and advancement prospects; the (non-work) 'people factors' category, which relates to good social network and support, quality of colleagues and quality leadership; the 'personal career goals' category, which stresses personal and organisational goal alignment; and the 'perceived moral obligations' category, which focuses on the individuals' perceived moral obligations to supervisor and company. Understanding the preferential order for these retention factors could be useful to corporate leaders or HR managers in formulating better retention strategies and policies, given that the BC perspective seems to be on the rise.

The findings on the possible relationships between BCs and voluntary turnover issues and the significance of each of the 12 discussed talent retention factors are presented in Chapter 4.

Chapter 3 The Development of the Boundaryless Career Attitude and Pursuit Intention Scale (Study 1)

As stated in Chapter 1, the purpose of this research is to address limitations in the understanding of the BC perspective, specifically the extent of its adoption and its effects on organisations' HR issues such as voluntary turnover and talent retention. To achieve these objectives, two studies were conducted.

The objective of Study 1 was to develop a scale to measure individuals' attitudes towards pursuing BCs to reflect the prevalence of the BC perspective in the Asia-Pacific region. A literature review, pilot interviews and focus groups were conducted before items were generated for the proposed scale. Then, the data were collected in two stages: first, through a questionnaire survey targeting local university students in Hong Kong,⁵ which served as a calibration sample to refine the proposed scale; and second, through a data set collected from local Australian university students⁶ and international university students studying in either Australia or Hong Kong,⁷ which was used for cross-validation and to assess the invariance of the scale across different samples while enhancing its robustness. Issues of internal consistency, convergent validity and discriminant validity were also examined.

Study 2 used the scale developed in Study 1 to investigate the effects of individuals' attitudes towards pursuing BCs on their voluntary turnover intentions and behaviour, and the retention factors that drive individuals to stay with an employer, specifically among those with a BC orientation. To test the possible effects of

⁵ 'Local university students in Hong Kong' refer to students who were born and received local education in Hong Kong.

⁶ 'Local university students in Australia' refer to students who were born and received local education in Australia.

⁷ 'International students studying in either Australia or Hong Kong universities' refer to students who were not born in either Australia or Hong Kong but studied in either Hong Kong or Australia during the data collection period.

individuals' attitudes towards pursuing BCs on their voluntary turnover intentions, a substantive survey targeting local supervisors and managers in Hong Kong was conducted in Study 2. The structural equation modelling technique was used to examine the relationship between the two constructs. The details of the data collection methods, hypothesised model and the associated findings of Study 2 are presented in Chapter 4.

This chapter focuses on discussing the development of the boundaryless career attitude and pursuit intention scale in Study 1. The first section presents the development process of the proposed scale, including data collection methods, purification and validation procedures and testing arrangements. Then, the psychometric properties results of the proposed scale are discussed in the second section. The chapter concludes with the empirical findings on the prevalence of the BC perspective among university students based on the aforementioned surveys.

3.1 The Scale Development Process and Methodologies Used in Study 1

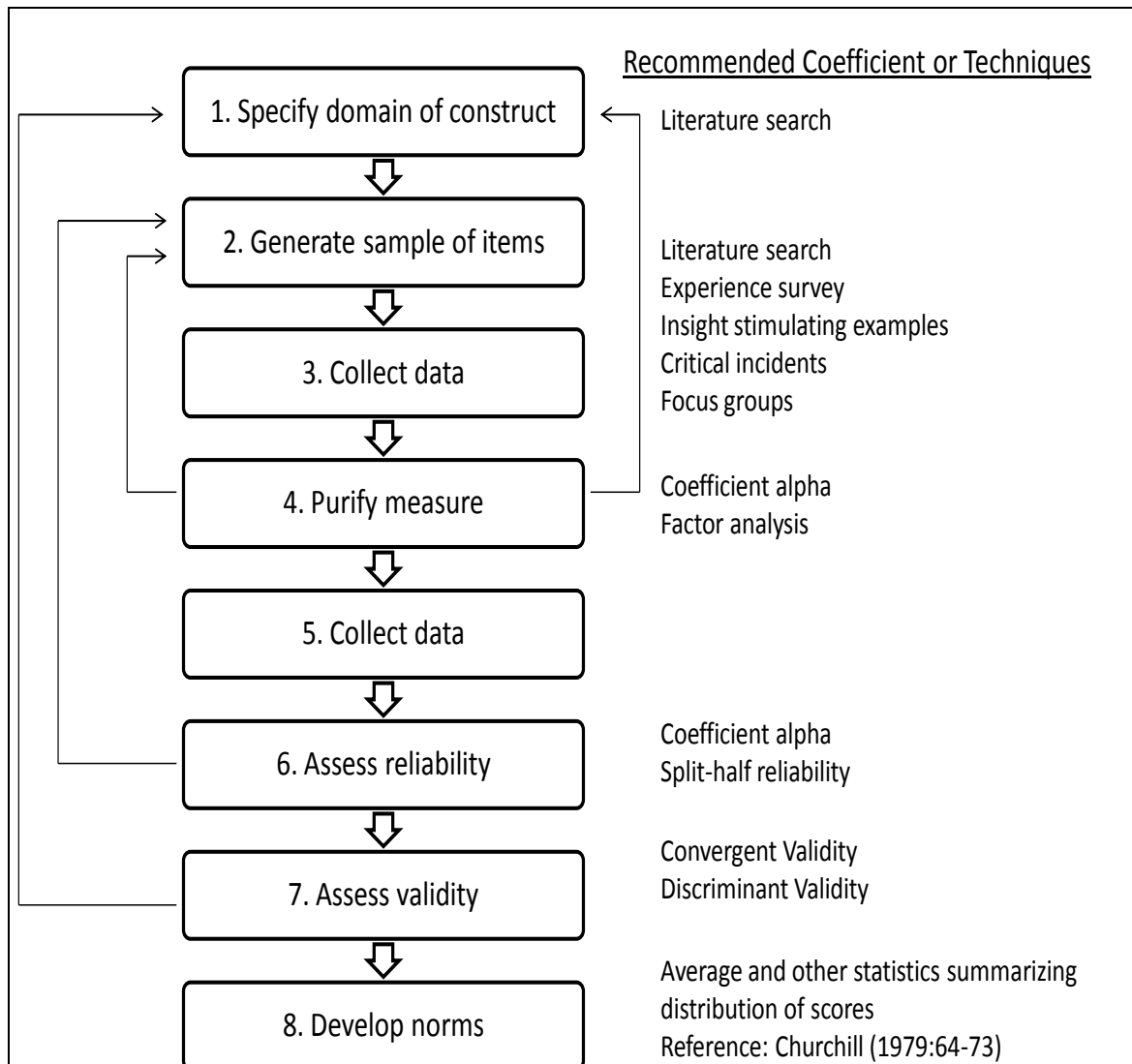
As mentioned in Section 2.3 of Chapter 2, there were no instruments available in the literature to measure all of the dimensions embedded in the BC construct, let alone a scale designated to assess individuals' attitudes towards pursuing BCs. Thus, the purpose of Study 1 was to develop and validate a scale that gauges individuals' attitudes towards and intentions to pursue BCs as a way of determining the prevalence of this new career perspective, specifically in the Asia-Pacific region.

To develop a valid and reliable scale that is parsimonious and capable of generalising across different groups, scale development protocols were needed to guide the process. Churchill's (1979) eight-step protocol and DeVellis's (2003, 2009) guidelines for scale development were used for this purpose.

Figure 3.1 delineates Churchill's eight-step protocol for building a reliable and valid scale with multiple items. Briefly, the eight steps are: specifying the domain of the

construct, generating a sample of items, collecting data, purifying the measure, collecting data from different samples, assessing the scale's reliability, assessing the scale's validity and developing norms.

Figure 3.1 Churchill's (1979) 8-Step Protocol for Developing a Measure



3.1.1 Stage 1: Specifying the domain of interest

According to Churchill's (1979) protocol, a construct's domain should be specified first and researchers must be exacting in delineating what is included in the definition and what is excluded. Thus, an exact conceptual specification of the

constructs and a clear goal must be developed. As a result, a thorough literature review related to the BC construct was conducted and a conceptual framework for how to design the proposed scale was developed before item generation. A discussion of the conceptual framework is presented in Section 2.4 of Chapter 2.

3.1.2 Stage 2: Item generation and selection

After determining the construct of interest, the second step is to generate items for the proposed scale. These items should capture the specified domain. Exploratory research including literature searches, experience surveys and insight-stimulating examples are common techniques used to generate items (Churchill, 1979). Alternative methods, such as critical incidents and focus groups, can also facilitate the item generation process. The literature review should investigate how the construct has been defined previously and how many dimensions or components it has. In developing scale items, DeVellis (2003, 2009) stressed the importance of the characteristics of good and bad items. The principles are to avoid exceptionally lengthy, multiple negatives or double-barrelled items. The words and phrases selected should avoid ambiguous pronoun references, misplaced modifiers and inappropriate levels of reading difficulty.

Following these guidelines, a literature review and focus group interviews were adopted to help generate items that captured the core features of a BC and its possible effects on individuals' vocational intentions and behaviour, specifically their voluntary turnover intentions and behaviour. The following subsections describe the details of these two methods.

3.1.2.1 Processes in the literature review

A literature review of studies related to defining, interpreting and measuring the BC perspective and its possible effects on individuals' vocational intentions and

behaviour was conducted, but despite the significance and possible effects of this new career perspective on organisations and individuals, empirical studies on BCs have proven limited. While Briscoe and Hall (2006) used a scale to measure the BC perspective, they only measured two dimensions: the boundaryless mindset and organisational mobility. Other dimensions such as the desire to achieve career autonomy and self-determination, learning transferable rather than firm-specific knowledge and building networks external to current employers were not measured.

As previously discussed in Section 2.3 of Chapter 2, prior to constructing items related to individuals' personal attitudes towards BCs, 70 articles discussing the core features of BCs, dating from 1993 to mid-2009, were reviewed. Additionally, a number of books related to careers were also examined to deepen the understanding of careers in general and the nature of BCs in particular. Three broadly held components of a BC were identified from the literature review: 1) the effect of the desire for career autonomy and self-determination on career development; 2) the pursuit of multiple transferable skills, knowledge and relationships external to the current employer; and 3) the manifestation of diverse work experiences gained by crossing organisational boundaries and attitudes towards boundarylessness in career development. Then, ten items that broadly capture individuals' personal attitudes towards pursuing BCs were developed and are listed in Table 3.1.

The research objective was not only confined to measure individuals' specific BC attitudes, but also to understand the crucial factors affecting individuals' personal attitudes towards and intention to pursue BCs and their possible effects on vocational behaviour, specifically in relation to voluntary turnover issues. Therefore, this research uses the propositions and mechanism suggested in the theory of planned behaviour (Ajzen, 1991, 2002) to explain why and how individuals' attitudes might lead to a particular form of behaviour. Consequently, the three dimensions explaining and predicting behavioural intentions and outcomes advocated within the theory, namely 1) personal attitude towards the behaviour in question, 2) subjective norms and 3) perceived behavioural control, were adopted as the conceptual framework in designing

the scale. This approach facilitated an exploration of the significance of social support and influence, along with individuals' perceived behavioural control, on the formation of individuals' personal BC attitudes and their subsequent vocational intentions and behaviour (Ajzen, 1991, 2002).

Consequently, in addition to developing items that measure individuals' personal BC attitudes representing the dimension of attitude towards the behaviour in question, the proposed scale included items related to the other two dimensions. They are the subjective norms, which refers to individuals' perceptions of their significant others' attitudes towards BCs; and individuals' perceptions regarding their own behavioural control over BC pursuit. The definitions of these dimensions have been fully explored in previous studies and are presented in Section 2.3 of Chapter 2.

The ten 10 items, which broadly capture an individual's personal attitude towards BCs, was developed based on the literature review. To facilitate the development of items measuring the other two dimensions and related issues in the research, three pilot interviews and two focus groups were also conducted. The purpose of the pilot interviews was to generate and refine questions for the focus groups. The three interviewees were expatriates with multiple employment setting experiences. The core questions in the interviews were related to the motivations involved in working overseas and gaining diverse work experiences, and the pros and cons of crossing organisational boundaries in one's career development. The following subsection briefly describes the focus group interviews, which helped generate scale items for the research.

Table 3.1 The Original 27 Items Generated for the Proposed Scale

Items related to individuals' personal attitudes towards BCs
A1. I think the skills and knowledge developed for future work opportunities are more important than the job security provided by employers.
A2. I prefer job-related learning that focuses on future employability and transferability rather than firm-specific knowledge.
A3. I think sharing knowledge and expertise across companies or even industries is a good knowledge-management practice.
A4. I think employees, rather than employers, should be responsible for career development.
A5. I think building relationships with members of other communities (e.g., alumni) or professional bodies is as important as building relationships with work colleagues.
A6. I believe an attitude of experimentation and risk-taking is important to a successful career.
A7. Overall, I want to have diverse work experience with different employers.
A8. I prefer to work in a less formal, team-based environment.
A9. I prefer to identify with my profession rather than with my employer. (e.g., 'I'm a software engineer' rather than 'I'm a member of IBM.'")
A10. I prefer having my own business to work for others.
Items related to perceived subjective norms of local employers' attitudes towards BCs
B1. Generally, in the place you are studying (i.e., in Hong Kong), employers are willing to hire people who come from different industries.
B2. Generally, in the place you are studying (i.e., in Hong Kong), changing jobs often is a socially acceptable behaviour.
B3. Generally, in the place you are studying (i.e., in Hong Kong), sharing knowledge and expertise across companies is a common practice.
B4. Generally, in the place you are studying (i.e., in Hong Kong), project or contract employment is common.
B5. Generally, in the place you are studying (i.e., in Hong Kong), entrepreneurs are highly regarded.
B6. Generally, in the place you are studying (i.e., in Hong Kong), respect and authority are gained through competence and excellence rather than through seniority (i.e., no. of years you spent with the company).
Items related to perceived subjective norms of family members' attitudes towards BCs (negatively-keyed items)
B7. My family expects my future career growth and advancements to occur within one well-regarded organisation.
B8. My family is likely to disapprove of me changing jobs often.
B9. My family thinks a stable and secure job will do me good.
Items related to individuals' perceived behavioural control over pursuing BCs
C1. I am able to make a plan of my career goals for the next 5 years.
C2. I am able to determine the steps I need to take to successfully attain a career move.
C3. I am able to persistently work at my career goals even when I get frustrated.
C4. I am able to discover the employment trends for a desired occupational area over the next 10 years.
C5. I am able to decide what I value most in an occupational position.
C6. I am able to figure out what I am ready to sacrifice to achieve my career goals.
C7. I am able to manage my career in a way that aligns with my interests.
C8. I am able to identify employers, professional associations and the external communities that are relevant to my future career positions.

3.1.2.2. Focus groups

Two groups, one consisting of six undergraduate students from universities in Hong Kong and the other comprising six managers with a minimum of 2 to 30 years of work experience in Hong Kong, were recruited to attend a 90-minute discussion session. The details of the demographics of 12 members participated in the two focus groups can be found in appendix H. Using two different types of participants ensured that the discussion covered the concerns of both current and potential employees regarding the BC perspective and its possible effects on employee turnover and talent retention issues.

The focus group participants were asked about their perceptions of the BC perspective and their own career orientations. The previously discussed ten items related to personal BC attitude developed through the literature review were used to guide the discussions about focus group participants' own attitudes and preferences towards pursuing BCs. Participants were also asked to respond to three specific questions: "Who is/are the most influential party/ies affecting your career decisions and actions?"; "What is your preferred career path – to stay with one employer or to gain diverse working experience – and why?"; and "What are the retention factors that could affect your decision to stay with an employer?"

The first question relates to the subjective norms dimension within the theory of planned behaviour (Ajzen, 1991), in which the significance of subjective norms is reflected in the fact that individuals' attitudes and behavioural intentions are highly affected by others whom they regard as significant. Identifying the most influential party/ies in the career decisions domain facilitated the development of items related to subjective norms subscales.

The second and third questions were asked in the focus group interviews to collect information about changes, if any, in attitudes towards voluntary turnover behaviour and the underlying factors affecting the decision to stay with an employer.

The information gathered on retention factors from the perspectives of both current and potential employees was used to verify whether the 12 talent retention factors identified in the literature review (see Table 2.7 in Chapter 2 for details) were consistent with the participants' opinions.

Each participant was first given time to share his/her opinions, and this was followed by an open discussion. Over 75% of the participants indicated that 'the others' who influenced their career behaviour were local employers (12 out of 12 participants) and family members (9 out of 12 participants). Thus, the 'significant others' in the career decisions domain were family members and local employers. The findings of the two focus group interviews helped generate an additional nine items for the subjective norms dimension – six related to the perceived subjective norms of employers' attitudes towards BCs and three related to the perceived subjective norms of family members' attitudes towards BCs. Because the focus group participants had expressed their lack of knowledge about the conceptualisation of BCs, but were more familiar with the traditional organisational career model, which refers to an orderly progression of promotions and career advancements following a vertical hierarchical structure within a single, large, stable firm (Levinson, 1978; Super, 1957; Whyte, 1956). Therefore, instead of using the key features embedded in the BC construct, the features of traditional organisational careers – such as working for a single or a few employers throughout one's entire work life and familial disapproval of switching jobs often – were used to measure family members' perceived subjective norms (see Table 3.1 for the nine items related to the subjective norms dimension). As a result, the three items related to an individual's perceived subjective norm of family members' attitudes towards BCs are all negatively-keyed. Negatively keyed items are those phrased so that an agreement represents a relatively low level of the attributes being measured.

Furthermore, the difference in the number of items (six related to employers vs. three related to family members) were based on Loevinger's (1957) advice that the proportion of items devoted to each content area be proportional to that content's importance to the target construct. As employers' influence is expected to be more

direct than that of family members in employment relationships, the proportion of items devoted to the perceived subjective norms of employers should be larger. The findings from the focus groups, all of the participants (12 out of 12) also suggested that the most influential party affecting individuals' career decisions and moves were local employers, thus six items were devoted to the subjective norms of local employers and three were related to the subjective norms of family members' attitudes towards BCs.

A 7-point Likert scale response format – ranging from 'strongly disagree' (1) to 'strongly agree' (7) – was chosen to ensure the discrimination among the underlying attributes of the above items (10 items for personal attitudes of behaviour in questions and nine for subjective norms). DeVellis (2003) believed that very mild statements in a questionnaire would elicit too much agreement under a Likert scale; therefore, the above items were developed in a way that avoids the absence of belief or opinion. By providing statements with clear belief and directions (e.g., I think the skills and knowledge developed for future work opportunities are more important than job security provided by employers), respondents could express their favourable or unfavourable attitudes towards BCs and the subjective norms subscales without filling in too many scale items. Furthermore, studies have found that using a 7-point rather than a 5-point Likert format could provide a more accurate measure and may be more appropriate for electronically distributed surveys (Finstad, 2010) because the 7-point Likert scale allows more response options within the declarative items.

The items measuring the dimension of perceived behavioural control were developed using the career decision-making self-efficacy scale proposed by Betz et al. (1996) as the proxy to represent the extent of the perceived behavioural control over pursuing BCs. Because the career decision-making self-efficacy scale developed by Betz et al. (1996) targeted college students, only items suitable for both university students and employees were adopted from the scale. Ultimately, eight such items⁸ were chosen

⁸ The rationales for choosing the eight items were also based on Crites' (1978) five dimensions of career-choice competencies: accurate self-appraisal, goal selection, making plans for the future, gathering occupational information and problem solving.

and used to represent the dimension of perceived behavioural control. The rationales for borrowing items from this established scale are fully explained in Section 2.4.3 of Chapter 2.

In summary, the proposed scale used in this research covers all dimensions advocated in the theory of planned behaviour (Ajzen, 1991) and consists of four subscales: individuals' personal attitudes towards BCs, the perceived subjective norms of local employers' attitudes towards BCs, the perceived subjective norms of family members' attitudes towards BCs, and a condensed version of the Betz et al. (1996) scale on career decision-making self-efficacy as a proxy for individuals' perceived behavioural control over pursuing BCs. Twenty-seven scale items were generated from the literature review and the focus groups (see Table 3.1 for the original 27 items).

In addition to these 27 items, two additional vocationally related questions were asked in the surveys to understand the effect of BC attitudes and pursuit intention on the intended vocational tenure of university students with their future employers after graduation. The two questions determined the number of years students planned to work for their first employer and the number of organisations for which students planned to work over the following 10 years.

3.1.3 Stage 3: Assessing content validity and item reductions

To assure the content validity of the proposed scale, eight academics and HR managers were asked to evaluate the representativeness of the items and their perceived relevance in measuring BC attitudes and pursuit intentions. The details of the demographics of these eight academics and HR managers can be found in Appendix H. Due to the novelty of the BC construct, the evaluators were offered the option of having brief descriptions of the three major components of BCs identified in the literature review (see Appendices A, B and C for details) and an abstract of Ajzen's theory of planned behaviour (see Appendix E for details) upon request. Following Lawshe's (1975) 'subject matter expert raters' method, the judges were asked to review the 27

items in the proposed scale and categorise them using three choices, i.e., 'essential', 'useful, but not essential' and 'not necessary'. Based on an agreement index of 75% (Hinkin, 1995), which refers to agreement between at least six of the eight evaluators in this case, the original ten items related to individuals' personal attitudes towards BCs were reduced to seven, and eight out of the nine items in the subscales of subjective norms were retained. All eight items in the subscale of perceived behavioural control over pursuing BCs were kept, as all of them met the acceptable agreement index of 75%. Twenty-three items were retained and submitted for further psychometric analyses in which seven representing an individual's personal attitude towards BCs, eight representing subjective norms (five related to perceived local employers' and three to perceived family members' attitudes towards BCs) and eight for the perceived behavioural control over pursuing BCs subscale (see Table 3.2 for the remaining 23 items).

3.1.4 Stage 4-8: Data collection and assessing scale reliability and validity

An exploratory factor analysis (EFA) was followed by a confirmatory factor analysis (CFA) to assess the scale's internal reliability and construct validity. The results of these two psychometric analyses are presented in the next section.

Churchill (1979) and DeVellis (2003, 2009) suggested that when using an EFA and a CFA to assess the validity and reliability of a scale, independent data sets are needed to rule out the possibility that a particular finding is due to chance. Therefore, data were collected in two different stages, targeting university students who were about to join the workforce. In the first stage, data were collected through a questionnaire surveying local university students in Hong Kong ($n = 299$) and served as a calibration sample to refine the proposed scale. In the second stage, a new data set was collected from local Australian university students ($n = 149$) and international university students studying in either Australia or Hong Kong ($n = 229$) to enhance the robustness of the proposed scale. This new data set was used for cross-validation and

to assess the invariance of the scale across different samples. Issues of internal consistency, convergent validity and discriminant validity were also examined using this new data set. Six hundred seventy-seven usable responses were collected from these three groups. The following subsection explains the rationales for collecting data from these three samples.

3.1.4.1 Rationales for the sampling strategy

University students were selected as the target group in this research because, according to previous studies (e.g., Baker & Aldrich, 1996; Saxenian, 1994), the pursuit of BCs was more feasible for individuals with professional skills (Baker & Aldrich, 1996). Furthermore, in previous studies about employees with a BC orientation, nearly everyone the researchers interviewed had had at least a Bachelor's degree (Baker & Aldrich, 1996). The data were collected from two geographical locations (i.e., Hong Kong and Sydney) because having students from both Eastern and Western cultures (Hong Kong and Australian local students) in the sample facilitated the exploration of the scale's cross-cultural use. The reasoning behind having samples of locally born and international students was that these two types of students, although of different nationalities, were situated in the same environmental context. Thus, by comparing the differences in attitudes towards and intentions to pursue BCs among the three groups, it was possible to explore whether the differences, if any, were associated with nationality or contextual influence.

As a result, the scale validation surveys conducted in this study covered three samples. The data collected from local undergraduate university students in Hong Kong were used in the EFA and the data collected from local undergraduate Australian university students and international undergraduate university students studying in Hong Kong or Australia (but not born in Hong Kong and Australia) were combined and used in the CFA. The following section presents the findings related to the psychometric properties of the proposed scale in measuring BC attitudes and pursuit intentions.

3.2 Psychometric Properties of the Proposed Scale

The first part of this section describes and discusses the results of the EFA used to initially refine the proposed scale. Then, the findings of the CFA examining issues of reliability, dimensionality, convergent validity, discriminant validity and measurement invariance are presented.

3.2.1. Exploratory factor analysis results

To maximise parsimony and obtain a reasonable approximation of dimensionality (Churchill, 1979) in the scale, an EFA of a set of multivariate statistical methods for data reduction (Fabrigar, Wegener, MacCallum, & Strahan, 1999) was performed using SPSS v.18 on data obtained from the Hong Kong local undergraduate university student sample.

3.2.1.1 Sample demographics

The sample included 350 students enrolled in the undergraduate business programmes at a university in Hong Kong. The response rate in this survey was 86.5%. Incomplete questionnaires were eliminated from the sample, which resulted in a final sample size of 299. Forty-eight per cent of the participants were male and 52% were female and all were in their early 20s. The students did not receive any extra credit or other incentives to participate in the survey.

3.2.1.2 Factorial structure and Cronbach's alpha

The EFA was performed on all 23 items (see Table 3.2) proposed to gauge the individuals' attitudes towards and intentions to pursue BCs. A principal component analysis with a varimax rotation was used to examine the factorial structure. All 23 items were inputted into the analysis and four factors with Eigenvalues greater than 1.0 emerged. The reliability and factor structure of the 23-item scale were then examined based on the coefficient alpha and the results of the EFA.

**Table 3.2 The Remaining 23 Items Post the Lawshe's (1975)
'Subject Matter Expert Raters' Method**

Items related to individuals' personal attitudes towards BCs
A1. I think the skills and knowledge developed for future work opportunities are more important than the job security provided by employers.
A2. I prefer job-related learning that focuses on future employability and transferability rather than firm-specific knowledge.
A3. I think sharing knowledge and expertise across companies or even industries is a good knowledge-management practice.
A4. I think employees, rather than employers, should be responsible for career development.
A5. I think building relationships with members of other communities (e.g., alumni) or professional bodies is as important as building relationships with work colleagues.
A6. I believe an attitude of experimentation and risk-taking is important to a successful career.
A7. Overall, I want to have diverse work experience with different employers.
Items related to perceived subjective norms of local employers' attitudes towards BCs
B1. Generally, in the place you are studying (i.e., in Hong Kong), employers are willing to hire people who come from different industries.
B2. Generally, in the place you are studying (i.e., in Hong Kong), changing jobs often is a socially acceptable behaviour.
B3. Generally, in the place you are studying (i.e., in Hong Kong), sharing knowledge and expertise across companies is a common practice.
B5. Generally, in the place you are studying (i.e., in Hong Kong), entrepreneurs are highly regarded.
B6. Generally, in the place you are studying (i.e., in Hong Kong), respect and authority are gained through competence and excellence rather than through seniority (i.e., no. of years you spent with the company).
Items related to perceived subjective norms of family members' attitudes towards BCs (negatively-keyed items)
B7. My family expects my future career growth and advancements to occur within one well-regarded organisation.
B8. My family is likely to disapprove of me changing jobs often.
B9. My family thinks a stable and secure job will do me good.
Items related to perceived behavioural control over pursuing BCs
C1. I am able to make a plan of my career goals for the next 5 years.
C2. I am able to determine the steps I need to take to successfully attain a career move.
C3. I am able to persistently work at my career goals even when I get frustrated.
C4. I am able to discover the employment trends for a desired occupational area over the next 10 years.
C5. I am able to decide what I value most in an occupational position.
C6. I am able to figure out what I am ready to sacrifice to achieve my career goals.
C7. I am able to manage my career in a way that aligns with my interests.
C8. I am able to identify employers, professional associations and the external communities that are relevant to my future career positions.

The ratio of a sample size to the total number of items should be above 10:1 (Nunnally, 1978) for an EFA. With 299 cases and 23 items, the ratio of cases to items

was more than 10 to 1, which exceeded the minimum ratio of cases to items.

The Kaiser-Meyer-Olkin (KMO) test and Bartlett's significance test of sphericity evaluated whether the EFA could be further analysed (Malhorta, 1999). An acceptable KMO level for EFA is 0.5 or higher (Malhorta, 1999) and the result for this study was 0.85, above the minimum acceptable level. The result of Bartlett's significance test was 0.00, meeting the acceptable level of 0.05 or lower (Malhorta, 1999). Consequently, it was deemed appropriate to conduct a principal component analysis, which produced an initial four-factor solution. All of the resulting Eigenvalues were over 1.0, as shown in Table 3.3.

Table 3.3 An Initial Four-Factor Solution with Eigenvalues, Variances Explained and Alpha

	Factor 1 (F1-PBCBC) [Perceived behavioural control over pursuing BCs]	Factor 2 (F2-BCA) [Individuals' personal attitudes towards BCs]	Factor 3 (F3-SNEMP) [Perceived subjective norms of local employers attitudes towards BCs]	Factor 4 (F4-SNFAM) [Perceived subjective norms of family members' attitudes towards BCs]
Eigenvalues	6.87	3.60	1.84	1.66
Variance explained (%)	31.24	16.34	8.38	7.55
Accumulative variance explained (%)	31.24	47.58	55.96	63.51
Alpha	0.88	0.81	0.60	0.70

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation.

As shown in Table 3.4, the EFA results reveal that items related to perceived behavioural control over pursuing BCs (i.e., items C1, C2, C3, C4, C5, C6 and C7) were loaded onto Factor 1 (abbreviated to F1-PBCBC); the seven items that measured individuals' personal attitudes towards BCs (i.e., A1, A2, A3, A4, A5, A6 and A7) were loaded onto Factor 2 (abbreviated to F2-BCA); the four items measuring the perceived subjective norms of local employers' attitudes towards BCs (i.e., B1, B2, B3 and B6) were loaded onto Factor 3 (abbreviated to F3-SNEMP); and the three items measuring

the perceived subjective norms of family members' attitudes towards BCs (i.e., B7, B8 and B9) were loaded onto Factor 4 (abbreviated to F4-SNFAM). The details of the factor loadings are listed in Table 3.4.

Table 3.4 Factor Loadings for an Initial Four-Factor Solution Related to the Attitudes towards and Intention to Pursue Boundaryless Careers

Rotated Component Matrix^a				
Items	Component/ Factor			
	F1 (PBCBC)	F2 (BCA)	F3 (SNEMP)	F4 (SNFAM)
C2	.983			
C6	.977			
C5	.974			
C7	.974			
C1	.974			
C4	.965			
C3	.764			
A4		.776		
A3		.755		
A2		.731		
A5		.669		
A1		.668		
A7		.525		
A6		.523		
B6			.673	
B1			.652	
B2			.623	
B3			.590	
B8				.797
B9				.759
B7				.746

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation.

a. Rotation converged in 5 iterations.

Based on the EFA findings, two items (i.e., B5 and C8) were deleted. Item B5 was dropped because its communality was lower than 0.3 and its factor loadings only

marginally reached 0.4.⁹ Item C8 was deleted due to relatively low loadings and cross-loading issues. Generally, loadings above 0.71 are considered excellent, 0.63 very good, 0.55 good, 0.45 fair and 0.32 poor (Tabachnick & Fidell, 2007). Therefore, the number of items in the scale was reduced from 23 to 21. The final 21 items are listed in Table 3.5. This 21-item scale was then identified as the BC attitude and pursuit intention scale.

In addition to the factor structures, an analysis of the coefficient alphas determining the internal consistency and homogeneity (Hair, Anderson, & Tatham, 1987) of the four subscales was conducted. The results were as follows: the subscale representing the dimension of individuals' perceived behavioural controls over pursuing BCs (F1-PBCBC) was 0.88; the subscale assessing individuals' personal attitudes towards pursuing BCs (F2-BCA) was 0.81; the subscale measuring individuals' perceptions of the subjective norms of local employers' attitudes towards BCs (F3-SNEMP) was 0.60; and the subscale gauging individuals' perceptions of the subjective norms of family members' attitudes towards BCs (F4-SNFAM) was 0.70. The alphas for F1-PBCBC, F2-BCA and F4-SNFAM were above the generally accepted level of 0.7 (Nunnally, 1978), but the alpha for F3-SNEMP was 0.60, indicating the need for extra caution when interpreting the results of the subscale measuring individuals' perceptions of the subjective norms of local employers' attitudes towards BCs.

⁹ Because factor loadings are the correlation between the variables and factors, squaring the loading yields a variance. As a loading of 0.71 squared would be around 50% of the variance accounted for and 0.32 squared would be 10% of the variance accounted for, the aforementioned items were removed.

Table 3.5 The 21-Item BC Attitude and Pursuit Intention Scale Post-EFA

Items related to individuals' personal attitudes towards pursuing BCs
A1. I think the skills and knowledge developed for future work opportunities are more important than the job security provided by employers.
A2. I prefer job-related learning that focuses on future employability and transferability rather than firm-specific knowledge.
A3. I think sharing knowledge and expertise across companies or even industries is a good knowledge-management practice.
A4. I think employees, rather than employers, should be responsible for career development.
A5. I think building relationships with members of other communities (e.g., alumni) or professional bodies is as important as building relationships with work colleagues.
A6. I believe an attitude of experimentation and risk-taking is important to a successful career.
A7. Overall, I want to have diverse work experience with different employers.
Items related to perceived subjective norms of employers' attitudes towards BCs
B1. Generally, in the place you are studying (i.e., in Hong Kong), employers are willing to hire people who come from different industries.
B2. Generally, in the place you are studying (i.e., in Hong Kong), changing jobs often is a socially acceptable behaviour.
B3. Generally, in the place you are studying (i.e., in Hong Kong), sharing knowledge and expertise across companies is a common practice.
B6. Generally, in the place you are studying (i.e., in Hong Kong), respect and authority are gained through competence and excellence rather than through seniority (i.e., no. of years you spent with the company).
Items related to perceived subjective norms of family members' attitudes towards BCs (negatively-keyed items)
B7. My family expects my future career growth and advancements to occur within one well-regarded organisation.
B8. My family is likely to disapprove of me changing jobs often.
B9. My family thinks a stable and secure job will do me good.
Items related to individuals' perceived behavioural control over pursuing BCs
C1. I am able to make a plan of my career goals for the next 5 years.
C2. I am able to determine the steps I need to take to successfully attain a career move.
C3. I am able to persistently work at my career goals even when I get frustrated.
C4. I am able to discover the employment trends for a desired occupational area over the next 10 years.
C5. I am able to decide what I value most in an occupational position.
C6. I am able to figure out what I am ready to sacrifice to achieve my career goals.
C7. I am able to manage my career in a way that aligns with my interests.

Note: The phrase of 'in the place you are working' replaces 'in the place you are studying' for employee sample.

3.2.1.3 Harman single-factor analysis

In this cross-sectional survey design, all data are self-reported and collected

through the same questionnaire, therefore a common method variance, i.e., variance attributed to the measurement method rather than the construct of interest, could be a concern (Bagozzi & Yi, 1990; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Consequently, a Harman single-factor analysis was conducted to test for the presence of the common method effect. This procedure involved re-entering all 21 items into another EFA using an unrotated principal components factor analysis and fixing the factor extracted to 1. This single factor explained less than 30% of the total variance, indicating that no single general factor accounted for the majority of the covariance among the variables (Andersson & Bateman, 1997; Podsakoff et al, 2003; Steensma, Tihanyi, Lyles, & Dhanaraj, 2005). In contrast, the original principal components factor analysis using varimax rotation revealed the presence of four distinct factors with Eigenvalues greater than 1.0 (see Tables 3.3 and Table 3.4 for the EFA results). Although these results do not preclude the possibility of the common method variance, they suggest that common method variance was not of great concern and unlikely to confound the interpretation of the results.

Taken together, the foregoing analyses provided empirical evidence supporting the four-factor structure of the proposed scale and its acceptable internal reliability. Thus the refined 21-item scale was adopted for further analysis.

In summary, the 21-item scale comprised four factors. There were seven items assessing the dimension of individuals' perceived behavioural control over pursuing BCs, seven measuring individuals' personal attitudes towards pursuing BCs, and seven gauging subjective norms, including the perceived subjective norms of the local employers' (four items) and their family members' (three negatively-keyed items) attitudes towards BCs. All of these items are listed in Table 3.5.

3.2.2 Confirmatory factor analysis results

As discussed previously, a CFA was conducted after the EFA to test the measurement model fit, convergent validity and discriminant validity. The following

subsections briefly describe the new data set and its demographics used for the CFA, followed by a discussion of the CFA results of model fit, internal consistency, discriminant validity, convergent validity and measurement invariance.

3.2.2.1 The new data set and its demographics

To validate the proposed 21-item scale, a new dataset drawn from international university students studying in either Hong Kong or Australia and local Australian university student samples was used. Given that the international student sample comprised 229 usable responses and the local Australian student sample comprised 149 usable responses, the sample size of the new data set used in the CFA was 378.

Similar to the surveys targeting the local Hong Kong student sample, survey respondents were also asked to indicate their degree of agreement with all 21 items stated in the proposed BC attitude and pursuit intention scale. In addition to the items on the proposed scale, two additional questions related to vocational tenure intentions were asked to obtain information about the number of years students planned to work for their first employer and the number of organisations for which students planned to work over the following 10 years.

The respondents in the international university student sample included 110 female students and 119 male students enrolled in undergraduate programmes at two universities in Hong Kong and five universities in Australia. In the local Australian student sample, the respondents included 80 female students and 69 male students. Similar to the local Hong Kong university student sample, all of the survey participants were in their early 20s. The students did not receive any extra credit or other incentives to participate in the study.

3.2.2.2 Assessment results

The following subsections describe and discuss the CFA results in terms of scale validation and address assessment issues of model fit, reliability and internal consistency, convergent validity and discriminant validity.

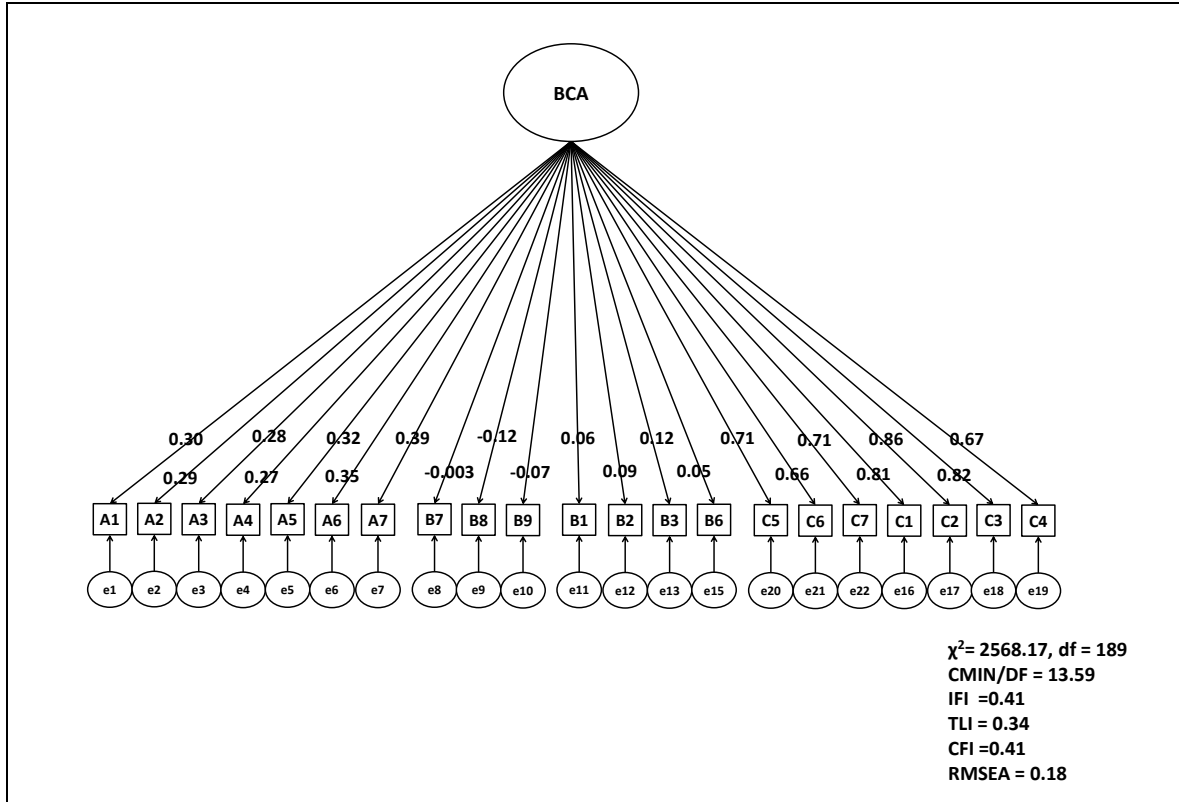
3.2.2.2.1 Dimensionality assessment

To assess its dimensionality (factor structure), the proposed 21-item scale was subjected to a comparison of two models: a one-factor model (Model 1, see Figure 3.2) and a four-factor model (Model 2, see Figure 3.3).

To assess the fit of the model, the study adopted the comparative fit index (CFI), the Tucker Lewis Index (TLI), the incremental fit index (IFI) and the root mean square error of approximation (RMSEA). CFI, TLI and IFI values < 0.90 and RMSEA values > 0.08 were considered deficient, and CFI, TLI and IFI values > 0.90 and RMSEA values from 0.06 to 0.08 were considered comparatively good and acceptable (Hu & Bentler, 1999).

In Model 1, all of the 21 items were loaded onto a single factor. The chi-square (χ^2) statistic was 2568.17 ($DF = 189$, $n = 378$, $p = 0.000$); the RMSEA was 0.18. Furthermore, the CFI was 0.41, the IFI was 0.41 and the TLI was 0.34. These fit indices were much lower than 0.9, and the RMSEA was above 0.08, which is considered a poor model fit (Hu & Bentler, 1999). Figure 3.2 provides details for the factor loadings and the fit indices for Model 1.

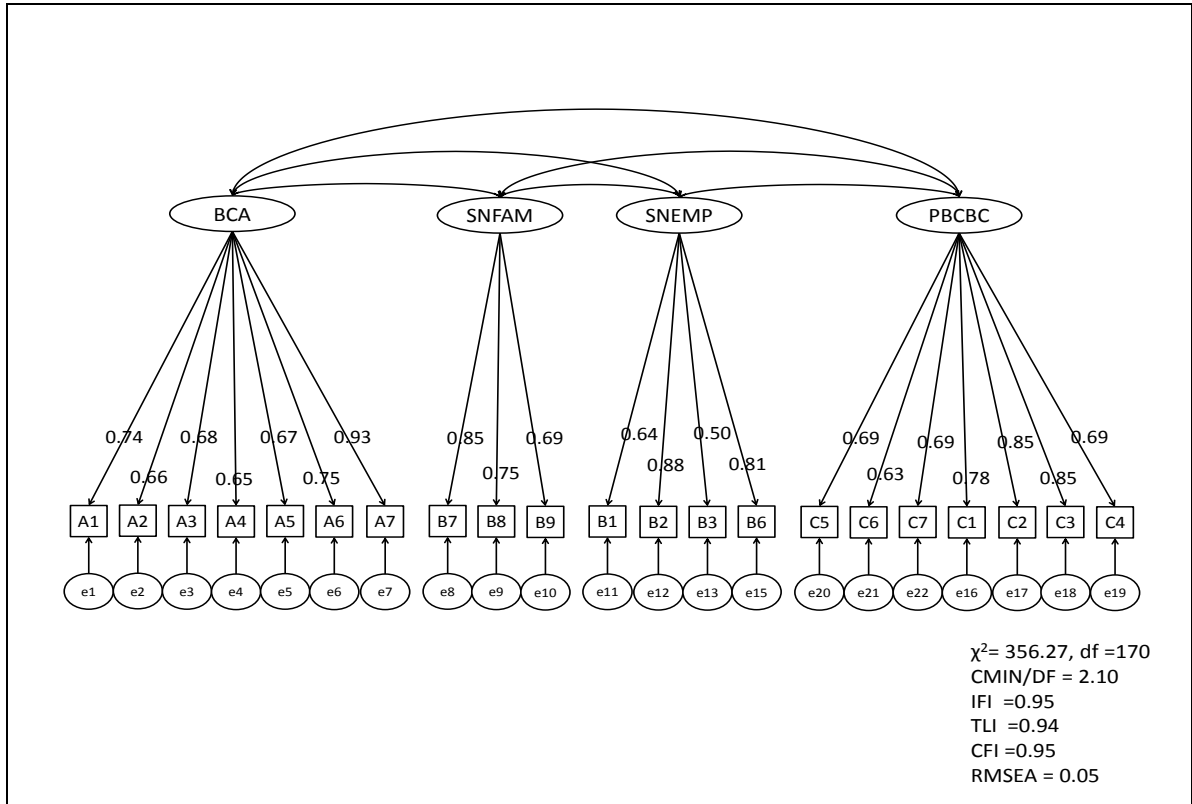
Figure 3.2 Model 1 (One-Factor Model)



Note: BCA= Personal Boundaryless Career Attitudes. Circle represents latent variables and rectangles represents measure variables, e=Error; χ^2 = Chi-Square; (CMIN/DF) = Chi-Square over Degree of Freedom; IFI= Incremental Fit Index; TLI= Tucker Lewis Index; CFI= Comparative Fit Index; RMSEA= Root-Mean-Square-Error of Approximation

In Model 2, the items were loaded onto the four factors associated with the BC attitude and pursuit intention scale. The χ^2 statistic was 356.27 ($DF = 170$, $n = 378$, $p = 0.000$) and the RMSEA was 0.05, indicating an acceptable fit. The CFI, IFI and TLI values were 0.95, 0.95 and 0.94, respectively, all larger than 0.9, which is considered the minimum for a good model fit. The fit indices of both Model 1 (one-factor model) and Model 2 (four-factor model) are shown in Table 3.6.

Figure 3.3 Model 2 (Four-Factor Model)



Note: BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs. Circle represents latent variables and rectangles represents measure variables, e=error; χ^2 = Chi-Square; (CMIN/DF) = Chi-Square over Degree of Freedom; IFI= Incremental Fit Index; TLI= Tucker Lewis Index; CFI= Comparative Fit Index; RMSEA= Root-Mean-Square-Error of Approximation

Model 2 – $\chi^2(170, n = 378) = 356.27$ – represented a significant improvement in fit compared to Model 1 – $\chi^2(189, n = 378) = 2568.17$. In addition, the t-value for each loading estimate was significant ($p < 0.05$) and the chi-square over degree of freedom (CMIN/DF) was 13.59 for Model 1 compared to 2.10 for Model 2 (lower values are more desirable). The number of degrees of freedom was 189 vs. 170, respectively, for Models 1 and 2. Thus, all of the statistics and fit indices indicated that the four-factor model (Model 2) had an adequate fit, and because clearly outperformed the one-factor model (Model 1) in all of the goodness-of-fit indicators, it was adopted and subjected to further reliability, discriminant validity and convergent validity analyses.

**Table 3.6 Fit Indices of Model 1 (One-Factor Model)
and Model 2 (Four-Factor Model)**

Model	CMIN/DF	RMSEA	IFI	TLI	CFI
Model 2	2.10	0.05	0.95	0.94	0.95
Model 1	13.59	0.18	0.41	.034	0.41

Note: (CMIN/DF) = Chi-Square over Degree of Freedom; RMSEA=Root-Mean-Square-Error of Approximation; IFI= Incremental Fit Index; TLI= Tucker Lewis Index; CFI=Comparative Fit Index

3.2.2.2.2 Reliability assessment

To assess the reliability of the proposed BC attitude and pursuit intention scale, the new data collected for the 21 items from the two samples (i.e., local Australian students and international students studying in either Hong Kong or Australia) were assessed using Cronbach's coefficient alpha (Churchill, 1979; Nunnally, 1978). Table 3.7 reports the reliability and associated statistics of the subscales across all of the samples. All of the coefficient alphas in the international student and local Australian student samples were above 0.7.¹⁰ In general, this indicates an acceptable level of internal consistency. The details of the alphas for the different samples are shown in Table 3.7.

Table 3.7 Cronbach's Alpha of the Subscales across all Different Samples

Subscales	Items	Aggregate (n=677)	Local Hong Kong student sample (n=299)	International student sample (n=229)	Local Australia student sample (n=149)
BCA	7	0.85	0.81	0.87	0.89
SNEMP	4	0.68	0.60	0.83	0.78
SNFAM	3	0.73	0.70	0.79	0.83
PBCBC	7	0.89	0.88	0.91	0.90
The 21-item full scale	21	0.82	0.80	0.85	0.80

Note: BCA= Personal Boundaryless Career Attitudes; SNEMP= Subjective Norms of Employers; SNFAM= Subjective Norms of Family Members; PBCBC= Perceived Behavioural Control over Pursuing BCs.

¹⁰ The internal consistency for the subscale of perceived subjective norms of local employers' attitudes towards BCs was 0.6 in the local Hong Kong student sample and 0.68 in the aggregate sample. The results were a little lower than desirable, thus any analyses involving this subscale should be interpreted with caution.

3.2.2.3.3 Assessment of discriminant validity

The discriminant validity of the proposed scale was examined using two methods. First, another EFA was conducted by SPSS 18.0 and revealed four factors with Eigenvalues greater than 1. Together, these four factors explained 64.0% of the variance. After the varimax rotation, a clean factor structure emerged. Specifically, the respective items loaded on the factor they were intended for. Table 3.8 lists the factor loadings of the items.

Table 3.8 Rotated Component Matrix of the Combined International University Student and Local Australian Student Samples

Items	Component			
	F1 -PBCBC	F2- BCA	F3-SNEMP	F4-SNFAM
C2	.861			
C3	.844			
C1	.819			
C5	.780			
C7	.750			
C6	.731			
C4	.726			
A7		.872		
A1		.784		
A6		.740		
A3		.734		
A2		.726		
A4		.717		
A5		.693		
B1			.850	
B6			.810	
B2			.790	
B3			.708	
B7				.873
B9				.820
B8				.820

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation.

a. Rotation converged in 5 iterations.

Next, the average variance extracted (AVE) analysis and correlation estimates were examined (Bertea & Zait, 2011). According to Fornell and Larcker (1981) and Hair, Black, Babin and Anderson (2010), discriminant validity issues arise when the

items of a particular factor correlate more highly with items outside their parent factor than with the items/variables within their parent factor. Discriminant validity issues occur if the latent factor is better explained by some items/variables from a different factor than by its own observed items/variables. As a consequence, discriminant validity is evident when the maximum shared squared variance (MSV), which refers to the square of the highest covariance for that particular factor, is smaller than its AVE or when the average shared squared variance (ASV) is smaller than the AVE in each factor.

The AVE that estimated individuals' personal attitudes towards BCs latent construct (i.e., BCA) was 0.53; it was 0.52 for individuals' perceptions of subjective norms of employers' attitudes towards BCs latent construct (i.e., SNEMP), 0.59 for individuals' perceptions of subjective norms of family members' attitudes towards BCs latent construct (i.e., SNFAM) and 0.55 for the perceived control over pursuing BCs latent construct (i.e., PBCBC) (see Table 3.9 for the details of all estimates). As shown in Table 3.9, the proportion of variance extracted for each latent construct was larger than the correlation coefficients squared, which is indicative of discriminant validity.

Table 3.9 Estimates of Composite Reliability (CR), Average Variance Extracted (AVE); Maximum Shared Squared Variance (MSV), Average Shared Squared Variance (ASV)

	CR	AVE	MSV	ASV	PBCBC	BCA	SNFAM	SNEMP
PBCBC	0.90	0.55	0.10	0.04	0.74			
BCA	0.89	0.53	0.10	0.05	0.32	0.73		
SNFAM	0.81	0.59	0.05	0.02	-0.07	0.05	0.77	
SNEMP	0.80	0.52	0.05	0.03	0.07	0.18	0.21	0.72

Note: BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs. (Remarks: The bold figures at the diagonal are the square root of AVE with the correlation matrix of factors at below).

3.2.2.2.4 Assessment of convergent validity

A number of approaches were adopted to assess convergent validity. Composite reliability (CR) scores for all of the subscales were calculated and the results were as

follows: the CR for the subscale of perceived behavioural control over pursuing BCs (i.e., PBCBC) was 0.90; for individuals' personal attitudes towards BCs (i.e., BCA) subscale, it was 0.89; for individuals' perceptions of subjective norms of family members' attitudes towards BCs (i.e., SNFAM) subscale, it was 0.81; and for individuals' perceptions of subjective norms of employers' attitudes towards BCs (i.e., SNEMP) subscale, it was 0.80; All of these values were greater than 0.7, indicating a good convergence among items with their own constructs. Second, to determine the convergent validity, examination of whether the CR was greater than the AVE and whether the AVE was greater than 0.5 (Hair et al, 2010) are needed. As indicated in Table 3.9, all of the reliability indices of the four subscales were greater than the AVE of each factor. The AVE of each factor was also greater than 0.5. Taken together, convergent validity was demonstrated.

3.2.2.2.5 Measurement invariance

To test the equivalence of the number of factors across samples and to ensure that the measurement was applicable to individuals from different groups (different nationalities in this test), the data were split into two groups: one composed of locally born Australian university students and the other made up of non-Australian international students. The goodness of fit was assessed through a baseline model (unconstrained model, i.e., Model 3), and included a simultaneous analysis of a multi-group data.

According to Benson and Bandalos (1992), in the procedure for the invariance analysis, the loadings should first be constrained to be equal across samples (Model 4). A differential chi-square (χ^2) test was used to determine whether the constrained model differed significantly from the baseline (unconstrained) model. A non-significant difference indicated that the constrained model fits the data as well as the unconstrained (baseline) model (Cheung & Rensvold, 1999). The non-significant difference implied that the loadings were invariant across groups. The chi-square

value between the above two models was 16.77, which is not significant ($p = 0.725 > 0.05$). Thus, it was concluded that the two models were invariant across both samples. Details for the fit indices of Models 3 and 4 can be found in Table 3.10.

Table 3.10 Fit Indices of Model 3 (Unconstrained Four-Factor Multi-Group Model) and Model 4 (Constrained Four-Factor Multi-Group Model)

Model	CMIN/CF	RMSEA	IFI	TLI	CFI
Model 3	1.75	0.45	0.94	0.92	0.93
Model 4	1.72	0.44	0.93	0.92	0.93

Note: (CMIN/DF) = Chi-Square over Degree of Freedom; RMSEA= Root-Mean-Square-Error of Approximation; IFI= Incremental Fit Index; TLI= Tucker Lewis Index; CFI= Comparative Fit Index

3.2.2.2.6 Summary of psychometric properties of the proposed scale

In summary, a four-factorial scale that can assess individuals' BC attitudes and pursuit intentions was developed in Study 1. Based on the theory of planned behaviour (Ajzen, 1991), a conceptual framework for measuring individuals' attitudes towards and intentions to pursue BCs (see Figure 2.2 of Chapter 2 for the details of the conceptual framework) was constructed prior to developing the items in the proposed scale. A 21-item scale that adhered to Churchill (1979) and DeVellis's (2003, 2009) guidelines for and principles of scale development was compiled and a series of tests and analyses (i.e., an EFA and a CFA) were then conducted to assess the scale's psychometric properties. The scale's measurement invariance was also examined using the validation strategies of Benson and Bandalos (1992). The results of these statistical analyses exhibited an adequate level of reliability. Convergent and discriminant validity were achieved and the measurement invariance of the scale was also demonstrated.

Because the objective of Study 1 was to develop a scale to measure individuals' BC attitudes and pursuit intentions to understand the prevalence of the BC perspective in the Asia-Pacific region, the following section briefly discusses the general attitudes and intention towards pursuing BCs among university students based on the scores calculated through this scale. Furthermore, the effects of the BC perspective on

university students' vocational intentions, specifically their intended tenure for future employment, are also discussed.

3.3 Prevalence of the BC Perspective among University Students

The data collected from the three student samples in the scale purification and validation process ($n = 677$) were then used to measure the prevalence of the BC perspective in the Asia-Pacific region. The mean scores of the four subscales within the proposed 21-item BC attitudes and pursuit intention scale for all of the respondents are listed in Table 3.11 and the results are presented in the following subsections.

Table 3.11 The Mean Scores and Standard Deviations of the Four Subscales of the Three Different Samples

Subscales	Max scores for the subscale	Local Hong Kong student sample ($n=299$)	International student sample ($n=229$)	Local Australian student sample ($n=149$)
BCA (7 items)	49	35.16[6.62]	36.38[6.74]	36.81[7.03]
SNEMP (4 items)	28	18.01[3.61]	18.18[4.45]	18.20[4.25]
SNFAM* (3 items)	21	12.25[4.18]	11.15[3.89]	11.91[4.34]
PBCBC (7 items)	49	28.27[8.15]	28.92[7.62]	28.10[7.96]

Note: [] = Standard deviation; * =negatively-keyed; BCA= Personal BC Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs

3.3.1 Personal attitudes towards boundaryless careers

The respondents' personal attitudes towards BCs were assessed using the mean scores of the BCA subscale. The local Hong Kong student sample ($n = 299$) had a mean score of 35.16, the local Australian student sample ($n = 149$) had a mean score of 36.81 and the international student sample ($n = 229$) had a mean score of 36.38. The mean scores in all three samples were beyond 35, well above the cut-off point of 28 representing that the respondents were neutral towards pursuing BCs. The calculation of cut-off points is based on the number of items in that particular subscale. With a 7-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (7) with the

mid-point (4) representing neither agreement nor disagreement, the cut-off point for the BCA subscale was $4 \times 7 = 28$ because it has seven items. Therefore, the respondents in all of the samples generally held favourable personal attitudes towards BCs because their mean scores were well above the cut-off point.

Although the means of the three samples were close, ranging from 35.16 to 36.38 (max score for the subscale is 49), the ANOVA results – $F(2, 674) = 3.736, p = 0.024$ – suggest significant differences between the three samples. The Scheffe post-hoc results indicate a significant difference between the local Hong Kong and the local Australian student samples at $p < 0.05$, with the Australian students having higher scores.

Given that these two samples (i.e., local Hong Kong students and local Australian students) have similar demographics (such as age, education qualifications and gender proportion) and contextual similarities (both Hong Kong and Sydney are cosmopolitan, have market economies and have relatively low unemployment rates), the findings may suggest that cultural factors influence individuals' personal attitudes towards BCs.

3.3.2 Perceived subjective norms of local employers and family members' attitudes towards boundaryless careers

The SNEMP and SNFAM subscales were used to assess the respondents' perceptions of how their family members and local employers might value and think about BCs, respectively. The local Hong Kong student sample had a mean score of 18.01 in the SNEMP subscale while the local Australian student sample had a mean score of 18.20 and the international student sample had a mean score of 18.18. As the mean scores in all three samples were beyond 18, above the cut-off point of 16, the respondents in all of the samples generally perceived their local employers as holding favourable attitudes towards BCs. The cut-off point for the SNEMP subscale is $4 \times 4 = 16$ because it only has four items. The ANOVA results – $F(2, 674) = 0.040, p = 0.961$ – suggest that there were no significant differences between these three samples.

In the SNFAM subscale, the cut-off point is 12 (4X3) because it only has three items. The local Hong Kong student sample had a mean of 12.25, the local Australian student sample had a mean of 11.91 and the international student sample had a mean of 11.15. As the items in this subscale were negatively keyed, a higher score means a less favourable attitude towards BCs. The ANOVA results – $F(2, 674) = 4.684, p = 0.010$ – indicate that there were significant differences among the three samples. The Scheffe post-hoc results suggest that a significant difference existed between the local Hong Kong student sample and the international student sample as $p < 0.05$, with Hong Kong students having higher mean scores.

3.3.3 Perceived behavioural control over pursuing boundaryless careers

On the PBCBC subscale, the mean for the local Hong Kong student sample was 28.27, for the local Australian student sample it was 28.10 and for the international student sample it was 28.92. As this subscale is used to measure the self-efficacy of career decision making, the mid-point (i.e., 24.5) was chosen as the benchmark to determine the sufficient level of self-efficacy. Because the mean scores in all three samples were beyond 28, well above the mid-point of 24.5, all of the respondents generally displayed a relatively high level of self-efficacy in career decision making and hence perceived themselves to have some control over pursuing BCs. The ANOVA results were $F(2, 674) = 0.063, p = 0.548$, suggesting that there were no significant differences between the three samples.

In summary, the local Australian student sample exhibited more favourable attitudes towards and a higher level of intention to pursue BCs among the three groups while the international student sample perceived fewer objections from their family members and more social support when pursuing BCs. In terms of the dimension of perceived behavioural control over BCs and the perceived subjective norms of local employers' attitudes towards BCs, no statistically significant differences were found among the three samples.

3.3.4 The effect of boundaryless career attitudes on intended tenure for future employment

A possible consequence of the prevalence of the BC perspective among university students could relate to the intended tenure for their future employment. As mentioned previously, to determine if there were any relationships between university students' attitudes towards pursuing BCs and their vocational intentions, specifically their intended tenure in working for their future employers, two additional items were added to the survey to determine the number of years students planned to work for their first employer and the number of organisations for which students planned to work over the following 10 years.

The composite scores of all four subscales for all 677 respondents in the scale validation surveys were calculated after confirming the measurement invariant. The composite scores of the four subscales were then correlated with the two vocational tenure intention questions. As Table 3.12 indicates, the subscale of the individual's personal attitude towards BCs (i.e., BCA) and the subscale of perceived subjective norms of local employers' attitudes towards BCs (i.e., SNEMP) in the proposed 21-item BC attitude and pursuit intention scale were positively correlated with the questions regarding intended tenure for future employment.

The subscale measuring the individual's personal attitude towards BCs (i.e., BCA) and the intended tenure with the first employer were moderately negatively correlated at $r(675) = -0.47, p < 0.01$, suggesting that favourable personal attitudes towards BCs will lead to a shorter tenure with a respondents' first employer. In addition, the same subscale was significantly positively correlated, $r(675) = 0.48, p < 0.01$, with the number of organisations participants planned to work for over the subsequent 10 years, suggesting that the more favourable personal attitudes towards BCs, the more organisations an individual will plan to work for in the next 10 years.

Table 3.12 Correlations among the Four Subscales (Factors) and the Two Vocational Intention Questions

		ORG_10	1stEMP
ORG_10	Pearson Correlation	1	-.467**
	Sig. (2-tailed)		.000
	N	677	677
1stEMP	Pearson Correlation	-.467**	1
	Sig. (2-tailed)	.000	
	N	677	677
BCA	Pearson Correlation	.482**	-.483**
	Sig. (2-tailed)	.000	.000
	N	677	677
SNEMP	Pearson Correlation	.154**	-.190**
	Sig. (2-tailed)	.000	.000
	N	677	677
SNFAM	Pearson Correlation	-.022	-.037
	Sig. (2-tailed)	.560	.340
	N	677	677
PBCBC	Pearson Correlation	-.028	.031
	Sig. (2-tailed)	.460	.414
	N	677	677

Note: ORG_10= The number of organisations students were planning to work for over the next 10 years; 1stEMP= The number of years students planned on working for their first employer after graduation; BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs; **= Correlation is significant at the 0.01 level (2-tailed).

Although the correlations between the subscale of individuals' personal attitudes towards BCs (i.e., BCA) and the questions regarding intended tenure for future employment (i.e., respondents' intended vocational tenure with their first employer and the number of organisations they planned for to work for in next 10 years) were moderate ($r = -0.47, 0.48$ respectively), the findings suggested that individuals' personal attitudes towards BCs might still be relevant in understanding the university students' vocational intention, specifically regarding the intended tenure questions. In brief, the empirical findings in this study suggest that the more favourable attitude a university student holds toward the BC, the shorter the intended tenure with his or her first employer and the more organisations the student plans to work for over the next 10 years.

As mentioned previously, to investigate the possible effects of individuals'

attitudes towards pursuing BCs on employee turnover issues, a substantive study targeting employees in managerial roles in Hong Kong was conducted in Study 2. The study had two specific aims. The first was to investigate the possible relationship between the individuals' personal attitudes towards BC and their voluntary turnover intentions and behaviour using a structural equation modelling technique. The second was to identify the retention factors that could reduce boundaryless careerists' voluntary turnover behaviour. The details of the methodologies used, the hypothesized structural equation model and the findings associated with Study 2 are presented in the next chapter.

Chapter 4: Investigating the Relationship between the Boundaryless Careers Perspective and Employee Turnover (Study 2)

This chapter presents the methodologies used and the findings associated with Study 2, which had two specific aims: to investigate the possible relationship between individuals' attitudes towards pursuing BCs and their voluntary turnover behaviour; and to identify the retention factors that could motivate employees, especially for those with a BC orientation, to stay with an employer.

To achieve the first objective in Study 2, the BC attitude and pursuit intention scale developed in Study 1 was used to examine the possible relationship between individuals' personal attitudes towards pursuing BCs and their voluntary turnover behaviour. Unlike Study 1, the data in Study 2 were collected through a survey targeting supervisors and managers rather than university students. This sampling strategy allowed for the validation of the newly developed scale across different populations and the data collection of respondents' voluntary turnover intentions and actual voluntary turnover behaviour. As a result, in addition to the 21 items developed in the previously discussed scale, separate questions related to voluntary turnover intentions and behaviour were added to the questionnaire survey. A structural equation modelling (SEM) technique was used to examine this relationship. The details of the hypothesised structural equation model and its associated findings are discussed in the subsequent sections of this chapter.

To achieve the second objective in this study, 12 retention factors that could affect employees' decisions to stay with an organisation, especially among those with a BC orientation, were also investigated in the aforementioned survey. The details of the findings are discussed in the final section of this chapter.

The chapter is organised into four sections. The first discusses the methodologies used including the survey design, the sampling strategy and the instrument. The hypotheses related to the structural equation model to be tested are also discussed in this section. The second section presents the hypothesised structural equation model and its associated findings. The third reports the findings on the three possible confounding variables of tenure, organisational strategies and age in the proposed model. The last section discusses the findings on the retention factors that motivate employees, especially those with a BC orientation, to stay with an employer.

4.1 Methodologies Used in Study 2

This section presents the methodologies used in Study 2, beginning with a brief discussion of the survey design, sampling strategy and instrument. The testing arrangement and hypotheses related to the effect of individuals' personal attitudes towards BCs on voluntary turnover intention are also highlighted in the last part of the section.

4.1.1 Survey design and sampling strategy

A questionnaire survey was used to collect data in this study. A questionnaire entitled "Study of Career Development" and a cover letter explaining the purpose of the survey were sent to the targeted subject. Given that the survey collected information related to employees' voluntary turnover intentions, the respondents were assured that all of the information provided would be kept strictly confidential because such assurances of confidentiality and anonymity tend to elicit unbiased responses (Heneman, 1974). A sample of the cover letter can be found in Appendix F.

The sampling strategy involved targeting the alumni of a local university in Hong Kong. As the pursuit of BCs tends to be more feasible for those who have professional skills, and therefore may not be applicable for every employee (Baker &

Aldrich, 1996), employees with higher educational qualifications were targeted. An alumni database from a local university in Hong Kong was used as a sample frame to ensure that all of the respondents had at least a Bachelor's degree. As the study needed a minimum sample size of 300 to obtain adequate statistical power for the factor analysis (Hair et al., 2010; Lau, Shaffer, & Au, 2007), the respondents were randomly selected from this large database. Furthermore, as previous studies on response rates in Hong Kong have ranged from 7% to 15% (Harzing, 1997), a large sample frame was created, with the questionnaire sent to 2,000 alumni. To encourage a high response rate, the survey offered (upon request) all of the respondents an executive summary of the study upon its completion. Also, a pre-paid return envelope was enclosed. Four weeks later, the same questionnaire and a cover letter were sent to remind the recipients to complete and return the questionnaire. However, only 180 completed and returned usable questionnaires, yielding an overall response rate of 9%.

Given that the survey collected information related to employees' intentions to leave their current organisations, it is understandable that the response rate was low, especially in a place like Hong Kong where collectivism is one of the dominant cultural dimensions. People in collective societies value loyalty and long-term relationships (Hofstede, 1984). Therefore, to increase the size of the sample for the analysis, friends or colleagues were asked if they knew anyone who had at least a Bachelor's degree and would be willing to participate in the survey. All of the potential respondents were informed that the study was about career development and career orientation and that confidentiality would be honoured. Those who consented were offered a choice of completing either an online or hardcopy version of the questionnaire. Four weeks after they had agreed to participate, the same questionnaires, together with a cover letter were sent or emailed to the recipients to remind them to complete and return the questionnaire. In total, 331 usable responses were collected.

While a questionnaire survey has a number of advantages, such as the potential to capture a large sample, relatively low cost and minimal resource requirements (Brewerton & Millward, 2001; Zikmund, 2003), the method also has a number of

drawbacks, such as researchers', acquiescence and extremity biases (Zikmund, 2003). To minimise these biases inherent in questionnaire surveys, a number of measures were implemented to reduce these weaknesses (see Appendix G for the details of the measures used to minimise these limitations and biases).

4.1.2 The instrument

As Study 2 aimed to investigate the possible relationships between individuals' attitudes towards pursuing BCs and their voluntary turnover intentions; and the retention factors that could reduce voluntary turnover behaviour, especially for employees who have a BC orientation, a different questionnaire was used compared to Study 1. In addition to the proposed 21-item BC attitude and pursuit intention scale developed and validated in Study 1, three different sets of items related to voluntary turnover intentions and behaviour; retention factors that could affect individuals' decisions to stay with an employer; and the adoption of nine specific organisational strategies such as mergers, acquisitions, outsourcing and layoffs by respondents' organisations were also addressed in the questionnaire. The following subsections discuss these items.

4.1.2.1 Voluntary turnover intention items

To assess voluntary turnover intentions, an established four-item subscale based on the work of Cammann, Fichman, Jenkins Jr., and Klesh (1981) and Mitchell et al. (2001) was used. In this subscale, turnover intentions were operationalised as the likelihood that an individual would seek employment elsewhere vs. would remain in his/her present job. The subscale included items that measure the probability of an employee seeking a job in another organisation in the near future and items that relate to an employee's intention to stay with his/her current organisation for a number of years. The voluntary turnover intention items can be found in Table 4.1. A 7-point Likert scale, anchored from 'strongly disagree' to 'strongly agree', was used as the response format to measure these items. Besich (2003) reported that the composite reliability coefficients were greater than 0.7 for these four items, which is deemed

reliable (Nunnally, 1978). As respondents' future voluntary turnover behaviour was not available at the time the data were collected, additional data were collected on their voluntary turnover behaviour history by asking how many voluntary resignations they had initiated in the past 10 years.

Table 4.1 Voluntary Turnover Intention Items

VT1. I will probably look for a job at another organisation in the next year.
VT2. It is likely that I will take steps during the next year to secure a job at a different organisation.
VT3. I will be working for this organisation five years from now.
VT4. It is likely that I will be working for my current organisation this time next year.

4.1.2.2 Items related to employee retention factors

Given that higher voluntary turnover and shorter job tenure could be triggered by the spread of the BC perspective, this survey also measured the significance of 12 employee retention factors, i.e., factors affecting an individual's decision to stay with his/her current employer. As discussed in Section 2.5.4 of Chapter 2, the 12 factors examined were financial compensation, a good physical working environment, learning opportunities, advancement prospects, quality leadership, quality of colleagues, good social networking and support, family influence, alignment of personal and company goals, acceptance of organisational values and mission, perceived moral obligations to supervisor(s) and perceived moral obligations to a company. In brief, the employee retention items used in Study 2 to understand an individual's decision to stay with an organisation included traditional work-related 'hygiene factors' that may eliminate job dissatisfaction (Herzberg et al., 1959); people (non-work) factors, such as good social networks and support and quality of colleagues; personal career goal factors such as alignment of personal and organisational goals and acceptance of company values and mission; and some perceived moral obligation factors such as employees' perceived obligations to a supervisor or to a company. The rationales for selecting these factors are also discussed in Section 2.5.4 of Chapter 2.

Again, respondents also used a 7-point Likert scale to indicate the extent to which the aforementioned 12 retention factors might affect their decisions to stay with an organisation. Understanding the factors affecting employees, specifically for those with a BC orientation, in deciding whether to stay with an employer is crucial for corporate leaders and HR managers to develop appropriate retention strategies, especially with the BC perspective seems to be on the rise.

4.1.2.3 Items related to organisational strategies

Various studies (e.g., Stovel & Savage, 2006; Grundy, 2005) have indicated that organisational strategies, such as mergers and acquisitions, and voluntary turnover behaviour are related. Furthermore, these organisational strategies can act as ‘shocks’ (Lee & Mitchell, 1994), i.e., a jarring event that precipitates thoughts of quitting and triggers voluntary turnover behaviour. As discussed in Section 2.2.2.3 of Chapter 2, these organisational strategies not only directly affect individuals’ voluntary turnover intentions, but also contribute to the rise of the BC perspective and individuals’ subsequent attitudes towards pursuing BCs. Thus, the use of these organisational strategies by the respondents’ current employers could be an exogenous variable in the hypothesised model to be tested in this study. Exogenous variables are factors that are external to and unexplained by the model. To avoid a possible confounding effect, these variables were thus controlled for in this study.

Accordingly, the respondents were asked about the extent of the use of any of the following nine organisational strategies in the past three years by their employers: outsourcing, downsizing, layoffs, restructuring, mergers, adoption of contract-based employment, adoption of project-based employment, acquisition by other companies and acquisition of other companies. A 7-point Likert scale, anchored from ‘very limited’ to ‘substantial’, was used as the response format to measure these items.

In summary, the instrument used in Study 2 consisted of the 21-item BC attitude

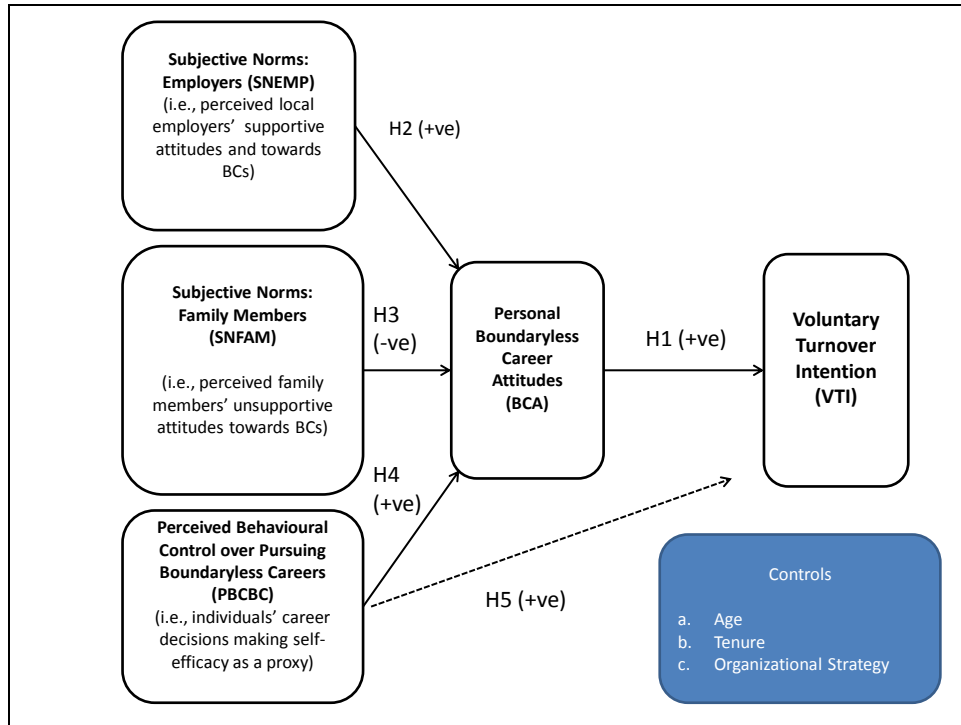
and pursuit intention scale developed and validated in Study 1, and three additional sets of items related to voluntary turnover intentions and behaviour; retention factors that could affect individuals' decisions to stay with an employer; and the adoption of nine specific organisational strategies by the employing organisation.

In addition to the new items, five hypotheses were also developed about the structural relations between individuals' attitudes towards pursuing BCs and their voluntary turnover intentions. The subsections below briefly discuss their development. Figure 4.1 illustrates the hypothesised relationships, the directions between different subscales and the variables to be controlled in the model.

4.1.3 Five hypotheses related to the effect of personal attitudes towards pursuing boundaryless careers on voluntary turnover Intentions

Despite on-going research, the critical factors in predicting voluntary turnover are still not clearly understood (Barrick & Zimmerman, 2005). Cotton and Tuttle (1986), in a meta-analytic review of 25 voluntary turnover studies, found that the strongest predictors of voluntary turnover were age, tenure, pay, overall job satisfaction and employees' perceptions of fairness. However, the results of subsequent studies (e.g., Healy, Lehman, & McDaniel, 1995; Rosin & Korabik, 1995) have not supported these findings. Furthermore, other researchers have considered new variables to explain and predict voluntary turnover. For example, factors related to perceived support, distributed justice and organisational commitments have also been considered important critical factors in predicting and explaining voluntary turnover behaviour (Allen & Griffeth, 2001; Powell & Meyer, 2004; Price, 2001).

Figure 4.1 A Summary of Hypotheses (H1-H5)



In addition to all of these new factors, various researchers (e.g., Arthur & Rousseau, 1996; Baruch, 2006; Lust, 1998; Seibert et al, 2001) have suggested that, unlike the linear and continuous pattern of traditional organisational careers, the career paths of boundaryless careerists tend to be non-linear and discontinuous. Individuals with a BC orientation do not restrict themselves to working for a single employer. This new career perspective implies that traditional values such as 'quitting is bad/persistence is a virtue' are now shifting to 'changing jobs regularly is good/staying a long time causes stagnation'. This perspective is similar to the 'moral forces' identified by Maertz and Griffeth (2004), which refer to an employee's internalised values on turnover behaviour in general, as another type of factor that could trigger voluntary turnover. As individuals like to maintain consistency between their behaviour and values (Chatman, 1989), employees with favourable attitudes towards BCs are more likely to switch organisations and jobs. Thus:

H1: Favourable personal attitudes towards BCs have a positive effect on

voluntary turnover intentions.

An individual's perception of his/her employer's support for BCs may also influence his/her personal attitudes towards BCs because in most cases, it is the employers who offer job opportunities and initiate an employment relationship through recruitment. As stated in the process model for turnover (March & Simon, 1958), when both 'ease of move' and 'desire to move' are high, an employee is more likely to quit his/her job. The 'ease of move' dimension refers largely to whether job opportunities are available. In other words, if employees think employers have favourable attitudes towards BCs and therefore do not have negative attitudes towards job candidates with diverse working experience or records of switching jobs, then employees are more likely to have favourable personal attitudes towards BCs due to the perceived support and approval of local employers. If changing jobs does not lead to unfavourable consequences for future employment, the likelihood of employees having positive attitudes towards pursuing BCs increases, which in turn can contribute to a higher voluntary turnover intention. Thus:

H2: Personal attitudes towards BCs positively and mediate the positive relationship between perceived supportive employers' attitudes towards BCs and voluntary turnover intentions.

In addition to the influence of employers, family members can also influence individuals' career-related behaviour. Both self-determination theory (Deci & Ryan, 2004, 2008) and the theory of planned behaviour (Ajzen, 1991, 2002) highlight the importance of the social support and influence of people perceived to be significant in motivating individuals to pursue a particular type of behaviour. Therefore, perceiving that family members have unfavourable attitudes towards BCs could negatively affect individuals' personal attitudes towards BCs. A previous study conducted by Arthur and Cook (2003) suggested that work-life or work-family programmes could lower voluntary turnover behaviour, especially among female professionals. Work-life programmes are becoming more common because these HR policies help employees to balance the demands of work and their personal lives, and address work-family

conflict (Lobel & Kossek, 1996). Taken together, family members are able to exercise influence on employees' career decisions. Therefore, if individual perceived family members hold unfavourable attitudes towards BCs but support the traditional organisational career as reflected in the items of the SNFAM subscale, such perception could negatively affect an individual's personal attitude towards BCs, which might lead to a lower voluntary turnover intention. Because the items in this subscale were negatively keyed, the higher the scores, the more unsupportive the attitudes of family members towards BCs are expected to be. Thus:

H3: Personal attitudes towards BCs negatively and mediate the negative relationship between perceived unsupportive family members' attitudes towards BCs and voluntary turnover intentions.

Given that individuals adopt BCs to achieve career autonomy and self-determination in their career development (Arthur & Rousseau, 1996; Banai & Harry, 2004; Baruch, 2004; DeFillippi & Arthur, 1996; Eby et al, 2003; Inkson, 2006, 2008), the level of self-efficacy in career decision-making could have a positive effect on individuals' attitudes towards BCs. The career decision-making self-efficacy items used as a proxy for the perceived behavioural control over pursuing BCs subscale in this survey encompassed Crites' (1978) five dimensions of career-choice competencies: accurate self-appraisal, goal selection, making plans for the future, gathering occupational information and problem solving. As a result, individuals with high self-efficacy in the above career-related issues are likely to feel confident in making career decisions and may display higher control over their career development. As individuals like to maintain consistency between their behaviour and values (Chatman, 1989), they are more likely to have favourable attitudes towards BCs. Thus:

H4: Personal attitudes towards BCs positively and mediate the positive relationship between perceived behavioural control over BC and voluntary turnover intentions.

According to the theory of planned behaviour (Ajzen, 1991, 2002), many behaviour types pose difficulties of execution that may limit volitional control. Thus, it

is important to consider the dimension of perceived behavioural control as an antecedent not only to behavioural intention but also the actual behaviour. Therefore, the dimension of perceived behavioural control over BCs, represented by the career decision-making self-efficacy items as a proxy in the study, can be directly related to behavioural intentions and outcomes, i.e., voluntary turnover intention and behaviour. The unique feature of this dimension may then have a direct effect on voluntary turnover intention and behaviour without the mediation of personal favourable attitudes towards BCs. Thus:

H5: Perceived behavioural control over BC has a positive direct effect on voluntary turnover intentions.

As indicated in Figure 4.1, in addition to the five hypotheses discussed, three possible confounding variables were also examined. The following subsection discusses briefly on the rationale as to why age, tenure and organisational strategies variables were controlled for in this study.

4.1.4 Controls in the hypothesised model

Previous research has suggested that personal and demographic variables, specifically age, ethnicity and education, are important factors in the prediction of voluntary employee turnover (Abelson, 1987; Arnold & Feldman, 1982; Hom & Griffeth, 1995; Peterson, 2004; Sacco & Schmitt, 2005). Demographic differences have also been found to influence both work outcomes and voluntary turnover (Tsui, Egan, & O'Reilly, 1992). Furthermore, several studies have reported negative relationships between turnover intention and demographic differences such as age and tenure (Arnold & Feldman, 1982; Cotton & Tuttle, 1986). As demographic variables such as age and tenure have been found to have stable relationships with turnover intention in previous studies, these two variables were controlled for in this study to avoid a confounding effect.

In addition to these two demographic variables, this study also controlled for the effect of the use of the nine organisational strategies¹¹ by asking respondents to report whether any of these strategies had been adopted by their organisations in the previous three years. According to the adaptive response model (Griffeth, Gaertner, & Sager, 2000), strategies that could trigger organisational change can be a shock event leading to employees' withdrawal behaviour, and the most severe of these are organisational exits and voluntary turnover. Recent research has supported the role of shock events as triggers that stimulate or promote the decision to quit (Morrell, Loan-Clarke, & Wilkinson, 2004). For this reason it was necessary to control for these events when testing a model related to individuals' voluntary turnover intentions.

In addition to investigate the possible relationship between the BC and voluntary turnover issues, the second objective of Study 2 was to identify the factors influencing employees, especially those with a BC orientation, to stay with an employer. The following subsection briefly discusses the hypothesis related to the employee retention factors strengthen employees' intention to stay.

4.1.5 Hypothesis related to the employee retention factors

As discussed in 2.2.1 of Chapter 2, traditional organisational careerists value job security and advancement prospects, and consider them the core motivations for staying with an employer (Levinson, 1978; Super, 1957; Whyte, 1956). In contrast, boundaryless careerists give higher priority to learning potential, networking opportunities and fulfilling personal career goals as they seek to achieve career autonomy and become self-determinant in their career development (Arthur & Rousseau, 1996; Hall, 2002; Inkson, 2006, 2008). As a result, boundaryless careerists may feel less obliged towards a single company because their core career capitals are usually developed through performing multiple work roles and gaining diverse

¹¹ The nine organisational strategies investigated: outsourcing, downsizing, layoffs, restructuring, mergers, adoption of contract-based employment, adoption of project-based employment, acquisition by other companies and acquisition of other companies.

working experiences. Factors affecting their decisions to stay with an employer are thus expected to be different from the factors that influence individuals who are not interested in pursuing BCs. Following this logic, it is hypothesised that the retention factors valued by boundaryless careerists differ from those without a BC orientation. Thus:

H6: Talent retention factors valued by employees with favourable attitudes towards BCs differ from those valued by employees with unfavourable attitudes towards BCs.

In testing the above hypothesis, HR managers and corporate leaders could possess better empirical information to understand the BC perspective, specifically its effects on organisations' HR issues such as voluntary turnover and talent retention.

4.2 The Hypothesised Structural Equation Model and its Associated Findings

In this section, the demographics of the sample used to test the hypothesised structural equation model are presented, followed by a description of the testing arrangements and a discussion of the measurement components of the hypothesised structural equation model. The psychometric properties of the measurement model are then reported in the third subsection. The last subsection discusses the structural component of the hypothesised structural equation model and its associated findings.

4.2.1 Demographics of the sample

To substantiate the influence of individuals' personal attitudes towards pursuing BCs on their voluntary turnover behaviour, a new dataset was collected in Study 2. To obtain information related to respondents' actual voluntary turnover behaviour and intentions, a non-student population, i.e., local employees in managerial roles in Hong Kong, were sampled. A total of 331 valid survey responses were collected. The demographics of the survey respondents are presented in Table 4.2.

Table 4.2 Respondents' Demographics

Characteristics	N	%
Age		
35 or below	195	59
>35-50	101	30
>50-65	35	11
Working experience with the current organisation		
2 years or less	167	50
>2-4 years	79	24
>4-6 years	40	12
>6-8 years	7	2
>8-10 years	6	2
10 years or more	32	10
Gender		
Male	160	48
Female	171	52
Size of the organisation		
100 employees or less	52	16
101-300 employees	65	20
301-500 employees	60	18
501-800 employees	54	16
More than 800 employees	100	30
Levels of job positions		
seniority		
Middle managers	225	68
Division heads	43	13
Senior managers	23	7
Technical specialists	40	12
Marital status		
Single	196	59
Married	134	41
Parental status		
No Children	215	65
Dependent Children	101	30
Independent Children	15	5

As the response rate for the survey in this study was not high, non-response bias is a potential limitation. According to Armstrong and Overton (1977), two methods can be used to test for such a bias. Researchers can either interview a sample of non-respondents or conduct a series of t-tests to compare the characteristics of the early and late respondents.

The first approach violates the assurance of anonymity made to the respondents when the survey was distributed. Furthermore, it was impossible to reach the non-respondents. Therefore, the latter approach was adopted in this study. The latter

approach, based on the ‘interest hypothesis’ (Armstrong & Overton, 1977), assumes that the non-respondents are similar to the late respondents. To test this, the early respondents in this survey were compared to the late respondents for each of the items in all of the subscales. As shown in Table 4.3, there were no significant differences in personal characteristics between the early and late respondents.

Table 4.3 A Comparison of Differences between the Personal Characteristics of Early Respondents and Late Respondents

Group Statistics					t - statistic	Sig. (2-tailed)
Early respondent =1 Late respondent =2	N	Mean	Std. Deviation			
Age	1.00	200	1.50	0.69	-0.55	0.58
	2.00	131	1.54	0.67		
Gender	1.00	200	1.51	0.50	-0.30	0.77
	2.00	131	1.53	0.50		
MStatus	1.00	200	1.38	0.50	-1.21	0.23
	2.00	131	1.44	0.50		
PStatus	1.00	200	0.44	0.59	1.54	0.13
	2.00	131	0.34	0.55		
Position	1.00	200	3.28	1.45	0.28	0.78
	2.00	131	3.23	1.48		
Intledu	1.00	200	0.26	0.44	-0.25	0.81
	2.00	131	0.27	0.44		
Firmsize	1.00	200	3.28	1.45	0.28	0.78
	2.00	131	3.23	1.48		

Note: MStatus= Marital Status; PStatus =Parental Status (with children or without children); Intledu=International Education Exposure

Moreover, the results of the t-tests (see Table 4.4) revealed that there were also no significant differences ($p < 0.05$) between early and late respondents on all of the items in the BC attitude and pursuit intention scale except for item B1, which had a p-value of 0.03 but was still not significantly different at $\alpha = 0.01$. Thus, non-response bias should not be a serious problem in this study.

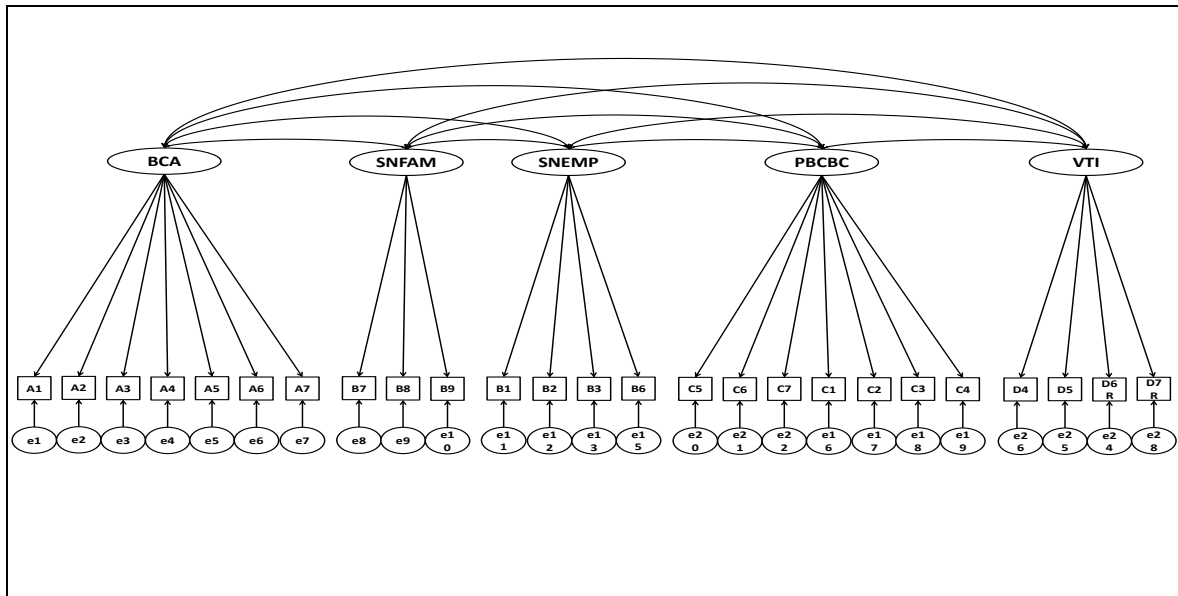
Table 4.4 A Comparison of Differences between Early and Late Respondents with regards to Boundaryless Career Attitudes and Pursuit Intention Measures

Early respondent =1 Late respondent =2		N	Mean	S.D.	T-statistic	Sig. (2-tailed)
A1	1.00	200.00	5.16	1.51	-0.47	0.64
	2.00	131.00	5.24	1.39		
A2	1.00	200.00	5.17	1.48	0.96	0.34
	2.00	131.00	5.02	1.34		
A3	1.00	200.00	5.26	1.42	0.97	0.33
	2.00	131.00	5.11	1.40		
A4	1.00	200.00	5.15	1.41	1.62	0.11
	2.00	131.00	4.88	1.55		
A5	1.00	200.00	5.35	1.29	1.51	0.13
	2.00	131.00	5.12	1.42		
A6	1.00	200.00	5.29	1.40	0.06	0.95
	2.00	131.00	5.27	1.41		
A7	1.00	200.00	5.22	1.44	0.76	0.45
	2.00	131.00	5.10	1.40		
B1	1.00	200.00	3.85	1.14	2.18	0.03
	2.00	131.00	3.56	1.27		
B2	1.00	200.00	3.17	1.25	0.89	0.37
	2.00	131.00	3.04	1.29		
B3	1.00	200.00	4.03	1.14	-0.11	0.91
	2.00	131.00	4.05	1.35		
B6	1.00	200.00	3.41	1.32	-0.92	0.36
	2.00	131.00	3.55	1.41		
B7	1.00	200.00	3.66	1.71	-0.97	0.34
	2.00	131.00	4.24	1.70		
B8	1.00	200.00	4.04	1.37	0.90	0.36
	2.00	131.00	4.38	1.55		
B9	1.00	200.00	3.79	1.48	-1.69	0.09
	2.00	131.00	4.25	1.60		
C1	1.00	200.00	6.29	2.47	1.57	0.12
	2.00	131.00	5.85	2.49		
C2	1.00	200.00	6.33	2.44	1.69	0.09
	2.00	131.00	5.85	2.51		
C3	1.00	200.00	6.28	2.37	1.37	0.17
	2.00	131.00	5.89	2.65		
C4	1.00	200.00	5.64	2.39	1.73	0.08
	2.00	131.00	5.08	2.36		
C5	1.00	200.00	6.81	2.22	1.83	0.07
	2.00	131.00	6.34	2.36		
C6	1.00	200.00	6.73	2.12	1.25	0.21
	2.00	131.00	6.42	2.35		
C7	1.00	200.00	6.25	2.43	1.73	0.08
	2.00	131.00	5.76	2.62		

4.2.2 Testing arrangements

The SEM technique was used to examine the relationship between the construct of BC attitudes and pursuit intentions and the construct of voluntary turnover intentions. The hypothesised measurement component of the structural equation model related to the attitudes towards and intentions to pursue BCs and voluntary turnover intentions is depicted in Figure 4.2, and the hypothesised structural component of the structural equation model is depicted in Figure 4.5. To evaluate the hypothesised structural equation model, the study adopted the two-stage procedure recommended by Anderson and Gerbing (1988). The first stage estimates the model's measurement component and the second stage tests its structural component.

Figure 4.2 The Hypothesised Measurement Model in Assessing the Relationship between Attitudes towards and Pursuit Intentions to Boundaryless Careers and Voluntary Turnover Intentions



Note: BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursue BCs; VTI= Voluntary Turnover Intention. Circle represents latent variables and rectangles represent measure variables; e=error.

Following Kline's (2005) guideline, only variables with skew index absolute values greater than 3 and kurtosis index absolute values greater than 10 are of concern, and none of the variables in this analysis had problematic levels of skewness or

kurtosis. Therefore, the data collected appeared to be sufficiently normally distributed.

To assess the fit of the model's measurement component, the study adopted the CFI, the TLI, the IFI and the RMSEA, in which CFI, TLI and IFI values < 0.90 and RMSEA values > 0.08 were considered deficient and CFI, TLI and IFI values > 0.90 and RMSEA values from 0.06 to 0.08 were considered comparatively good and acceptable (Hu & Bentler, 1999).

The study performed a CFA analysis based on data from 331 local Hong Kong employees in managerial roles using an AMOS 18.0 statistical package (Arbuckle, 1995) on all 25 items, 21 of which were the items developed in Study 1 to gauge the attitudes towards and intentions to pursue BCs, and four of which related to voluntary turnover intentions based on the work of Cammann et al. (1981) and Mitchell et al. (2001). Maximum likelihood parameter estimation was used because the data were distributed normally (Kline, 2005). The study hypothesised a five-factor model to be confirmed in the measurement portion of the model. Two models were run. The first allowed all 25 items to load onto their own factors, i.e., five factors (four from the BC attitudes and pursuit intentions scale and one related to voluntary turnover intentions). In the second model, all 25 items allowed to load onto one factor. If the hypothesised five-factor model was distinct from the one-factor model, then the hypothesised model should have produced a better fit. The hypothesised measurement model appeared to be a good fit to the data. The results of the fit indices of CFA are presented in the following subsections.

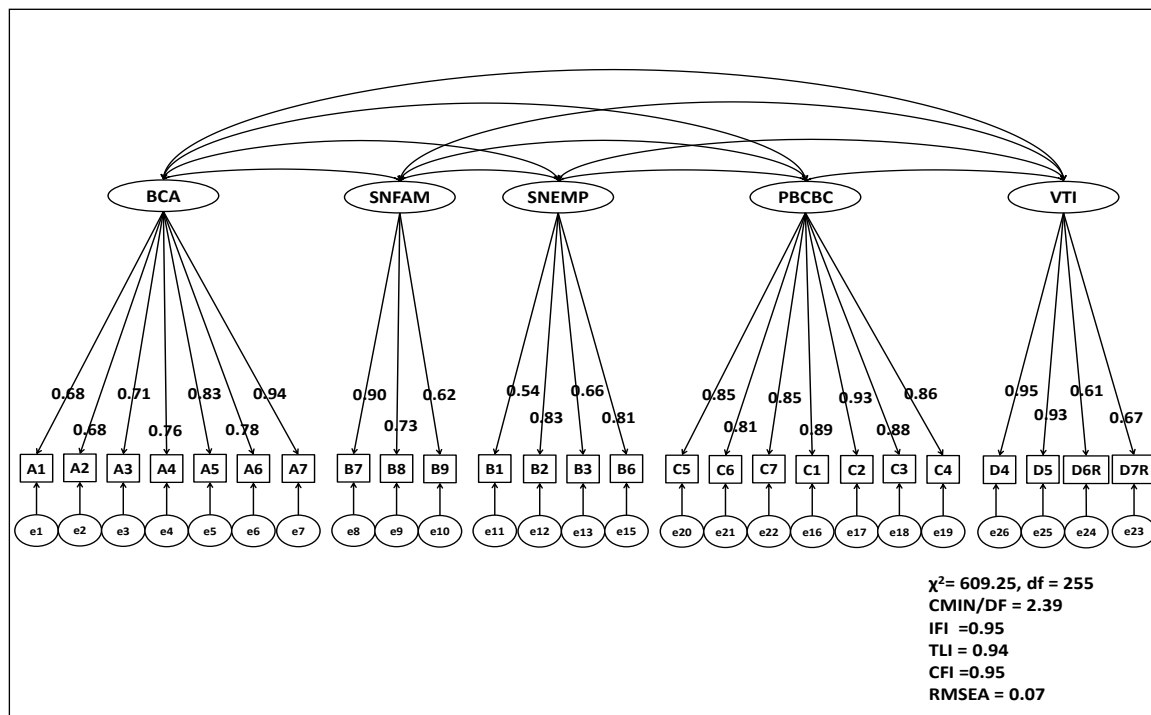
4.2.3 Results of the Measurement Model

The following subsections present the CFA model fit indices, construct validity, reliability estimates and measurement invariant results.

4.2.3.1 Summary of CFA model fit results

The five-factor CFA model (see Figure 4.3) yielded the following fit indices: $\chi^2(255, n = 331) = 609.25$; CMIN/DF=2.39; CFI = 0.95; TLI = 0.94; IFI = 0.95; and RMSEA = 0.07. The CFI, TLI and IFI values were above 0.90 and the RMSEA value was between 0.06 and 0.08. These results demonstrated that the fit was adequate (Lance, Butts, & Michels, 2006).

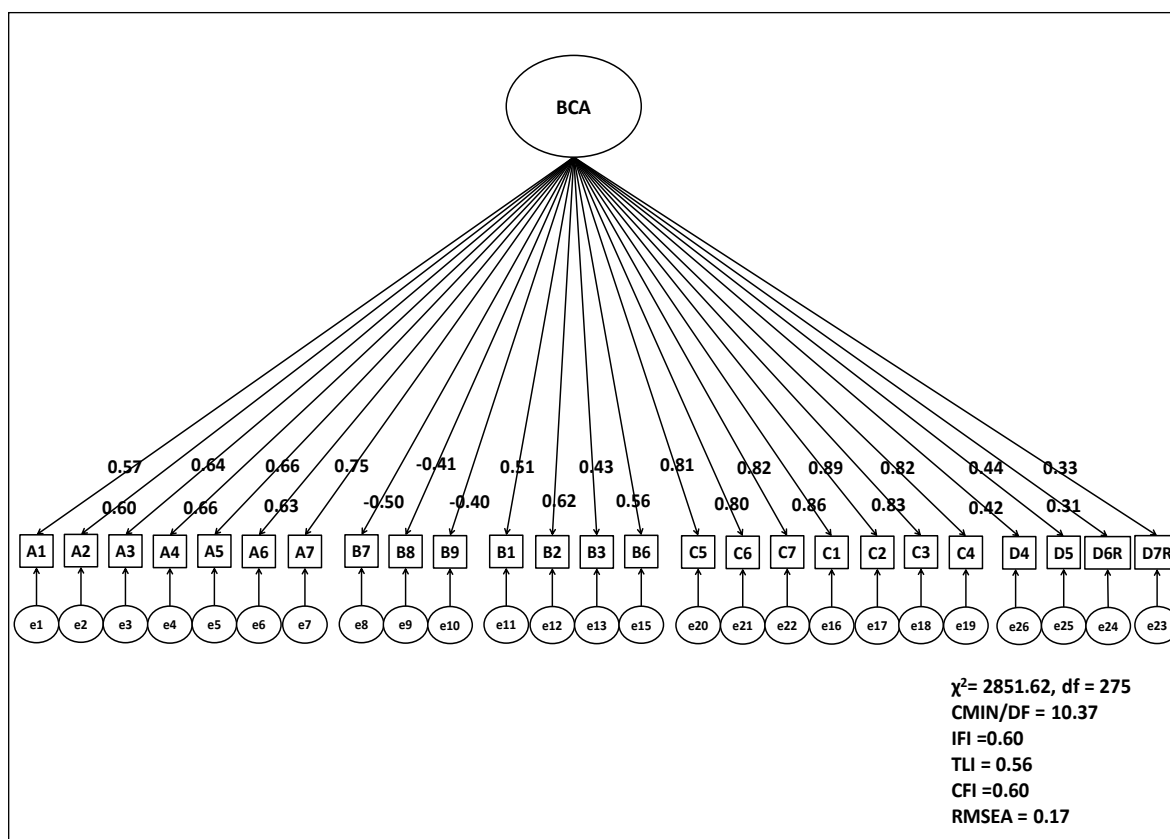
Figure 4.3 The Model Fit Indices and Factor Loadings of the Five-Factor Measurement Model in Assessing the Relationship between Attitudes towards & Intention to Pursue Boundaryless Careers and Voluntary Turnover Intentions



Note: BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs; VTI= Voluntary Turnover Intentions; CMIN/DF= chi-square over degree of freedom; IFI= Incremental Fit Index; TLI= Tucker Lewis Index; CFI= Comparative Fit Index; RMSEA= Root-Mean-Square-Error of Approximation. Circle represents latent variables and rectangles represent measure variables; e=error.

In comparison, a null latent CFA model (see Figure 4.4) with all of the items loading onto a single latent variable (Marsh, Hau, & Wen, 2004) produced poor fit indexes, with CFI, TLI and IFI values below 0.90 and an RMSEA value larger than 0.08 $\chi^2(275, n = 331) = 2851.62$; CMIN/DF=10.37; CFI = 0.60; TLI = 0.56; IFI = 0.60; RMSEA = 0.17. Therefore, the hypothesised five-factor CFA model demonstrated a significantly better fit than the single-factor model.

Figure 4.4 The Model Fit Indices and Factor Loadings of the One-Factor Measurement Model in Assessing the Relationship between Attitudes towards & Intention to Pursue Boundaryless Careers and Voluntary Turnover Intentions



Note: BCA= Personal Boundaryless Career Attitudes; CMIN/DF= chi-square over degree of freedom; IFI= Incremental Fit Index; TLI= Tucker Lewis Index; CFI= Comparative Fit Index; RMSEA= Root-Mean-Square-Error of Approximation. Circle represents latent variables and rectangles represent measure variables; e=error.

4.2.3.2 Results of discriminant validity, convergent validity and reliability estimates

Prior to the assessment of the hypothesised structural model, it was necessary to estimate the discriminant and convergent validity of the constructs. The same methods used in Study 1 were applied to estimate the construct validity. In other words, the discriminant validity was assessed by comparing the proportion of variance found in each construct, with the square of the correlation estimates representing each factor's correlation with other factors (Hair et al, 2010). As shown in Table 4.5,

discriminant validity was established because for each factor, the MSV, which is the square of the highest covariance for that particular factor, was smaller than the AVE. Similarly, the ASV was also smaller than the AVE for each factor.

Table 4.5 Estimates of Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Squared Variance (MSV) and Average Shared Squared Variance (ASV)

	CR	AVE	MSV	ASV	VTI	BCA	SNFAM	SNEMP	PBCBC
VTI	0.87	0.64	0.29	0.16	0.80				
BCA	0.91	0.60	0.43	0.37	0.54	0.77			
SNFAM	0.79	0.57	0.37	0.21	-0.32	-0.61	0.75		
SNEMP	0.79	0.50	0.38	0.25	0.37	0.62	-0.40	0.70	
PBCBC	0.95	0.75	0.43	0.27	0.34	0.66	-0.46	0.57	0.87

Note: VTI= Voluntary Turnover Intention; BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs. (Remarks: The bold item at the diagonal is the square root of the AVE with the correlation matrix of the factors listed below).

The same assessment methods used in Study 1 were also adopted to assess the convergence validity in this study. In other words, the CR for all of the subscales was calculated first and the results were as follows: the PBCBC subscale, using career decision-making self-efficacy as a proxy, was 0.95; the BCA subscale was 0.91; the VTI subscale was 0.87; the SNEMP subscale was 0.79; and the SNFAM subscale was 0.79. Since all of these values were greater than 0.7 (Nunnally, 1978), indicating a good convergence among the items. Next, it was determined whether the CR was greater than the AVE and whether all of the AVEs in each subscale were greater than 0.5, which is the cut-off point for convergent validity (Hair et al, 2010). As shown in Table 4.5, all of the CR indices of the five subscales were greater than the AVE. As the AVE for each factor was also greater than or equal to 0.5, convergent reliability was evident.

The reliability estimates of the five subscales (BCA, SNEMP, SNFAM, PBCBC and VTI) were 0.91, 0.79, 0.79, 0.95 and 0.87, respectively. All of the values were over 0.7 and deemed acceptable for early stages of basic research (Hair et al, 2010; Lance et al, 2006).

4.2.3.3 Measurement invariance

Before calculating a composite score for the five-factorial structure model, it was necessary to test the invariant measurement (Harrington, 2009). The measurement model was freely estimated and then constrained to be invariant across gender. The χ^2 of the unconstrained model was 696.69 with $DF = 494$; the χ^2 of the constrained model was 727.70 with $DF = 519$. The p-value of the differences was not significant at 0.19 and larger than 0.05, indicating measurement invariance or group equality at the model level.

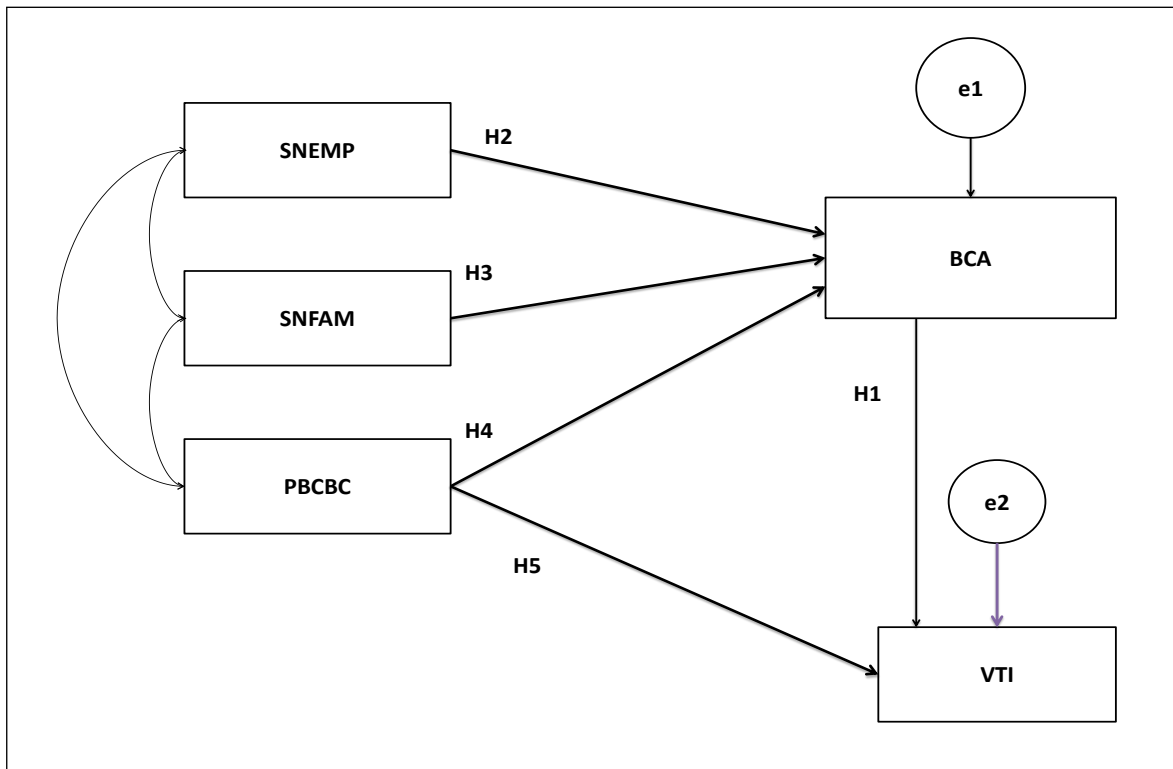
Finally, the ratings of the items representing all five subscales were separately averaged to obtain the composite indices of each subscale before the theoretical structural model was tested.

Thus, the results of these statistical analyses suggest that the five-factorial 25-item measurement model exhibits an adequate level of reliability. Convergent and discriminant validity were achieved and the measurement invariance of the scale was demonstrated. As a result, tests related to the structural model are deemed fit. The following section discusses the structural model results.

4.2.4 Results of the Structural Model

To assess the structural components of the hypothesised model, an analysis based on the composite scores generated from the data of 331 local Hong Kong employees in managerial roles was conducted using the AMOS 18.0 statistical package (Arbuckle, 1995). Figure 4.5 graphically describes the hypothesised structural component of the model. As described previously, there were 25 items, 21 of which were developed in Study 1 to measure attitudes towards and intentions to pursue BCs and four that were related to voluntary turnover intentions based on the work of Cammann et al (1981) and Mitchell et al. (2001). Maximum likelihood parameter estimation was used because these data were distributed normally (Kline, 2005).

Figure 4.5 The Hypothesised Structural Component of the Model



Note: SNEMP= Subjective Norms of Employers; SNFAM= Subjective Norms of Family Members; PBCBC= Perceived Behavioural Control over Pursuing BCs; BCA= Personal Boundaryless Career Attitudes; VTI= Voluntary Turnover Intention. For the development of H1-H5, see Section 4.1.3.

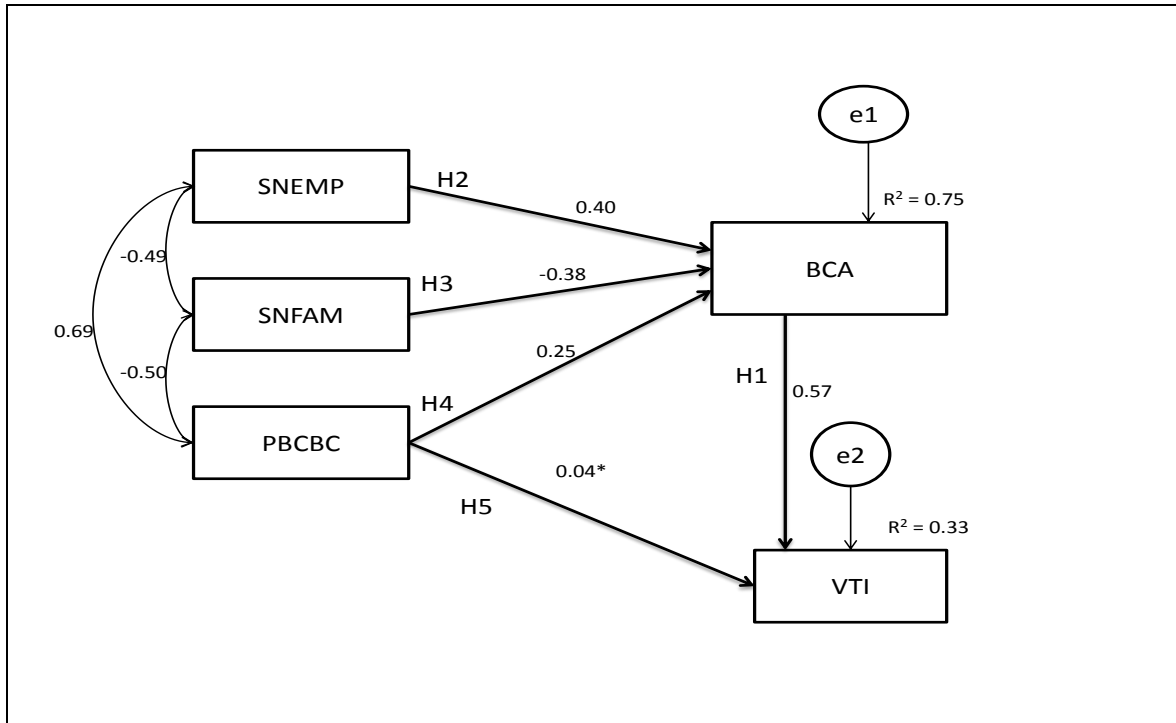
The following subsections present the structural model fit indices, beta coefficients and variances explained in the model. The testing results of the five hypotheses related to the hypothesised structural model are also discussed.

4.2.4.1 Summary of the results of structural model fit

The hypothesised structural model appeared to be a good fit to the data. The fit indices were $\chi^2(3, n = 331) = 8.43, p = 0.038$; CMIN/DF = 2.81; CFI = 0.99; TLI = 0.98; IFI = 0.99; and RMSEA = 0.07. The CFI, TLI and IFI values were above 0.90 and the RMSEA value was between 0.06 and 0.08. No post-hoc modification was conducted due to the good fit of the data to the model. Equally importantly, the standardised parameter estimates shown in Figure 4.6 indicate that the four hypothesised relationships were

significant in the predicted directions. Accordingly, H1, H2, H3 and H4 were supported by the findings on path coefficients, but H5 was not supported. Figure 4.6 shows the structural model results.

Figure 4.6 Results for the Hypothesised Structural Component of the Model



Note: SNEMP= Subjective Norms of Employers; SNFAM= Subjective Norms of Family Members; PBCBC= Perceived Behavioural Control over Pursuing BCs; BCA= Personal Boundaryless Career Attitudes; VTI= Voluntary Turnover Intention; *= $p > 0.05$. For H1-H5, see Section 4.1.3.

As indicated in Figure 4.6, the individuals' personal attitudes towards BCs (i.e., BCA) was positively related to and significantly predictive of higher voluntary turnover intention (i.e., VTI), with standardised beta coefficients = 0.57 and $p < 0.01$. BCA also explained a significant proportion of variance ($R^2 = 0.33$) in VTI scores. The results indicate that H1: Favourable personal attitudes towards BCs have a positive effect on voluntary turnover intentions, was supported.

In addition, the results of the SEM analyses indicate that the perceived subjective norms of employers' attitudes towards BCs (i.e., SNEMP) was positively related to and significantly predictive of personal attitudes towards BCs (i.e., BCA), with

standardised beta coefficients = 0.40 and $p < 0.01$. Therefore, H2: BCA positively and fully mediate the positive relationship between perceived supportive employers' attitudes towards BCs (i.e., SNEMP) and voluntary turnover intentions (i.e., VTI), was supported.

The perceived subjective norms of unsupportive family members' attitudes towards BC (i.e., SNFAM) were negatively related to and a significant predictor of personal attitudes towards BCs (i.e., BCA), with standardised beta coefficients = -0.38 and $p < 0.01$. Therefore, H3: BCA negatively and fully mediate the negative relationship between perceived unfavourable family members' attitudes towards BCs (i.e., SNFAM) and voluntary turnover intentions (i.e., VTI), was supported. In other words, the more negative the subjective norms of family members' attitudes towards BCs, the less favourable the personal BC attitudes.

The factor of perceived behavioural control over pursuing BCs subscale (i.e., PBCBC) was also significantly and positively related to personal attitudes towards BCs (i.e., BCA), with standardised coefficients = 0.25 and $p < 0.01$. Thus, H4: Personal attitudes towards BCs positively and mediate the positive relationship between perceived behavioural control over BCs and voluntary turnover intentions, was supported.

However, contrary to expectation, there was no significant and direct relationship between perceived behavioural control over pursuing BCs (i.e., PBCBC) and voluntary turnover intention (i.e., VTI), with standardised coefficient = 0.04 and $p > 0.05$. Therefore, H5: Perceived behavioural control over pursuing BC has a positive direct effect on voluntary turnover intentions, was not supported.

In summary, favourable personal attitudes towards BCs have a positive effect on voluntary turnover intentions. In addition, the perceived subjective norms of employers' attitudes towards BCs and the perceived behavioural control over pursuing BCs positively predict personal BC attitudes, whereas the perceived subjective norms

of unsupportive family members' attitudes towards BCs negatively predict personal BC attitudes. These three factors also explain a significant proportion of variance ($R^2 = 0.75$) in personal attitudes towards BCs. In other words, the higher the perceived behavioural control over pursuing BCs and the more supportive employers' and family members' attitudes towards BCs, the higher the chance for individuals to hold more favourable attitudes towards BCs.

In order to confirm the structural relationships of the hypothesised model, a model to reveal direct without mediator (i.e. BCA) effect was also run. The standardised coefficient were 0.241, $p < 0.01$ between VTI and SNEMP; -0.182, $p < 0.01$ for VTI and SNFAM. For PBCBC and VTI, the results are 0.114, $p > 0.05$ were revealed.

Also, the structural equation model did not include the behavioural outcome, i.e., the actual voluntary turnover behaviour, because respondents' future voluntary turnover behaviour was not available when the data were collected. Instead of asking respondents about their potential future voluntary turnover behaviour, the survey asked how many voluntary resignations the respondents had initiated in the previous 10 years to understand the relationship between BCs and respondents' past voluntary turnover behaviour. To investigate whether there were any relationships among the five subscales discussed previously (i.e., VTI, BCA, SNFAM, SNEMP and PBCBC) and respondents' past voluntary turnover behaviour, a Pearson correlation test was used. The following subsection presents the results of the correlation tests among the five subscales and the respondents' past voluntary turnover behaviour.

4.2.5 Results of the relationship between personal attitudes towards pursuing BCs and past voluntary turnover behaviour

As indicated in Table 4.6, the results suggest that the correlations among the five subscales discussed in the measurement model and the number of voluntary resignations initiated by the respondents in the previous 10 years were all statistically significant ($p \leq 0.01$), with correlation coefficients of 0.60, 0.52, -0.43, 0.53 and 0.49,

with BCA, SNEMP, SNFAM, PBCBC and VTI subscales respectively. Table 4.6 reports the details of the correlations among the five subscales and the respondents' voluntary turnover behaviour in the past 10 years (abbreviated to VTB10yr).

Table 4.6 Correlations among the Five Subscales and Respondents' Past Voluntary Turnover Behaviour

		Correlations					
		BCA	SNEMP	SNFAM	PBCBC	VTB10yr	VTI
VTB10yr	Pearson Correlation	.606**	.517**	-.428**	.525**	1	.492**
	Sig.	.000	.000	.000	.000		.000
	N	331	331	331	331	331	331

Note: BCA= Personal Boundaryless Careers Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs; VTB10yr= Voluntary resignations had been initiated by the respondents in the past 10 years; VTI= Voluntary Turnover Intentions, **= Correlation is significant at the 0.01 level (2-tailed).

The correlation coefficient between personal attitudes towards BCs and respondents' past voluntary turnover behaviour were the strongest, $r(329) = 0.61, p < 0.01$, among others, indicating that respondents' personal BC attitudes had the highest associations with their past voluntary turnover behaviour. The voluntary turnover intention factor was also positively correlated with the respondents' past voluntary turnover behaviour, at $r(329) = 0.49, p < 0.01$. Taken together, the results suggest that respondents' personal attitudes towards BCs were associated with their past voluntary turnover behaviour while voluntary turnover intentions were also associated with past voluntary turnover behaviour – indicating that personal attitudes towards BCs and voluntary turnover intentions may lead to actual voluntary turnover behaviour. These results consistent with Ajzen's (1991) theory of planned behaviour, which suggests that behavioural intention is a very good predictor of behavioural outcomes, i.e., voluntary turnover intentions are likely to predict individuals' subsequent voluntary turnover behaviour in our case.

Although the above statistical analyses supported the effect of personal attitudes towards BCs on voluntary turnover intention, previous research has suggested that personal or demographic variables are also important factors in the prediction of employees' voluntary turnover (Abelson, 1987; Arnold & Feldman, 1982; Hom & Griffeth, 1995; Peterson, 2004; Sacco & Schmitt, 2005). As discussed in Section 4.1.4, age and tenure were controlled for in this study to avoid a confounding effect because these two demographic variables have been found to have stable relationships with turnover intention in previous studies (Arnold & Feldman, 1982; Cotton & Tuttle, 1986). In addition to these two demographic variables, this study also controlled for the effect of the adoption of nine organisational strategies (i.e., outsourcing, downsizing, layoff, restructuring, mergers, adoption of contract-based employment, adoption of project-based employment, being acquired by other companies and acquiring other companies) used or experienced by the respondents' companies in the past three years. The following describes the results of the hierarchical regression analysis related to the investigation of the effects of these three potential confounding factors.

4.3 Controls and Confounding Variables Related to the Hypothesised Structural Equation Model

A hierarchical regression analysis (Bryant, 2000) was conducted to provide evidence of the predictive incremental validity of the model and to control for the possible confounding effect of respondents' age, tenure and the abovementioned nine organisational strategies used or experienced by the respondents' companies in the past three years.

The hierarchical regression analysis used four models. The first was similar to the hypothesised structural model discussed in this study. The dependent variable was voluntary turnover intention. The independent variables were BCA, SNFAM, SNEMP and PBCBC. The second, third and fourth models were tested by adding the three possible confounding factors stepwise, commenced with tenure, followed by the nine organisational strategies and then age. The models summary is listed in Table 4.7.

Table 4.7 Models Summary

Models	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.588 ^a	.345	.337	.62822
2	.664 ^b	.440	.432	.58165
3	.669 ^c	.447	.437	.57895
4	.669 ^d	.448	.436	.57973

a. Predictors: (Constant), BCA, SNFAM, PBCBC, SNEMP

b. Predictors: (Constant), BCA, SNFAM, PBCBC, SNEMP, Tenure

c. Predictors: (Constant), BCA, SNFAM, PBCBC, SNEMP, Tenure, Nine Organisational Strategies

d. Predictors: (Constant), BCA, SNFAM, CDMSE, PBCBC, Tenure, Nine Organisational Strategies and Age

Note: BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs.

The result of the hierarchical regression analyses in the above models suggests that only tenure ($\beta = -0.177$, $t(327) = -7.92$, $p < .001$), but not the nine organisational policies and age, significantly predicted voluntary turnover intention scores. As indicated in Table 4.7, the second model also explained an extra 9.5% of a significant proportion of the variance in the voluntary turnover intention scores compared with Model 1. The findings suggest the significance of tenure in understanding the voluntary turnover intentions.

The above sections present all of the core findings related to the first objective of Study 2, i.e., to investigate the possible relationships between individuals' attitudes towards and intention to pursue BCs and voluntary turnover issues. The following section reports the findings related to the second objective, which is to identify the retention factors that could motivate employees, specifically those with a BC orientation, to stay with an employer.

As mentioned in Section 4.1.2, in addition to the 25 items measuring individuals' BC attitudes and their voluntary turnover intentions, the respondents were

asked to indicate their level of agreement with the 12 retention factors that could motivate them to stay with an employer (see Section 2.5.4 in Chapter 2 for the details of the 12 retention factors investigated and the rationales behind the selection). The following section reports the findings on the significances of these 12 retention factors in retaining employees.

4.4 Results Related to Employee Retention Factors

This section highlights the findings on the retention factors crucial to motivate employees to stay with their employers. The first subsection provides the findings on the overall rankings of the 12 retention factors investigated among all of the respondents, i.e., the 331 local managers and supervisors in Hong Kong. Then, the differences in how these retention factors relate to those with favourable attitudes towards BCs and those without are examined.

4.4.1 Overall Rankings

According to the mean scores of the 12 retention factors investigated ($n = 331$), the top five factors motivating an employee to stay with an organisation were financial compensation, quality leadership, advancement prospects, good social networking and the support and quality of colleagues. The details of the mean scores and standard deviations for the 12 retention factors investigated are listed in Table 4.8.

Table 4.8 Overall Rankings of the 12 Retention Factors Investigated

Rankings of the 12 Retention Factors investigated	N	Mean	S.D.
1. Financial compensation	331	5.55	1.19
2. Quality Leadership	331	5.24	1.04
3. Advancement prospects	331	5.01	1.33
4. Good social networking and support	331	4.93	1.37
5. Quality of colleagues	331	4.92	1.29
6. Learning opportunities	331	4.90	1.40
7. Good working environment	331	4.78	1.19
8. Alignment of personal and company goals	331	4.44	1.62
9. Moral obligation to my supervisor(s)	331	4.42	1.36
10. Acceptance of organisational values and mission	331	4.39	1.37
11. Moral obligation to the company	331	4.24	1.36
12. Family influence	331	4.21	1.16

4.4.2 T-test results

As discussed in Section 4.1.5, the sixth hypothesis in Study 2 was related to employee retention factors. The hypothesis expected that retention factors valued by employees who hold favourable attitudes towards BCs would be different from those who have unfavourable attitudes toward BCs. To test the hypothesis, the survey respondents were categorised into three groups based on the scores obtained from the BCA subscale. Respondents who scored 42 or above (out of 49) were classified as the high BC orientation group, which refer to employees with favourable attitudes towards BCs. Those who scored 29 to 41 were classified as the moderate BC orientation group, and those who scored less than or equal to 28 were classified as the low BC orientation group. The latter refers to respondents with unfavourable attitudes toward BCs. Table 4.9 reports the details of the top five rankings in terms of the retention factors valued by these groups.

Table 4.9 Top Five Rankings of Retention Factors Valued by Different Groups in Deciding Whether to Stay with an Employer

Top Five Rankings	High BC orientation group (n=80)	Mean	Moderate BC orientation group (n=137)	Mean	Low BC orientation group (n=114)	Mean
1	Financial compensation	5.81	Financial compensation	5.48	Financial compensation	5.44
2	Learning opportunities	5.59	Quality Leadership	5.23	Advancement prospects	5.28
3	Good social networking and support	5.38	Advancement prospects	4.96	Quality Leadership	5.27
4	Quality Leadership	5.20	Quality of colleagues	4.85	Quality of colleagues	5.26
5	Alignment of personal and company goals	4.84	Good working environment	4.80	Good social networking and support	4.93

As shown in Table 4.9, ‘financial compensation’ had the highest mean scores across all three groups. However, the second and the third highest ranked factors were different among the three groups. For the high BC orientation group ($n = 80$), ‘learning opportunities’ and ‘good social networking and support’ were more important and were ranked as the second and the third most important retention factors. In the moderate BC orientation group ($n = 137$), the second and third most important factors were ‘quality leadership’ and ‘advancement prospects’ respectively. In the low BC orientation group ($n = 114$), ‘advancement prospects’ ranked as the second and ‘quality leadership’ as the third most important factors. In other words, the top three factors in both the low and moderate BC orientation groups were the same, although they were not in the same order. However, the high BC orientation group gave a much higher priority to ‘learning opportunities’ and ‘good social networks and support’ when considering whether to stay with an employer. These results are consistent with previous BCs studies, which have suggested that boundaryless careerists tend to focus on learning multiple transferable skills and building social networks as their core career competency development strategies.

Apart from comparing the top five rankings among three groups, an

independent t-test was performed to identify the mean differences of the 12 retention factors investigated between the high and low BC orientation groups. The t-test results show that there were significant mean differences in nine retention factors (out of 12) between the low and high BC orientation groups, with the exception of 'quality leadership', 'family influence' and 'good working environment'. The details of the mean scores and the t-statistics between these two groups are shown in Table 4.10.

Table 4.10 Mean Differences of the 12 Retention Factors between the High BC and Low BC Orientation Groups

					t- stat	Sig. (2-tailed)
High BC=1; Low BC=3	Group	N	Mean	S.D.		
Acceptance of organizational values and mission	1.00	80.00	4.00	1.44	-3.39	0.00
	3.00	114.00	4.67	1.28		
Financial compensation	1.00	80.00	5.81	1.09	2.35	0.02
	3.00	114.00	5.44	1.09		
Learning opportunities	1.00	80.00	5.59	1.11	5.03	0.00
	3.00	114.00	4.59	1.52		
Advancement prospects	1.00	80.00	4.71	1.19	-3.00	0.00
	3.00	114.00	5.28	1.37		
Good working environment	1.00	80.00	4.60	1.13	-1.62	0.11
	3.00	114.00	4.89	1.26		
Alignment of personal and company goals	1.00	80.00	4.84	1.56	3.58	0.00
	3.00	114.00	3.91	1.91		
Quality Leadership	1.00	80.00	5.20	0.77	-0.47	0.64
	3.00	114.00	5.27	1.20		
Moral obligation to the company	1.00	80.00	3.94	1.19	-2.80	0.01
	3.00	114.00	4.46	1.32		
Moral obligation to my supervisor(s)	1.00	80.00	4.06	1.31	-3.84	0.00
	3.00	114.00	4.77	1.24		
Family influence	1.00	80.00	4.10	0.76	-0.59	0.56
	3.00	114.00	4.20	1.42		
Good social networking and support	1.00	80.00	5.38	1.10	2.50	0.01
	3.00	114.00	4.93	1.30		
Quality of colleagues	1.00	80.00	4.55	1.21	-4.08	0.00
	3.00	114.00	5.26	1.19		

Of the nine retention factors, factors related to 'learning opportunities', 'alignment of personal and company goals' and 'quality of colleagues' had the biggest mean differences. The t-test results for the factor related to 'learning opportunities' were $t(192) = 5.03$ $p < 0.01$, with the high BC orientation group giving this factor a much higher score than the low BC orientation group (5.59 vs. 4.59). The t-test results for the factor related to 'alignment of personal and company goals' were $t(192) = 3.58$, $p < 0.01$, with the high BC orientation group giving this factor a higher score than the low BC orientation group (4.84 vs. 3.91). It is also worth noting that the high BC orientation group ranked the factor of 'alignment of personal and company goals' the fifth most important retention factor while the low BC orientation group ranked it as the least important retention factor.

The t-test results for the factor of 'quality of colleagues' were $t(192) = -4.08$, $p < 0.01$, with the low BC orientation group giving this factor a higher score than the high BC orientation group (5.26 vs. 4.55).

In summary, the high BC orientation group valued factors related to 'learning opportunities' and the 'alignment of personal and organisational goals' in considering whether to stay with an employer, with much higher mean scores (5.59 vs. 4.59 and 4.84 vs. 3.91, respectively) compared with the low BC orientation group. In contrast, the low BC orientation group valued factors related to 'advancement prospects', 'quality of colleagues' and 'moral obligations to their supervisors', with higher mean scores (5.28 vs. 4.71; 5.26 vs. 4.55; and 4.77 vs. 4.06 respectively) than the high BC orientation group.

These findings are consistent with the core features of the BC construct. As noted, the prime motivations in pursuing BCs are to achieve career autonomy and ensure self-determination in one's career development, suggesting that individuals who want to pursue BCs need to equip themselves with multiple transferable career competencies and cherish the learning opportunities in work settings so as to be more independent and self-reliant in their own career development. Individuals with a BC

orientation are also prepared to cross organisational boundaries to have diverse working experiences. Thus, that employee retention factors related to advancement prospects, moral obligation to their supervisor or even quality of colleagues were weighted as less important by these potential boundaryless careerists is understandable. These empirical findings support the salient features of boundaryless careerists described in the literature. In this regard, corporate leaders and HR managers may need to formulate new retention strategies to retain these boundaryless employees because they have different expectations when compared to traditional employees. The practical implications of these findings are further discussed in Chapter 5.

Chapter 5: Summary and Conclusion

This chapter is organised into five sections. The first summarises the findings of Studies 1 and 2 conducted for this research. In Study 1, a scale that could measure individuals' attitudes towards and intentions to pursue BCs (i.e., boundaryless careers) was developed and validated. This scale was then used to assess the prevalence of the BC perspective in the Asia-Pacific region. The scale validation tests were based on the responses of 677 university students from three different student samples: Local Hong Kong university students, local Australian university students and international students studying in either Hong Kong or Australia. Study 2 investigated the possible effects of individuals' attitudes towards pursuing BCs on their voluntary turnover intentions and behaviour. Using the scale developed in Study 1 and a sample of 331 local Hong Kong managers, the relationship between these two constructs was examined. The employee retention factors that were most valued by individuals with a BC orientation were also identified.

The second section highlights the theoretical and practical implications of the findings and the contributions of this research, which advances BC theory in three different areas. First, a scale that could measure individuals' attitudes towards and intentions to pursue BCs was developed and validated. Second, two crucial factors affecting individuals' attitudes towards pursuing BCs – social influence and support and self-efficacy in career decision making – were identified. Third, BC theory was enhanced through the empirical testing of a hypothesised structural equation model of the effects of individuals' attitudes towards and intention to pursue BCs on their subsequent voluntary turnover intentions and behaviour. The study also provided corporate leaders and HR managers with practical insights into dealing with voluntary turnover and talent retention issues that could be triggered by the BC perspective.

The third section discusses the limitations of this research with the aims to address caveats in both studies and reveal how similar BC studies may be improved in

the future. The fourth section discusses the directions for future research and the last section provides a conclusion of the research.

5.1 Summary of the Research Findings

This section presents a summary of the findings of Studies 1 and 2. They are organised around the following core research questions in this research.

- 1) What are the crucial factors affecting individuals' attitudes towards and intentions to pursue BCs and how are they being measured?
- 2) How prevalent is the BC perspective at present, especially in the Asia-Pacific region?
- 3) What possible relationships exist between the BC perspective and vocational intentions and decisions, specifically with regards to voluntary turnover issues?
- 4) What are the factors, if any, that may reduce the possibility of voluntary turnover behaviour initiated by those with a BC orientation?

Accordingly, the following four subsections start with discussing and describing the major components of the proposed BC attitude and pursuit intention scale and its psychometric properties; follow by presenting the findings on the overall prevalence of the BC perspective in the Asia-Pacific region and the differences between samples. Then, the relationship between individuals' attitudes towards pursuing BCs and their subsequent voluntary turnover intentions and behaviour are highlighted. The last subsection gives a summary of the talent retention factors that are most valued by employees with a BC orientation when considering whether to stay with an employer.

5.1.1 Major components of the proposed BC attitude and pursuit intention scale and its psychometric properties

A four-factorial, 21-item scale was developed and validated in Study 1 to assess individuals' BC attitudes and pursuit intentions. It covered all of the dimensions that, according to the theory of planned behaviour (Ajzen, 1991, 2002), could influence

behavioural intentions and outcomes: Attitude towards the behaviour in question; subjective norms; and perceived behavioural control. Therefore, within the proposed scale, one subscale related to the dimension of 'attitude towards the behaviour in question' was developed to assess individuals' personal attitudes towards BCs (BCA) subscale. Two more subscales were developed to assess the dimension of 'subjective norms', which refers in this case to an individual's perceptions of what significant others might think about the behaviour in question (i.e., pursuing BCs). In these two subscales, the 'significant others' referred to family members and local employers, as they were regarded as the people who were influential in individuals' career decisions. These subscales were named the perceived 'subjective norms of family members' (SNFAM) subscale and the perceived 'subjective norms of employers' (SNEMP) subscale. The last subscale was related to the dimension of 'perceived behavioural control', which was largely referred to individuals' self-efficacy in career decision making. This subscale was named the 'perceived behavioural control over pursuing BCs' (PBCBC) subscale. The items of this proposed scale are listed in Table 3.5 of Chapter 3.

Churchill's (1979) eight-step scale development protocol and DeVellis's (2003, 2009) scale development guidelines were used to guide the scale development process. The initial scale items were generated via a literature review and focus group interviews and further refined using Lawshe's (1975) 'subject matter expert raters' method. An EFA and a CFA were performed during the scale purification and validation process, using data from three different student samples, identified a four-factor solution composed of 21 items for the final scale. A CFA demonstrated the stability of the factorial structure across the samples. The results of the CFA of the four-factorial model were: $\chi^2(170, n = 378) = 356.27, p = 0.00$ and the RMSEA was 0.05, indicating an acceptable fit. Furthermore, the CFI was 0.95, the IFI was 0.95 and the TLI was 0.94. All of these values were larger than 0.9, which is considered the minimum for a good model fit (Hu & Bentler, 1999). The details of the fit indices of a one-factor model vs. the hypothesised four-factor model can be found in Table 3.6 of Chapter 3. Discriminant validity, convergent validity and measurement invariance were also evident. The details

of the psychometric properties of the newly developed BC attitude and pursuit intention scale are presented in Section 3.2 of Chapter 3.

5.1.2 Prevalence of the boundaryless career perspective in different groups

The data from the three different student samples ($n = 677$) collected in Study 1 and the responses from the Hong Kong local manager sample ($n = 331$) collected in Study 2 were then used to measure the prevalence of the BC perspective in the Asia-Pacific region. The three student samples were drawn from among local university students from Hong Kong ($n = 299$), local university students from Australia ($n = 149$) and international university students studying in either Hong Kong or Australia ($n = 229$). Table 5.1 summarises the results obtained in the BCA, SNEMP, SNFAM and PBCBC subscales. The mean scores and standard deviations for each subscale in all of the samples are listed below.

Table 5.1 The Mean Score and Standard Deviations of the Aggregate Subscales Score of All Samples

Subscales	Max scores	Local Hong Kong student sample ($n=299$)	International student sample ($n=229$)	Local Australian student sample ($n=149$)	Local Hong Kong manager sample ($n=331$)
BCA (7 items)	49	35.16 [6.62]	36.38 [6.74]	36.81 [7.03]	36.25 [7.98]
SNEMP (4 items)	28	18.01 [3.61]	18.18 [4.45]	18.20 [4.25]	14.35 [3.84]
SNFAM (3 items)	21	12.25 [4.18]	11.15 [3.89]	11.91 [4.34]	12.04 [3.95]
PBCBC (7 items)	49	28.27 [8.15]	28.92 [7.62]	28.10 [7.96]	30.16 [10.50]

Note: Standard deviation in brackets; BCA= Personal Boundaryless Career Attitudes; SNEMP= Subjective Norms of Employers; SNFAM= Subjective Norms of Family Members; PBCBC= Perceived Behavioural Control over Pursuing BCs.

5.1.2.1 Personal attitudes towards boundaryless careers (BCA)

Respondents' personal attitudes towards pursuing BCs were assessed using the mean scores of the BCA subscale. As the mean scores in all four samples were beyond 35, well above the cut-off point¹² of 28, these results suggest that the respondents in all of the samples generally held favourable personal attitudes towards pursuing BCs. Although the means of the three student samples were close, ranging from 35.16 to 36.81 (max score for the subscale is 49), the ANOVA results, $F(2, 674) = 3.736, p = 0.024$, suggest that there were significant differences between the three student samples. The Scheffe post-hoc results indicate that a significant difference existed between the local Hong Kong and the local Australian student samples at $p < 0.05$, with the Australian students having higher scores.

Given that these two student samples (i.e., local Hong Kong students and local Australian students) are situated in similar employment contexts (both Hong Kong and Sydney are cosmopolitans, have market economies and have relatively low unemployment rates) and have similar sample demographics (in terms of age, education qualifications and gender proportion), the findings may suggest that cultural factors influence individuals' personal attitudes towards BCs. Hong Kong and Australia differ substantially in Hofstede's (1984) 'individualism vs. collectivism' cultural dimension, which addresses the degree of interdependence a society maintains among its members. According to the data from the Hofstede Centre, Hong Kong scored 25 and is therefore in the 'collectivism' category, whereas Australia scored 90 and is classified in the 'individualism' category. In other words, the Australian students come from an individualistic culture in which people are supposed to look after themselves and their immediate family only. However, respondents in the Hong Kong sample are from a collectivist society in which people expect to belong to 'in groups' and be taken care of

¹² The calculation of cut-off points is based on the number of items in the subscale. As the study used a 7-point Likert scale, the mid-point (4) represented either agreement or disagreement. The cut-off point was $7 \times 4 = 28$ because the BCA subscale had 7 items.

in exchange for their loyalty and long-term relationships. These cultural values are not entirely compatible with the BC perspective, as this new career form may lead to a more unstable and short-lived employment relationship. This may be one explanation for the relatively lower scores in the Hong Kong student sample compared to the Australian sample.

5.1.2.2 Perceived subjective norms of local employers' (SNEMP) and family members' attitudes towards boundaryless careers (SNFAM)

The SNEMP and SNFAM subscales were used to assess respondents' perceptions of how their family members and local employers, respectively, might value and think about BCs. For the respondents' perceived subjective norms of their local employers' attitudes towards BCs, the mean scores in all of the student samples were beyond 18, above the cut-off point¹³ of 16, the respondents in all of the student samples generally perceived their local employers as holding favourable attitudes towards BCs. The ANOVA results, $F(2, 674) = 0.040, p = 0.961$, suggest that there were no significant differences between the three samples.

In regards to the local Hong Kong managers, they perceived their employers as holding less favourable or even slightly unfavourable attitudes towards BCs because the mean score (14.35) was lower than 16, the cut-off point for SNEMP subscale. In other words, unlike the student respondents, the manager respondents did not perceive their local employers as having positive attitudes. It is unclear whether such differences were due to a lack of first-hand information of real-life employment conditions (no real work experience among students at the time of data collection). The underlying reasons for these differences should be further examined in future studies.

For the respondents' perceived subjective norms of their family members' attitudes towards BCs, only the local Australian and international students had mean

¹³ The calculation of cut-off points is based on the number of items in the subscale. As the study used a 7-point Likert scale, the mid-point (4) represented either agreement or disagreement. The cut-off point was $4 \times 4 = 16$ because the SNEMP subscale had 4 items

scores lower than the cut-off point¹⁴, i.e., 12, in the SNFAM subscale.¹⁵ The ANOVA results, $F(2, 674) = 4.684, p = 0.010$, indicated significant differences among the three samples. The Scheffe post-hoc results suggest that a significant difference existed between the local Hong Kong student sample and the international student sample at $p < 0.05$; with Hong Kong students having higher mean scores. This indicates that the local Hong Kong students considered their family members to hold less favourable attitudes towards BCs than did the international students.

Similar results were found in the local Hong Kong manager respondents. The sample mean scores (12.04) in the SNFAM subscale also exceeded the cut-off point. Like the local Hong Kong student sample, the respondents in the local Hong Kong manager sample also thought of their family members as holding unfavourable attitudes towards BCs. These results could be a reflection of the collectivist cultural values embedded in Hong Kong society. In a collective society, people value long-term relationships and loyalty (Hofstede, 1984), which may explain why both Hong Kong students and managers perceived their family members to hold less favourable attitudes towards BCs and as more likely to disapprove of job-hopping and short-term relationships.

5.1.2.3 Perceived behavioural control over pursuing BCs (PBCBC)

On the PBCBC subscale, all four samples had mean scores over 28 (the mid-point for this subscale is 24.5), which indicated a positive level of self-efficacy. As the PBCBC subscale adopted items in the career decision-making self-efficacy scale developed by Betz et al. (1996), the results suggest that the respondents in all of the samples generally held sufficient self-efficacy in career decision making. The ANOVA results of the student samples were $F(2, 674) = 0.063, p = 0.548$ and revealed no

¹⁴ The calculation of cut-off points is based on the number of items in the subscale. As the study used a 7-point Likert scale, the mid-point (4) represented either agreement or disagreement. The cut-off point was $4 \times 3 = 12$ because the SNFAM subscale had 3 items

¹⁵ In the SNFAM subscale, as the items in this subscale were negatively keyed, a higher score indicates a less favourable perceived attitude towards BCs.

significant differences among them.

It is worth noting that the manager sample had a higher mean score (30.16) than all of the student samples in this subscale. This higher mean score may be due to manager respondents' working experiences and better knowledge of the labour market and employment conditions. Future studies on different groups of managers could provide additional insights into how career decision making self-efficacy may affect individuals' attitudes towards BCs.

In summary, the results of Study 1 suggest that the respondents in all of the student samples generally held positive personal attitudes towards BCs. Regarding the subscale of perceived behavioural control on pursuing BCs, the mean scores of all of the student samples were also well above the midpoint, representing a relatively high level of self-efficacy in career decision making. The mean scores in the SNEMP subscale for all of the student samples were also higher than the cut-off point, suggesting that all of the students samples perceived their local employers as holding positive attitudes towards BCs. Taken together, the empirical findings suggest that university students were aware of the BC perspective, and indicated positive attitudes and intentions to pursue BCs among these young adults.

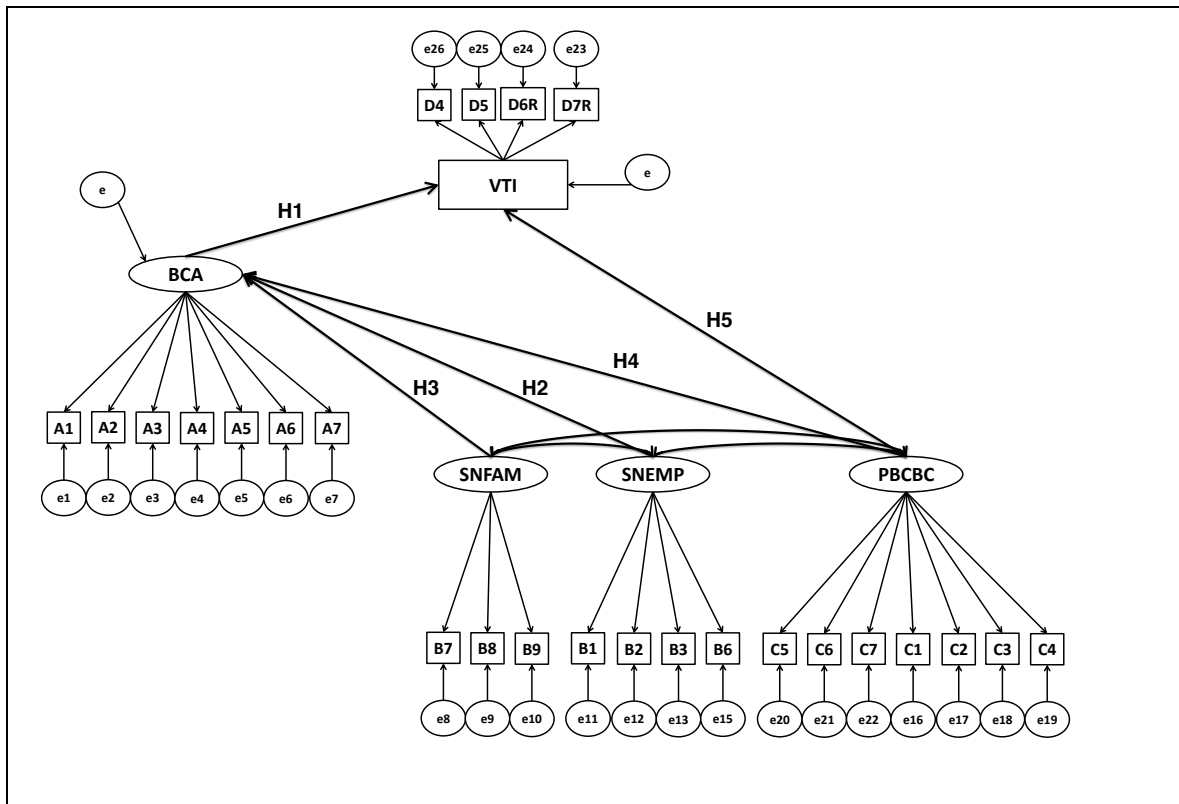
In Study 2, which targeted local Hong Kong managers, the mean scores collected from the survey suggest that the respondents held positive personal attitudes towards BCs (mean score = 36.25) and a relatively high level of self-efficacy in career decision making (mean score = 30.16). Yet, they perceived their local employers (mean score = 14.35) and family members (mean score = 12.04) as holding less favourable or slightly unfavourable attitudes towards BCs. Unlike the student samples, the respondents in the local Hong Kong manager sample might personally hold favourable attitudes towards BCs but they did not perceive the same to be true of their local employers and family members. According to the theory of planned behaviour (Ajzen, 1991), individuals with higher perceived behavioural control, positive personal attitude and supportive subjective norms are more likely to exhibit stronger behavioural intentions. In this regard, the findings indicate that the local managers' behavioural

intentions to pursue BCs might not have been as strong as those of the young adults.

5.1.3 Relationship between BCs and voluntary turnover intentions and behaviour

Structural equation modelling was used to examine the relationship between individuals' attitudes towards pursuing BCs and their subsequent voluntary turnover intentions. Figure 5.1 depicts both the measurement and structural components of the hypothesised structural equation model.

Figure 5.1 The Hypothesised Structural Equation Model for the Relationship between Attitudes towards Pursuing BCs and Voluntary Turnover Intentions



Note: VTI= Voluntary Turnover Intention; BCA= Personal Boundaryless Career Attitudes; SNFAM= Subjective Norms of Family Members; SNEMP= Subjective Norms of Employers; PBCBC= Perceived Behavioural Control over Pursuing BCs. Circles represent latent variables and rectangles represent measure variables; e=error; for the development of hypothesis1-hypothesis 5(H1- H5), see Section 4.1.3 of Chapter 4.

A five-factorial measurement model was constructed in Study 2. Specifically, an established voluntary turnover intention (VTI) subscale (Cammann et al, 1981;

Mitchell et al, 2001) was added to the four-factorial scale developed in Study 1. The responses collected from the 331 local employees in managerial roles in Hong Kong were used to test the model. The psychometric properties of the measurement model suggested an adequate fit. The five-factor CFA model yielded the following fit indices: $\chi^2(255, n = 331) = 609.25$; CMIN/DF = 2.39; CFI = 0.95; TLI = 0.94; IFI = 0.95; and RMSEA = 0.07. These results demonstrate that the fit was adequate (Lance et al, 2006).

The model fit indexes for the structural model were $\chi^2(3, n = 331) = 8.43$, $p = 0.038$; CMIN/DF = 2.81; CFI = 0.99; TLI = 0.98; IFI = 0.99; and RMSEA = 0.07. No post-hoc modification was necessary due to the good fit of the data to the model (Lance et al, 2006). The following five hypotheses¹⁶ related to the effects of personal attitudes towards pursuing BCs on voluntary turnover intentions were tested (see Figure 5.1).

H1: Favourable personal attitudes towards BCs (BCA) have a positive effect on voluntary turnover intentions.

H2: Personal attitudes towards BCs (BCA) positively and mediate the positive relationship between perceived supportive employers' attitudes towards BCs (SNEMP) and voluntary turnover intentions. .

H3: Personal attitudes towards BCs (BCA) negatively and mediate the negative relationship between perceived unsupportive family members' attitudes towards BCs (SNFAM) and voluntary turnover intentions.

H4: Personal attitudes towards BCs (BCA) positively and mediate the positive relationship between perceived behavioural control over BC (PBCBC) and voluntary turnover intentions.

H5: Perceived behavioural control over BC (PBCBC) has a positive direct effect on voluntary turnover intentions.

Four of the above five hypotheses (i.e., H1, H2, H3 and H4) were tested in the structural model and found to be supported. However, H5 was not supported. The details of the testing results can be found in Section 4.2.4 of Chapter 4.

¹⁶ H6 in Study 2 was not related to the model but talent retention and therefore the result is reported in next subsection.

In brief, the structural equation modelling analysis suggested that individuals' personal attitudes towards BCs (BCA) were positively related to (the standardised beta coefficients = 0.57, $p < 0.01$) and predictive of higher voluntary turnover intentions. BCA also explained a significant proportion of the variance ($R^2 = 0.33$) in voluntary turnover intention scores. In addition, SNEMP, SNFAM and PBCBC were positively related to and predictive of BCA (the standardised beta coefficients for SNEMP, SNFAM and PBCBC were = 0.40, $p < 0.01$; = -0.38, $p < 0.01$; and = 0.25, $p < 0.01$, respectively). These three factors also explained a significant proportion of the variance ($R^2 = 0.75$) in BCA. In other words, perceived behavioural control over pursuing BCs and supportive local employers' and family members' attitudes towards BCs will lead to more favourable personal attitudes towards pursuing BCs. In addition, increased positive personal attitudes towards pursuing BCs lead to higher voluntary turnover intentions.

5.1.4 Talent retention factors

Given that a high voluntary turnover rate could be one of the possible consequences brought about by the spread of the BC perspective, in Study 2, 12 talent retention factors were also investigated because they might reduce the possibility of employees' voluntary turnover behaviour, especially for those with a BC orientation (see Section 2.5.4 of Chapter 2 for details of the 12 retention factors).

The rankings of the 12 retention factors investigated in Study 2 (see Section 4.4 of Chapter 4 for rankings details) indicate that three of the top five retention factors for all of the managerial respondents were related to social or people factors such as 'good social networking and support', 'quality of colleagues' and 'quality leadership' (see Table 4.8 in Chapter 4 for the overall rankings details). These findings indicate the importance of social factors in employee retention. The practical implications of these research findings are discussed in the next section.

To test whether retention factors valued by managers with favourable attitudes

towards BCs were different from those valued by managers who did not have favourable attitudes (i.e., H6 in Study 2), the respondents were further divided based on their scores on the BCA subscale into high ($n = 80$), moderate ($n = 137$) and low ($n = 114$) BC orientation groups.¹⁷

As shown in Table 5.2, 'financial compensation' was the retention factor with the highest mean score for all three groups. However, the second and third highest ranked factors were different among the three groups. In the low BC orientation group, 'quality leadership' ranked as the second and 'advancement prospects' the third most important factors. In the moderate BC orientation group the second and third most important factors were 'advancement prospects' and 'quality leadership'. Although the top three factors in both the low and moderate BC orientation groups were the same, they were not ranked in the same order. For the high BC orientation group, respondents ranked 'learning opportunities' and 'good social networking and support' as the second and third most important factors rather than 'quality leadership' and 'advancement prospects' when considering whether to stay with an employer. These results are consistent with the BC literature and suggest that employees with a BC orientation might have different expectations in retention strategies. The practical implications of these findings are discussed in the next section.

In addition, the independent t-test results of the high and low BC orientation groups reveal statistically significant between-group differences across the 12 employee retention factors, out of which nine retention factors showed a significant mean difference (no differences were found in quality leadership, family influence and good working environment). Among these nine factors, 'learning opportunities', 'alignment of personal and company goals' and 'quality of colleagues' had the biggest mean differences. The t-test results for 'learning opportunities' were $t(192) = 5.03, p < 0.01$, with the high BC orientation group giving this factor a much higher score than

¹⁷ Respondents who scored 42 or above (out of 49) on the personal BC attitude (BCA) subscale were classified as the high BC orientation group ($n=80$), which refers to respondents who have favourable attitudes towards BCs. Those who scored between 29 and 41 were classified as the moderate BC orientation group ($n=137$), and those who scored less than 29 were classified as the low BC orientation group ($n=114$). The low BC group refers to respondents who have unfavourable attitudes toward BCs.

Table 5.2 Top Five Rankings of Retention Factors Valued by Different Groups in Making Decision to Stay with an Employer

Top Five Rankings	High BC orientation group (n=80)	Mean	Moderate BC orientation group (n=137)	Mean	Low BC orientation group (n=114)	Mean
1	Financial compensation	5.81	Financial compensation	5.48	Financial compensation	5.44
2	Learning opportunities	5.59	Quality Leadership	5.23	Advancement prospects	5.28
3	Good social networking and support	5.38	Advancement prospects	4.96	Quality Leadership	5.27
4	Quality Leadership	5.20	Quality of colleagues	4.85	Quality of colleagues	5.26
5	Alignment of personal and company goals	4.84	Good working environment	4.80	Good social networking and support	4.93

Note: Reproduced from Table 4.9 of Chapter 4 for the top five rankings of retention factors

the low BC orientation group (5.59 vs. 4.59). The *t*-test results for 'alignment of personal and company goals' were $t(192) = 3.58, p < 0.01$, with the high BC orientation group giving this factor a higher score than the low BC orientation group (4.84 vs. 3.91). It is also worth noting that the high BC orientation group ranked 'alignment of personal and company goals' as the fifth most important retention factor while the low BC orientation group ranked it as the least important. The *t*-test results for 'quality of colleagues' were $t(192) = -4.08, p < 0.01$, with the low BC orientation group giving this factor a higher score than the high BC orientation group (5.26 vs. 4.55).

In summary, the low BC orientation group valued factors related to 'advancement prospects', 'quality of colleagues' and 'moral obligations to their supervisors', with much higher mean scores (5.28 vs. 4.71; 5.26 vs. 4.55, 4.77 vs. 4.06 respectively) than the high BC orientation group. In contrast, the high BC orientation group valued 'learning opportunities' and 'alignment of personal and organisational goals' in deciding whether to stay with an employer, with much higher mean scores (5.59 vs. 4.59 and 4.84 vs. 3.91, respectively) than the low BC orientation group. Taken together, the results support H6 that individuals with different attitudes towards

pursuing BCs also have different priorities regarding which retention factors influence their intentions to stay with an employer.

Therefore, to maintain a pool of stable internal human capital for their organisations, HR managers may need to consider career orientation differences when formulating retention strategies and policies. The practical implications of these findings are further discussed in the next section.

5.2 Contributions and Implications of this Research

This research makes a number of methodological, theoretical, empirical and practical contributions to the understanding of the BC construct and its relationship to voluntary turnover intentions and behaviour. The empirical findings also address talent turnover and retention issues in the midst of today's changing employment landscapes. The following sections discuss the details of the empirical and practical implications of these findings, and the methodological and theoretical contributions of this research.

5.2.1 Methodological contributions

5.2.1.1 The new scale

The major methodological contribution of this research is the development and validation of a scale to gauge individuals' attitudes towards and intention to pursue BCs. A literature review found that research on BCs in the past two decades has been primarily qualitative. Due to the novelty of the construct, there were no established measures that could capture all of the core features embedded in a BC. To address this gap, this research developed a reliable and valid scale to gauge BC attitudes and pursuit intention.

In developing the scale, a conceptual framework that integrated different viewpoints and interpretations from the fields of management, psychology, education and sociology – the four disciplines that dominate career studies research (Baruch,

2004) for understanding the nature and structure of BCs was created. This framework identified the three widely accepted features of BCs across these different disciplines: the desire for career autonomy and self-determination in career development; the seeking of multiple transferable competencies and relationships that are external to the current employer; and the manifestation of diverse working experience by crossing organisational boundaries along with an attitude of boundarylessness in career development.

These three components are logically connected and interdependent; furthermore, the analysis revealed a sequential relationship in the process of career planning and development. An individual who knows what he/she wants in his/her career and why (i.e., the desire to achieve career autonomy and self-determination in career self-development in this case of BCs), will set out to fulfil their career aspirations through a particular 'how-to' strategy (i.e., will seek multiple transferable skills and knowledge and will build relationships external to the current employer), and hence will create a particular pattern or shape in their career histories (i.e., diverse work experiences across organisational boundaries). This clarification of the nature and structure of this new career construct advances the understanding of BCs.

5.2.2 Theoretical contributions

Broadly speaking, this research has contributed to the theoretical development of the BC conceptualisation by highlighting the significance of social influence and career decision-making self-efficacy in understanding the BC orientation. Also, a hypothesised structural equation model (depicted in Figure 5.1) was developed to understand the effect of the individuals' personal attitudes towards pursuing BCs on voluntary turnover intentions. The details of these theoretical contributions are highlighted in the following subsections.

5.2.2.1 The significance of social influence and career decision-making self-efficacy in understanding career orientation

The first theoretical contribution that this research makes to BC theory is

through highlighting the significance of social support and influence and career decision-making self-efficacy in the BC orientation, and how these factors affect individuals' career orientation and perspective development. Using the theory of planned behaviour (Ajzen, 1991, 2002) as a conceptual framework for the design of a BC attitude and pursuit intention scale, this research incorporated the effects of social influence and self-efficacy into the understanding of individuals' personal attitudes towards pursuing BCs. Although the concepts of self-efficacy and social influence have been studied extensively in psychology and sociology, they have only become important in career studies in the last decade (e.g., Greller & Richtermeyer, 2006; Lee & Mitchell, 1994; Mitchell et al, 2001). In various behavioural studies (e.g., Ajzen, 1991, 2002; Bandura, 1991; Deci & Ryan, 2004), social influence and self-efficacy have been considered inherent and essential motivations for behavioural intentions and outcomes. In other words, these variables could be regarded as the 'antecedents' for behavioural intentions and outcomes in general. The inclusion of these two factors in this research yielded useful theoretical insights into the 'what', 'why' and 'how' of changes in individuals' personal attitudes towards BCs. Thus, this research contributed to the theoretical development of BCs by emphasising the significance of social influence and support, especially from significant others, and self-efficacy in career decision making in individuals' attitudes towards and intentions to adopt new career forms, specifically BCs.

5.2.2.2 The structural model of the effect of boundaryless careers on voluntary turnover intentions

This research also helped to advance BC and voluntary turnover theories by empirically testing the effects of the individuals' personal attitudes towards pursuing BCs on voluntary turnover intentions using the hypothesised structural equation model depicted in Figure 5.1. This research proposed a comprehensive model that considered how individuals' BC career orientation could explain and predict their subsequent vocational intentions and behaviour, specifically in the area of voluntary turnover. The findings suggest that positive attitudes towards BCs were more common among individuals with high self-efficacy in career decision-making who had social approval

and support from their significant others, specifically local employers and family members. These two factors affected individuals' personal attitudes towards pursuing BCs, which in turn positively affected their subsequent voluntary turnover intentions and behaviour. In other words, these two dimensions may act as the 'antecedents' for individuals to form a strong preference for BCs. The theoretical development of this new career construct was strengthened by the research findings related to the structural equation model .

One of the explanations for the structural relationship between personal attitudes towards pursuing BCs and voluntary turnover intention may be the novelty of this career perspective. According to Roger's (1962) diffusion of innovation theory, one of the four main elements influencing the spread of a new idea or innovation is social support and influence. During the diffusion process, there are only a few early adopters (Roger, 1962), but most people will rely heavily on the opinions of those whom they regard as significant. The majority of people will also perform a self-assessment to test the fit of the new idea (i.e., self-evaluation on their own self-efficacy in career decision-making in the case of the adoption of BCs) before they adopt a new concept or a novel idea. Following this logic, the extent of social influence and support (especially from local employers and family members) and perceived self-efficacy in career decision-making should not be underestimated in the development of BCs, as these factors are crucial in determining the adoption rate of the BC.

5.2.3 Empirical contributions

In addition to the methodological and theoretical contributions, this research also makes some empirical contributions. The following subsections outline the empirical contributions of the research.

5.2.3.1 A preference for the boundaryless career perspective

The research results provide empirical evidence of a personal preference for the BC perspective among the respondents in both studies. Given that the conceptualisation of BCs is largely based on the 'contrarian logic' of the traditional

organisational career (Arthur & Rousseau, 1996), the results may imply a gradual paradigm shift from the traditional organisational career perspective, the mainstream career form in the past 50 years, to the BC perspective.

The traditional organisational career offered job security and an orderly progression of promotions and advancement arrangements through a vertical hierarchical structure to employees in exchange for their loyalty and commitment (Levinson, 1978; Super, 1957; Whyte, 1956). In contrast, the BC perspective highlights employees' desire to reduce their dependence on a single employer and increase their career autonomy and mobility (Arthur & Rousseau, 1996; Hall, 2002; Inkson, 2006, 2008; Sullivan & Arthur, 2006). These research findings suggest that corporate leaders and HR managers may need to review the validity and applicability of their existing HR policies to deal with the rise of the BC perspective in contemporary employment relationships. Under the influence of the BC perspective, a desirable employment relationship may not be based on job security and regular internal promotions, as in the traditional organisation career era. Instead, to ensure employee engagement, HR policies that facilitate career autonomy, learning opportunities for transferable skills and social capital creation may be required to accommodate the needs and expectations of employees with a BC orientation.

Furthermore, the test of the hypothesised structural equation model through the empirical data demonstrated a positive direct effect of personal favourable attitudes towards BCs on employees' subsequent voluntary turnover intentions. In other words, individuals with favourable attitudes towards BCs were more likely to have higher voluntary turnover intentions, and hence to change jobs or employers voluntarily.

5.2.3.2 Employee retention factors

The empirical findings related to the rankings of the 12 retention factors investigated in Study 2 indicate that three of the top five retention factors were related to social factors. 'Good social networking and support', 'quality of colleagues' and 'quality leadership' (see Table 4.8 in Chapter 4 for the rankings details) were three factors among the top five rankings. These findings indicate the importance of social

factors in employee retention. Also, the retention factors valued by employees with favourable attitudes towards BCs differed from those with unfavourable attitudes. The high BC orientation group ranked 'learning opportunities' and 'good social networks and support' as more important than 'quality leadership' and 'advancement prospects' in terms of employee retention factors. Therefore, to maintain a pool of stable internal human capital for their organisations, corporate leaders and HR managers may need to consider career orientation differences when formulating retention strategies and policies. The practical implications of these findings are further discussed in the next section.

5.2.4 Contributions to practice

5.2.4.1 The use of targeted retention factors

Major findings within Study 2 reveal that respondents in the high BC orientation group prioritise retention factors differently compared to the low BC orientation group. These differences may have practical implications for retention strategies in that they provide empirical information for use in targeted approaches to formulate retention strategies. For example, in the high BC orientation group, 'learning opportunities' and 'good social networking and support' were the second and third most important retention strategy factors affecting the decision to stay. However, these factors did not present in the same way for the moderate and low BC orientation groups. Instead, the moderate and low BC orientation groups listed 'advancement prospects' and 'quality leadership' as the second and third most important retention determinants. Furthermore, the 'alignment of personal and organisational goals' ranked fifth (out of 12) in the high BC orientation group, but was the least important factor in the low BC orientation group. These results support companies' efforts to use targeted retention strategies and highlight how a 'one-size fit all' approach might not be appropriate for contemporary organisations. It is also interesting to note that apart from 'financial compensation', 'quality leadership' gained the second highest scores among all groups in Study 2.

5.2.4.2 The significance of social factors in employees' retention decisions

Research in the 1990s found that traditional HR practices concerned with talent retention usually concentrated on compensation and rewards, job security, training and development, supervisor support culture, work environment and organisational justice (Arthur, 1994; Delaney & Huselid, 1996; Ichiowski, Shaw, & Prennushi, 1997; MacDuffie, 1995; Meyer & Allen, 1991; Snell & Dean, 1992; Snell & Youndt, 1995). Although these practices were effective in past decades, because companies are now facing higher pressure to reduce costs and company size, the use of financial compensation or offering advancement prospects and job security to retain staff are becoming difficult. Despite the empirical findings in this research supporting the importance of 'financial remuneration' (ranked first) and 'advancement prospect' (ranked third) as important retention factors, the significance of the social (people) factors, specifically the calibre of human capital within an organisation, in affecting employees' decision to stay with an employer was also revealed in the analysis of empirical data collected in Study 2.

The increasing importance of these people-related factors may be a result of the changing employment conditions. For example, it is becoming common for older workers to have younger supervisors (due to better educational qualifications in younger generations), which makes 'quality leadership' a concern (Noe, Hollenbeck, Gerhart, & Wright, 2010). The significance of social capital and networks in increasing individuals' employability (Coleman, 1988) may make the calibre of human capital within an organisation an important retention factor. Consequently, corporate leaders or HR managers may rethink the role of social factors in formulating retention strategies in the contemporary era. Modern and innovative HR practices that could increase employees' social support such as work-life programmes, which usually include flexible work schedules and staffing and employee recognition programmes (Clayton, 2004), will encourage members to stay with an organisation. Other HR practices that improve the quality of human capital within the organisation, such as the use of stringent recruitment practices and career development tactics including employees on lease, and job designs such as teamwork with a diverse workforce,

should receive more attention.

5.2.4.3 The importance of career autonomy

Given that the empirical data in this research reflect a preference for BCs, the importance of career autonomy should receive more attention in formulating HR policy, as it is the prime motivation for individuals to pursue BCs. In addition to including the dimension of autonomy in job design, some companies are allowing employees to exercise autonomy beyond their job duties (e.g., Semco, Google, DaVita, Freys Hotels and Linden Labs). These companies have already started to put 'workplace democracy' into practice. Workplace democracy is the application of democratic practices, such as voting, debate and participatory decision-making systems in the workplace to ensure fairness and welfare maximisation (McMahon, 1994). Companies with workplace democracies are characterised by high levels of employee engagement, principle-based rather than rule-based work relations. These new employment practices make management a domain shared between managers and staff, removing the 'master-servant' relationship that characterises traditional organisational careers.

Although the effectiveness of these workplace democracy policies and the extent to which they can be applied across organisations and industries as a means of retaining employees remain unknown, it is possible that these new and unconventional HR practices could accommodate the need for higher career autonomy and social support that are important for retaining those with a BC orientation.

In brief, the empirical findings in this research suggest a preference for BCs. Given that the BC perspectives could lead to higher voluntary turnover and inter-organisational mobility, a review of existing retention practices is needed to help manage the potential for increased voluntary turnover behaviour.

5.3 Limitations

Although the proposed BC attitudes and pursuit intentions scale exhibited reliability and validity, and a hypothesised model was constructed and tested to examine the effects of individuals' personal attitudes towards pursuing BCs on

voluntary turnover intentions, there are still a number of limitations inherent in this research that should be addressed in future research.

First, although the findings were robust across samples and geographical locations, both studies were cross-sectional. Therefore, one may question the robustness and applicability of the scales and models over time. Future research could collect data from different time periods or use a longitudinal research design to provide even stronger support for the scales established and models proposed.

Second, the current research was limited by its focus on only two locations in the Asia-Pacific region: Hong Kong and Sydney. Although these two places already have distinct cultures (Hofstede, 1984), both are developed economies. Therefore, the generalizability of the scale and model to other contexts, such as developing countries within the region, or other countries outside the region remain uncertain. Given that all of the respondents in both studies are having or had a tertiary education, the generalizability of the scale and model to different educational levels is also unclear.

Third, the data in Study 1 was all collected from undergraduate students in Hong Kong and Australia only. As most of the respondents were lacking in full-time working experiences in the study, it is unclear if whether these respondents would have the same perceptions of respondents with working experiences. Future studies could look at the issues in how real-life working experiences affect the BC attitudes and career orientation.

Fourth, the data in Study 2 was all collected from a homogeneous cultural setting, specifically the local Chinese population in Hong Kong. As all of the respondents are from a collectivist culture where human relationships and ties are of prime concern (Singelis, Triandis, Bhawuk, & Gelfand, 1995), it is unclear if BC-oriented managers from individualistic societies would have the same perceptions of BCs and retention factors. Future studies could examine the issues in non-Asian countries and non-Chinese population to deeper the understanding of the possible effects of this new career perspective.

5.4 Directions for Future Research

Previous studies (Greller & Richtermeyer, 2006) have shown that social influence plays a key role in career development. Work roles and career progression could be made in response to the expectations of others, even when the outcomes are 'self-limiting' career behaviour (Kirchmeyer, 1998). This research considered the effects of social influence and support of family members and employers on individuals' BC orientation. However, a deeper understanding of the importance of other 'significant others' such as peers within and outside the employing organisations, immediate supervisors or even the leaders of the company in shaping the personal attitudes towards the BC perspective may further the understanding of the role of social influence and support in the spread of this new career perspective. It is worth noting that the regression analysis results for the local Hong Kong manager sample provided empirical evidence of the significance of perceived non-supportive subjective norms in family members' attitudes towards BC for the prediction of personal negative BC attitudes. However, similar findings were not found in the university student samples. Consequently, future research on the social influence of other 'significant others' in different groups may be needed. Studies of the significance of social influence and support at different stages in individuals' work lives might also provide useful insight into the development of individuals' career perspectives and orientations.

Another future research direction could focus on the career competencies development strategies employed among those with a BC orientation. As discussed in Section 2.3 of Chapter 2, individuals who want to pursue BCs are encouraged to acquire knowledge and skills through their various career choices (instead of staying with and gaining firm-specific knowledge from a single employer) and their own efforts. Likewise, those with a BC orientation also need to maintain connections to social and professional networks external to their employing organisations. In other words, employees who are pursuing BCs need to configure their own career paths and turn their social networks and diverse working experiences into a 'cyclical learning process'

that builds their career capital (Smith, 2001). However, given the lack of knowledge as to what career capital is needed in an era of changing employment, the effectiveness of the discussed career competencies development strategies employed remains unclear. Future studies need to determine what career capital is needed in the contemporary era and whether the abovementioned career competence development strategies can increase the chance of career success or employees' well-being.

The increasing adoption of 'winner-takes-all' reward systems across industries (Fryer & Loury, 2005), prompted by the increasing intensity of globalisation, have complicated the above questions. Although 'winner-takes-all' economics have long been prevalent in celebrity-dominated businesses such as entertainment and sports, this reward structure is now expanding to professions such as law, medicine, corporate management, journalism and investment banking. In 'winner-takes-all' industries or sectors, the employers pay individuals according to performance relative to others, not according to absolute performance. The 'winner-takes-all' reward system makes the 'winner' much richer, while the solid performers with just a slightly lower performance are rewarded much less. Future studies need to examine whether, under a 'winner-takes-all' reward system, the career competencies development strategies suggested in the BC literature, such as building relationships with external networks, gaining diverse work experience or learning multiple transferable skills, are really better approaches to developing career competencies than specialising in firm-specific skills and knowledge and keeping a long-term relationship with one or a few employers.

Studies of the possible consequences of this new type of career on organisations and individuals are also needed. This research investigated the effects of the BC perspective on voluntary turnover intention and behaviour. The unexpected and unwanted high voluntary turnover rates of skilled professionals not only lead to human capital loss and financial costs to the organisation, they also create a competitive disadvantage, especially if competitors hire the employee. The focus on learning transferable competencies and knowledge makes employees with a BC orientation more likely to be re-employed within the same industry by a competitor. Although this

research investigated the critical retention factors for boundaryless professionals, further research into what keeps boundaryless careerists motivated and engaged may be necessary to reap the full benefits this type of employee. Other possible consequences of this new career form for organisations, such as discontinuous knowledge creation and transfer, missing links in organisational learning and even succession problems (due to high voluntary turnover or inter-organisational mobility) are also areas for future research.

5.5 Conclusion

Most contemporary firms are now unable to offer traditional organisational careers because the rudiments for building them (e.g., a very stable economic and organisational environment, relatively tall organisational hierarchies and long-term commitment of internal labour) are unlikely to be found in this era of globalisation and rapid technological innovation. The BC, a new career model that emerged in the mid-1990s, has been established as a primary way to think about the changing employment relationships in the contemporary era.

Previous research on BCs has been primarily qualitative and anecdotal in nature. A literature review found that there was no measure available to capture all of the core features embedded in a BC. Therefore, this research developed and validated a scale that can gauge individuals' attitudes towards and intentions to pursue BCs. This scale was then used to understand the prevalence of the BC perspective in the Asia-Pacific region and its relationship with voluntary turnover intentions and behaviour.

In Study 1, a four-dimensional 21-item scale was developed and validated to gauge BC attitudes and pursuit intentions. The design of the scale was based on the theory of planned behaviour (Ajzen, 1991, 2002), and thus covers all dimensions (i.e. attitude towards the behaviour in question, subjective norms and perceived behavioural control) that could influence the behavioural intentions and outcomes postulated in the theory. An EFA and a CFA were conducted based on the data collected from three different university undergraduate samples (n=677) in Hong Kong and Australia. The CFA results

demonstrated the stability of the factorial structure across samples. Discriminant validity, convergent validity and measurement invariant were also evident.

In Study 2, SEM was used to examine the structural relationship between individuals' attitudes towards pursuing BCs and their subsequent voluntary turnover intentions. A new dataset was collected from 331 local managers in Hong Kong, revealing that their voluntary turnover intentions could be predicted by their personal attitudes towards pursuing BCs. The t-test results between high and low BC orientation managerial groups also showed that there were statistically significant between-group differences regarding retention determinants. A direction for future research on BCs has also been discussed.

In summary, BCs arise from the dynamic nature of the work environment. On the positive side, the pursuit of BCs allows individuals to achieve career autonomy, to make self-determined decisions in their career domain and to avoid entering a 'master-servant relationship' with a single employer. However, the adoption of BCs can also bring challenges. Individuals who want to pursue BCs need to acquire, in addition to their professional knowledge and expertise, new career competencies such as networking skills, self-directed learning skills, career adaptability skills, and knowledge creation and transfer capabilities. Most of these competencies are still not the focus of existing educational systems. Whether these skills can be taught or learned from schools remains unclear, but it is clear that to have a successful BC, employees are required to master all of these skills with no delay. Given the time and effort needed to learn them, the older workforce is likely to be in a disadvantageous position with regards to this new career form. Moreover, in addition to the continuous learning process, the negative consequences of continual change and the lack of job security mean that the ability to be both a risk-taker and a risk-absorber should not be underestimated (Smith, 2001) even for the better-educated, wealthier and younger generation.

For organisations, BCs enhance HR flexibility and allow the leverage of different

types of expertise across organisations and even industries, but there are also managerial concerns. Novel HR practices are needed to resolve the inevitable tensions between boundaryless employees' personal career goals (such as career autonomy and self-determination on career development, learning multiple transferable competencies instead of firm-specific skills, expanding social networks external to current employer) and organisational commitment. New employment policies and practices that facilitate these broader and more complex needs of contemporary boundaryless professionals so as to keep them motivated and engaged are required to reap the benefits of these employees. Other managerial issues, such as discontinuous knowledge creation and transfer, talent retention and succession planning, also need to be addressed.

Even though there is still a lack of methods for formulating appropriate HR policies to solve these new expectations and emerging needs brought about by the BC perspective, organisations are likely to attract and retain these boundaryless professionals when the new HR practices do not unilaterally accommodate organisational goals, but rather allow individual career flexibility and autonomy. At present, the potentials and drawbacks of this new career perspective are only partially understood, and a better picture will be obtained only through continuous research into this new employment relationship phenomenon.

Appendices

Appendix A
A Selection of Quotations & Citations Related to the Motivation & Goal Perspective

Table A1
The Motivation & Goal Perspective

Author	Year	Quotations and Citations	Journals / Books	Fields
Mirvis, P. H., & Hall, D. T.	1994	"Since this (boundaryless) career will provide so few external guideposts and guarantees of success, there will be little choice but to look inside and probe personal values to fashion some kind of career development plan and identity in this new working world."	Journal of Organizational Behaviour	Organizational Studies
Arthur M. & Rousseau D.	1996	"Boundaryless career emphasizes that skills would create opportunities, rather than opportunities creating skills. It would be up to the individual to manage their own career."	The Academy of Management Executive	Management and Organization
Kalleberg, A.L.	2000	"...reflect organizations' attempts to achieve flexibility by externalizing some of their activities. The focus on externalization contrasts with the dominant concern of organizational analysts during the post-World War II period, which was with how employers internalize their workforces to develop their skills and protect them from competition in external labour markets."	Annual Review Sociology	Sociology
Peiperl, M. A., & Arthur, M. B.	2000	"Careers are becoming more 'individual centered' than 'organization centered'..."	Career frontiers: New conceptions of working lives	Career Management
Enache, M., Sallan, J. M., Simo, P., & Fernandez, V.	2001	"Boundaryless careers reflect that responsibility for development of the self has been placed in the hands of the possessor, who experiences job movements both within and across organizational boundaries."	Journal of Management and Organization	Management and Organization
Seibert, S. E., Kraimer, M. L., & Crant, J. M.	2001	"A central requirement of the boundaryless career is that employees take responsibility for the management of their own careers in order to ensure that they continue to provide added value to their employing organizations."	Personnel psychology	Psychology

Smith, V.	2001	"...the boundaryless career worker, who can move about according to personal preference and can benefit from learning in new organizational contexts and acquiring new knowledge bases, may be significantly advantaged by the circumstances characterizing the post-bureaucratic employment model."	Administrative Science Quarterly	Organizational Studies
Smith, V.	2001	"Gunz, Evans, and Jalland, ... increased boundarylessness has more to do with novel ways that career actors interpret and pursue emergent labour market paths and less to do with increased organizational boundarylessness per se."	Administrative Science Quarterly	Organizational Studies
Thite, M.	2001	"They (boundaryless careerists) can no longer rely on organization to steer them through the career maze..."	Career Development International	Career Development
Baruch, Y.	2004	"Careers have become more open, more diverse, and less structured and controlled by employers."	Career Development International	Career Development
Briscoe, J. P., & Hall, D. T.	2006	"The challenge to stretch the idealist developmentally is to get employees out of their comfort zones by encouraging (or even requiring) them to manage their own career more, to immerse themselves in opportunities for physical mobility, and to somehow nudge them in to action"	Journal of Vocational Behaviour	Vocational Studies
Granrose, C. S., & Baccili, P. A.	2006	"The new concepts expect that individual is the agent of his or her career and may select individual career goals external to organizational goals, regardless of organizational boundaries and that may or may not include upward mobility"	Career Development International	Career Development
Lips-Wiersma, M. & Mcmorland, J.	2006	"Arthur and Rousseau ... (boundaryless career)... is defined as moving away from one single, externally determined view which defined what a good career is" towards "independence from, rather than dependence on, traditional organizational career arrangements"	Journal of Humanistic Psychology	Psychology
Smith, T., & Sheridan, A.	2006	"The responsibility for (boundaryless) career management in the twenty-first century would rest with the individual, rather than with the organization."	Journal of Management and Organization	Management and Organization

Yamamoto, H.	2006	"Young and excellent (boundaryless) workers are interested in raising worth of the labour market rather than in-house evaluation"	Career Development International	Career Development
Cheramie, R. A., Sturman, M. C., & Walsh, K.	2007	"...rather than remain with one organization and line of work over the course of their careers, individuals (boundaryless career worker) self-manage their careers by autonomously capitalizing on new opportunities that they believe will provide them with valued returns in exchange for performance"	Journal of Vocational Behavior	Vocational Studies
Sommerlund, J., & Boutaiba, S.	2007	"The newer ways of defining "boundaryless career" implies a conscious rejection of the traditional, external guides of orientation; the most recognizable signs of which are advancement in the hierarchy and increases in salary."	Journal of Organization Change and Management	Organizational Studies
Smith-Ruig, T.	2008	"The (boundaryless) career would be directed by the individual, not the organization, and driven by changes in the person and in the environment."	Career Development International	Career Management

Appendix B
A Selection of Quotations & Citations Related to the Skills & Competences Perspective

Table A2
The Skills & Competences Perspective

Author	Year	Quotations and citations	Journals / Books	Fields
Allred, B. B., Snow, C. C., & Miles, R. E.	1996	"Individuals in the future will need to possess the cumulative set of skills generated by organizational evolution (i.e. technical, commercial, collaborative, and self-governance skills), and they will create the organization they needed to facilitate their work."	The Academy of Management Executive	Management and Organization
Hall, D. T.	1996	"Boundaryless career would be characterized by a focus on continuous learning. It would not be measured by chronological age and life stages, but by continuous learning and identity changes. A career would be a series of short learning stages, emphasizing career age, not chronological age, which emphasizes on those individuals with know-how rather than those with learn-how. The individual must develop new competencies related to the management of self and career. The individual must learn how to develop self-knowledge, adaptability, and 'metaskills'. Metaskills are the skills required for learning how to learn. These skills will be the main elements of the self-directed career."	The Academy of Management Executive	Management and Organization
Crocitto, M.	1998	"Boundaryless career is a multifaceted phenomenon involving navigation across employers, market confirmation of one's knowledge and choices, and connections to networks of a social and professional nature."	The Academy of Management Review	Career Management
Crocitto, M.	1998	"Miles and Snow propose that the skills essential for both individuals and organizations in the network forms are the ability to assess client needs, to make appropriate referrals, and to partner, negotiate, build, and maintain relationships."	The Academy of Management Review	Career Management

Lichtenstein, B., Jennifer, H., & Olson, N.	1998	"Fondas suggests that many competencies for successful boundaryless careers are qualities culturally ascribed to women and minorities, like the ability to develop relationships that are open and focused on others, the tendency to reduce uncertainty through unity and cooperation, and the value of working with supportive, empowering sensitivities."	Administrative Science Quarterly	Organizational Studies
Lichtenstein, B., Jennifer, H., & Olson, N.	1998	"The firm as a social network structure in which the amount of social capital one has-"the breadth of one's social ties"- should strongly influence one's boundaryless career success."	Administrative Science Quarterly	Organizational Studies
Peiperl, M. A., & Arthur, M. B.	2000	"...corporations rely on the individual's ability to learn and adapt rather than perform as required"	Career frontiers: New conceptions of working lives	Career Management
Seibert, S. E., Kraimer, M. L., & Crant, J. M.	2001	"Career researchers have frequently observed that individuals in the new, boundaryless careers need to be proactive proactive behaviour as "taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to present conditions "	Personnel Psychology	Psychology
Lust, J. A.	2006	"Persons who are successful in navigating boundaryless careers will need to have a reasonably significant skill set."	Personnel Psychology	Psychology at Work
Yamamoto, H.	2006	"To develop a boundaryless inter-organizational career requires more self-control on the part of the employee than to develop an organizational career."	Career Development International	Career Development
Yamashita, M., & Uenoyama, T.	2006	"They (BC actor) don't learn as much organizational knowledge: they only learn portable skills"	Career Development International	Career Development
Tremblay, D. G	2008	"It should be noted that these new forms of employment, or boundaryless careers, can also be viewed as precarious or unstable, depending on the context and characteristics of workers, and that there may be some overlap in the categories, which are not necessarily mutually exclusive. As my research in the multimedia sector has shown, while some workers do well in this portfolio economy context, others have difficulty and	Social Indicators Research	Sociology

		find themselves in more precarious situations, in some cases because they do not have the social networks or privileged relationships which appear important for the boundaryless careers		
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Appendix C
A Selection of Quotations & Citations Related to the Pattern & Path Perspective

Table A3
The Pattern & Path Perspective

Author	Year	Quotations and citations	Journals / Books	Fields
Arthur, M.B.	1994	"...the boundaryless aspect of the career is that employee conceptualizes 'a boundaryless future regardless of the structural constraints'"	Journal of Organizational Behaviour	Organizational Behaviour
Bird, A.	1994	"The concept of the boundaryless career derives from a response to a more common view of careers as being bounded: bounded in organization; bounded in well-defined roles, positions, or jobs."	Journal of Organizational Behaviour	Organizational Behaviour
Arthur, M.B. & Rousseau D. M.	1996	"Boundaryless career paths often involve lateral or even downward career moves."	The boundaryless career: A new employment principle for a new organizational era	Career Management
Brousseau, K. R., Driver, M. J., Eneroth, K., & Larson, R.	1996	"...people ... need to be more flexible and versatile in their skills and knowledge... must be willing to go anywhere, at any time, and at a moment's notice, to do anything"	The Academy of Management Executive	Management and Organization
Rousseau, D. M.	1997	"... mobility is tied to the formation of new and more varied employment relationships across industries as well as within specific firms."	Annual Review Psychology	Psychology
Gunz, H., Evans, M., & Jalland, M.	2000	"At its very simplest, the boundaryless career hypothesis holds that careers are no longer constrained by organizational boundaries"	Career frontiers: New conceptions of working lives	Career Management

Jones, C. & Lichtenstein, B.	2000	"...organization's ability to identify and act on differing "organizational logics" that synergistically link professionals' career paths with firm strategies."	Career frontiers: New conceptions of working lives	Career Management
Kalleberg, A.L.	2000	DiTomaso (2000) "describes the structural arrangements in which many of these workers work as loosely coupled systems, also called webs, networks, alliances, spin-offs, and new ventures."	Annual Review Sociology	Sociology
Kalleberg, A.L.	2000	Carnoy et al 1997 (see also Kunda et al 1999) "describe the individualized, flexible employment defined by human capital portfolios of these workers, as opposed to stable, permanent jobs."	Annual Review Sociology	Sociology
Seibert, S. E., Kraimer, M. L., & Crant, J. M.	2001	"Individuals' work experiences now tend to span multiple employers, work arrangements, and types of competencies and those individuals are increasingly responsible for managing the transitions in their own careers."	Personnel Psychology	Psychology
Smith, V.	2001	"...traditional career pathways are giving way to less linear and less organizationally confined career..."	Administrative Science Quarterly	Organizational Studies
Smith, V.	2001	"Desires for greater involvement in families or in community service and ebbs and flows in the intensity of work that allow people to reflect, retool, and reenergize, in general, intermittent periods of lessened involvement might be the ingredients of an innovative model of (boundaryless) careers that would advantage both employees and organizations."	Administrative Science Quarterly	Organizational Studies
Baruch, Y.	2006	"(Boundaryless) Careers became transitional, flexible, and the dynamics of the re-structuring blur the tidy and firm former routes for success (forcing new perspective of what is success)."	Human resource management review	Management
Briscoe, J. P., & Hall, D. T.	2006	"...boundaryless careers as not bounded, not tied to a single organization, not represented by an orderly sequence, marked by less vertical coordination and stability."	Journal of Vocational Behaviour	Vocational Studies
Lips-Wiersma, M. & Mcmorland, J.	2006	"Boundaryless employees are not dependent on their employers to determine their career paths and are likely to take a more active stance toward their careers, leading to a larger variety of options..."	Journal of Humanistic Psychology	Psychology at Work

Lust, J. A.	2006	"...the boundaryless career does not characterize any single career form, but, rather, a range of possible forms that defies traditional employment assumptions." It is "the opposite of 'organizational careers'-careers conceived to unfold in a single employment setting."	Personnel Psychology	Psychology At Work
Smith, T., & Sheridan, A.	2006	"Careers in the twenty-first century would no longer be automatic or linear, they would be boundaryless."	Journal of Management and Organization	Management and Organization
Yamamoto, H.	2006	"If workers intend to attain some career goals by their inter-organizational career, they have to develop their careers in the present affiliation organization."	Career Development International	Career Development
Blickle, G., & Witzki, A.	2008	"The guiding principle of the boundaryless career suggests that employees develop the ability to flexibly switch between different career models and employers within a given industry and a particular occupation."	Society and Business Review	Sociology

Appendix D
Number of Citations & Related Publications of the Eleven Prevailing Voluntary Turnover Theories & Models

Table A4
The Eleven Prevailing Voluntary Turnover Theories & Models

Theories	No. of Citation (@Jan 05, 2012)	Source (name of the journal, book, etc)
1 March & Simon (1958) Process Model of Turnover	[14384]	Book Organizations / James G. March & Herbert A. Simon with the collaboration of Harold Guetzkow. New York : Wiley, [1958]
2 Porter & Steers (1973) Met Expectations Model	[1353]	Psychological Bulletin Organizational, work, & personal factors in employee turnover & absenteeism. / Porter, Lyman W., Steers, Richard M., Psychological Bulletin, Vol 80(2), Aug 1973 151-176.
3 Price (1977) Causal Model of Turnover	[995]	Book The study of turnover / James L. Price., Ames : Iowa State University Press, 1977., 1st ed.
4 Mobley (1977) Intermediate Linkages Model	[1132]	Journal of Applied Psychology Intermediate linkages in the relationship between job satisfaction & employee turnover./ Mobley, William H., Journal of Applied Psychology, Vol 62(2), Apr 1977, 237-240.

5 Steers & Mowday (1981) Turnover Model	[3977]	Journal of Vocational Behaviour The measurement of organizational commitment / Richard T Mowday , Richard M Steers, Lyman W Porter, Journal of Vocational Behaviour, Volume 14, Issue 2, April 1979, Pages 224-247.
6 Sheridan & Abelson (1983) Cusp Catastrophe Model of Employee Turnover	[111]	The Academy of Management Journal Cusp Catastrophe Model of Employee Turnover / John E. Sheridan & Michael A. Abelson, The Academy of Management Journal , Vol. 26, No. 3 (Sep., 1983), pp. 418-436.
7 Jackofsky (1984) Integrated Process Model	[191]	The Academy of Management Review Turnover & Job Performance: An Integrated Process Model / Ellen F. Jackofsky, The Academy of Management Review, Vol. 9, No. 1 (Jan., 1984), pp. 74-83.
8 Hom & Griffeth (1991) Alternative Linkages Model of Turnover	[328]	Journal of Applied Psychology Hom, P., & Griffeth, R. 1991. Structural Equations Modelling Test of a Turnover Theory: Cross-Sectional & Longitudinal Analyse. Journal of Applied Psychology, 76:350-366.
9 Lee & Mitchell (1994) Unfolding Model of	[537]	The Academy of Management Review An Alternative Approach: The Unfolding Model of

Voluntary Employee Turnover		Voluntary Employee Turnover / Thomas W. Lee & Terence R. Mitchell, The Academy of Management Review , Vol. 19, No. 1 (Jan., 1994), pp. 51-89.
10 Aquino et al (1997) Referent Cognitions Model	[143]	Academy of Management Journal Integrating Justice Constructs into the Turnover Process: A Test of a Referent Cognitions Model / Karl Aquino, Rodger W. Griffeth, David G. Allen & Peter W. Hom., The Academy of Management Journal , Vol. 40, No. 5 (Oct., 1997), pp. 1208-1227.
11 Mitchell & Lee (2001) Job Embeddedness Model	[105]	Research in Organizational Behaviour The unfolding model of voluntary turnover & job embeddedness: Foundations for a comprehensive theory of attachment. / Mitchell, T. R., & Lee, T. W. (2001). Research in Organizational Behaviour, 23, 189 –246.

Appendix E

Brief Description of the Theory of Planned Behaviour

According to the theory of planned behaviour, human action is guided by three kinds of considerations: beliefs about the likely outcomes of the behaviour and the evaluations of these outcomes (behavioural beliefs), beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs), and beliefs about the presence of factors that may facilitate or impede performance of the behaviour and the perceived power of these factors (control beliefs). In their respective aggregates, behavioural beliefs produce a favourable or unfavourable attitude toward the behaviour; normative beliefs result in perceived social pressure or subjective norm; and control beliefs give rise to perceived behavioural control. In combination, attitude toward the behaviour, subjective norm, and perception of behavioural control lead to the formation of a behavioural intention. As a general rule, the more favourable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behaviour in question. Finally, given a sufficient degree of actual control over the behaviour, people are expected to carry out their intentions when the opportunity arises. Intention is thus assumed to be the immediate antecedent of behaviour. However, because much behaviour pose difficulties of execution that may limit volitional control, it is useful to consider perceived behavioural control in addition to intention. To the extent that perceived behavioural control is veridical, it can serve as a proxy for actual control and contribute to the prediction of the behaviour in question.

Cited from "Constructing a TPB Questionnaire: Conceptual and Methodological Considerations" September, 2002, by Icek Ajzen

Appendix F
Invitation letter to participate in the survey

Dear Sir/Madam

Re: Invitation to participate in a survey on career development

We would like to invite you to participate in a study of career development. The study focuses on your career perspective and factors that could affect your decision to stay with an employer. In today's global landscape, the importance of career development and talent retention is obvious. We hope that the study will not only help organisations to develop their human resources policies, but also to enhance participants' understanding of their own career development.

Enclosed please find the survey questionnaire we would like you to fill in. It will take about 10 minutes. We believe that your contribution to this survey will be extremely important to our results and hence strongly encourage you to share your opinions and viewpoints with us. However, your participation is completely voluntary and completely anonymous. All of the data received will be considered confidential and their use will be strictly confined to research purposes. No individuals will be identified in any reports or academic papers arising from this research. A brief report with aggregate data would also be available to you upon request. If you are willing to participate in the study, please fill in the questionnaire. You can fax it back to Ms Almaz Chak at 26036840 at the Dept. of Management at the Chinese University of Hong Kong, or you can mail it with the enclosed envelope

Should you have any questions about the study, or would like to receive a report, please feel free to contact me at [\[\]](#) or [\[\]](#). Thank you very much for your help.

Yours sincerely,

Almaz Chak Man Kuen
Department of Management
Chinese University of Hong Kong

Appendix G

Measures used to minimize the limitations and biases inherent in questionnaire survey

To minimise these limitations and biases inherent in questionnaire surveys, this survey adopted a number of measures. For example, to avoid shaping respondents' views according to the researchers' themes and typologies, i.e. researchers' biases, apart from doing a literature review on voluntary turnover behaviour and talent retention, this study also used focus groups to develop the items related to the 12 retention determinant factors.

Moreover, to avoid participants' response biases, such as acquiescence bias (respondents agree with all of the questions asked), negatively-keyed items were used in the subscale related to the perceived family members' attitude towards BCs.

Furthermore, to avoid extremity bias (some respondents prefer extreme answers or always respond neutrally); a 3-item subscale related to positive affectivity items (Iverson et al, 1998) was incorporated into the survey. The items in this subscale were 1) "For me life is a great adventure"; 2) "I live a very interesting life"; and 3) "I usually find ways to liven up my day".

Also, to avoid the social desirability bias (where respondent want to suit the needs of the researchers through hypothesis guessing or to create a favourable impression) (Brewerton & Millward, 2001; Zikmund, 2003), the words and phrases were carefully chosen.

Appendix H
Demographics for the focus group members and judges

1st Focus Group members	I1	I2	I3	I4	I5	I6
Age	24	30	45	32	40	50
Educational level (Degrees)	Bachelor	Master	Master	Bachelor	Bachelor	Bachelor
Functional Category	Marketing	Sales	Sales	HR	HR	HR
Gender	Male	Female	Male	Female	Male	Female
Industry category	Trading	Health Care	Consumer Services	Telecom	Utilities	Finance
Length of Service	2	5	10	7	5	8
Monthly Pay (HK\$)	15K	30K	50K	60K	70K	80K
Size of current employing organisation	101-300	301-500	501-1000	>1000	310-500	301-500
Working Experiences	2	8	20	15	18	28

2nd Focus Group Members	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6
Age	20	21	22	23	21	22
Year	1st year	2nd year	3rd year	4th year	2nd year	3rd year
Major	Marketing	Finance	Marketing	Finance	HR	HR
Gender	Male	Female	Male	Female	Male	Female

Eight Judges	Judge 1	Judge 2	Judge 3	Judge 4	Judge 5	Judge 6	Judge 7	Judge 8
Age	50	40	45	32	58	43	44	43
Educational level (Degrees)	BSc	PhD	PhD	MSc	PhD	MA	PhD	BBA
Functional Category	HR	Academia	Academia	HR	Academia	HR	Academia	HR
Gender	Male	Female	Male	Female	Male	Female	Male	Female
Length of Service	2	25	18	7	5	8	15	8
Size of current employing organisation	101-300	>1000	>1000	>1000	310-500	301-500	>1000	301-500

Pages 163-164 (Appendix I: Ethics Final Approval) of this thesis have been removed as they contain confidential material.

References

- Abelson, M. A. (1987). Examination of avoidable and unavoidable turnover. *Journal of Applied Psychology*, 72(3), 382-386.
- Acemoglu, D. (2002). Directed technical change. *The Review of Economic Studies*, 69(4), 781-809.
- Adecco. (2012). *Unlocking Britain's potential*. Glattbrugg: Adecco Group.
- Ahlstrom, D. (2010). Innovation and growth: How business contributes to society. *The Academy of Management Perspectives*, 24(3), 11-24.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In J. Kuhl & J. Beckmann (Eds.), *Action-control: From cognition to behaviour* (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (1987). Attitudes, traits, and actions: Dispositional prediction of behaviour in personality and social psychology. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 20, pp. 1-63). New York, NY: Academic Press.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179-211.
- Ajzen, I. (1999). Dual-mode processing in the pursuit of insight is no vice. *Psychological Inquiry*, 10(2), 110-112.
- Ajzen, I. (2002). Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of Applied Social Psychology*, 32(4), 665-683.
- Al-Kazemi, A. A. & Ali, A. J. (2002). Managerial problems in Kuwait. *Journal of Management Development*, 21 (5), 366 – 375.
- Allen, D. G., & Griffeth, R. W. (2001). Test of a mediated performance-turnover relationship highlighting the moderating roles of visibility and reward contingency. *Journal of Applied Psychology*, 86(5), 1014-1021.
- Allison, J., Gorringer, S., & Lacey, J. (2006). *Building learning communities: partnerships, social capital and VET performance*. Adelaide: NCVER.
- Allred, B. B., Snow, C. C., & Miles, R. E. (1996). Characteristics of managerial careers in the 21st century. *The Academy of Management Executive*, 10(4), 17-27.
- Altman, B. W., & Post, J. E. (1996). Beyond the “social contract”: An analysis of the executive view at twenty-five large companies. In D.T. Hall & Associates (Eds.), *The career is dead – Long live the career: A relational approach to careers* (pp. 46-71). San Francisco, CA: Jossey-Bass Inc.

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Andersson, L. M., & Bateman, T. S. (1997). Cynicism in the workplace: Some causes and effects. *Journal of Organizational Behaviour*, 18(5), 449-469.
- Aquino, K., Griffeth, R. W., Allen, D. G., & Hom, P. W. (1997). Integrating justice constructs into the turnover process: A test of a referent cognitions model. *Academy of Management Journal*, 40(5), 1208-1227.
- Arbuckle, J. L. (1995). *AMOS for Windows. Analysis of moment structures (Version 3.5)*. Chicago, IL: Small Waters.
- Armstrong, J. S., & Overton, T. (1977). Estimating nonresponse bias in mail surveys. *Journal of marketing research*, 14(3), 396-402.
- Arnold, H. J., & Feldman, D. C. (1982). A multivariate analysis of the determinants of job turnover. *Journal of Applied Psychology*, 67(3), 350.
- Arthur, J. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3), 670-687.
- Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of organizational Behaviour*, 15(4), 295-306.
- Arthur, M. B., & Rousseau, D.M. (Eds.). (1996). *The boundaryless career: A new employment principle for a new organizational era*. New York, NY: Oxford University Press.
- Arthur, M. B., Inkson, K., & Pringle, J. K. (1999). *The new careers: Individual action and economic change*. Thousand Oaks, CA: Sage.
- Arthur, M. M., & Cook, A. (2003). The relationship between work-family human resource practices and firm profitability: A multi-theoretical perspective. *Research in Personnel and Human Resources Management*, 22, 219-252.
- Ashkenas, R. (1995). *The boundaryless organization: Breaking the chains of organizational structure*. San Francisco, CA: Jossey-Bass Inc.
- Bagozzi, R. P., & Yi, Y. (1990). Assessing method variance in multitrait-multimethod matrices: The case of self-reported affect and perceptions at work. *Journal of Applied Psychology*, 75(5), 547-560.
- Baker, T., & Aldrich, H. E. (1996). Prometheus stretches: Building identity and cumulative knowledge in multiemployer careers. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 132-149). New York, NY: Oxford University Press.

- Banai, M. & Harry, W. (2004). Boundaryless global careers: The international itinerants. *International Studies of Management and Organization*, 34(3), 96-120.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4(3), 359-373.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behaviour and Human Decision Processes*, 50(2), 248-287.
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, 3(3), 193-209.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barrick, M. R., & Zimmerman, R. D. (2005). Reducing voluntary, avoidable turnover through selection. *Journal of Applied Psychology*, 90(1), 159-166.
- Baruch, Y. (2004). Transforming careers: from linear to multidirectional career paths: Organizational and individual perspectives. *Career Development International*, 9(1), 58 – 73.
- Baruch, Y. (2006). Career development in organizations and beyond: Balancing traditional and contemporary viewpoints. *Human Resource Management Review*, 16(2), 125-138.
- Benson, J., & Bandalos, D. L. (1992). Second-order confirmatory factor analysis of the reaction to tests scale with cross-validation. *Multivariate Behaviour Research*, 27(3), 459-487.
- Berg, I. E., & Kalleberg, A. L. (2001). *Sourcebook of labour markets*. New York, NY: Kluwer Academic/Plenum Publishers.
- Bergemann, R. (2010). The move from employment to associate consulting within the employment relationship. In V. Vaiman (Ed.), *Talent management of knowledge workers: Embracing the non-traditional workforce* (pp. 33-52). Basingstoke: Palgrave Macmillan.
- Bertea, P., & Zait, A. (2011). Methods for testing discriminant validity. *Management and Marketing-Craiova*, 2, 217-224.
- Besich, J. S. (2003). Job embeddedness as a predictor of voluntary turnover: Validation of a new instrument. (Unpublished master dissertation). University of North Texas, Denton, TX.

- Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment*, 4(1), 47-57.
- Bhide, A. (2008). *The venturesome economy: How innovation sustains prosperity in a more connected world*. Princeton, NJ: Princeton University Press.
- Bird, A. (1994). Careers as repositories of knowledge: a new perspective on boundaryless careers. *Journal of Organizational Behaviour*, 15(4), 325-344.
- Bird, A. (1996). Careers as repositories of knowledge: Considerations for boundaryless careers. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 150-168). New York, NY: Oxford University Press.
- Blickle, G., & Witzki, A. (2008). New psychological contracts in the world of work: economic citizens or victims of the market? The situation in Germany. *Society and Business Review*, 3(2), 149-161.
- Bluedorn, A. C. (1978). A taxonomy of turnover. *Academy of Management Review*, 3(3), 647-651.
- Boyett, J. T., & Boyett, J. H. (2001). *The guru guide to the knowledge economy: The best ideas for operating profitably in a hyper-competitive world*. New York, NY: John Wiley & Sons, Inc.
- Brewerton, P. M., & Millward, L. J. (2001). *Organizational research methods: A guide for students and researchers*. Thousand Oaks, CA: Sage.
- Bridges, W. (1994). The end of the job. *Fortune*, 130(6), 62-64.
- Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behaviour*, 69(1), 4-18.
- Brousseau, K. R., Driver, M. J., Eneroth, K., & Larson, R. (1996). Career pandemonium: Realigning organizations and individuals. *The Academy of Management Executive*, 10(4), 52-66.
- Brown, D., & Associates (Eds.). (2002). *Career choice and development* (4th ed.). San Francisco, CA: Jossey-Bass.
- Brown, P., Lauder, H., & Ashton, D. (2007). Towards a high skills economy: Higher education and the new realities of global capitalism. In D. Epstein, R. Boden, R. Deem, F. Rizvi & S. Wright (Eds.), *Geographies of knowledge, geometries of power: Framing the future of higher education*. *World yearbook of Education 2008* (pp. 190-210). New York, NY: Routledge.
- Bryant, F. B. (2000). Assessing the validity of measurement. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding more multivariate statistics* (pp. 99-146). Washington, DC: American Psychological Association.

- Budd, J. W., & Bhawe, D. (2010). The employment relationship. *Sage Handbook of Human Resource Management*, 51-70.
- Budros, A. (1997). The new capitalism and organizational rationality: The adoption of downsizing programs, 1979–1994. *Social Forces*, 76(1), 229-250.
- Cammann, C., Fichman, M., Jenkins Jr., D., & Klesh, J. R. (1981). Intention to turn over. In J. D. Cook, S. J. Hepworth, T. D. Wall, & P. B. Warr (Eds.), *The experience of work: A compendium and review of 249 measures and their use* (p. 95). New York, NY: Academic Press.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. R. (1979). *The Michigan organizational assessment questionnaire*. Ann Arbor, MI: University of Michigan.
- Cappelli, P. (2001). On-line recruiting. *Harvard Business Review*, 79(3), 139-146.
- Cappelli, P. (2008). *Talent on demand*. Boston, MA: Harvard Business School Publishing.
- Caruth, D. L., & Handlogten, G. D. (1997). *Staffing the contemporary organization: A guide to planning, recruiting, and selecting for human resource professionals*. Westport, CT: Quorum Books.
- Chatman, J. A. (1989). Improving interactional organizational research: A model of person-organization fit. *Academy of Management Review*, 14(3), 333-349.
- Cherame, R. A., Sturman, M. C., & Walsh, K. (2007). Executive career management: Switching organizations and the boundaryless career. *Journal of Vocational Behaviour*, 71(3), 359-374.
- Cheung, G. W., & Rensvold, R. B. (1999). Testing factorial invariance across groups: A reconceptualization and proposed new method. *Journal of Management*, 25(1), 1-27.
- Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Clayton, D. (2004). *Leadershift: The work-life balance program*. Melbourne: ACER Press.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.
- Coleman, J. S. (1990). Rational organization. *Rationality and Society*, 2(1), 94-105.
- Collin, A., & Young, R. A. (Eds.). (2000). *The future of career*. Cambridge University Press.
- Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review*, 11(1), 55-70.

- Crepeau, R. G., Crook, C. W., Goslar, M. D., & McMurtrey, M. E. (1992). Career anchors of information systems personnel. *Journal of Management Information Systems*, 9(2), 145-160.
- Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Crites, J. O. (1978). *Career maturity inventory*. Monterey, CA: CTB/McGraw Hill.
- Crocitto, M. (1998). [Review of the book *The boundaryless career: A new employment principle for a new organizational era*, by M.B. Arthur & D.M. Rousseau]. *The Academy of Management Review*, 23(1), 176-178.
- Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behaviour and Human Performance*, 13(1), 46-78.
- Davis, S. M., & Lawrence, P. R. (1977). *Matrix*. Reading, MA: Addison-Wesley.
- De Wulf, L. & Sokol, J.B. (Eds.) (2005). *Customs modernization handbook*. Washington, DC: The World Bank.
- Deci, E. L., & Ryan, R. M. (2004). *Handbook of self-determination research* (soft cover ed.). Rochester, NY: the University of Rochester Press.
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macro theory of human motivation, development, and health. *Canadian Psychology*, 49(3), 182-185.
- DeFillippi, R. J. & Arthur, M.B. (1996). Boundaryless contexts and careers: A competency-based perspective. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 116-131), New York, NY: Oxford University Press.
- Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949-969.
- DeVellis, R. F. (2003). *Scale development: Theory and applications (Applied Social Research Methods)*. Thousand Oaks, CA: Sage.
- DeVellis, R. F. (2009). *Scale development: Theory and applications (Applied social research methods) (2nd ed.)*. Thousand Oaks, CA: Sage.
- Eby, L. T., Butts, M., & Lockwood, A. (2003). Predictors of success in the era of the boundaryless career. *Journal of Organizational Behaviour*, 24(6), 689-708.
- Edwards, A. C., & Grobar, L. M. (2001). *Contingent workers and alternative employment arrangements: Evidence from the state of California*. Sacramento, CA: California Senate Office of Research.

- Edwards, J. E., Scott, J. C., & Raju, N. S. (Eds.) (2003). *The human resources program-evaluation handbook*. Thousand Oaks, CA: Sage.
- Ellig, J., & Thatchenkery, T. J. (1996). Subjectivism, discovery, and boundaryless careers: An Austrian perspective. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 171-186), New York, NY: Oxford University Press.
- Enache, M., Sallan, J. M., Simo, P., & Fernandez, V. (2011). Examining the impact of protean and boundaryless career attitudes upon subjective career success. *Journal of Management and Organization*, 17(4), 459-473.
- Fabrigar, L., Wegener, D., MacCallum, R., & Strahan, E. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4, 272-299.
- Finstad, K. (2010). Response interpolation and scale sensitivity: Evidence against 5-point scales. *Journal of Usability Studies*, 5(3), 104-110.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- Freedman, A. (1985). *The new look in wage policy and employee relations*. New York, NY: Conference Board.
- Friedman, D. (1988). *The misunderstood miracle: Industrial development and political change in Japan*. Ithaca, NY: Cornell University Press.
- Friedman, T. L. (2005). It's a flat world, after all. *The New York Times*, 3, 33-37.
- Fryer Jr, R. G., & Loury, G. C. (2005). Affirmative action in winner-take-all markets. *The Journal of Economic Inequality*, 3(3), 263-280.
- Galbraith, J. R. (1977). *Organization design*. Reading, MA: Addison-Wesley.
- Gemmill, G. R., & Heisler, W. J. (1972). Machiavellianism as a factor in managerial job strain, job satisfaction, and upward mobility. *Academy of Management Journal*, 15(1), 51-62.
- Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25(2), 186-192.
- Graen, G. (1976) Role-making processes within complex organizations. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1201-1245). Chicago, IL: Rand McNally.
- Graen, G., & Cashman, J. (1975). A role-making model of leadership in formal organizations: A developmental approach. In J.G. Hunt & L.L. Larson (Eds.), *Leadership frontiers* (pp. 143-166). Kent, OH: Kent State University Press.

- Granrose, C. S., & Baccili, P. A. (2006). Do psychological contracts include boundaryless or protean careers? *Career Development International*, 11(2), 163-182.
- Greller, M. M., & Richtermeyer, S. B. (2006). Changes in social support for professional development and retirement preparation as a function of age. *Human Relations*, 59(9), 1213-1234.
- Griffeth, R. W., Gaertner, S., & Sager, J. K. (2000). Taxonomic model of withdrawal behaviours: The adaptive response model. *Human Resource Management Review*, 9(4), 577-590.
- Grundy, T. (2005). Business strategy re-engineering and the bid battle for Marks and Spencer. *Strategic Change*, 14(4), 195-218.
- Gunz, H. P., Evans, M. G., & Jalland, R. M. (2000). Career boundaries in a boundary less world. In M.A. Peiperl, M.B. Arthur, R. Goffee, & T. Morris (Eds.), *Career frontiers: New concepts of working lives* (pp. 24-53). Oxford : Oxford University Press.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60(2), 159-170.
- Hair, J. F., Anderson, R. E., & Tatham, R.L. (1987). *Multivariate data analysis with readings*. New York, NY: Macmillan.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. (7th ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.
- Hall, D. T. (1996). Protean careers of the 21st century. *Academy of Management Executive*, 10 (4), 8-16.
- Hall, D. T. (2002). *Careers in and out of organization*. Thousand Oaks, CA: Sage.
- Hammer, M. (1990). Reengineering work: don't automate, obliterate. *Harvard Business Review*, 68(4), 104-112.
- Handy, C. (1989). *The age of unreason*. Boston, MA: Harvard Business School Press.
- Harrington, D., (2009). *Confirmatory factor analysis*. Oxford: Oxford University Press.
- Harrison, B., Kelley, M. R., & Gant, J. (1996). Innovative firm behaviour and local milieu: Exploring the intersection of agglomeration, firm effects, and technological change. *Economic Geography*, 233-258.
- Harzing, A. W. (1997). Response rates in international mail surveys: Results of a 22-country study. *International Business Review*, 6(6), 641-665.
- Healy, M. C., Lehman, M., & McDaniel, M. A. (1995). Age and voluntary turnover: A quantitative review. *Personnel Psychology*, 48(2), 335-345.

- Heneman, H. G. III. (1974). Comparisons of self-and superior ratings of managerial performance. *Journal of Applied Psychology*, 59(5), 638-642.
- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *Motivation to work*. New York, NY: Wiley.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organisations. *Journal of Management*, 21(5), 967-988.
- Hirsch, P. M., & Shanley, M. (1996). The rhetoric of boundaryless-or, how the newly empowered managerial class bought into its own marginalization. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 218-233). New York, NY: Oxford University Press.
- Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management*, 1(2), 81-99.
- Hofstede, G., & Bond, M. H. (1984). Hofstede's culture dimensions an independent validation using rokeach's value survey. *Journal of Cross-Cultural Psychology*, 15(4), 417-433.
- Hollister, M. N. (2004). Does firm size matter anymore? The new economy and firm size wage effects. *American Sociological Review*, 69(5), 659-679.
- Hom, P. W., & Griffeth, R. W. (1991). Structural equations modelling test of a turnover theory: Cross-sectional and longitudinal analyses. *Journal of Applied Psychology*, 76(3), 350-366.
- Hom, P. W., & Griffeth, R. W. (1995). *Employee turnover*. Cincinnati, OH: South-Western.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.
- Ichniowski, C., Shaw, K., & Prennushi, G. (1997). The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines. *American Economic Review*, 87(3), 291-313.
- Inkson, K. (2006). Protean and boundaryless careers as metaphors. *Journal of Vocational Behaviour*, 69(1), 48-63.
- Inkson, K. (2006). *Understanding careers: The metaphors of working lives*. Thousand Oaks, CA: Sage.
- Inkson, K. (2008). The boundaryless career. In S. Cartwright & C.L. Cooper (Eds.), *The oxford handbook of personnel psychology* (pp.545- 563). Oxford: Oxford University Press.

- Ituma, A., & Simpson, R. (2006). The chameleon career: An exploratory study of the work biography of information technology workers in Nigeria. *Career Development International*, 11 (1), 48 – 65.
- Iverson, R. D., Olekalns, M., & Erwin, P. J. (1998). Affectivity, organizational stressors, and absenteeism: A causal model of burnout and its consequences. *Journal of Vocational Behaviour*, 52(1), 1-23.
- Jackofsky, E. F. (1984). Turnover and job performance: An integrated process model. *Academy of Management Review*, 9(1), 74-83.
- Jacoby, S. M. (2001). Risk and the Labour Market: Societal Past as Economic Prologue. In I. Berg & A. L. Kalleberg (Eds.), *Sourcebook of Labour Markets: Evolving Structures and Processes* (pp.31–60). New York, NY: Kluwer Academic/Plenum Publishers.
- Jones ,C. (1996). Career in project networks: The case of the film industry. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 58-75), New York, NY: Oxford University Press.
- Jones, C., & Lichtenstein, B. (2000). The ‘architecture’ of careers: how career competencies reveal firm dominant logic in professional services. *Career Frontiers*, 153-176.
- Kalleberg, A. L. (2000). Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology*, 26(1), 341-365.
- Kaufman, B.E. (2004). Employment relations and the employment relations system: A guide to theorizing. In B.E. Kaufman (Ed.), *Theoretical perspectives on work and the employment relationship* (pp. 41-75). Champaign, IL: Industrial Relations Research Association.
- Kaye, B., & Jordan-Evans, S. (2008). *Love'em or Lose'em*. San Francisco, CA: Berrett-Koehler Publishers.
- Kelly, K. (1998). *New rules for the new economy*. London: Penguin Putnam Inc.
- Kirchmeyer, C. (1998). Determinants of managerial career success: Evidence and explanation of male/female differences. *Journal of Management*, 24(6), 673-692.
- Kline, R.B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: The Guilford Press.
- Kristof-Brown, A., Barrick, M. R., & Franke, M. (2002). Applicant impression management: Dispositional influences and consequences for recruiter perceptions of fit and similarity. *Journal of Management*, 28(1), 27-46.

- Lado, A.A., & Wilson, M.C. (1994). Human resource system and sustained competitive advantage: A competency-based perspective. *Academy of Management Review*, 19(4), 699-727.
- Lance, C. E., Butts, M. M., & Michels, L. C. (2006). The sources of four commonly reported cutoff criteria what did they really say? *Organizational Research Methods*, 9(2), 202-220.
- Larkan, K. (2009). *The talent war: How to find and retain the best people for your company*. Singapore: Marshall Cavendish.
- Lau, V. P., Shaffer, M. A., & Au, K. (2007). Entrepreneurial career success from a Chinese perspective: Conceptualization, operationalization, and validation. *Journal of International Business Studies*, 38(1), 126-146.
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563-575.
- Lee, E. (1996). Globalization and employment: Is anxiety justified? *International Labour Review*, 135(5), 485-497.
- Lee, T. H., Gerhart, B., Weller, I., & Trevor, C. O. (2008). Understanding voluntary turnover: Path-specific job satisfaction effects and the importance of unsolicited job offers. *Academy of Management Journal*, 51(4), 651-671.
- Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*, 19(1), 51-89.
- Levinson, D. J. (1978). *The seasons of a man's life*. New York, NY: Alfred A. Knopf.
- Lichtenstein, B., Jennifer, H., & Olson, N. (1998). [Review of the book *The boundaryless career: A new employment principle for a new organizational era*, by M.B. Arthur & D.M. Rousseau]. *Administrative Science Quarterly*, 43(3), 732-736.
- Lindbeck, A., & Snower, D. (2000). Multi-task learning and the reorganization of work. *Journal of Labour Economics*, 18(3), 353-376.
- Lips-Wiersma, M., & Mcmorland, J. (2006). Finding meaning and purpose in boundaryless careers: A framework for study and practice. *Journal of Humanistic Psychology*, 46(2), 147-167.
- Lobel, S.A., & Kossek, E. E. (1996). Human resource strategies to support diversity in work and personal lifestyles: Beyond the "family friendly" organization. In S.A. Lobel & E.E. Kossek (Eds.), *Managing diversity: Human resource strategies for transforming the workplace* (pp. 221-244). Cambridge, MA: Blackwell Business.
- Loevinger, J. (1957). Objective tests as instruments of psychological theory. *Psychological Reports*, 3, 635-694.

- Lust, J. A. (1998). Human resource champions: The next agenda for adding value and delivering results. *Academy of Management Review*, 23(1), 178-180.
- Lust, J. A. (2006). [Review of the book *The boundaryless career: A new employment principle for a new organizational era*, by M.B. Arthur & D.M. Rousseau]. *Personnel Psychology*, 51 (1), 256-259.
- Luzzo, D. A. (1993). Value of career-decision-making self-efficacy in predicting career-decision-making attitudes and skills. *Journal of Counseling Psychology*, 40(2), 194-199.
- MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labour Relations Review*, 48(2), 197-221.
- Maertz, C. P., & Griffeth, R. W. (2004). Eight motivational forces and voluntary turnover: A theoretical synthesis with implications for research. *Journal of Management*, 30(5), 667-683.
- Mainiero, L. A. & Sullivan, S. E. (2005). Kaleidoscope careers: An alternate explanation for the "opt-out" revolution. *The Academy of Management Executive*, 19(1), 106-123.
- Malhorta, N. (1999). *Marketing research: An applied orientation*. Sydney: Prentice Hall.
- March, J. G., & Simon, H. A. (1958). *Organizations*. New York, NY: Wiley.
- Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in over generalizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*, 11(3), 320-341.
- McCabe, V. S. & Savery, L. K. (2007). "Butterflying" a new career pattern for Australia? Empirical evidence. *Journal of Management Development*, 26 (2), 103 – 116.
- McMahon, C. (1994). *Authority and democracy: A general theory of government and management*. Princeton, NJ: Princeton University Press.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61-89.
- Miles, R. E., & Snow, C. C. (1996). Twenty-first century careers. In M.B. Arthur & D.M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 97-115). New York, NY: Oxford University Press.
- Mirvis, P. H., & Hall, D. T. (1994). Psychological success and the boundaryless career. *Journal of organizational behaviour*, 15(4), 365-380.

- Mitchell, T. R., & Lee, T. W. (2001). The unfolding model of voluntary turnover and job embeddedness: Foundations for a comprehensive theory of attachment. *Research in Organizational Behaviour*, 23, 189-246.
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44(6), 1102-1121.
- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62(2), 237-240.
- Morrell, K. M., Loan-Clarke, J., & Wilkinson, A. J. (2004). Organisational change and employee turnover. *Personnel Review*, 33(2), 161-173.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behaviour*, 14(2), 224-247.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2010). *Fundamentals of human resource management* (4th ed.). New York, NY: McGraw-Hill/Irwin.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37.
- Nunnally, J.C. (1978). *Psychometric theory*. New York, NY: McGraw-Hill.
- OECD. (2012). *OECD yearbook 2012: Better policies for better lives*. Paris: OECD Publishing.
- Ornstein, S., & Isabella, L. A. (1993). Making sense of careers: A review 1989–1992. *Journal of Management*, 19(2), 243-267.
- Peiperl, M., & Baruch, Y. (1997). Back to square zero: The post-corporate career. *Organizational Dynamics*, 25(4), 7-22.
- Peiperl, M., Arthur, M., Goffee, R., & Morris, T. (2000). *Career frontiers: New conceptions of working lives*. Oxford: Oxford University Press.
- Peiperl, M. A., & Anand, N. (2002). *Career creativity: Explorations in the remaking of work*. Oxford University Press on Demand.
- Peterson, S. L. (2004). Toward a theoretical model of employee turnover: A human resource development perspective. *Human Resource Development Review*, 3(3), 209-227.
- Pfeffer, J., & Salancik, J. (1978). *The external control of organizations*. New York, NY: Harper & Row.
- Pink, D. H. (2009). *Drive: A whole new mind*. New York, NY: Riverhead Books, Penguin.

- Pink, D. H. (2011). *Drive: The surprising truth about what motivates us*. New York, NY: Riverhead Books.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, 80(2), 151-176.
- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York, NY: The Free Press.
- Porter, M. E. (1990). *The competitive advantage of nations*. New York, NY: The Free Press.
- Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, 12, 95-117.
- Porter, M. E. (1998). *Clusters and the new economics of competition*. Watertown, MA: Harvard Business Review.
- Powell, D. M., & Meyer, J. P. (2004). Side-bet theory and the three-component model of organizational commitment. *Journal of Vocational Behaviour*, 65(1), 157-177.
- Price, J. L. (1977). *The study of turnover*. Ames, IA: Iowa State University Press.
- Price, J. L. (2001). Reflections on the determinants of voluntary turnover. *International Journal of Manpower*, 22(7), 600-624.
- Reitman, A. (2007). *Talent retention*. Alexandria, VA: ASTD Press.
- Roger, E. M. (1962). *Diffusion of innovation*. New York, NY: Free Press.
- Rooney, D., Hearn, G., & Ninan, A. (2005). *Handbook on the knowledge economy*. Cheltenham: Edward Elgar.
- Rosin, H., & Korabik, K. (1995). Organizational experiences and propensity to leave: A multivariate investigation of men and women managers. *Journal of Vocational Behaviour*, 46(1), 1-16.
- Rousseau, D. M. (1995). *Psychological contract in organizations: Understanding written and unwritten agreements*. Newbury Park, CA: Sage.
- Rousseau, D. M. (1997). Organizational behaviour in the new organizational era. *Annual review of psychology*, 48(1), 515-546.
- Sacco, J. M., & Schmitt, N. (2005). A dynamic multilevel model of demographic diversity and misfit effects. *The Journal of applied psychology*, 90(2), 203-231.

- Saxenian, A. (1994). *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press.
- Saxenian, A. (1994). *Regional networks: Industrial adaptation in Silicon Valley and route 128*. Cambridge, MA: Harvard University Press.
- Schein, E.H. (1978). *Career dynamics: Matching individual and organizational needs*. Reading, MA: Addison-Wesley.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel psychology*, 54(4), 845-874.
- Sheridan, J. E., & Abelson, M. A. (1983). Cusp catastrophe model of employee turnover. *Academy of Management Journal*, 26(3), 418-436.
- Singelis, T. M., Triandis, H. C., Bhawuk, D. P., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-cultural Research*, 29(3), 240-275.
- Smith, T., & Sheridan, A. (2006). Organisational careers versus boundaryless careers: Insights from the accounting profession. *Journal of Management & Organization*, 12(3), 223-234.
- Smith, V. (2001). [Review of the book *Career frontiers: New conceptions of working lives*, by M. Peiperl; M.B. Arthur; R. Goffee & T. Morris]. *Administrative Science Quarterly*, 46(3), 563-566.
- Smith-Ruig, T. (2008). Making sense of careers through the lens of a path metaphor. *Career Development International*, 13(1), 20-32.
- Snell, S. A., & Dean Jr, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, 35(3), 467-504.
- Snell, S. A., & Youndt, M. A. (1995). Human resource management and firm performance: Testing a contingency model of executive controls. *Journal of Management*, 21(4), 711-737.
- Sommerlund, J., & Boutaiba, S. (2007). Borders of "the boundaryless career". *Journal of Organizational Change Management*, 20(4), 525-538.
- Steel, R. P. (2002). Turnover theory at the empirical interface: Problems of fit and function. *Academy of Management Review*, 27(3), 346-360.
- Steensma, H.K., Tihanyi, L., Lyles, M.A., & Dhanaraj, C. (2005). The evolving value of foreign partnerships in transitioning economies. *Academy of Management Journal*, 48 (2), 213-235.

- Steers, R.M. & Mowday, R.T. (1981). Employee turnover and post-decision accommodation processes. In L.L. Cummings & B.M. Staw (Eds.), *Research in Organizational Behaviour* (vol. 3, pp. 235-281). Greenwich, CT: JAI Press.
- Stovel, K., & Savage, M. (2006). Mergers and mobility: Organizational growth and the origins of career migration at Lloyds Bank. *American Journal of Sociology*, 111(4), 1080-1121.
- Sullivan, S. E. (1999). The changing nature of careers: A review and research agenda. *Journal of Management*, 25(3), 457-484.
- Sullivan, S. E., & Arthur, M. B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behaviour*, 69(1), 19-29.
- Super, D. E. (1957). *The psychology of careers*. New York, NY: Harper & Row.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics (5th Ed)*. Boston, MA: Pearson Education.
- Teff, D. R. (1997). Broken ladders: managerial careers in the new economy / The boundaryless career: A new employment principle for a new organizational era / New era careers: No ladders; no boundaries. *Human Resource Planning*, 20(2), 67-69.
- Thite, M. (2001). Help us but help yourself: The paradox of contemporary career management. *Career Development International*, 6(6), 312-317.
- Tremblay, D. G. (2008). From Casual Work to Economic Security; The Paradoxical Case of Self-Employment. *Social Indicators Research*, 88(1), 115-130.
- Tsui, A. S., Egan, T. D., & O'Reilly III, C. A. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 37(4), 549-579.
- Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative approaches to the employee-organization relationship: Does investment in employees pay off? *Academy of Management Journal*, 40(5), 1089-1121.
- Weick, K. E. (1996). Drop your tools: An allegory for organizational studies. *Administrative Science Quarterly*, 41(2), 301-313.
- Whyte, W. H. (1956). *The organization man* (Vol. 342). New York, NY: Simon and Schuster
- Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York, NY: Free Press.
- Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human resources and sustained competitive advantage: A resource-based perspective. *International Journal of Human Resource Management*, 5(2), 301-326.

- Yamamoto, H. (2006). The relationship between employees' inter-organizational career orientation and their career strategies. *Career Development International*, 11(3), 243-264.
- Yamashita, M., & Uenoyama, T. (2006). Boundaryless career and adaptive HR practices in Japan's hotel industry. *Career Development International*, 11(3), 230-242.
- Zabusky, S. E., & Barley, S. R. (1996). Redefining success: Ethnographic observations on the careers of technicians. In P. Osterman (Ed.), *Broken ladders*, (pp.185–214). New York, NY: Oxford University Press.
- Zand, D. E. (1974). Collateral organization: A new change strategy. *The Journal of Applied Behavioural Science*, 10(1), 63-89.
- Zavodny, M. (2000). Technology and job retention among young adults, 1980 - 98. Atlanta, GA: Federal Reserve Bank of Atlanta.
- Zikmund, W.G. (2003). *Business research methods* (7th ed.). Cincinnati, OH: South-Western.
- Zuckerman, D. M. (2000). The evolution of welfare reform: Policy changes and current knowledge. *Journal of Social Issues*, 56(4), 811-820.