PREDICTING THE INTENTION OF TOP MANAGERS IN BANGLADESH TO APPOINT WOMEN TO SENIOR MANAGEMENT POSITIONS: AN EXAMINATION AND EXTENSION OF THE THEORY OF PLANNED BEHAVIOUR

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Statement of Originality

“This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, subject to the provisions of the Copyright Act 1968.”

Signed..............................................................................(Candidate)

Date: 12-03-2013
Dedication

This PhD thesis is dedicated to the memory of three million people of Bangladesh, who sacrificed their lives in 1971, to create an independent and secular Bangladesh.
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Abstract

There is a consensus that women are underrepresented in senior management positions across the world. Since the early 1970s, researchers have been exploring the factors and forces contributing to the low presence of women in senior management roles. Theoretical and empirical scholarship suggests that women’s advancement to senior management positions is not only affected by personal factors such as qualifications, experiences and aspiration to ascend to senior leadership positions but also by the positive effect of structural factors such as human resource policies and practices, organisational climate and attitudinal factors such as stereotypical attitudes toward women as managers.

At the organisational level, most prior studies have identified both structural and attitudinal factors that create barriers to women advancing to senior management positions; however, there is a knowledge gap concerning how these organisational factors influence the intention of top managers to promote women to senior management positions. Ajzen’s Theory of Planned Behaviour (TPB) suggests that people’s (behavioural) intention is an immediate determinant of enacting the behaviour in question.

To predict and understand the future pattern of women’s presence in senior management positions, it is imperative to examine the intention of top managers to promote women to senior management positions that leads to actual behaviour associated with promoting women. Therefore, this study adopts a positivist-quantitative research paradigm and develops a TPB-based research model. To examine this model, primary data were
collected from 182 human resource managers in Bangladesh through the use of a cross-sectional, self-administered survey (online and paper).

Partial least squares based structural equation modelling (PLS-SEM) analysis reveals that positive attitudes toward women as managers, anticipated affective reactions, organisational climate, human resources policies and practices, and subjective norms have a significant influence on the intention of top managers to promote women to senior management positions. Additionally, the results of bootstrapped confidence analyses indicate that anticipated affective reactions and attitudes toward the promotion of women to senior management positions mediate the relationship between attitudes toward women as managers and the intention of top managers to promote women to senior management positions. Similarly, subjective norms mediate the relationship between organisational climate and the intention of top managers to promote women as well as the relationship between human resource policies and practices and the intention to promote women. The findings of this study also justify the inclusion of structural and attitudinal variables within the TPB framework. Thus, this study extends and validates the predictive capability of the TPB in the field of human resource management and has implications for initiatives addressing gender equity in relation to senior management roles.
CHAPTER ONE: INTRODUCTION

1.1 Introduction:

The main objective of this chapter is to provide a brief overview of this study. Section 1.2 introduces the background of this study, which depicts a worldwide scenario of women’s participation in the workforce and presence in varied management roles. The research objectives and questions with proposed hypotheses are presented in Section 1.3. Section 1.4 provides an overview of the Theory of Planned Behaviour (TPB), which is the guiding theoretical framework used in this study. The research methodology and technique of data analysis are elaborated in Section 1.5. Section 1.6 justifies the scope and significance of this study. The overall structure of this thesis is briefly presented in Section 1.7.

1.2 Background

The proportion of women in the workforce has been increasing steadily over the last few decades throughout the world (Davidson & Burke, 2004; Davidson & Burke, 2011). A report by the International Labour Organisation (ILO) (2009) shows that 40% of the global labour force in 2008 were female. Recent decades have also witnessed women’s pursuit of professional degrees in areas such as business, law, chartered accountancy, medicine, architecture and engineering over the past two decades resulting in women’s presence in diverse occupations and breaking the previous nursing and teaching stereotypes (Vilkinas, 1995; Brainard & Carlin, 2002; Vinnicombe, Singh, & Burke, 2008; Rantalaiho & Julkunen, 2010).
A considerable amount of research over the last two decades has reported that women’s pursuit of a variety of professional degrees is contributing to their presence at different management levels (Trempe, Rigny, & Haccoun, 1985; DiNatale & Boraas, 2002; Jamali, Sidani, & Kobeissi, 2008; International Labour Organisation, 2009). Based on the global statistics compiled by the ILO over 41 countries, Wirth (2001) found that in almost half of 41 developed countries women occupied on average 20% to 30% of the total senior managerial positions.

Davidson and Burke (2011) found that the acceleration of the industrialised process, the emergence of the service sector and the expansion of public and non-profit sectors have increased the level of women’s participation in the workforce and in management positions. Despite this positive trend and the implementation of affirmative action in many places in the world, women’s presence in senior leadership positions fails to correspond with their greater participation in the workforce. There is a consensus in the literature that women’s presence in senior management roles remains relatively low all over the world, due to the presence of organisational barriers (Hymowitz & Schellhardt, 1986; Sabatier, 2010; Al Maaitah, Al Maaitah, Olaimat, & Gharaeibeh, 2013; Johns, 2013a).

To date, a large body of research provides evidence that women face organisational barriers at different stages of career progression; however, the most significant obstacles pertain to advancement to senior management positions (Morrison & Von Glinow, 1990; Schein, 2001, 2007; Coronel, Moreno, & Carrasco, 2010; Briggs, Jaramillo, & Weeks, 2012; Krishnan, 2013). A review of the literature indicates that organisational barriers in the form of the attitudes of top managers and
organisational structures limit the advancement of women to senior management roles.

A study conducted in a number of countries to determine the status of women in management confirms that negative attitudes towards women in management, which are mostly held by male bosses, contribute to the underrepresentation of women at senior levels of management (International Labour Organisation, 2004). Recent studies support this conviction that negative social and cultural attitudes thwart women from reaching senior managerial positions (Adjah & Kuma, 2010; Al Muftah, 2010; Izraeli, 2012; Arar & Abramovitz, 2013). These negative attitudes toward female employees contribute to the creation of structural barriers such as unfavourable organisational climates and biased human resource policies and practices which limit opportunities for women to advance their careers (Paolillo & Vitell, 2002).

Women encounter organisational barriers when subjective procedures are adopted to recruit, select, train and develop people within their organisations (Kulik & Roberson, 2008; Tlaiss & Kauser, 2010). In many organisations, women are not encouraged to the same extent as men to take part in leadership development programs due to the presence of a glass ceiling—a term used to refer to the invisible barriers that prevent women from rising to senior positions to an extent in keeping with their qualifications and numbers in the workforce (Hymowitz & Schellhardt, 1986; Linehan, Scullion, & Walsh, 2001; Linehan & Scullion, 2008; Wang, 2009). Therefore, it is concluded that organisational factors in the form of inequitable structures and negative attitudes associated with promoting women to senior management have a
significant impact on women’s career advancement to senior leadership roles. The following sections provide an overview of the TPB, which has been used as a theoretical framework in this study. The details of the theoretical framework and their prior applications are discussed in Chapter 2.

1.3 An overview of the Theory of Planned Behaviour (TPB):

According to Ajzen (1991), a person’s behaviour is guided by (behavioural) intention, which is a function of a person’s attitudes towards the target behaviour, subjective norms and perceived behaviour control. The intention to perform the behaviour is the immediate antecedent of enacting any behaviour in question. The general principle of the TPB theory is that the intention to perform a behaviour is strongest when individuals hold positive attitudes towards the behaviour in question, there is a strong subjective norm to perform the behaviour and there is a high level of perceived behavioural control (Ajzen, 2005).

The TPB suggests that human behaviour is guided by at least three fundamental considerations as shown in Figure 1.1: behaviour beliefs, normative beliefs and control beliefs which contribute to forming people’s attitudes, subjective norms and perceived behavioural control respectively (Ajzen, 2005).

*Behavioural beliefs and attitudes:*

Behavioural beliefs are the salient beliefs regarding the consequences of performing a particular behaviour. Belief evaluation leads to the formation of attitudes and dictates people’s attitudes toward the behaviour of interest. Therefore, behavioural beliefs determine attitudes toward a behaviour (Fishbein & Ajzen, 1975).
**Normative beliefs and subjective norms**

Normative beliefs refer to beliefs that significant others approve or disapprove of a particular behaviour and the motivation to comply with the opinions of these significant others. Normative beliefs and the motivation to comply are considered as determinants of subjective norm (Fishbein & Ajzen, 1975).

**Control beliefs and perceived behavioural control**

Control beliefs are beliefs regarding the presence or absence of factors that could facilitate or impede the performance of a desired behaviour. Previous experiences, availability of required resources and opportunities, and any kind of anticipated obstacle may influence control beliefs. Control beliefs and the influence of control beliefs determine perceived behavioural control. The intention to perform behaviour is directly and indirectly influenced by perceived behavioural control (Ajzen 1991).
Figure 1.1: Model of the Theory of Planned Behaviour (TPB) (Ajzen, 1991)
A large number of studies, at the organisational and individual level, have utilised the TPB to predict intention and behaviour in a wide range of contexts. This study utilises the TPB to examine the intention of top managers to appoint women to senior management positions. Thus, this study aims to fill a research gap concerning the extent to which organisational factors influence the decision-intention of top managers with respect to promoting women to senior management positions.

1.4 Research objective and question:

Research objective: to examine the extent to which organisational factors (structural and attitudinal) have an impact on the intention of top managers to promote women to senior management positions.

The broad research objective of this study has been articulated into a research question: to what extent does a theoretical model based on the Theory of Planned Behaviour predict the intention of managers to promote women to senior management positions?
1.5 Research design:

After consideration of the research objective and constraints of resources as well as the use of research designs adopted in similar studies, this study utilised a positivist research paradigm and employed a cross-sectional design and quantitative research method to examine the TPB based research model (see Figure 1.2) in the area of human resources management. Primary data were collected using both online and paper format surveys. Surveys were sent to 703 randomly selected human resources managers, who are the members of two professional bodies of human resources managers in Bangladesh. Out of 703 surveys, 182 surveys were found to have been completed. Thus, the final sample size of this study is 182.

As recommended by methodologists Hair, Ringle and Sarstedt (2011), partial least squares based structural equation modelling (PLS-SEM) was considered the most appropriate data analysis technique because the research objective of this study lies in predicting the intention that leads to future behaviour. PLS-SEM analysis reveals that positive attitudinal and emotional factors—attitudes toward women as managers, anticipated affective reactions, subjective norms and structural factors—organisational climate, human resources policies and practices—have a significant influence on predicting the intention of top managers to promote women to senior management positions. These findings suggest that to facilitate gender equity in senior management positions, adequate interventions could be designed to create positive organisational factors.
(structural and attitudinal factors) which may enhance the positive intention of top managers and accelerate the likelihood of their enacting behaviour associated with promoting women to senior management roles.

1.6 Scope and significance of this study:

A growing body of literature provides justifications for the idea that gender diversity of senior management team leads to a greater search for information, range of perspectives, generation of alternative solutions and improvement in firm performance and competitive strength (Watson, Kumar, & Michaelsen, 1993; Helfat, Harris, & Wolfson, 2006; Choi & Rainey, 2010; Dezsö & Ross, 2012a). For example, Krishnan (2009) concludes that greater representation of women in top management teams contributes to a higher level of organisational performance. Similarly, Helfat et al. (2006) found that organisations can achieve a greater representation of women in top management roles through appropriate promotion and hiring policies.

Upper echelon theory (Hambrick & Mason, 1984) postulates that top managers’ beliefs, values, perceptions, norms, experiences and personality have a significant influence on how they interpret different situations and have a substantial effect on their decision-making in the organisation (Hambrick & Mason, 1984; Hambrick, 2007). This research builds on research examining the organisational, attitudinal and emotional variables and their impact on the intention of top managers, because they are the people who make decisions related to promoting women to senior management positions. Moreover, this is the only study in the area of
human resource management that examines top managers’ intention to appoint women to senior management positions.

The findings from this research may have some implications for practice. The findings demonstrate that positive attitudes and structural factors such as organisational climate, human resources policies and practices positively influence the intention of top managers to promote people so that these factors could be attuned to facilitate gender equity in senior management positions, thus lending support to the philosophy of equal opportunity. In addition to its academic contribution, this research aims to provide some pragmatic guidelines for the government of Bangladesh and international development partners such as AusAid, USAid and DFID, which are working for gender equity—more particularly, women’s appropriate position in corporate senior management roles in Bangladesh. Theoretical contribution is to be made by replicating and complementing the TPB model to predict the intention of top managers in a relatively less explored research field—human resource management.

Regarding the scope of this research, it is noted that although women comprise more than 50% per cent of the country’s total population (Bangladesh Bureau of Statistics, 2011) and more than 55% of the total manufacturing workforce (Kabeer & Mahmud, 2004), there is a dearth of research examining what factors and forces are contributing to women’s career progression in Bangladesh. Therefore, the scope of this study is Bangladesh—a developing economy located in south-east Asia.
Figure 1.2 The TPB based conceptual model
1.7 Organisation of this dissertation:

To satisfy the requirements of doctoral research, this thesis comprises five chapters as recommended by Cottrell and McKenzie (2010) and Perry (1998).

**Chapter 1-Introduction:** This chapter presents an overall picture of this study. To establish the background, the increasing rate of women’s participation in the formal labour force and women’s presence in senior management positions across the world are explored, followed by a discussion of the organisational barriers (i.e., attitudinal and structural barriers) which are arguably limiting women’s advancement to senior management roles. Then, an overview of the TPB—a guiding theoretical framework used in this study is presented. The TPB has been widely applied in the field of social science to understand the likelihood of people’s behavioural intentions and enacting behaviours in question. Finally, a brief overview of research design describes the research design and methodology and outlines the use of PLS-SEM to analyse data. The theoretical and practical contributions are presented in the section of scope and significances. The theoretical contribution is made by extending the TPB model to predict top managers’ decision-intention in the field of human resource management and a new context, Bangladesh. Practical contributions have been made by stressing the importance of organisational factors and their effect on the decision-intentions of top managers toward gender equity initiatives at senior management levels.
**Chapter 2- Review of literature:** This chapter provides a review of extant research exploring women’s underrepresentation to senior management positions. Based on the factors and forces influencing women’s limited advancement, the indicated barriers are conceptualised into the two broad factors: internal (individual) and external (organisational) factors. Internal factors include women’s personal aspirations toward advancement, relevant job related experiences, requisite qualifications and support from family members. Organisational factors have been further classified as structural and attitudinal factors. Structural factors incorporate organisational climate and human resources policies and practices. Attitudinal factors include attitudes toward women as managers, attitudes toward the behaviour of promoting women, anticipated affective reactions, subjective norms and perceived behavioural control associated with promoting women. This chapter also discusses the Theory of Reasoned Action (TRA) and the TPB — as well as details of their prior applications and justifications for using the TPB as a guiding theoretical framework in this study. Finally, both theoretical and empirical arguments have been provided to justify the proposed hypotheses, followed by a summary of all hypotheses emerging from the review of literature.

**Chapter 3- Research design and methodology:** The third chapter presents a discussion on research design, paradigm and methodology and the data analysis techniques employed in this study. In research design, various types of research design, such as exploratory, descriptive, cross-sectional, longitudinal and case-study are elaborated and justifications for
using cross-sectional design are provided. In research methodology, two broad approaches to research—qualitative and quantitative—with comparison and rationales for employing the quantitative approach in this study. The study population and sampling frame section presents a discussion of the population of this study that consists of the members of the two largest professional bodies of human resource managers in Bangladesh; they are the Bangladesh Society for Human Resources Management (BSHRM) and the Institute of Personnel Management (IPM), Bangladesh. In the discussion of probability and no-probability sampling, justifications are made for employing a simple random sampling technique to send surveys to 703 HR professionals either online or in the form of paper surveys, of which 182 surveys were found to have been completed and returned within the given time frame (i.e., 16 weeks).

This chapter also provides a discussion of the research setting, Bangladesh. The classification of industries section explains the economy of Bangladesh and the proportionate contribution of different industries to the Gross Domestic Product (GDP) of Bangladesh. Finally, a comprehensive discussion of methods of data analysis employed in this study is provided, highlighting the two-step approach to partial least squares based structural equation modelling (PLS-SEM) analysis (i.e., an assessment of measurement and structural models) and providing justifications for the use of PLS-SEM. In the first step, a certain set of criteria is presented which is used for assessing the reliability and validity
of the measures of measurement model. Then, a discussion is presented of how the hypothesised relationships among the latent constructs are tested in the structural model utilising the commonly used criteria presented, followed by a section on the ethical considerations involved in conducting this research.

**Chapter 4- Results of data analysis:** This chapter provides discussion of the results generated by employing PLS-SEM and SPSS. Results are reported on demographic attributes of respondents, common method bias and the assessment of measurement and structural models. The first section of this chapter provides a discussion of the results of PLS-SEM by measuring the convergent and discriminant validity of the scales of the measurement model, thus facilitating the assessment of the structural model. Then, the results of the structural model are prescribed; these entail the determination of coefficient of a linear regression ($r^2$) and the determination of the significance level of the path coefficients. This chapter also presents results of the mediating hypotheses, utilising the bootstrapping 95% confidence interval (CI), followed by discussion of the predictive relevance of the conceptual model and recently developed a global goodness-of-fit index of PLS-SEM.

**Chapter 5- Discussion and conclusion:** The final chapter provides a discussion of the findings and their implications for practices and theory. The results of PLS-SEM analysis and bootstrapped confidence interval analysis provide overall support for the hypotheses and for the research model, as thirteen hypotheses were supported out of nineteen. These findings suggest the need to design adequate
interventions with regard to structural factors, creating a positive organisational climate, positive human resource policies and practices as well as positive attitudinal factors including attitudes toward women as managers, attitudes toward behaviours related to promoting women and anticipated positive affective reactions associated with promoting women. These kinds of interventions would lead to the creation of more positive intentions of top managers to make decisions related to promoting women to senior management positions. This concluding chapter also defines the limitations of this study, for example, the use of self-report data. In addition, it also suggests methodological avenues for the future, such as employing the mixed research method and a longitudinal research design. The last section provides an overall summary and concluding remarks.
CHAPTER TWO: REVIEW OF LITERATURE

2.1 Introduction:

This chapter is divided into six sections. Section 2.2 discusses women’s participation in the global labour force and representation in management positions. Section 2.3 provides an overview and explanation of women’s underrepresentation in senior management positions. Section 2.4 contains a detailed account of the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) with their prior applications as well as an explanation for using the TPB as the basis of the conceptual model that is proposed in this research. Section 2.5 presents the research objective and question and provides arguments for the hypotheses, followed by Section 2.6 that presents discussion on control variables used in this study.

2.2 Women in the global labour force and management positions:

A dramatic shift in the composition of the global workforce has occurred over the last couple of decades, resulting in women’s greater participation in the formal economic activities throughout the world since the 1970s (Cross & Linehan, 2006; Davidson & Burke, 2011). According to World Bank (2013), 51.2% of the world’s total labour force in 2010 was female. Despite continuous growth of women in the global workforce, it is evident that women remain in a disadvantaged position in terms of accessing senior management positions compared to their male counterparts (Stewart, 2007; International Labour Organisation, 2009).
Global statistics show that women continue to increase their presence in managerial roles, however; the rate of advancement in these positions remains low and uneven (Schein, 2007). For example, in an updated ILO report about the progress of women in management in 26 countries out of 41, it was found that women’s share in managerial roles increased only by between 1% and 5% between 1996-1999 and between 2000-2002. This ILO study found that women’s progress declined in many advanced countries such as Canada (-3.7%) and Ireland, (-5.6%) (International Labour Organisation, 2004). This data show that the advancement of women to corporate leadership roles is a rarity and negligible growth has been recorded in the number of women occupying top leadership roles (Catalyst, 2008). Some global statistics with regard to women’s presence in top-level management is presented below.

Research shows that women occupied a limited number of top-level positions in the North American organisations. For example, in the USA, only 1.4% of executive officers of Fortune 500 companies were women (Catalyst, 2012). The percentage of women CEOs in these organisations declined to 2.7% in 2010 (Catalyst, 2010a). In Canada, women occupied only 5.9% of the total CEO positions of top 500 Canadian companies in 2010 (Catalyst, 2013). These statistics provide evidence of the declining trend of occupancy of senior management positions by women in North American organisations.

In Europe and Africa, women also occupy limited number of senior leadership positions in the corporate management team. For example, in the UK, only 4% women was found in the CEO position in the FTSE 250
companies (Sealy & Vinnicombe, 2012). In France, women held 5.3% of the total top positions in 200 top performing organisations in 2000 (International Labour Organisation, 2004). Despite a continuous increase in women’s participation in the Irish economy, women occupied only 8% of chief executives and 21% of senior managerial positions (Coughlan, 2002). Research shows that less than 5% of senior managerial roles are occupied by women in the European Union (Davidson & Burke, 2011). In Africa, women’s presence in management was on average 15% across 26 African countries (UN, 2000). In African and Middle-East region, women were on boards in South Africa 15.5%, Turkey 9.9%, Israel 14.1%, and Egypt 7.6% in 2000 (Catalyst, 2010b). These above data provide evidence that gender inequality in senior management positions remains unexpectedly low throughout the European and African nations.

In the Asia-Pacific region, women’s presence at top level is also declining. For instance, the status of women in the Australian corporate leadership has been discussed in the report of Equal Opportunity for Women Agency (EOWA), which is published by the Australian Government in every two years. A declining proportion of women both in the corporate boards and in the executive leadership positions have been recorded since 2006. Australian women held only 3.5% of the total CEO positions in 2012 compared to 3% in 2010, 9.2% of the total executive manager positions in 2012 compared to 10.7% in 2008 (EOWA, 2012). Australia now lags behind the United States, Canada, the United Kingdom and South Africa in terms of the proportion of women in senior management roles. These global data provide a picture of women’s
presence in the senior management level, and shows that women are in a
disadvantaged position in corporate leadership throughout the world. The
following sections provide explanations of women’s limited representation
in senior management position in light of empirical and theoretical aspects.
2.3 An overview and explanation of women's underrepresentation in senior management positions:

This section focuses on women’s underrepresentation in senior management positions through discussion of existing explanatory literature. The extant literature suggests that there are two broad factors that influence women’s career advancement to senior management positions; these are conceptualised as internal and external barriers (Van der Westhuizen & Basson, 1991; Coronel, Moreno, & Carrasco, 2010; Kiaye & Singh, 2013). The following sections provide discussion of these internal and external factors and how they explain women’s underrepresentation in senior management positions.

Internal factors provide an explanation of how men and women make different decisions related to career progression. The literature concerning women in management suggests that internal factors include women’s personal aspirations such as their attitudes toward career advancement, women’s motivation towards career progression and the degree of confidence they have regarding their capabilities to lead organisations and balancing work-home conflicts (Adkison, 1981; Van der Westhuizen & Basson, 1991; Madlala, 2007; Heilmann, Bell, & McDonald, 2009; Dyrbye et al., 2011).

Different researchers have conceptualised internal factors in different ways. For example, Tharenou and Conroy (1994) identified three internal or individual factors: women’s negative attitudes towards career advancement, job-related demography and career socialisation at early stages of life. These factors have also been reported to contribute to
women’s slower rate of career progression (e.g., Crawford & Marecek, 1989; Tharenou & Conroy, 1994; Whiston & Keller, 2004; Kottke & Agars, 2005). Women’s attitudes toward advancement are predictive of their failure to move into senior management (Markham, Harlan, & Hackett, 1987). Similarly, job-related demography, for example, higher education and socioeconomic status, is considered to be another internal barrier to women advancing their careers (Adler, 1993; Kabasakal & Ozugur, 1995). An additional internal barrier is an absence of career socialisation at the early stages of life. Research shows that early career socialisation, such as receiving encouragement from one’s father and having a mother who is employed, significantly influence the career aspirations of women (Almquist & Angrist, 1970; Betz & Fitzgerald, 1987; Flores & O’Brien, 2002). Psychological differences emerge from the process of socialisation of men and women in the early stages of their development and may contribute to women’s low level of self-efficacy.

Cubillo and Brown (2003) identify women’s lack of confidence, lack of competitiveness and fear of failure as the major internal factors that contribute to women being underrepresented in senior management positions. Shakeshaft (1989) also indicates that lack of confidence, low self-image and lack of aspiration contribute to women being underrepresented in senior management positions. Acker and Feuerverger (1996) assert that these internal factors, which are conceptualised as internal barriers, are not easy to overcome due to the historic dominance of males over females. However, Kruger (1996) argues
that women are more capable of resolving conflicts and more adept in adapting to new circumstances compared to men.

Madlala (2007) attempted to classify internal factors from the role perspective such as socialization, sex-role stereotypes and family roles. The arguments based on socialisation and sex-role stereotypes are that women have been socialised to behave in ways that lead to diminished self-confidence, an overriding desire to please, dependence, fear of success, absence of career orientation and a failure to understand the politics of advancement (Lacey, 1977; Madlala, 2010).

Berg, Stephan and Dodson (1981) contend that female employees tend to downplay their achievements in front of others compared with male employees, who steadily promote their own success. One of the reasons may be that, in many societies, women have been socialised to believe that if they behave in a non-competitive way, their endeavours will be regarded more positively. Therefore, in many cases, they tend to downplay their accomplishments to others and thus avoid being evaluated as unfeminine (Daubman & Sigall, 1997).

Several studies show that women are more likely than men to experience the role conflict between work and home, which is an important internal barrier to the career advancement of women (Greenhaus & Beutell, 1985; Chen, Powell, & Greenhaus, 2009; Powell & Greenhaus, 2010). Role conflict refers to the psychological tension that stems from pressures that arise due to conflicting roles (Zimmerman & Hammer, 2010). Individuals experience demands on their time and effort as a result
of their work and family roles. These roles are sometimes incompatible and lead to work-home conflict.

Family support remains a source motivation to pursue a career in management. Women’s intention towards advancement is significantly influenced by family responsibilities and support from their closest ones (Armstrong, Riemenschneider, Allen, & Reid, 2007; Deborah, Margaret, & Diana, 2008). Family responsibilities and obligations are considered to be one of the most notable barriers to women’s progression to senior management positions (Kelly, Marin, & Amy, 1998; Marongiu & Ekehammar, 1999). Family obligations and domestic responsibilities, such as child rearing and household-related tasks, render women less likely than men to focus on their career planning and reduce their job involvement and work experience. Family obligations and domestic responsibilities, therefore, adversely influence the advancement of women to senior leadership roles (Ragins & Sundstrom, 1989; Tharenou & Conroy, 1994) because career advancement requires a substantial amount of job involvement and work experience (Cromie, 1981; Lewis, 1994).

For many women, concentrating equally on dual roles creates conflict between their family and professional roles, which may lead to feelings of guilt and ultimately reduce the presence of women in senior leadership positions (Hall, 1996; Coleman, 2002). However, research shows that women who are deeply committed to career advancement are preferring to remain single and childless, in order to minimise the likelihood of role conflicts (Davidson & Cooper, 1992). Support from a
husband or partner plays an important role in the success of women in senior management positions (Farmer & Bohn Jr, 1970; Slaney & Caballero, 1983; Cornelius & Skinner, 2008; Baerts, Deschacht, & Guerry, 2011). To sum up, personal attitudes and aspiration towards advancement, domestic responsibilities and degree of support from family members, therefore, have a stronger influence on the career progression of females because of gender-role differences. In addition to internal factors, women face a range of external barriers at different stages of their careers which are discussed in the following sections.

External factors provide an explanation of the extent to which organisational factors, as well as the attitudes and emotions of others such as top managers, which are beyond the control of female employees, create differential hiring and promoting practices with respect to women and men (Powell, 1999; Helfat, et al., 2006). An investigation of the literature provides evidence that women face barriers at different stages of their career advancement. There is a consensus that women experience the most difficult barrier at the time of advancing to senior level management, due to the presence of invisible obstacles commonly referred to as the glass ceiling (Newman, 1993; Bagchi-Sen, Rao, Upadhyaya, & Chai, 2010; Kiaye & Singh, 2013).

Organisational barriers can be classified as structural or attitudinal (Marongiu & Ekehammar, 1999; O'Neil, Hopkins, & Sullivan, 2011; Briggs, Jaramillo, & Weeks, 2012). Structural barriers are created by vague organisational policies and practices, such as unclear human resource policies and practices, as well as organisational climates that are
unfavourable to women. Attitudinal barriers are created by people who have a direct or indirect influence on the advancement of women to senior management roles.

Structural barriers have been identified as one the major barriers that women must overcome to be appointed to senior level management (Chugh & Sahgal, 2007; Galanaki, Papalexandris, & Halikias, 2009; Tlaiss & Kauser, 2010). In many instances, women may experience structural barriers in the form of limited opportunities for formal networking and mentoring, unfavourable organisational climates, and biased human resource management (HRM) policies and practices (Lahtinen & Wilson, 1994; Catalyst, 2001; Cordano, Scherer, & Owen, 2002; Shortland, 2009; Catalyst, 2012). Hence, it remains imperative to explore the extent to which these external factors contribute to women’s underrepresentation in senior leadership roles (Tlaiss & Kauser, 2010). The following sections provide a discussion on the extent to which these structural factors contribute to the intention of top managers to appoint women to senior management positions.

Organisational climate:

Organisational climate refers to “the atmosphere that employees perceive is created in their organisations by practices, procedures, and rewards” (Scheider, Gunnarson, & Niles-Jolly, 1994, p18). Schneider and Reichers (1983, p.63) have defined organisational climate as “the influence of work contexts on employee behaviour and attitudes, which are grounded in perceptions”. Employees perceive and accumulate their organisational engagements and events into a meaning that contributes to
the formation of organisational climate (Hicks-Clarke & Iles, 2000). Therefore, organisational climate relies on the perception of organisational policies, events and procedures.

It is argued that organisational climate may appear as either a facilitator for or inhibitor of women’s advancement. Recent literature suggests that perception of negative organisational climate conceptualised as vague organisational policies related to the assignment of workload, access to resources, distribution of rewards, training and development and advancement works as a significant barrier to the progression of women to senior management (Adler, 1993; Dannels et al., 2009). Cox (1993) argues that women feel undervalued when they perceive the prevalence of a negative organisational climate because an inequitable climate adversely affects their job satisfaction and career progression as well as their long-term career commitment. Research suggests that a negative organisational climate may lead to the undervaluing of women’s educational attainment and job-related track record on the basis of gender (Schein, 2007). As a result, negative organisational climate may undermine merit-based promotion policies and practices resulting in denial of women’s advancement. Hicks-Clarke and Iles (2000) justify this contention with the finding that equitable climate facilitates organisations’ achievement of their goals by keeping employees motivated, committed and satisfied with their jobs. To sum up, it seems that organisational climate has a significant influence on women’s career progression to senior management.
Mentoring

Organisational mentoring has attracted a significant attention in leadership literature. Mentoring can be conceptualised as the matching of a novice with a senior expert in the same position (Reiss, 2007; Kyriakidou, 2011). Literature related to leadership development suggests that mentoring is a useful mechanism that helps an organisation to develop its future leaders (Kram & Isabella, 1985; Solansky, 2010). For example, Wentling (1996) found that, of those women managers studied who had reached top-level positions, 90% had had mentors during their managerial career progression. Research indicates that a formal way of mentoring motivates people to enhance skills which are required for the effective functioning of leadership roles (Tracey & Nicholl, 2007). One of the important objectives of mentoring is to develop mentees to be more compatible with future leadership roles (Reiss, 2007). Therefore, mentorship remains important for employees who aspire to senior roles, because it provides them with opportunities such as sponsorship, coaching, role modelling and counselling (Kram & Isabella, 1985).

Literature also suggests that mentoring is vital for women employees because mentoring facilitates their having access to information, gaining professional confidence, acquiring conflict-resolving skills, enhancing their decision-making power and advancing more rapidly (Wilson & Elman, 1990; Bogat & Liang, 2005). Finally, the formal mentoring process increases women’s job satisfaction and fulfils long-term career goals (Burke, Burgess, & Fallon, 2006). However, a number of studies indicate that mentoring opportunities are not equal for all
employees, especially for women who aspire to reach senior levels of management (Burke & McKeen, 1990; Eby, Allen, Evans, Ng, & DuBois, 2008; Ezzedeen & Ritchey, 2009). The research findings of Al-Lamki (1999) support this argument that the absence of role models and interested mentors appears to be a major organisational barrier that restricts women’s access to the upper level of managerial positions. Wrench (2007) explored men’s unwillingness to provide mentoring support to women and found that traditional negative attitudes of senior managers toward women contributed to the cause of being unwilling to be mentor of a woman.

**Human resources management (HRM) policies and practices**

Organisational HRM policies and practices, conceptualised as managerial recruitment, selection, training and development, performance evaluation, and compensation, significantly influence women’s career progression in senior management (Konrad, 2007; Cong, 2009; Rowley, Yukongdi, & Wei, 2009; Virick & Greer, 2012). Research demonstrates that women are disadvantaged in obtaining necessary support associated with HRM policies and practices needed for advancement. For example, Alimo-Metcalfe (1994), Singh, Vinnicombe, and Kumra (2006) have identified that much effort has been made in many large organisations to promote women to senior levels. However, promotion patterns remain almost unchanged over the years due to the presence of unsupportive HRM practices and policies such as biased performance appraisal processes and lack of formal policies and practices related to training and development (Eagly & Carli, 2007; Schein, 2007; Yanar, Budworth, &
Latham, 2009; Elamin & Omair, 2010). The following sections provide discussion of how various dimensions of HRM influence women’s progression in senior management roles.

HRM practices such as recruitment and selection influence women’s career progression. Recruitment is concerned with the activities that an organisation undertakes to define its job needs and attract candidates to fill job vacancies (McGraw, 2009). Selection relates to the activity of choosing the right candidate from all applicants for a particular position (McGraw, 2009). Research shows that ambiguous recruitment and selection practices continue to limit women’s presence in senior leadership. For example, recruitment and selection for top positions rely on the subjective criteria of promotion rather than on the objective criteria commonly used at entry level. Cross and Linehan (2006) found that subjective selection criteria prevented women advancing in senior management roles.

Similarly, training and development of employees, another aspect of HRM practices, plays a significant role in women’s progression (Baltodano, Carlson, Jackson, & Mitchell, 2012). Employee training is concerned with the systematic process of acquisition of the knowledge, skills and attitudes necessary for effective work performance (Goldstein & Ford, 2002). Employee development implies the enhancement of employees’ knowledge and competence necessary for future leadership positions (Kuvaas & Dysvik, 2010). Moreover, continuous training and development stimulates the degree of motivation and job satisfaction of employees (Mani, 2010).
HRM employee training and development practices are considered critical to building and sustaining the workforce needed to capitalise on business opportunities (Malkani, 2007; Stumpf, Doh, & Tymon Jr, 2010). However, unsupportive training and development practices may limit women taking part in future leadership development programmes. For example, to advance to the top level, a junior manager needs sufficient line experiences (Belbin, 2010). It is often the case that many women are not chosen for gaining such experiences (Oakley, 2000). As a result, few women are in line management positions across the world (Branson, 2007). It has been shown that a CEO position requires a substantial amount of line experience. For example, Lublin (1996) conducted a research project in 1995 that covered 461 senior women executives and 325 men CEOs at the largest US corporations. The project showed that 44% of women were in senior executive roles - just one level below the CEO. However, more than 60% of women were not working in line roles.

Performance evaluation, another dimension of HRM policies and practices, influences women’s presence in senior management. Performance evaluation, which is defined as a structured, formal interaction between a subordinate and supervisor, assesses employees’ efficiency in the workplace (Manoharan, Muralidharan, & Deshmukh, 2010). Jain, Triandis and Weick (2010) contend that performance appraisal systems need to be designed to motivate employees to improve performance that contributes to organisational productivity, effectiveness, and excellence. However, although performance evaluation significantly influences promotional decision at the top level, this evaluation process is
not conducted equally in all organisations. For example, Lyness and Heilman (2006) conclude that difference in performance evaluation between men and women exists, impeding women’s careers at the top level of management. They identify that women are less positively evaluated compared to their male counterparts, providing evidence that HRM practices and policies remain vital impediments to women’s advancement.

*Attitudinal barriers:*

Global statistics indicates that more women are graduating from tertiary institution and almost 50% of the global workforce is female (International Labour Organisation, 2009). Despite such a large participation of women in the global workforce does not correspondent with the women’s representation in senior management positions. A number of studies identify that attitudinal bias of top managers towards women as managers remains a significant barrier to the career advancement of women (Adler, 1993; Coronel, et al., 2010; Cross, 2010). Many past research studies report that the attitudes of managers have a significant influence on women’s career progression and their motivation to be engaged in full-time work (Heckman, Bryson, & Bryson, 1977; Stoltz-Loike, 1992; Wood, 2009). Recent findings support this proposition by showing that gender stereotypical attitudes continue to influence attitudes of top managers in relation to the appropriateness of women in senior management positions (Wood, 2008).
Gender stereotypical attitudes towards women as managers

Barriers to women’s progression may exist in different forms and are often based on attitudes held by members of an organisation (Blake-Beard, 2001; Aycan, Bayazit, Berkman, & Boratav, 2012; Dezso, Ross, & Uribe, 2013). It is the assumption of many male managers that women lack the attributes of aggressiveness, independence, leadership ability, competitiveness, self-reliance and personality that are required to be a successful manager (Fielden & Davidson, 1999; Galanaki, et al., 2009). There is a paucity of systematic findings which support women’s ineffectiveness in management roles (Donnell & Hall, 1980; Cormier, 2007; Eagly & Carli, 2007; Doherty & Manfredi, 2010; Aycan, et al., 2012). Research indicates that gender stereotypical attitudes on the part of top managers continue to appear as a significant barrier to women’s advancement (Schein, 2001; Gregory, Jeanes, Tharyan, & Tonks, 2011). More women are presenting at the entry level of management, but in spite of that, only a few CEO positions are held by women, providing evidence that unfavourable gender stereotypical attitudes towards women as managers still remain a major barrier to women’s progression to top management over the years (Jackson, 2001; Yim & Bond, 2002; Tomkiewicz, Bass, & Vaicys, 2003; Parboteeah, Hoegl, & Cullen, 2008; Maithani, Misra, Potnis, & Bhuwania, 2012). It is a commonly held attitude by many males managers that women cannot become effective managers because a masculine role model dominates the traits needed to be a successful manager (Schein, 2001). Schein (2001) in her longitudinal research asserts that a “think managers-think men” attitude continues to
prevail in organisations throughout the world as it did in the early 1970s. Van and Fischer (2002) contend that traditional male-dominated culture may influence such negative attitudes regarding women’s suitability in leadership.

In theoretical literature, Eagly and Karau (2002), through the role congruity theory of prejudice towards female leaders, endeavoured to explore the reasons why many people have negative attitudes towards female managers. This theory proposes that the extent to which a social group will be positively evaluated depends on the degree of alignment between the perceived characteristics of that group and the requirements of that group's typical social roles (Eagly & Karau, 2002). Role congruity theory of prejudice towards female leaders suggests that perceived inconsistency between the female gender role and the leadership role contributes to forming two types of prejudice: (a) perceiving women less favourably than men as potential occupants in leadership roles and (b) evaluating behaviour that fulfils the prescriptions of a leader role less favourably when a woman enacts it. One consequence is that attitudes are less positive toward women in leadership roles (Eagly & Diekman, 2005).

Due to the prevalence of role congruity in society, many male managers undervalue the success of women in leadership styles (Coates, 1998; Burke & Collins, 2001; Rajan & Krishnan, 2002; Fernandes & Cabral-Cardoso, 2003). Unfavourable gender-biased attitudes of men towards women as managers continue to remain unchanged throughout the world with only slight exceptions, despite women’s presence at top management level (Coronel, et al., 2010). For instance, a comparative
study shows that male managers in Poland have less favourable attitudes towards the appointment of women to leadership roles than do male managers in the USA (Tomkiewicz, Frankel, Adeyemi-Bello, & Sagan, 2004). A similar comparative study between the USA and Chile shows that gender-stereotypical negative perceptions of women as managers exist in both countries and that men have less favourable attitudes towards women as managers. However, US managers held more favourable attitudes than those of their Chilean counterparts (Cordano, et al., 2002). Attitudes towards women as managers remain unfavourable in developing countries as well. For example, research conducted in the Arab context to measure attitudes to women as managers demonstrated that the younger generation showed more positive attitudes toward women as managers than that of the older generation (Mostafa, 2005).

On the above discussion, it is evident that organisational factors comprising structural and attitudinal factors have a significant impact on women’s advancement to senior management positions (Baron & Bielby, 1985; Jurik, 1985; Cross & Linehan, 2006; Cross, 2010; Hutchings, Dawn Metcalfe, & Cooper, 2010). However, there is a dearth of literature aimed at understanding the extent to which organisational barriers influence the intention of top managers with regard to appointing women to senior management levels. To address this gap in the literature, this research relies on the theoretical framework of the theory of planned behaviour (TPB) to develop a conceptual research model that incorporates a number of key structural, attitudinal and emotional factors. Past research shows that the TPB model, when coupled with minor modifications, can provide
information about how the existing intentions of people can predict their behaviour of interest in a given situation (Chatzoglou & Vraimaki, 2009; Choyhirun, Suchaxaya, Chontawan, & Kantawang, 2010; Lee, Kim, & Hong, 2010). Therefore, the TPB model has been adopted by this study as a conceptual framework for examination of the (behavioural) intention of top managers in Bangladesh with respect to promoting women to senior management positions. The following sections provide a detailed discussion of various theoretical frameworks with their past applications, culminating in the rationale for adopting the TPB in this thesis.

**2.4 Theoretical framework utilised in this thesis:**

The following sections provide a comprehensive discussion on the theoretical frameworks utilised in this study, giving an account of their empirical applications and past usages in a wide range of contexts.

**2.4.1 The theory of reasoned action (TRA) and theory of planned behaviour (TPB):**

Researchers in social psychology have been showing considerable interest for a couple of decades in examining which factors influence people to enact behaviour in a given situation. Both the TRA and TPB have been widely used to predict the intention of people’s behaviour of interest in a wide range of fields. The TPB assumes that personal attitudes toward behaviour, social pressures and a sense of control guide people’s intention and the subsequent enacting of the behaviour in question (Ajzen, 1985; 1991; Ajzen & Fishbein, 2005). According to the TRA — a precursor of the TPB, developed by Fishbein and Ajzen
(1975)— (behavioural) intention is an immediate antecedent of a person’s behaviour that leads to a particular behaviour.

Ajzen (2003) suggests three questions to be answered with a view to predicting an individual's intention to perform the behaviour of interest: 1) Do people view the desired behaviour in a positive light? 2) How much normative pressure and motivation to comply with that pressure do people feel in relation to performing the expected behaviour? 3) Do people feel the performance of the desired behaviour is under their volitional control?

In the TRA, intention is determined by two factors: attitudes and subjective norms regarding the behaviour. Attitude toward the behaviour refers to “the individual’s positive or negative evaluations of performing the target behaviour” (Fishbein & Ajzen, 1975, P. 6). In the TRA, attitudinal factors are taken into account as significant predictors of intention (Fishbein & Ajzen, 1975; Hill, Smith, & Mann, 1987). The notion of subjective norm originates from the perceived social pressure and motivation to comply with that pressure to perform the behaviour of interest (Fishbein & Ajzen, 1975). In fact, the TRA examines attitudinal and normative influences on intention that lead to actual behaviour. One of the significant limitations of the TRA is that it can predict target behaviour only in situations in which people have complete volitional control over the behaviour (Ajzen, 1991). However, research shows that in most practical situations, people do not have full volitional control over the intended behaviour because they have to rely on external supporting factors, such as availability of resources and co-operation of significant others in order
to perform the intended behaviour (Ajzen, 2005; Kraft, Rise, Sutton, & Roysamb, 2005).

In an effort to overcome this shortcoming of the TRA, Ajzen (1985) developed the TPB, which can predict people’s behaviour of interest effectively and efficiently when people have no control over the resources and opportunities required to perform this behaviour (Ajzen & Madden, 1986). The TPB (Ajzen, 1985; 1991) has been extended from the TRA (Fishbein & Ajzen, 1975) by adding the additional construct of perceived behavioural control (PBC) in order to better predict intention and subsequent behaviour (Madden, Ellen, & Ajzen, 1992). PBC takes into account the extent to which behaviour of people is under their voluntary control and their perception of ease or difficulty of performing the behaviour in question (Ajzen, 1991). PBC comprises two main facets (Kraft, Rise, Sutton, & Roysamb, 2005). Firstly, PBC is concerned with the degree to which people consider themselves adequately knowledgeable, disciplined and capable of performing some acts, a factor called internal control. Secondly, PBC relies on the extent to which people perceive that other congenial factors, for instance, cooperation of other people surrounding them and availability of necessary resources, could inhibit or facilitate performance of a behaviour, a factor called external control. Therefore, TPB is considered to be a comprehensive and reliable theoretical model that is capable of predicting people’s intentions and subsequent behaviours in those situations in which people may have volitional and or non-volitional control over the target behaviour. Research to date shows that the TPB is possibly the leading theoretical framework
being used to elucidate and predict intention and behaviour of people in diverse fields of study, such as sociology, psychology and business (Armitage & Conner, 2001; Ajzen, 2005; Han, Lee, & Lee, 2011). In fact, the TPB is an established theoretical framework (see Figure 2.1) that has been used extensively by researchers to predict human behaviour in a wide range of fields due to the model’s simplicity, straightforwardness, and general applicability (Ajzen, 1991; Ajzen, 2002c).
Figure 2.1: Model of the theory of planned behaviour (TPB)

(Ajzen, 1991)

- **Attitudes (A)**
  \[ A = \sum b_i e_i \]
  - Outcome beliefs \( b_i \)
  - Evaluation of outcomes \( e_i \)

- **Subjective norms (SN)**
  \[ SN = \sum nb_i mc_i \]
  - Normative beliefs \( nb_i \)
  - Motivation to comply \( mc_i \)

- **Perceived behavioural control (PBC)**
  \[ PBC = \sum c_i p_i \]
  - Control beliefs \( c_i \)
  - Perceived power of control beliefs \( p_i \)

Theory of planned behaviour (TPB)

Intention (I) → Behaviour (B)
2.4.2 Key components of the theory of planned behaviour:

**Attitudes:**

Attitude refers to a value reaction to an object, an individual or an event such as behaviour that may appear as favourable or unfavourable. In the case of behaviour, attitude tends to indicate the extent to which an individual has made a favourable or unfavourable appraisal of the intended behaviour (Ajzen, 1991, 2011). People build up attitudes from their beliefs. Based on different beliefs, attitudes can be categorised into cognitive, affective and behavioural responses (Eagly & Chaiken, 1993; Eagly, 2007).

The cognitive response relates to the opinions, thoughts and beliefs related to the attitude, allowing people to psychologically process and recollect the specific person or event to which the attitude is connected (Boyle et al., 2010). Ajzen (1991) argues that beliefs are evaluative responses and fall between positive and negative, including a neutral point. When people evaluate behaviour favourably, they tend to associate it with positive attributes and not negative attributes and vice-versa.

The affective response indicates an emotional response that articulates people’s level of preference for an entity (Antonak & Livneh, 1988). The affect heuristic is a theoretical framework suggesting that affect has significant influence on people’s judgements and decision-making processes (Slovic, Finucane, Peters, & MacGregor, 2002). Affective responses include feelings, emotions, and moods as well as physiological reactions related to the sympathetic nervous system (Eagly & Chaiken, 1993). These affective reactions range from any extremely positive point
to extremely negative. Therefore, when people experience positive affective reactions to behaviour, they are unlikely to also experience negative effects (and vice versa).

It is proposed that attitude toward performing behaviour, such as appointing women to senior management positions, is a function of a cognitive belief formation that is comprised of two sub-elements: the person's personal beliefs about the outcomes of performing the expected behaviour and the positive or negative evaluation of those outcomes (Hausenblas, Carron, & Mack, 1997). People only engage with behaviour when they find positive evaluation outweighs negative ones.

Attitude is a direct determinant of intention at the personal level and can be measured either directly or indirectly (Fishbein & Ajzen, 1975; Ajzen & Timko, 1986). The direct measurement of attitude deals with assessing the degree to which people's attitudes are positive or negative towards performing the behaviour (Fazekas, Senn, & Ledgerwood, 2001). The indirect measurement of attitude is assessed by people’s salient beliefs about the outcome of their desired behaviour and evaluation of the outcomes of that behaviour. Therefore, in order to assess appropriately people’s attitudes towards performing the behaviour of interest, salient beliefs of people about the consequences of performing the desired behaviour are multiplied by the evaluation of these consequences (Ajzen & Fishbein, 1980; Ajzen & Madden, 1986).
**Subjective norm:**

Subjective norm (SN) indicates the perceived social pressures and motivation to comply with those pressures to perform the behaviour of interest (Fishbein & Ajzen, 1975). Theoretically, SN can be measured either directly or indirectly (Ajzen & Timko, 1986). The direct measures of subjective norms assess people’s perception of social pressures imposed by important others who approve or disapprove of their enactment of the intended behaviour (Fishbein & Ajzen, 1975; Trafimow, Sheeran, Conner, & Finlay, 2002). The indirect measure of subjective norm relies on people’s salient normative beliefs and the degree to which they are motivated to comply with the suggestions made by important others (Fishbein & Ajzen, 1975; Trafimow, et al., 2002). Therefore, the score of the normative beliefs is multiplied by the score of the people’s motivation to comply with significant others (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 2005).

**Perceived behavioural control (PBC):**

Perceived behavioural control indicates the extent to which people feel ease or difficulty in performing a desired behaviour (Trafimow, et al., 2002; Ajzen, 2005). PBC is a measure of people’s perceptions about their ability to perform the desired behaviour (Mattison & Norris, 2007). PBC has two facets: (1) control beliefs, which concern how much control people believe they have over the intended behaviour; (2) influence of the control beliefs, which is based upon the degree of confidence that people feel about their ability to perform their behaviour of interest (Levy & Ben-Ari, 2008). Ajzen (1991)suggests that PBC is generally the same as
Bandura’s concept of ‘self-efficacy’ (Bandura, 1977), which denotes an individual’s assessment of their ability to perform the desired behaviour (Ajzen, 2005). The main dissimilarity between the PBC and self-efficacy is that the PBC is placed within a larger context of beliefs and attitudes that predict intentions (Ajzen, 1991).

PBC can be assessed both directly and indirectly. Direct measures of PBC capture a person’s perceived accelerating and impeding effects of all accessible control factors (Ajzen, 2002c). PBC is also assessed by indirect measures of control beliefs in line with the direct measures of intention, attitudes, and subjective norm (Ajzen, 1991; Ajzen, 2002c). Control belief is a function of the perceived appearance of factors that facilitate or impede performance of a desired behaviour. These factors are the resources and opportunities that are available to a person at any given time. Moreover, research shows that PBC has both a direct effect on behaviour and an indirect effect via intentions (Smith et al., 2008).

**Intention:**

Intention is a motivational construct that measures the extent to which a person makes an effort to perform the expected behaviour (Hausenblas, et al., 1997). Intention predicts the likelihood of people engaging in a desired behaviour (Ajzen, 1991). Theories such as attitude-behaviour (Triandis, 1980) and protection motivation theory (Maddux & Rogers, 1983) argue that the most imminent predictor of people’s behaviour is their intention (Sheeran, Conner, & Norman, 2001). Similarly, the TRA and TPB propose that intention is the immediate determinant of actual performance of any behaviour of interest because human behaviour
is directly determined by individuals’ intention towards the target behaviour (Powell & Goulet, 1996; Hamilton & White, 2008). Therefore, in the effort to understand and predict people’s behaviour it remains imperative to examine factors associated with intention (Levin 1999). The following sections provide discussion of prior applications of the TRA and TPB.

2.4.3 Past applications of the TRA and TPB:

Both the TRA and TPB have been used productively in a substantial number of studies in order to predict behavioural intention of people in a greater range of settings.

Empirical research utilising the TRA:

Social-cognitive models such as the TRA provide utility to predict the intention of people in a wider variety of studies. Meta-analytic reviews provide support for the capacity of the TRA (Ouellette & Wood, 1998) to predict intentions and behaviour across a varied range of contexts. For example, Manstead, Proffitt, and Smart (1983) examined the applicability of the TRA in order to predict and understand how mothers intended to feed their infants. They found the TRA to be robust in its application when applied to 123 primiparous and 127 multiparous mothers aged between 16–40 years. Similarly, Shimp and Kavas (1984) found that both attitudes and subjective norms played a key role in influencing coupon usage intention. Baker, Morrison et al. (1997) reported that attitudes and subjective norms provided a significant amount of variance in the intention to use a condom among 703 heterosexual STD clinic clients. Brewer, Blake et al (1999) utilised the TRA as a theoretical framework to determine the factors influencing people’s consumption or avoidance of milk. They
noted that the components of the TRA explained clearly the behavioural intention of consuming milk. However, in line with the findings of related studies, subjective norm did not play a significant role in influencing intention in this study. In a similar type of TRA-based study, Smith and Biddle (2001) found that social norm (i.e., subjective norms), rather than attitude, significantly predicted intention with respect to adherence to a private fitness club.

The application of the TRA provides utility in exploring the behavioural intentions of nurses in a wide range of situations. For instance, in a study based on the TRA, Werner and Mendelsson (2001) attempted to examine the intentions of nurses to use physical restraints with senior citizens in an Israel-based hospital. Findings supported the utility of the TRA model by explaining 48% of the variance in nurses’ intentions. Other constructs, such as subjective norm and moral obligations, only accounted for 43 per cent of the variance in intention.

The TRA has been applied to additional nursing contexts, including nurses’ intentions towards self-poisoning patients (McKinlay, Couston, & Cowan, 2001). A questionnaire was distributed to male and female registered general nurses (n=74) employed in the acute medical ward and also the accident and emergency department of a large general hospital. The researchers found that attitudes and subjective norm accounted for 66 per cent of the variance in intentions. While both the nurses’ attitudes and their subjective norm made a significant contribution, attitudes predominated over subjective norm. The authors concluded that the TRA
offered a satisfactory explanation of nurses’ behavioural intention towards self-poisoning patents (McKinlay, et al., 2001).

In a meta-analysis, Cooke and French (2008) scrutinised 33 studies conducted in the USA, the UK, Ireland, Cyprus, Canada and Australia. Their objective was to quantify how well the TRA predicts behavioural intention with respect to attending cancer screening programmes. The analysis shows that, compared to subjective norm, attitude has a significant relationship with intention and actual behaviour.

With contrasting results, Marshall, Akooie et al. (2010) used the TRA framework to predict the adoption of environment practices in the wine industry of New Zealand and the United States. Their findings suggested that subjective norm and internal stakeholder pressure are the common drivers in adopting environmental practices compared to managerial attitudes and pressure from external stakeholders.

Roberto, Krieger et al. (2011) examined the capability of the TRA to predict to what extent paediatricians encourage parents to get their adolescent daughters vaccinated against the human papillomavirus. The findings reported that attitudes and subjective norms significantly influenced the intention of parents to get their children vaccinated.

Laschinger and Goldenberg (2012) found the TRA useful to study the intention of practising nurses to look after HIV-positive patients. Most recently, Thakadu, Irani and Telg (2013) examined the predictors of knowledge-sharing behaviour of local natural resource management leaders in Botswana when using the TRA as a guiding framework. They found that knowledge and attitudes appeared as significant predictors in
the TRA-based research model, thus confirming the utility of the TRA in a wide range of contexts and disciplines.

All of the above findings indicate the ability of the TRA to deliver information about people’s intention and behaviour in varied fields under the circumstances in which people have complete volitional control over a desired behaviour. The next section provides an account of empirical findings of studies which have utilised the TPB.

**2.4.4 Empirical research utilising the TPB:**

As in the case of the TRA, the predictive power of the TPB is well established in health psychology research (Armitage & Conner, 2001; Sheeran, et al., 2001). The TPB has been tested with a variety of health behaviours such as exercise (Jackson, Smith, & Conner, 2001; Wise et al., 2001), Smoking (Gantt, 2001), sunbathing (Hillhouse, Adler, Drinnon, & Turrisi, 1997) and attitudes towards providing care for suicidal patients (Peterson, 1993).

Meta-analytic reviews support the utility of the TPB. For example, Godin and Kok’s (1996) meta-analysis reviewed the utility of the TPB in the field of health behaviours. They reviewed 76 studies based on the TPB to explore to what extent this model predicted intention to perform desired behaviour. Of the 76 studies reviewed, 18 were classified as belonging to the exercise domain. The study confirmed that the TPB was able to explain intention and predict behaviour across several health-related behaviours and, in particular, exercises behaviour. These findings show that the strongest predictive values for intention and exercise were attitude and perceived behavioural control. The 76 TPB applications showed that
attitude, subjective norm and PBC accounted for 41 per cent of the variance in intentions.

However, the meta-analytic study conducted by Blue (1995) yielded a mixed result so far as predicting people’s intentions and behaviour using components of the TRA and TPB was concerned. The meta-analysis attempted to explore the extent to which the TRA and TPB are capable of predicting intention with respect to exercise behaviour. Of 23 studies, seven TRA studies and one TPB-based study reported the use of intention to perform the exercise behaviour as a dependent variable. In line with past findings using the TRA and TPB, intention provided a significant predictor of people’s performance of exercise behaviour. Of twenty three studies, seven studies based on the TPB suggested that physical activity is a non-volitional behaviour, because the prediction of intention increased with the inclusion of perceived behavioural control (Blue, 1995).

Similarly, Kaewthummanukul and Brown (2006) undertook a review of eleven studies of the factors that influence the degree of employee participation in physical activity. These studies had sample sizes ranging from 131 to 598, comprising both male and female employees. Only two studies used the TPB and TRA as their theoretical framework to predict the intention and behaviour of physical activity. Only one of two studies measured both the direct and indirect influence of attitudes, subjective norm, and perceived behaviour control and reported the intention as a significant predictor of exercise behaviour.

In addition to health psychology, the TPB is applicable to fields such as food consumption, e-commerce, decision-making style, electronic
control system adoption and smoking quitting intention. In a study of e-commerce adoption, Pavlou and Fygenson (2006b) examined the theoretical framework of the TPB to understand and predict E-commerce adopting intention and behaviour. They found that trust and technology-adopting variables appeared as salient factors within the theoretical framework of the TPB to predict e-commerce adopting intention.

In the same way, Seo, Lee et al. (2011) examined fast food consumption intention among middle-school students in Seoul, using the TPB theoretical framework. The subjects in this study were 354 students, who completed a structured questionnaire. The students showed average monthly fast food consumption of 4.05 (4.25 for boys and 3.83 for girls). The result of data analysis shows that behavioural intention was significantly related to perceived behaviour control and subjective norm. However, attitude towards fast food consumption was not significantly related to intention.

The study of Vadeby, Wiklund et al. (2011) examined the perception of 2000 car drivers about electronic stability control (ECS) systems, using the TPB model. The results reveal that attitudes, subjective norm and perceived behaviour control account for between 62% and 67% variance in risk-taking intention of drivers at the time of driving. This study suggests that drivers undertake greater risks when they perceive that their car is equipped with ESC systems, than without. Moreover, younger drivers tend to take more risks than older ones, as is the case with men compared to women.
Rise, Kovac et al. (2008) examined the capacity of the TPB to predict the intention of university students in quitting smoking intention and behaviour. The data were collected through self-administered questionnaires from a longitudinal survey of 103 daily smoking students at the University of Oslo, who had an average 8 years of experience in smoking. The findings show that the elements of the TPB explained 30% of variance in intention with regard to quitting smoking.

Collins and Carey (2007) conducted a concurrent confirmatory test of the TPB in predicting heavy episodic drinking (HED) intention among college students. A total number of 131 college students (63% women) took part in the survey through a structured questionnaire. The findings of data analysis indicated that the components of the TPB explained 69% of the variance in intention to engage in HED.

Conner et al. (2007) undertook two studies within the theoretical framework of the TPB to predict intentions and subsequent behaviour related to exceeding the posted motor vehicle speed limit. The two studies showed that moral norm, anticipated regret and past behaviour, in addition to the components of the TPB, contributed to predicting 82% and 76%, respectively, of variance in intention to exceed the given speed limit.

Arvola et al. (2008) used the TPB framework to investigate the utility of affective and moral attitudes in predicting purchase intentions of organic foods. Data were collected focusing on intention to purchase organic apples and ready-to-cook pizza instead of their conventional alternatives across the three countries of Europe: Italy (N=2002), Finland (N=270) and UK (N=200). The results of the structural equation modelling
showed that the final TPB-based model explained between 38% to 70% of variance in predicting intention to purchase organic foods.

The TPB has also been widely employed to predict intention and ultimately actual behaviour at individual level. For example, the TPB has explained a substantial extent of variance in intention to consume alcohol (Zimmermann & Sieverding, 2010). Furthermore, the TPB has also been used to explain 69 per cent of the variance in the intention of parents to use medication to reduce fever in their children (Walsh, Edwards, and Fraser (2009). Most recently, Kautonen, Van Gelderen and Tornikoski (2013) have found that the TPB adequately predicts business start-up intentions and subsequent entrepreneurial behaviour in Finland. Ajzen and Sheikh (2013) found that the components of the TPB, over other external variables such as anticipated affect, independently predicted people’s intention in relation to drinking and avoiding alcohol as well as eating and avoiding fast food. The following sections provide discussion on the applicability of external variables in the original TPB model.
2.4.5 External variables in the TPB model:

External variables are those variables, which are added to the original model because they are assumed to have significant positive influences on the outcome variables, in this case, on intention and actual behaviour (Ajzen, 1991). Research shows that external variables influence behavioural intentions of people indirectly through the formation of attitudes, subjective norm or perceived behaviour control (Armitage & Conner, 1999). The influence of additional external variables, such as socio-cultural, demographic variables and past behaviour, have shown consistent variation in intentions and subsequent behaviour of people in a wide range of contexts (Armitage & Conner, 1999; Christian & Armitage, 2002).

One of such external variables used in this study is anticipative affective reactions (AAR). AAR refers to the feelings that might arise about the consequences of behaviour after either a certain action or inaction (van der Pligt & De Vries, 1998). In line with this definition of AAR, a number of positive or negative emotions have been used to measure the construct of AAR within the TPB model in order to determine its impact on people’s intention to perform their behaviour of interest in a wide range of fields (Armitage & Conner, 2001; Abrahm & Sheeran, 2004). They reported anticipated regret significantly enhanced the prediction of intentions beyond the individual effect of the components of TPB. Similarly, Walsh (2005) used ‘anxious’, ‘tense’, ‘guilty’, ‘regretful’ in order to measure the effect of AAR on intentions of undergoing ‘a cervical smear test and found significant impact of AAR on such intentions. The meta-
analysis of Sandberg and Conner (2008c) concerning the use of AAR within the TPB model reported that after controlling the effect of attitudes, subjective norms, perceived behaviour control, and past behaviour, anticipated regret positively and independently predicted the behavioural intentions ($r+=.47$, $N=11254$). A number of studies have shown the significance of types of anticipated affective reaction like anticipated regret in different fields such as sexual behaviour (Richard & Van Der Pligt, 1991), condom use (Bakker, Buunk, & Manstead, 1997), cancer detection behaviour (De Nooijer, et al., 2004), exercise behaviour (Abraham & Sheeran, 2003), intention to gamble (Li et al., 2010), intention to be an organ donor (O’Carroll, Foster, McGeechan, Sandford, & Ferguson, 2011), consumers’ decision to upgrade technological innovations (Shih & Schau, 2011) and weight goal striving (Nelissen, de Vet, & Zeelenberg, 2011).

In addition to anticipated affective reaction, review of extant literature suggests that attitudes towards women as managers, organisational climate, anticipated affective reactions, HRM policies and practices have a significant impact on women’s career advancement to senior management positions. Ajzen (1991) notes that “the TPB is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of variance in intentions or behaviour after the theory’s current variables have been taken into account” (p.199). Therefore, this study attempts to include these external variables, conceptualised as external barriers, to examine the extent to which a TPB-based conceptual model predicts the intention of top managers to promote women (see Figure 2.2).
Figure 2.2: The TPB-based conceptual model
2.4.6 Rationales for choosing the TPB model:

The use of TPB in this research can be justified both on theoretical and empirical grounds.

Theoretical rationale:

Many researchers in social and industrial psychology rely on the TPB model in order to predict and explain behavioural choices in a range of situations (Han & Kim, 2010; Hanzaee & Sadeghi, 2010; Hsu & Huang, 2010; Lin, 2010; Lu, Huang, & Lo, 2010; Yousafzai, Foxall, & Pallister, 2010). The TPB is a comprehensive and reliable theoretical model that overcomes a number of the limitations of previous theories related to the study of attitudes and behaviour, such as learning theories; social cognitive theory, self-efficacy theory, expectancy-value theory; consistency theory; attribution theory and the theory of reasoned action (Motl et al., 2002; Klöckner & Blöbaum, 2010; Prugsamatz, Alpert, & Heaney, 2010; Cox & Klinger, 2011).

Empirical rationale:

The consistent empirical findings derived from use of the TPB establish its practical utility for this research in the following ways:

Firstly, it is theoretically established that people’s intention towards performance of a specific behaviour is influenced by their attitudes towards the desired behaviour. Prior studies demonstrate that the TPB covers both the cognitive and affective properties of attitudes that contribute to a significant amount of variance in people’s intention towards performing behaviours (Kraft, Rise, Sutton, & Røysamb, 2005; Elliott, 2010). Therefore, it is assumed that top managers’ intention to appoint
women to senior management positions will be influenced by the managers’ attitudes.

Secondly, people live and grow in a social environment which has significant influences on people’s decision making. Research in social psychology demonstrates that external factor such as social influence plays a significant role in people’s decision whether to perform an expected behaviour (Hung, Chang, & Yu, 2006; Vitória, Salgueiro, Silva, & de Vries, 2011).

Thirdly, research shows that people’s appraisal of their own ability and facilitating resources may appear as barriers to the behavioural intention in appointing women to senior management level. Therefore, it is assumed that women-appointing intention of top managers may be influenced by those top managers’ perception of their ability and other available organisational resources towards women-appointing behaviour (Hung, et al., 2006; Davie, 2009).

Finally, TPB accommodates the inclusion of external constructs that contribute to better understanding and prediction of people’s behaviour in varied contexts (Ajzen, 1991; Scott, Eves, French, & Hoppe, 2007). For example, a meta-analytic review of 185 studies conducted by Armitage and Conner (2001) reported that the TPB, by adding external constructs, explained an average variance of 39% and 27% in intention and behaviour, respectively. Moreover, an additional strength of this theory is that the authors have laid down specific guidelines for the measurement of constructs and development of questionnaires.
TPB has been used to investigate a range of behavioural decisions that are similar to those of this study, such as adopting online recruitment behaviour of HR managers (Parry & Wilson, 2009), perceptions held by senior managers toward the behaviour of knowledge-sharing (Lin & Lee, 2004), investigating self-reported post-feedback management development behaviour of senior managers (McCarthy & Garavan, 2006) and understanding and predicting the intention of top managers with respect to adoption of electronic commerce (Pavlou & Fygenson, 2006a). Consistent findings of these studies provide strong empirical support for use of the TPB as a guiding framework to inform the research topic (i.e. to predict intention of top managers with respect to appointing women as senior managers).

2.4.7 Limitations of the TPB:

While the TPB has been providing consistent results in predicting intentions and behaviour of people in a variety of contexts, the theory is limited in a number of ways.

First, a widely noted weakness of the TPB model is its reliance on self-reporting on items representing the core of the theory. Self-reports of behaviour may lead to the common method bias. A common method variance takes place at the time of collecting responses from the same participants using the same instrument and time (Li & Atuahene-Gima, 2001). Doty and Glick (1998) measured the degree of common methods bias in all multi-trait-multi-method correlation matrices in a group of six social science journals issued over a 12 year period using both structural equation modelling and meta-analysis. Result showed that 32% of the
observed variation in measures was attributed to common methods variance, and that this variance resulted in a 26% bias in the observed relationships among constructs. This degree of bias would contribute to cause for concern but did not invalidate the findings of a significant number of studies.

Second, researchers such as Perugini and Bagozzi (2001) and Bagozzi and Dholakia (2006) argue that the TPB fails to consider how intentions become energised as they do not include explicit motivational factors required to induce an intention to perform a desired action.

Third, the TPB, a social-cognitive theory, emphasises the accomplishment of some future desired outcomes. Therefore, the TPB fails to consider the impact of more superordinate or general cognitive constructs such as global and goal-related motives and human needs on intention and its determinants—thereby omitting constructs that would help to explain what makes these states desirable (Bagozzi, 1992; Hagger, Chatzisarantis, & Biddle, 2002b).

Fourth, the TPB does not take into consideration how these general motives and human needs may impact on the formation of intentions (Hagger, Chatzisarantis, & Biddle, 2002a).

Fifth, a number of studies have demonstrated that self-determination motivation directly predicts behavioural intention (Chatzisarantis, Biddle, & Meek, 1997; Ntoumanis & Biddle, 2001). However, Hagger, et al. (2002) show that intrinsic motivation also predicts behavioural intentions indirectly by influencing the determinants of
Sixth, although it is widely accepted that beliefs and attitudes change and form over time, a cross sectional study based on the TPB provides only a single snapshot of what people believe at a particular time (Willis, Levenson, & Ward, 2010). Nevertheless, such profiles offer a rational basis for the design of intervention programs aimed at strengthening intentions (Ajzen & Fishbein, 1980).

Seventh, in many studies, the unidirectional causal structure of the TPB model may fail to account for the reciprocal effect of behaviour on intention and its precursors (Liska, 1984b; Gebhardt & Maes, 2001).

Finally, the TPB, like most other behavioural theories, fails to account for the total variance in behaviour. The model’s predictive power is stronger in explaining intention rather than actual behaviour (Taylor & Todd, 1995; Chao & Lam, 2011). The inability to act on their intention is one of the explanations of the model’s lower efficacy in predicting actual behaviour (Godin & Kok, 1996).

In spite of these limitations, the TPB model has received extensive empirical support for its application to a variety of domains (Ajzen, 2001; Armitage & Conner, 2001; Bamberg, Ajzen, & Schmidt, 2003; Alam & Sayuti, 2011). However, the TPB has mostly been used to predict health-related intentions, regarding behaviour such as exercise, medical check-ups and breast-feeding. At present, there has been little exploration of the extent to which the TPB model can predict the intention of top managers with regard to appointing women to senior management positions. There
is a dearth of literature aimed at understanding the extent to which organisational barriers (structural and attitudinal factors) influence the intention of top managers to appoint women to senior management levels. To address this gap in the literature, this research relies on the theoretical framework of the theory of planned behaviour (TPB) to develop a conceptual research model that incorporates a number of key structural, attitudinal and emotional factors. Past research shows that the TPB model, when coupled with minor modifications, can inform some exciting intentions of people that predict their behaviour of interest in a given situation (Chatzoglou & Vraimaki, 2009; Choyhirun, et al., 2010; Lee, et al., 2010). Therefore, the TPB model has been adopted for this research as an appropriate conceptual framework for interventions to examine the (behavioural) intention of top managers in Bangladesh with respect to appointing/promoting women to senior management positions. The following sections provide discussion about the research objective, research question and hypotheses emerged from the review of literature.
2.5 Study objective, research question and hypotheses:

Research objective: To examine the extent to which organisational factors (structural and attitudinal) have an impact on the intention of top managers to promote women to senior management positions.

The broad research objective of this study has been articulated into a research question:

Research question: to what extent does a theory of planned behaviour (TPB) based model predict management intention to promote women to senior management positions?

The following hypotheses are proposed to address the above research question.

Hypothesis 1: Positive attitudes to women as managers (ATWM) are positively related to anticipated affective reactions (AAR) over promoting women to senior management positions.

Hypothesis 2: Anticipated affective reactions (AAR) are positively related to the intention of top managers (INTEN) over promoting women to senior management positions.

Hypothesis 3: There is a positive relationship between positive attitudes to the women as managers (ATWM) and the intention of top managers over promoting women to senior management positions (INTEN).
Hypothesis 4: The relationship between positive attitudes to women as managers (ATWM) and the intention of promoting women to senior management positions (INTEN) is mediated by anticipated affective reactions (AAR).

Hypothesis 5: A positive organisational climate (ORG) results in subjective norm (SUB) that encourages promoting women to senior management positions.

Hypothesis 6: A subjective norm (SUB) that encourages promoting women to senior management positions is positively related to the intention (INTEN) of top managers over promoting women to senior management positions.

Hypothesis 7: The relationship between a positive organisational climate (ORG) and the intention (INTEN) of top managers to promote women to senior management positions is mediated by a subjective norm (SUB) that encourages the appointment of women to senior management position.

Hypothesis 8: Organisational climate (ORG) is positively associated with the perceived behavioural control (PBC) of top managers with respect to promoting women to senior management positions.

Hypothesis 9: Perceived behavioural control (PBC) is positively related to the intention (INTEN) of top managers related to promoting women to senior management positions.
Hypothesis 10: The relationship between organisational climate (ORG) and Intention (INTEN) is mediated by perceived behavioural control (PBC) over promoting women to senior management positions.

Hypothesis 11: A positive organisational climate (ORG) that encourages promoting women to senior management positions is positively related to promoting women to senior management positions (INTEN).

Hypothesis 12: Favourable HRM practices (HRP) are positively related to perceived behavioural control (PBC) over promoting women to senior management positions.

Hypothesis 13: Favourable HRM practices (HRP) are positively related to intention of top managers to promote women to senior management positions (INTEN).

Hypothesis 14: The relationship between favourable HRM practices (HRP) and the intention of top managers to promote women to senior management positions (INTEN) will be mediated by perceived behavioural control over promoting women to senior management positions (PBC).

Hypothesis 15: Favourable HRM polices (HRP) are positively related to a subjective norm (SUB) that encourages promoting women to senior management positions.
Hypothesis 16: The relationship between favourable HRM practices (HRP) and intention (INTEN) is mediated by subjective norm (SUB) over promoting women to senior management positions.

Hypothesis 17: There is a positive relationship between the attitudes towards women as managers (ATWM) and attitudes toward promoting women to senior management positions (ATITUD).

Hypothesis 18: There is a positive relationship between attitudes toward promoting women to senior management positions (ATITUD) and intention of top managers to promote women to senior management positions (INTEN).

Hypothesis 19: The relationship between positive attitudes to women as managers (ATWM) and the intention of top managers to promote women to senior management positions (INTEN) is mediated by positive attitudes toward promoting women to senior management positions (ATITUD).

**Justification for hypotheses:**

Hypothesis 1: Positive attitudes to women as managers (ATWM) are positively related to anticipated affective reactions (AAR) to promoting women to senior management positions.

The link between attitudes towards women as managers and anticipated affective reactions is based on the proposition that, if people have positive attitudes towards women as managers, they are likely feel positive emotional reactions associated with promoting women.
Anticipated affective reactions are based on an evaluation of likely emotional responses consequent to an action (Jackson, Smith, & Conner, 2003). Positive attitudes towards women as managers are likely to predispose managers to anticipate positive affective responses when promoting qualified women candidate. However, when considering promotional decisions that do not promote qualified women candidates, managers may be more likely to anticipate negative reactions, including guilty.

Previous research suggests that favourable attitudes create positive emotional reactions towards an action of interest. Rivis, Sheeran, and Armitage (2009) argue that people may experience anticipated positive or negative (e.g., exhilaration or regret) consequent to performing an action. For example, attitude towards advertisements may create positive emotional reactions that lead to making purchasing behaviour (Teng, Laroche, & Zhu, 2007). Past studies also indicate that people may anticipate regret pre-behaviourally and thus get rid of actually experiencing unpleasant emotions consequent to enacting behaviour (Simonson, 1992; Sandberg & Conner, 2008a). People may experience anticipated regret, conceptualised as anticipated affective reaction (AAR), when they realise that the current circumstances would have been more favourable if they had acted otherwise (Sandberg & Conner, 2008a). The following section provides a discussion on theoretical underpinning for the link.

People tend to feel positive when performing a target behaviour, if they have favourable attitudes towards that behaviour (Grant & Nadin, 2007). Cognitive dissonance theory provides grounds for this assertion.
According to Festinger (1957), cognitive dissonance contributes to an undesirable feeling caused by the coincidence of the two conflicting ideas. In the current study, dissonance may arise among top managers if their favourable attitudes towards women as managers fail to correspond with promoting behaviour. Therefore, it is argued that top managers with positive attitudes towards women as managers would tend to reduce dissonance by promoting qualified women.

Cognitive consistency theory developed by Heider (1946) may also provide a theoretical rationale. This theory examines how behavioural motivation occurs when internal thoughts differ and conflict results in the creation of tension (Rist & Schmitt, 2008). This tension is the driving force to align behaviour with attitudes (Rist & Schmitt, 2008). According to this theory, it is the nature of people to bring consistency between attitudes and behaviour in order to avoid anticipated regret (Gawronski, 2007). In line with this theory, it can be argued that, if top managers have positive attitudes towards women as managers, they will be motivated to behave consistently by promoting women to top management.

There is consistent empirical research which supports a significant link between attitudes and anticipated affective reaction. For example, Conner, et al. (2012) found a positive link between attitude toward blood donation and anticipated positive affective reaction. Therefore, it can be hypothesised that positive attitudes towards women as managers will create anticipated positive emotional reactions associated with promoting women to senior positions.
Hypothesis 2: Anticipated affective reactions (AAR) are positively related to the intention of top managers (INTEN) over promoting women to senior management positions.

The positive link between anticipated affective reaction (AAR) and intention (I) is argued depending on people’s general tendency to avoid feelings of post-behavioural regret. For example, people anticipate becoming happy if they receive a positive outcome (e.g., winning a monetary gamble), and regretful when they receive a negative outcome (e.g., losing a monetary gamble) (Mellers, 2000). The TPB argues that anticipated positive consequences of any behaviour may create anticipated positive emotional reactions that motivates people to perform the target action (Richard, van der Pligt, & de Vries, 1996). People tend to avoid being regretful and are therefore more likely to choose behaviours that they believe are likely to lead to positive emotional reactions (Chan & Woods, 2009).

The following section links anticipated positive affective responses to (behavioural) intention through expectancy theory (Vroom, 1964). When people have favourable attitudes towards the outcomes of any behaviour, they tend to have positive behavioural intention because they anticipate positive affective reaction consequent to an action (Yoon & Vargas, 2010). Anticipated positive emotional responses, such as satisfaction, may become a reward for successfully implementing the desired behaviour. Vroom’s (1964) expectancy theory of motivation provides a rationale for this relationship. Expectancy theory postulates that people will be motivated to perform a particular task when they believe that their efforts
will yield valued rewards. When people anticipate pleasant feelings consequent to behaviour, they may be motivated to perform that behaviour repetitively. For example, after studying hard, people may experience positive feelings because that hard work contributes to achievement of their career goals (Richard, et al., 1996). Similarly, it is argued that top managers may anticipate a positive affective response to promoting qualified women. These positive affective responses are conceptualised as a valued reward, which motivates the promoting behaviour.

Despite evidence linking AAR to behavioural intention, past research also indicates that behavioural choices may conflict with anticipated evaluative responses. People may have positive evaluative responses (i.e., attitudes) towards any specific behaviour, in spite of that they may feel repentant for doing this behaviour. For example, people may enjoy consuming fast foods but also feel regret when thinking about negative consequences of fast-food consumption on health (e.g., van der Pligt & De Vries, 1998). However, it is argued that subsequent to regret, people are less likely to engage in the same behaviour in future to avoid post-behavioural regret. For example, people who experience severe lung suffering caused by past smoking habits may tend to quit smoking in future in order to get relief from future pain (Young, Hopkins, Smith, & Hogarth, 2010).

Studies support this argument on the ground that anticipated regret predicts intention, when intention is stable over time (Sheeran, Orbell, & Trafimow, 1999; Conner, Norman, & Bell, 2002). These studies suggest that people will be more cautious about performing a target behaviour, to
the extent that they anticipate associated negative affective responses (Janis & Mann, 1977). It is assumed that top-level managers also avoid experiencing negative feelings (Marnet, 2008). In addition, there is consistent evidence that individuals at work will choose behaviour that is associated with positive anticipated affective responses (Yee, Yeung, & Cheng, 2008; Hausknecht, Rodda, & Howard, 2009; Sinha & Sinha, 2012). Thus, proactive consideration of positive feelings (i.e., anticipated positive affective reactions) may also increase the intention of top managers to appoint women as senior managers.

Regret theory provides an additional source of support for the relationship between anticipated positive affective response and intention to promote women. Regret theory (Bell, 1982; Loomes & Sugden, 1982) states that people anticipate regret when they make a wrong choice of action. Individuals consider this anticipated regret when they make another decision in future. Fear of regret plays an important role in motivating people whether to perform any action (Saffrey, Summerville, & Roese, 2008). Anticipated regret motivates people to revise their decision and make corrective action that leads to positive emotional feeling for an action (Roese, Summerville, & Fessel, 2007; Zeelenberg & Pieters, 2007). For example, students may feel regret if they intend to obtain a good grade, but they do not study hard (Phillips, Abraham, & Bond, 2003). Many empirical studies support that anticipated regret plays a significant role in predicting health-related behaviour because people choose to avoid regret (van der Pligt, Zeelenberg, van Dijk, de Vries, & Richard, 1997; Conner & Armitage, 2006; Conner, Sandberg, McMillan, & Higgins, 2006; 2010). For
example, research related to child vaccination reports that parents choose to vaccinate due to anticipated regret when thinking of future consequences, if their children were not vaccinated (Morison, Cozzolino, & Orbell, 2010).

The positive link between AAR and intention is included in the theoretical model of TPB. An extensive investigation of research has confirmed that AAR accounts for a substantial proportion of variance in intention in addition to the original components of the TPB (Richard, Van der Pligt, & De Vries, 1995; Richard, Vries, & Pligt, 1998; Sandberg & Conner, 2008a). Many empirical studies provide evidence that anticipated positive and negative affective reactions contribute to the prediction of intentions after taking the constructs of TPB into account in studies of behaviours such as consuming alcohol, eating junk foods and using soft drugs (Richard, et al., 1996; Conner & Abraham, 2001; Rivis, Sheeran, & Armitage, 2009; Kok et al., 2010).

A number of empirical studies that added cognitive-based affective constructs found support for significant variance in intentions over and above of the original constructs of the TPB model for wide-range of behaviours including condom use (Barker, Buunk, & Manstead, 1997; Conner, Graham, & Moore, 1999; Sandberg & Conner, 2008a), to be engaged in casual sexual intercourse (Van Empelen & Kok, 2008), to commit traffic rules violation (Parker, Stradling, & Manstead, 1996), to drink alcohol (Conner, et al., 1999; Abraham, Southby, Quandte, Krahé, & van der Sluijs, 2007), to smoke initiating behaviour (Conner, et al., 2006). More than the additive effects of anticipated regret, it is argued that the
higher degree of regret may strengthen people’s intentions to comply with expected behaviours in order to anticipate positive emotional reaction (Sheeran & Orbell, 1999; Conner, et al., 2006; Sandberg & Conner, 2009). The above discussions provide justification for a positive relationship between anticipated positive affective reactions and intention of top managers to promote women to senior management positions.

Hypothesis 3: There is a positive relationship between positive attitudes to the women as managers (ATWM) and the intention of top managers to promote women to senior management positions (INTEN).

According to TPB, attitudes toward behaviour influence the intention of people to perform the intended behaviour (Fishbein & Ajzen, 1975; Ajzen, 1985). When people have favourable attitudes towards an object or behaviour, this positive evaluation of the action contributes to a positive intention towards the enactment of the target behaviour (Grant & Nadin, 2007). Therefore, it can be argued that the extent to which top managers have positive attitudes and recognise women’s managerial capability they are likely to have positive intention regarding the promotion of women to senior management positions.

The positive relationship between attitudes and intention to perform the behaviour of interest is evidenced in a large number of past and recent studies (e.g., Masser, White, Hyde, Terry, & Robinson, 2009; Lin, 2010; Shook & Bratianu, 2010; Chowdhury, Shamsudin, & Ismail, 2012; Clissold, Buttigieg, & De Cieri, 2012; De Jorge-Moreno, Castillo, & Triguero, 2012).
Hypothesis 4: The relationship between positive attitudes to women as managers (ATWM) and the intention of promoting women to senior management positions (INTEN) is mediated by anticipated affective reactions (AAR).

Past research suggests that attitudes towards a particular behaviour contribute to anticipated positive emotional reaction if people think about the positive outcomes of performing the given act (Rivis, Sheeran, & Armitage, 2009a). If an individual anticipates regretting the failure to perform a behaviour, then he or she may be more likely to act (Conner & Abraham, 2001). Hence, positive attitudes lead to a positive intention only when people anticipate positive emotional reaction for that behaviour.

This mediating effect of AAR has been confirmed in several studies, covering a wide range of behaviours including intention to commit driving violations (Parker, Manstead, & Stradling, 1995); AIDS prevention behaviour (Richard, et al., 1998); and consumer behaviour (Sheeran & Orbell, 1999). Therefore, it can be argued that anticipated positive affective reaction will mediate the link between positive attitudes towards women as managers and intention to appoint women to senior management positions.

Hypothesis 5: A positive organisational climate (ORG) results in subjective norm (SUB) that encourages promoting women to senior management positions.

The following sections provide arguments for the link between positive organisational climate and a subjective norm that encourages the
appointment of women to senior management positions. To attain this end, the first section discusses the importance of perceptions in organisational climate. The following sections demonstrate how each dimension of organisational climate influences the subjective norms of top managers.

Different theorists have conceptualised organisational climate in different ways. For instance, Rousseau (1988b) termed organisational climate as comprising perceptions attributed to the work environment. Notably, Schneider (1975) defined organisational climate as the perceptually grounded, psychologically processed descriptions of events, policies, practices and procedures shared by the members of an organisation. Litwin and Stringer (1968) suggest that “organisational climate refers to a set of measurable properties of work environment, perceived directly or indirectly by the organisational members, who live and work in this environment and assumed to influence their motivation and behaviour” (Litwin & Stringer, 1968, P.01). However, the most widely accepted and comprehensive definition of organisational climate was made by Svyantek and Bott (2004). They defined organisational climate as the reflection of the perception of employees related to organisational policies, practices, and procedures. This research adopts the definition of Svyantek and Bott (2004) as it emphasises the importance of understanding the perception of employees regarding their work environment in order to conceptualise organisational climate. The following paragraphs provide a discussion on subjective norm and its
influence on managerial decision-making with regard to HR-related decisions.

The term ‘subjective norm’ denotes an individual’s perception of social normative pressures regarding whether a behaviour of interest should be performed (Fishbein & Ajzen, 1975). This perception is influenced by external referent people, who are important to the individual considering the behaviour (Kim, 2010). Research shows that employees of an organisation have significant influence on top manager’s HR-related decision-making (De Cieri, 2007). Therefore, it is argued that perceptions of employees with respect to organisational support (i.e. organisational climate) will have significant bearing, through normative pressure, on managerial HR-related decision-making and subsequent behaviour (Edwards, 2009).

Organisational climate is measured by the perceptions of organisational members regarding overall organisational policies and procedures (Lephoko, 2009). Measurement of each of the aspects of organisational climate such as organisational policy, practice, procedure is important because perception of climate significantly influences people to perform a given behaviour (Carr, Schmidt, Ford, & DeShon, 2003).

Literature suggests that organisational climate has a significant influence on the subjective norm, which in turn, influences top managers’ intention and behaviour in a particular event (McDonald & Nijhof, 1999; Bock, Zmud, Kim, & Lee, 2005). From the above discussion, it is argued that the perception of employees about work environment contributes to understanding organisational climate, which influences the normative
pressure (i.e., subjective norm) of top managers to behave in a particular way.

The following sections provide discussion of how each of the dimensions conceptualised as organisational climate links with subjective norm of top managers. Litwin & Stringer (1968) explored various dimensions of organisational climate in terms of structure, rewards, risk, support, standards, responsibility and identity. Perception of each of these dimensions, conceptualised as organisational climate, is argued to have an influence on subjective norms of top-level managers (Ajzen & Fishbein, 1980; Bock, et al., 2005).

Organisational climate is characterised by reward procedures, which are argued to influence subjective norm. Perceptions regarding procedures of fairness in distributing organisational rewards influence the subjective norm of top managers. Organisational rewards comprise both financial and non-financial rewards (Morris, 2010). Financial rewards include fairness of pay while non-financial reward includes performance feedback, recognition of contribution made for the organisation and advancement opportunity (Luthans & Stajkovic, 1999; Antikainen & Vaataja, 2010). It is argued that climate characterised by merit-based rewards leads to a norm that good work (by women) should be recognised through promotion (Hawkins, 2010). People are generally motivated to do the work that fulfils their expected goals (Vansteenkiste et al., 2007). Organisational members exert the highest level of effort when they perceive that rewards are valuable to them (Lawler III, 2005). Perception of merit-based pay also enhances degree of commitment of employees
that increases organisational performance (Morrow, 2011). Equity theory asserts that people are motivated by a cognition of fairness (Adams, 1965). This theory posits that people will be de-motivated if they find gap between the amounts of efforts that they, and others, put into their jobs and the benefits they, or others, receive in return for their inputs. Equity theory holds that people subconsciously assign values to each of their contributions made for the organisation and the expected reward (Hofstede, 1980a). Individuals expect equity for their colleagues and this is argued to lead to a commitment to promotion for qualified women (Dolan, 2004; Kark & Eagly, 2010).

There is also argument that a climate characterised by illegitimate organisational politics or favouritism, leads to a norm that promotion will not be given on the basis of merit, but will depend on factors such as networking, which men tend to engage in more than women (Wickham, Collins, Greco, & Browne, 2008). Female employees, who contribute equally towards accomplishment of organisational goals and are denied promotion on the ground of gender, are therefore likely to be de-motivated. Research suggests that lack of motivation increases employees turnover (Gallagher, Brouer, & Sablynski, 2007), which, in turn, reduces organisational competitiveness (Hatch & Dyer, 2004). Moreover, more recent literature provides evidence that the extent to which employees in an organisation possess negative perceptions towards overall organisational reward practices lessens their commitment to the strategic goals of organisation, thereby hampering the organisation’s overall productivity (Chang, Rosen, & Levy, 2009; Feeney & Boardman, 2010).
This declining organisational performance may create an implied normative pressure on top managers to address the cause of turnover and reduced commitment. Thus, perceptions of organisational reward systems, a component of organisational climate, influence subjective norm of top managers to appoint women to senior positions.

This section discusses the positive perception of employees towards organisational leadership in conflict situations (another dimension of organisational climate) and argues that this perception has an important bearing on subjective norm of top managers (Dasborough, Ashkanasy, Tee, & Tse, 2009; Vacharkulksemsuk, Sekerka, & Fredrickson, 2010). Established policies regarding handling conflict in an open-minded way may contribute to the creation of expectation by management that all employees will be treated fairly (Thomas, Thomas, & Schaubhut, 2008). Effective leadership during times of conflict has been shown to contribute to the perception of a positive organisational climate for all employees (Alimo-Metcalfe, Alban-Metcalf, Bradley, Mariathasan, & Samele, 2008). For instance, in conflict situations, if employees perceive that their leaders are willing to understand their complaints with patience and are keen to resolve those problems immediately, they become motivated to pursue organisational goals (Hendel, Fish, & Galon, 2005). Favourable organisational climate motivates employees to work for the best interest of the organisation, which, in turn enhances organisational image in the external world (Rousseau, 1995; Michie & West, 2004). To resolve conflict in an effective manner provides a positive impression of organisational climate that increases loyalty to the organisation. Thus, a positive
organisational climate created by organisational leaders may contribute to their normative pressure to be impartial in resolving conflict in an effective manner, which lessens dysfunctional behaviours and promotes fairness and equity in promotion decisions (Gormley & Kennerly, 2010; Guindo et al., 2012).

It is argued that positive organisational climate conceptualised as transparent organisational policies and practices with regard to HRM, knowledge sharing and conflict handling is positively linked with subjective norm associated with promoting women. Positive perceptions of employees towards their work environment have a substantial influence on their motivation to achieve organisational goals (Litwin & Stringer, 1968; Wimbush & Shepard, 1994). Empirical research has consistently supported this argument. Climate perceptions have significant consequences on individuals, group, and organisational levels (Svyantek & Bott, 2004). These outcomes include: leader behaviour (Rentsch, 1990), turnover intention (Rousseau, 1988a), job satisfaction (James & Jones, 1980; Mathieu John, Hofmann David, & Farr James, 1993), job performance of employees (Brown & Leigh, 1996) and performance at firm level (Patterson, Warr, & West, 2004), employee motivation (Litwin & Stringer, 1968), customer satisfaction and firm’s financial performance (Schulte, Ostroff, Shmulyian, & Kinicki, 2009), new product development capabilities (Frankwick, Voss, & Yoo, 2010) and employee creativity (Wang & Rode, 2010).

Therefore, it can be argued that an organisational climate that enhances equity may influence positively the subjective norm of top
managers to adopt and practise fair and equitable treatments of all employees and, in particular, to promote qualified women.

Hypothesis 6: A subjective norm (SUB) that encourages promoting women to senior management positions is positively related to the intention (INTEN) of top managers of promoting women to senior management positions.

The following sections provide arguments for a positive link between subjective norm and intention. To this end, theoretical support for the link is discussed in the opening paragraph. This is followed by arguments for the influence of subjective norms, within both the personal and non-personal contexts, on the intention of top managers to promote women to senior management positions.

Strong association between subjective norm and intention is evidenced in the original theory of reaction action (Fishbein & Ajzen, 1975) and the theory of planned behaviour (Ajzen, 1985). The TRA and TPB models state that subjective norms directly determine intentions (Fishbein & Ajzen, 1975; Ajzen, 1991, 2001). The next section defines intention.

In the proposed hypothesis, it is assumed that subjective norm directly influences the intention of top managers to appoint women in senior positions. In following sections, the relationship will be argued on the basis that an individual’s intention to perform any behaviour is influenced, not only by their personal choice, but also by the expectation of
others. The following sections provide theoretical underpinning for the proposed link.

The TPB suggests that an individual’s intention to perform a given behaviour is influenced not only by his/her own behavioural beliefs towards outcomes but also by the opinions of significant others. For instance, Ajzen (1991) proposes that people’s cognition of social pressure determines their intention to perform a particular behaviour. Perceived judgement of significant others, such as colleagues or senior employees, have significant influences on individual’s intention regarding the worth of engaging in a specific behaviour (Fishbein & Ajzen, 1975). The reason behind complying with others’ opinion may be that people are rational social beings, they do not want to make others unhappy with their decisions, especially those they consider important to their life (Spitzer, Fischbacher, Herrnberger, Grön, & Fehr, 2007; Stewart, 2010).

Similarly, research shows that subjective norms influence positively the intention of top managers in organisational decision making as they consider the referent identification and norm compliance (Hsu & Lu, 2004). Norm compliance occurs when an individual performs behaviour according to the expectations of significant others with a view to strengthening the relationships (Deutsch & Gerard, 1995). It can be argued that top-level managers want to strengthen interpersonal relationships with employees, colleagues, boards of directors and other top executives in the industry for effective functioning of organisations. Therefore, if top managers perceive that these actors value the equitable promotion of qualified women, they are more likely to behave in a manner that maintains fair and equitable
promotional behaviour in order to maintain strong interpersonal relationship and to avoid being rejected by these significant others.

This section argues that subjective norm can supersede personal choice of behaviour. In many situations, social normative pressure influences the intention of individuals to be engaged in a specific behaviour, although they personally do not wish to perform that behaviour. For example, individuals who perceive that others expect they should use an information system were found to provide a high score on intention to use the system, even when they had a personal dislike for the information system (Lam, Cho, & Qu, 2007).

The Social Norm Theory (SNT) (Perkins & Berkowitz, 1986) provides a rationale for why people comply with normative pressure and intend to behave in a given way. Berkowitz (2002) reports that the behaviour of individuals is influenced by conceptions of how other associates in a social group consider and act. Accordingly, in the current research, it is argued that top managers, who personally may not wish to appoint women in senior positions, comply with contrary subjective norms which lead to the formation of intention to promote women to senior management positions.

Research provides evidence that, in addition to personal influences, non-personal influences, which are conceptualised as subjective norm, influence intention (Hung, Ku, & Chang, 2003). Bhattacherjee (2000) discussed non-personal influences as external influences which include legislative pressure, mass media, research findings, opinion of experts and legislation. Disclosure pressure by media, legislation, compels
organisations to publish actual promotional practices that take place within an organisation (Powell, 2010; Kremer et al., 2011). These media or research findings may contribute to moulding unfavourable public attitudes towards organisations that adopt discriminatory policies and practices for women. Research provides evidence that non-personal influences such as mass media, legislation and experts’ opinions may motivate people to abide by existing social norms that can contribute to the influence on people’s intention to undertake a specific behaviour (López-Nicolás, Molina-Castillo, & Bouwman, 2008). (Lam, et al., 2007).

This section provides empirical evidence of the link between subjective norm and intention. Grounded in the theoretical model of the TPB, much empirical research confirms that subjective norms positively affect intention (Hsu & Lin, 2008). For example, Njite and Parsa (2005) report that subjective norms have a positive effect on the intention of purchasing via online. Ajzen and Madden (1986) found in their research of goal-directed behaviour of college students in which subjective norm made significant contributions to the prediction of intention of college students’ attendance of class lectures. Researchers such as Buttle and Bok (1996) Conner, Kirk, Cade, and Barrett (2001) have found evidence of the association between subjective norm and intention in the arena of social psychology. Venkatesh and Davis (2000a) found that social normative pressure was more significant than user’s own perceptions of the information technology in predicting information system usage and acceptance. Subjective norm has been found to positively influence a wide range of intentions including intention to play online games (Wu & Liu,
reporting wrongdoing (Trongmateerut & Sweeney, 2012), adopting new service development tools (Jin, Chai, & Tan, 2012), quitting intention of smoking (Macy, Middlestadt, Seo, Kolbe, & Jay, 2012), predicting referral intention of cancer patients for psychological support (Kam, Knott, Wilson, & Chambers, 2012). Based on all of the above argument and empirical support, it can be argued that subjective norm and intention are positively related.

Hypothesis 7: The relationship between a positive organisational climate (ORG) and the intention (INTEN) of top managers to promote women to senior management positions is mediated by a subjective norm (SUB) that encourages the appointment of women to senior management positions.

Based on the findings of prior research, it is evident that top managers' positive perception about organisation’s policies and practices (i.e. organisational climate) have a significant bearing on their normative pressure to be impartial while promoting people (i.e. positive subjective norm), which ultimately may lead to a positive intention associated with women’s promotion (Bock, et al., 2005; Kotzé & Roodt, 2007). The literature suggests that when an organisation favours nepotism over formal policies in making promotional decisions, employees become demotivated (Kotzé & Roodt, 2007). This, in turn, reduces an organisation’s productivity and competitiveness (Neal, West, & Patterson, 2005a). Therefore, a positive organisational climate has an effect on top managers to maintain a positive image of the organisation before its internal and external stakeholders, thus stimulating their subjective norm
that leads to initiating their intention to carry out impartial promotional behaviour. As evidenced in prior studies (e.g., Bock, et al., 2005; Tohidinia & Mosakhani, 2010), researchers such as Hampson, Andrews, Barckley, and Severson (2006); Conner and Abraham (2001) have also confirmed the mediating role of subjective norm (e.g., Bock, et al., 2005; Tohidinia & Mosakhani, 2010).

Hypothesis 8: Organisational climate (ORG) is positively associated with the perceived behavioural control (PBC) of top managers with respect to promoting women to senior management positions.

An organisation’s work environment conceptualised as organisational climate has been recognised as a critical factor that has a significant influence on the cognition of organisational members to make any decision-intention (Ostroff, 1993; Kangis, Gordon, & Williams, 2000). Given that it is argued that the perception of organisational climate may facilitate positive control over the behaviour of promoting women of top managers.

Kidwell and Jewell (2003) argue that antecedents of perceived behavioural control such as organisational climate may be positively related to perceived behavioural control due to the variety of perceptions of individual control. Perception of control over the intended behaviour comprises two orientations: internal and external orientation (Kidwell & Jewell, 2003). A behaviour can be internally controllable when people perceive that they possess control over personal skills, abilities (Armitage & Conner, 1999). People’s behaviour is externally controllable when they perceive that the performance of the intending behaviour is dependent
upon the approval of significant others. Therefore, external factors may appear as facilitators or barriers to executing the intended behaviour. Triandis (1977b) operationalised external facilitating conditions as “state of the actor and any environmental conditions that make the act easy or difficult” (p.76).

Based on the above discussion, it is contended that a positive perception of organisational climate may enhance the belief of control (i.e., perceived behavioural control) of top managers to make independent decision-intention. Moreover, a number of prior studies (e.g., Flannery & May, 2000; Bock & Kim, 2002; Leonard, Cronan, & Kreie, 2004; Kuo & Young, 2008) have reported the positive link.

Hypothesis 9: Perceived behavioural control (PBC) is positively related to the intention (INTEN) of top managers to promote women to senior management positions.

The positive link between PBC and Intention is grounded in the original theory of planned behaviour (TPB) (Ajzen, 1991). According to the TPB, intention is not only determined by behavioural belief—an individual's conviction of the consequences of enacting a given behaviour, and normative beliefs—an individual's evaluation of social normative pressures as well as control beliefs—an individual's judgement about the presence of factors such as skills, resources, and opportunities that may expedite or hinder enacting the performance of the target behaviour (Ajzen, 2002b). As control beliefs contribute to the perceived ease or difficulty of performing the behaviour of interest, it is assumed that the extent to which people are pragmatic in their decisions to assess a
behaviour’s difficulty, a measure of PBC can provide a substitution for actual control to the prediction of the behaviour in question (Ajzen, 2002b). Unlike attitudes and subjective norm, PBC can predict the intention of behaviours in those situations in which people have incomplete volitional control over behaviours of interest (Armitage & Conner, 2001). It is assumed that the intention to promote women is not completely under the volitional control of managers due to factors such as organisational HRM practices and policies, attitudes of board of directors, and political and legal pressures. These factors influence perceptions of behavioral control either as facilitators or inhibitors. Thus, based on the TPB, it can be argued that PBC is directly related to the intention to promote women to senior management roles (Armitage & Conner, 2001).

The perception of control over resources (i.e. PBC) has a significant impact on intention. Research shows that PBC captures non-motivational factors such as time, skills and money that influence perceptions of control people have over a specific behaviour (Rhodes & Courneya, 2003). For example, when individuals perceive that they have limited control over performing the target behaviour due to a lack of required resources, then, the intention to perform that behaviour remains low, in spite of favourable attitudes and/or subjective norms towards the behaviour in question (Madden, et al., 1992). On the other hand, when people perceive adequate support is available, they may feel that they have more control over the behaviour, and this consequently increases the intention to act out the behaviour.
In addition to the theoretical underpinning, a substantial amount of research has indicated a positive relationship between PBC and Intention. Madden et al. (1992) found that PBC significantly enhanced the predictive capability of the intention to get the highest grade in a particular course. Terry, Hogg, and White (1999) found a positive association between PBC and Intention to exercise regularly. PBC also predicts the intention to eat breakfast among adolescents (Carson, Sharkey, & McIntosh, 2010). Similarly, Moosmayer (2012) found PBC significantly predicts the management academics’ intention to influence values in the classroom. Therefore, based on the theoretical arguments provided and empirical findings of several studies, it can be argued that PBC is positively related to the intention of top managers with regard to promoting women to senior management positions.

Hypothesis 10: The relationship between organisational climate (ORG) and Intention (INTEN) is mediated by perceived behavioural control (PBC) over promoting women to senior management positions.

Ajzen and Madden (1986) suggest that “many factors can interfere with control over an intended behaviour, some internal to the individual, others external. Examples of internal factors are skills, abilities, knowledge and adequate planning; while examples of external factors are time, opportunity and dependence of the behaviour on the cooperation of other people” (p.456). Based on this proposition, it is argued that organisational climate is not directly associated with intention rather the link is intervened by either internal or external control factors (i.e., PBC) such as top
manager's personal skills, abilities and/or external factors such as opportunity and co-operation.

Hypothesis 11: A positive organisational climate (ORG) that encourages promoting women to senior management positions is positively related to promoting women to senior management positions (INTEN).

Previous research shows that the extent to which top managers perceive that organisational members are co-operative, self-motivated enough to share the operational know-how, respectful of diversity and playing an active role in a cohesive team achieving organisational goals contributes to a positive perception of the work environment (i.e., positive organisational climate) (Burton, Lauridsen, & Obel, 2004; Ngo, Foley, & Loi, 2009). Positive perception of organisational climate facilitates implementing impartial promotional behaviour of top managers in the organisation (Dannels et al., 2009). Moreover, the positive link is evident in a considerable number of prior studies which utilised the TPB as a theoretical framework (e.g., Bock, et al., 2005; Kuo & Young, 2008; Günther, Krasnova, Riehle, & Schöndienst, 2009; Tohidinia & Mosakhani, 2010; Aarons et al., 2012; Hung, Chang, Chen, Tang, & Chou, 2012).

Hypothesis 12: Favourable HRM practices (HRP) are positively related to perceived behavioural control (PBC) over promoting women to senior management positions.
The positive link between HRM practices and perceived behavioural control (PBC) over the appointment of women to top management will be argued in the following sections. Firstly, a discussion on the concept of PBC is provided in light of the original theoretical model of TPB. This is followed by arguments of how each of the components of HRM practices in terms of recruitment and selection, performance appraisal and training and development influence positively PBC over female-appointing behaviour to senior management positions.

According to the TPB, people's cognition regarding their ability to accomplish a given behaviour (i.e., PBC) determines their intention of engaging in actual behaviour (Ajzen, 1991; Ajzen, 2002b). For example, prior research has demonstrated that people's behaviour is significantly influenced by the degree of confidence (i.e., PBC) they have in their ability to perform the target behaviour (Bandura, Adams, Hardy, & Howells, 1980). Thus, PBC appears as an important construct in the TPB to predict actual behaviour, in addition to attitude and subjective norm.

Research shows that PBC is influenced by the control factors that influence perceptions of an individual's ability to be engaged in behaviour (Ajzen, 2002b). For example, past experiences, anticipated impediments, obstacles, co-operation of others, supporting HRM policies and practices and positive organisational climate are all conceptualised as control factors, which have an influence on the perception of ease or difficulty of performing a given behaviour (Ajzen & Madden, 1986; Ajzen, 1991; Ajzen & Driver, 1991). Control factors may appear in the form of context of opportunity (Sarver, 1983), facilitators (Triandis, 1977a), resources (Liska,

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or action control (Kuhl, 1984), which influence people’s intention of performing behaviour (Sparks, Guthrie, & Shepherd, 1997). Ajzen (1985, 2005) suggests a set of control factors, which may be internal to an individual such as skill, ability, willpower or external to an individual such as time, opportunity, dependence, help of others, all of which have an impact on the degree of people’s perceived control over performing a target behaviour. Therefore, it appears that PBC is influenced by internal and external factors.

This section provides a discussion of how external control factors may influence positively PBC of top managers concerning appointment of women at the top. External control factors—which are beyond personal control, influence the degree of PBC. In the proposed research, it can be assumed that external control factors such as supportive HRM practices may contribute to the perception of top manager’s ability (i.e., PBC) to perform female-appointing behaviour at senior level. Based on the characteristics of PBC, it is argued that HRM practices such as recruitment, selection, performance appraisal, training and development may contribute to the perceptions of how hard or easy (i.e., perceived behavioural control) it is to perform female-appointing behaviour to senior management positions for top managers.

The following sections present an argument for the link between supportive HRM policies and practices and PBC over the appointment of women to top management positions.

Existing recruitment and selection policies and practices of an organisation may contribute to a positive perception of top managers as to
how much control they have in performing independent recruitment and selection behaviour. For example, studies report that organisations in which recruitment and selection practices are guided by the fair policy such as equal employment opportunity (EEO), top managers have full control over female-promoting behaviour based on the merit of performance (Roth, 2006; Abe, 2010). Top managers perceive full control over performing such appointing behaviour because they can justify their behaviour with respect to promotion due to availability of transparent recruitment and selection practices (García et al., 2009). Thus, it can be argued that the extent to which organisational recruitment and selection practices are equitable for all members may influence top managers’ perceptions of PBC with regard to promoting women to senior management positions.

In addition, performance appraisal, which is another component of HRM, positively influences the PBC of top managers with respect to appointing women to senior management positions. Performance appraisal system provides important information to senior managers with regard to decisions such as promotion, transfer, and dismissal (Nemeroff & Cosentino, 1979; Moon, Lee, & Lim, 2010). The extent to which HRM policies and practices of an organisation rely on an impartial performance appraisal process may provide accurate performance records to the top managers because performance appraisal provides managers with clear objective support for promotional decisions (Armstrong & Baron, 2000). Therefore, it is proposed that top managers have complete control over promoting behaviour (PBC) of women in leadership roles when they
receive accurate performance records of women. This process of performance appraisal provides adequate support to justify their appointment behaviour to other stakeholders of an organisation such as the board of directors.

This section argues that favourable HRM practices such as training and development may influence the PBC of top managers over women promoting behaviour in senior positions. Organisations that provide regular training to female employees at the early stages of their careers, eventually, they get a qualified pool of management talent to be filled up for senior management positions (Burke & McKeen, 1994; Chiu & Ng, 1999; Crampton & Mishra, 1999; Ozkanl a & White, 2008). Top managers perceive positive control over female- appointing behaviour at senior level when HRM practices such as training & development facilitate organisations to have qualified women for senior level assignment. Thus, supportive HRM practices positively influence PBC of top managers over appointing women to senior management positions. In accordance with the findings of prior studies (e.g., Van der Zee, Bakker, & Bakker, 2002; Marler, Fisher, & Ke, 2009; Yusliza & Ramayah, 2011), the link can be argued on the ground that the extent to which organisational HR policies and practices are equitable to all members may influence the perceptions of control over behaviour (i.e., positively perceived behavioural control) of top managers with regard to promoting women to senior management positions. Therefore, based on the above arguments and empirical findings of several studies, it can be argued that favourable HRM policies
and practices are positively related to perceived behavioural control over the appointment of women to senior management positions.

Hypothesis 13: Favourable HRM practices (HRP) are positively related to intention of top managers to promote women to senior management positions (INTEN).

Resource Dependence Theory (Salancik & Pfeffer, 1978; Pfeffer & Salancik, 2003) asserts that organisational leaders will endeavour to ensure the availability of critical resources required for the smooth operation of the organisation. In doing so, they try to establish and maintain relationships with key stakeholders such as suppliers, current and potential employees, government departments, distributors and other organisations. Based on Resource Dependence Theory, it can be argued that to attract the best talented people, who are critical human capital for the success of organisation, the top leaders of an organisation may adopt fair and equitable HRM policies and practices in places that may influence their intention and subsequent behaviour to meet the skill shortage by implementing an impartial staffing and promotional process (Blum, Fields, & Goodman, 1994). A number of studies in sport management found that substantive HRM programs facilitate promoting gender equality in the discussion of sport management (e.g., Moore & Konrad, 2010; Moore, Parkhouse, & Konrad, 2010). Based on the prior empirical findings and theoretical underpinnings, it can be argued that favourable HRM policies and practices are positively related to the intention of top managers to appoint women to senior management positions.
Hypothesis 14: The relationship between favourable HRM practices (HRP) and the intention of top managers to promote women to senior management positions (INTEN) will be mediated by perceived behavioural control over promoting women to senior management positions (PBC).

Research shows that supportive HRM policies and practices contribute to the perception of control (i.e., perceived behavioural control) of top managers over the target behaviour with respect to promoting women (Quan & Cha, 2010). According to the TPB, higher control over behaviour increases the intention to perform the behaviour of interest (Ajzen, 1991). Therefore, it is argued that PBC will positively mediate the link between favourable HRM policies & practices and the intention to appoint women to senior management roles. Moreover, the mediating effect of PBC to predict intention to undertake a wide range of behaviours has been reported in many prior studies (e.g., Yi, Jackson, Park, & Probst, 2006; Doron, Stephan, Boiché, & Scanff, 2009; McCormack, Spence, Berry, & Doyle-Baker, 2009).

Hypothesis 15: Favourable HRM polices (HRP) are positively related to a subjective norm (SUB) that encourages promoting women to senior management positions.

This section provides a discussion of how favourable HRM practices influence the subjective norms of top managers that encourage the appointment of women to senior management positions. Research shows that transparent HRM practices may provide positive perceptions among employees that performance is a key determinant of receiving remuneration, recognition and promotion (Tzafrir & Gur, 2007). HRM
practices that ensure that employees, irrespective of their gender, race or colour, receive equal treatment and opportunity to be appointed to senior management positions in an organisation may motivate them to exert maximum efforts in order to achieve organisational goals (Carmeli, Shalom, & Weisberg, 2007). For instance, equitable HRM practices may boost the morale of employees when they believe that top managers care about the advancement and development needs of all employees equally (Ghebregiorgis & Karsten, 2007).

In order to sustain a favourable work environment, top managers may feel normative pressure from subordinates, colleagues and other stakeholders of the organisations. Thus, supportive HRM practices that provide transparent guidelines to top managers related to advancement of employees irrespective of their gender may create a normative pressure on top managers to comply with established HRM policies and practices. Therefore, it can be argued that the extent to which female employees perceive HRM practices are supportive and equitable for their promotion can create normative pressure (i.e. subjective norm) on top managers and motivate them to comply with those pressures.

In terms of the retention policy of HRM that influence subjective norm, research demonstrates that retention of committed people contributes to the achievement of competitive advantage over organisational performances (Schuler & MacMillan, 1984; Lado & Wilson, 1994; Wright & McMahan, 1999; Paul & Anantharaman, 2003; Heth, 2007). Conversely, lack of supportive HRM practices increases employee turnover. Employee turnover reduces productivity levels of a firm by
increasing cost of production because higher turnover requires firms to train new employees by investing additional time and resources (Brown & Medoff, 1978; Huselid, 1995; Boselie, Paauwe, & Jansen, 2001; Jiang, Baker, & Frazier, 2009). However, a substantial body of research suggests that supportive HRM practices improve employee motivation and commitment which in turn enhance organizational performance and facilitates competitive advantage (Huselid, 1995; Guest, Michie, Conway, & Sheehan, 2003; Chew, 2005). As top managers strive for continuous growth of a firm, they pay consideration to the promotional and developmental needs of employees so that they remain motivated and devoted to the organisational goals.

Institutional Theory (Meyer & Rowan, 1977) may provide a rationale for the proposed link between top managers tendency to comply with the normative pressures which would originate from the expectation of various stakeholders such as government legislation of equal employment opportunity, internal organisational members and other competing organisations in the same industry with a view to demonstrating their fair and equitable image to their stakeholders. Blum et al. (1994) argue that “Institutional theory predicts that organisations may place non-whites and women into management jobs to help themselves appear more legitimate than other firms” (p. 247). Besides theoretical support, a lot of prior research (e.g., Van der Zee, et al., 2002; Van Hooft, Born, Taris, & Van der Flier, 2006; Foss & Mahoney, 2010) has confirmed the positive link between HRM practices and policies and subjective norms associated with promoting people in the organisation. Thus, it can be argued that HRM
practices that are supportive of retaining qualified employees irrespective of their gender or race may contribute to the subjective norm of top managers to undertake impartial appointment behaviour.

Hypothesis 16: The relationship between favourable HRM practices (HRP) and intention (INTEN) is mediated by subjective norm (SUB) over promoting women to senior management positions.

Prior research indicates that organisations in which human resources policies and practices are fair and transparent motivate their employees to remain committed and loyal thus significantly increases the organisation’s likelihood of achieving the competitive advantage by nourishing, retaining and utilising key success factors– human capital (McClean & Collins, 2011; Kooij et al., 2013). Moreover, fair and equitable HR polices & practices also facilitate the organisation attracting the most talented people by conveying a positive image of an equal employment employer (Tarique & Schuler, 2010; Schuler, Jackson, & Tarique, 2011). Therefore, both the internal and external expectations of potential and existing employees within organisation may contribute to the creation of normative pressures of top managers and motivation to comply with those pressures (i.e., subjective norm) which ultimately may result in the positive intention associated with promoting female managers to senior management levels. Moreover, the TRA and the TPB confirm that subjective norms substantially predict the intention of people to undertake the behaviour in question. Thus, the positive HRM practices and policies indirectly influence the intention of top managers to promote women in senior management roles via subjective norms. A considerable amount of
past research provides evidence of the mediating role of subjective norm across different fields (e.g., Van der Zee, et al., 2002; Hislop, 2003; Van Hooft, et al., 2006; Gagné, 2009; Foss & Mahoney, 2010).

Hypothesis 17: There is a positive relationship between the attitudes towards women as managers (ATWM) and attitudes toward promoting women to senior management positions (ATITUD).

The link between attitudes towards women as managers and attitudes towards promoting women to senior management positions is argued here. The TPB model posits that attitudes, subjective norms and perceived behavioural control are the immediate determinants of intention (Ajzen, 1991). Moreover, Ajzen (1991) suggests that “...the theory of planned behaviour deals with the antecedents of attitudes, subjective norms, and perceived behavioural control, antecedents which in the final analysis determine intentions and actions” (p.189). In reply to this call, a number of studies have utilised and demonstrated various antecedents of attitudes such as performance avoidance, current self-concept, perceived risk and their effect on attitudes toward the behaviour (e.g., Liao, Lin, & Liu, 2010; Gorges, Kandler, & Bohner, 2012). However, there is a gap in the literature to determine the extent to which top managers’ attitudes toward the behaviour of promoting women is influenced by antecedents such as attitudes towards women as managers.

The current link can be argued in light of the self-determination theory of human motivation (Deci & Ryan, 1985; Ryan & Deci, 2000). According to this theory, people’s motivation to perform a particular behaviour, such as promoting women, is guided by self-determination and
cognition of the target behaviour (Ryan & Deci, 2000; Deci & Ryan, 2008; Hagger & Chatzisarantis, 2009). Therefore, it can be argued that when top managers evaluate the female-promoting behaviour (i.e., attitudes toward promoting women); they tend to be guided by the personal evaluation about the people surrounded them such as female managers.

Hypothesis 18: There is a positive relationship between attitudes toward promoting women to senior management positions (ATITUD) and intention of top managers to promote women to senior management positions (INTEN).

The link between attitude and intention originally lies in the theories of TRA and TPB. The TPB model asserts that people, who have positive attitudes towards any action, tend to have a positive intention towards accomplishing the intended behaviour (Fishbein & Ajzen, 1975; Ajzen, 1985). Based on this theoretical underpinning, it can be argued that attitudes toward promoting women to senior management positions may significantly predict the intention of top managers to appoint women in such roles.

A large number of empirical studies utilised the TPB in a wide range of contexts (e.g., Sommer, 2011; Stavrou & Ierodiakonou, 2011; Hu, Dinev, Hart, & Cooke, 2012; Khang, Ki, Park, & Baek, 2012; Moriano, Gorgievski, Laguna, Stephan, & Zarafshani, 2012; Norman, Conner, & Stride, 2012; Thomson, White, & Hamilton, 2012) have confirmed the positive relationship of this link which lead to the following hypothesis.

Hypothesis 19: The relationship between positive attitudes to women as managers (ATWM) and the intention of top managers to
promote women to senior management positions (INTEN) is mediated by positive attitudes toward promoting women to senior management positions (ATITUD).

It is argued that attitudes to women as managers do not directly influence the intention of top managers to promote women due to the influence of an intervening factor: That is, attitudes toward the behaviour of promoting women. Literature in behavioural psychology suggests that an attitude that is developed from the direct engagement with people, for example, attitudes toward women as managers, contribute to people’s cognitive attitudes toward a particular group of people (i.e. attitudes of the behaviour of promoting female managers) (Millar & Millar, 1996) which in turn results in the intention to undertake the behaviour of promoting women. A number of researchers have examined both the direct effects of attitudes to better predict the behavioural intention of people (Fazio & Zanna, 1978; Millar & Millar, 1996; Albarracin, Johnson, Fishbein, & Muellerleile, 2001); however, there is a gap in the literature regarding the extent to which the affective attitudes of top managers (i.e., attitudes toward women as managers) which are generated through the direct experience while working with women as a colleague, boss, subordinates the influence the cognitive attitudes and its impact on the intention of top managers to the behaviour of promoting female managers. Moreover, the mediating role of positive attitudes has been reported in a large number of prior studies with a view to predicting the intention of people to undertake the intended behaviour in a varied contexts, including but not limited to the TPB framework (e.g., Mitchell & Olson, 1981; Kettanurak, Ramamurthy, &
Haseman, 2001; Honkanen & Verplanken, 2004; Huang & Xie, 2009; Byrka, Hartig, & Kaiser, 2010; Ong & Musa, 2012; Sims & Sun, 2012; Trigg, Watts, Jones, Tod, & Elliman, 2012).

2.6 Control variables

Prior studies based on the TPB have shown that people’s past behaviour has a positive impact on their intention to perform the behaviour of interest (Sutton, 1998; Cronan & Al-Rafee, 2008; Li, Frieze, & Tang, 2010). In recent study, Picazo-Vela, Chou, Melcher, and Pearson (2010) considered past behaviour as a control variable and isolated the effect of past behaviour on intention to provide an online review. They found past behaviour had a positive impact on intention.

Hennessy et al., (2010) considered past behaviour as a control variable and found difference in result. Based on the past findings and recommendations, past behaviour with regard to appointing women to senior management position has been considered as control variable. Similarly, a large number of prior research shows that age and gender have varied effect on people’s attitudes toward women as managers, for example, older males have more conservative attitudes toward women as managers and thus may influence the intention to promote women (Sakalli-Ugurlu & Beydogan, 2002; Mostafa, 2005b; Aycan, et al., 2012; Simmons, Duffy, & Alfraih, 2012). So, in addition to past behaviour, age and gender were control variables.
<table>
<thead>
<tr>
<th>Proposed hypotheses</th>
<th>Theoretical and empirical supports for hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 1</strong>: Positive attitudes to women as managers (ATWM) are positively related to anticipated affective reactions (AAR) over promoting women to senior management positions.</td>
<td>Cognitive dissonance theory (Festinger, 1957)</td>
</tr>
<tr>
<td><strong>Hypothesis 2</strong>: Anticipated affective reactions (AAR) are positively related to the intention of top managers (INTEN) over promoting women to senior management positions.</td>
<td>Expectancy theory (Vroom, 1964) Regret theory (Bell, 1982)</td>
</tr>
<tr>
<td><strong>Hypothesis 3</strong>: There is a positive relationship between positive attitudes to the women as managers (ATWM) and the intention of top managers over promoting women to senior management positions (INTEN).</td>
<td>Upper echelons theory (Hambrick, 2007) TPB (Ajzen, 1991)</td>
</tr>
<tr>
<td><strong>Hypothesis 5</strong>: A positive organisational climate (ORG) results in subjective norm (SUB) that encourages promoting women to senior management positions.</td>
<td>Equity theory (Adams, 1965) TPB (Ajzen, 1991)</td>
</tr>
<tr>
<td><strong>Hypothesis 6:</strong> A subjective norm (SUB) that encourages promoting women to senior management positions is positively related to the intention (INTEN) of top managers over promoting women to senior management positions.</td>
<td>Social Norm Theory (SNT) (Perkins &amp; Berkowitz, 1986) Theory of reasoned action (Fishbein &amp; Ajzen, 1975)</td>
</tr>
<tr>
<td>Hypothesis 8: Organisational climate (ORG) is positively associated with the perceived behavioural control (PBC) of top managers with respect to promoting women to senior management positions.</td>
<td>TPB (Ajzen, 1991) (Kidwell &amp; Jewell, 2003)</td>
</tr>
<tr>
<td>Hypothesis 9: Perceived behavioural control (PBC) is positively related to the intention (INTEN) of top managers related to promoting women to senior management positions.</td>
<td>TPB (Ajzen, 1991)</td>
</tr>
<tr>
<td>Hypothesis 11: A positive organisational climate (ORG) that encourages promoting women to senior management positions is positively related to promoting women to senior management positions (INTEN).</td>
<td>TPB (Ajzen, 1991) (Bock, et al., 2005)</td>
</tr>
</tbody>
</table>
| **Hypothesis 12:** Favourable HRM practices (HRP) are positively related to perceived behavioural control (PBC) over promoting women to senior management positions. | TPB (Ajzen, 1991)  
(Van der Zee, et al., 2002; Marler, et al., 2009; Yusliza & Ramayah, 2011) |
| --- | --- |
| **Hypothesis 13:** Favourable HRM practices (HRP) are positively related to intention of top managers to promote women to senior management positions (INTEN). | Resource dependency theory (Salancik & Pfeffer, 1978; Pfeffer & Salancik, 2003)  
TPB (Ajzen, 1991)  
Harel, Tzafrir, and Baruch (2003) |
| **Hypothesis 15:** Favourable HRM polices (HRP) is positively related to a subjective norm (SUB) that encourages promoting women to senior management positions. | Institutional theory (Meyer & Rowan, 1977)  
TPB (Ajzen, 1991) |
| **Hypothesis 17:** There is a positive relationship between the attitudes towards women as managers (ATWM) and attitudes toward promoting women to senior management positions (ATITUD). | Self-determination theory (Deci & Ryan, 1985) |
Chapter summary:

This chapter begins with a comprehensive review of literature that provides a brief account of women’s participation in formal economic activities and their presence in senior management roles across the world. The following sections identify the two broad factors—internal (individual) and external (organisational) factors which are argued to have been hindering the advancement of women to senior management roles. Then, a detailed account of theoretical frameworks such as the TRA and TPB is discussed with their prior applications and rationales for using the TPB in this study. The final sections provide arguments for the proposed hypotheses developed, based on the theoretical and empirical underpinnings to address the research question. The next chapter provides a discussion on research design, methodology and method of data analysis employed in this study.

<table>
<thead>
<tr>
<th>Hypothesis 18:</th>
<th>There is a positive relationship between attitudes toward promoting women to senior management positions (ATITUD) and intention of top managers to promote women to senior management positions (INTEN).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory of reasoned action (Fishbein &amp; Ajzen, 1975)</td>
</tr>
<tr>
<td></td>
<td>TPB (Ajzen, 1991)</td>
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</tbody>
</table>
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction:

The objective of this chapter is to present systematically the research methods and data analysis techniques which have been employed in this study. Section 3.2 provides a discussion of research methodology, Section 3.3 discusses the research paradigms and overall research design is presented in Section 3.4. The research method is elaborated in Section 3.5 which consists of a discussion on research approach, population, sampling techniques, survey methods and measures of constructs. A discussion of the research setting in Bangladesh is provided in Section 3.6. The detailed methods of data analysis employed in this study have been presented with justifications in Section 3.7.

3.2 Research methodology:

The methodology is the structure of procedures through which research is carried out to address the research problem(s) of interest. It has been defined as “an approach to tap the entire process of undertaking a study” (Hussey & Hussey, 1997, p.20) and it involves a critical appraisal of alternative research designs and methods (Remenyi & Williams, 1998). In fact, research methodology is concerned with the theoretical and philosophical analysis and considerations of research design and methods that lead to effective conduct of research projects (Henn, Weinstein, & Foard, 2006; Lister, 2007).
Research design and research method are prominent concepts in methodology. Research design refers to a framework or blueprint that delineates a detailed process of conducting a research project (Teddlie & Tashakkori, 2011). Research design also denotes the structure of enquiry and is a logical matter, rather than a logistical one, which cements the research project together (Trochim & Donnelly, 2001; Earley, 2002). Research method—an important element of overall research design, involves the systematic choice of data-collection procedures as well as analysis and interpretation of the findings. The type of research design and the type of research method chosen by researchers are significantly influenced by their epistemological concerns (Baker, 2000; Brennan, Voros, & Brady, 2011).
3.3 Research paradigms:

A paradigm consists of beliefs which influence how research should be constructed and how the findings should be explained (Bryman, 2012). Research paradigms have an important bearing on the manner in which research is conducted. There continues to be a long-standing epistemological debate among researchers and scientific philosophers about how research is being carried out. Basically, the debate takes place between two schools of thought: positivism and interpretivism (Bryman, 2012). The two fundamentally different and competing epistemological paradigms available in the literature are presented in the following sections.

Positivist paradigm:

In the positivist paradigm, researchers tend to “explain and predict what happens in the world by searching for regularities and causal relationships between its constituent elements” (Burrell & Morgan, 1979, p.5). Positivists believe that the world is external and objective (Carson et al., 2001). Therefore, to ensure objectivity, researchers remain independent while observing the subjects, and develop hypotheses for examining the proposed relationships to draw a conclusion (Ikeda, 2009). Positivists examine cause-and-effect relationships and basic laws, and generally interpret everything to facilitate simplistic analyses (Bryant, Raphael, & Rioux, 2010).
Because positivists are in favour of applying methods related to natural science to understand social reality and beyond (Bryman, 2008), they adopt quantitative approaches and experiments to test hypothetical-deductive generalisations (Chen & Hirschheim, 2004) and stress the importance of appropriate data-collection procedures to test and explain behavioural patterns (Baker, 2000; Ikeda, 2009). The positivist paradigm depends on generalising the results obtained from a sample from a given population (Straub, Boudreau, & Gefen, 2004).

Positivism is widely recognised and applied in management and behavioural-science research in which positivists tend to apply quantitative research tools and techniques such as surveys and experiments to establish causal relationships (Brown & Brignall, 2007). This study intends to test a conceptual research model and its underlying hypotheses by relying on a survey-based quantitative research approach because it has been decided that the positivism paradigm is more suitable to achieve research objective than interpretivism.

*Interpretivist paradigm:*

The philosophies of interpretivist paradigm are quite different from that of the positivist paradigm. Interpretivist paradigm tends to achieve key research objective by observing a social phenomenon with the aim of discovering truths and facts related to social reality (Burnett, 2012). According to Remenyi and Williams (1998), interpretivists believe that human beings behave according to socially constructed values and not causal relationships.
In order to understand social events clearly, interpretivists engage themselves in the social world they belong to in order to gather experience with respect to social reality in the same way a participant does (Marshall & Rossman, 2010). Interpretivists therefore use qualitative and naturalistic methods because their approach tends to realise and explain a phenomenon through its context rather than looking for external reasons or basic laws (Amaratunga, Baldry, Sarshar, & Newton, 2002). Hence, the interpretivist framework relies on qualitative data-collection methods— for example, case studies, observation, interviews and focus-group discussion (Sarantakos, 2005; O'hEocha, Wang, & Conboy, 2011). The positivist approach and the interpretivist approach to research are presented in Table 3.1.
<table>
<thead>
<tr>
<th>Points of distinction</th>
<th>Positivist paradigm</th>
<th>Interpretivist paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fields of study</td>
<td>Natural sciences</td>
<td>Human sciences</td>
</tr>
<tr>
<td>Concepts</td>
<td>Structure, social and natural facts</td>
<td>Meanings and social developments, learned human phenomena</td>
</tr>
<tr>
<td>Methods</td>
<td>Quantitative, statistical Inference (hypothesis testing), cause and effect relationships, measurement</td>
<td>Qualitative, generation of hypotheses, interactions, processes</td>
</tr>
<tr>
<td>Scope</td>
<td>Seeks explanations for things, generalisations, laws, considers reality as being objective, tangible and unique</td>
<td>Seeks to understand people, context-dependent</td>
</tr>
<tr>
<td>Researcher’s role</td>
<td>Uninvolved observer</td>
<td>Actively involved</td>
</tr>
<tr>
<td>Analysis</td>
<td>Objective, abstract, fixed, value-free</td>
<td>Subjective, grounded, flexible, political</td>
</tr>
</tbody>
</table>

Source: Adapted from Ikeda (2009,p.56)
3.4 Research design

A research design can be regarded as “the basic directions” or “recipe” for carrying out a research project (Hair, Celsi, Money, Samouel, & Page, 2011, p.144). It provides a structure for the process of collection and analysis of sampled data (Bryman, 2012). Researchers generally adopt the most appropriate research design from the three types of designs available: exploratory, descriptive and case-study (Hair, Celsi, et al., 2011; Bryman, 2012).

Exploratory research design:

An exploratory research design is undertaken when there is a little information available to researchers about the problem or opportunity. “It [exploratory research design] is meant to discover new relationships, patterns, themes, ideas, and so on” (Hair, Celsi, et al., 2011, p.147). Exploratory design tends to rely on the qualitative approach; however, a quantitative approach can also be applied. The typical exploratory design uses qualitative techniques such as focus groups, in-depth interviews, case studies, digital videos and photographs to achieve the research ends (Hair, Celsi, et al., 2011).

Descriptive research design:

A descriptive research design attempts to observe and describe the characteristics of subjects without exerting any kind of influence on them (Hair, Celsi, et al., 2011). Descriptive design is generally classified as either cross-sectional or longitudinal.
Cross-sectional or survey design:

“A cross-sectional design entails the collection of data on more than one case (usually quite a lot more than one) and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables (usually many more than two), which are then examined to detect patterns of association” (Bryman, 2008, p.44). This type of design is commonly termed a survey design, and mostly relies on a sample survey. The research findings enable examination of differences among respondents in terms of gender, age, location, country of birth and so on (Bryman, 2008; Hair, Celsi, et al., 2011). A cross-sectional design facilitates quicker implementation of a research project because this design is a one-shot, single-point-in-time study (Frethey-Bentham, 2011). However, a disadvantage of this type of design is that the conditions might vary in terms of how many confounding variables are being presented in a study (Heiman, 2002).

Longitudinal design:

A longitudinal design involves assessing subjects more than once (Bryman, 2012). These studies are often expensive, difficult to conduct and time-consuming with the probability of participants dropping out of the study. Moreover, this type of design requires more complex statistical analyses. In spite of these drawbacks, a longitudinal design enables researchers to obtain required information that might not be available in other forms of research design (Bulmer, Gibbs, & Hyman, 2010).
**Case-study design:**

A case-study design requires a comprehensive and rigorous analysis of a single case (Bryman, 2012). It is an empirical inquiry that aims to explore an up-to-date phenomenon through a real-life context, despite the borders between the phenomenon and its context not being clearly obvious (Yin, 2008). Case studies emphasise a detailed circumstantial analysis of events or conditions and their associations (Yin, 1992; Patton & Appelbaum, 2003). Researchers have been using the case-study design over decades in the discipline of social science in which social scientists tend to adopt a qualitative approach to interpret the contemporary social phenomena more clearly (Yin, 2008).

Critics of the case-study approach argue that case study design may suffer a lack of reliability, thus limiting the generalisability of findings, because a small number of cases are usually studied within this design (Tellis, 1997). Some think that a high degree of reliance on this design may generate biased findings, while others admit that case-study design is a useful investigative tool. Nevertheless, despite its controversial images, researchers, particularly in social science, continue to utilise the case-study approach to explore crafted studies of real-life scenarios, issues and problems (Tellis, 1997; Appelbaum, Roberts, & Shapiro, 2009). Table 3.2 depicts this particular research design and relevant data collection methods.
<table>
<thead>
<tr>
<th>Research design</th>
<th>Quantitative method</th>
<th>Qualitative method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-sectional</td>
<td><em>Typical Form:</em> Survey research or structured observation on a sample at a single point in time. Content analysis on a sample of documents.</td>
<td><em>Typical form:</em> Qualitative interviews or focus groups at a single point in time. Qualitative content analysis of set documents relating to a single period.</td>
</tr>
<tr>
<td>Longitudinal</td>
<td><em>Typical Form:</em> Survey research on a sample on more than one occasion, as in panel and cohort studies. Content analysis of documents relating to different time periods.</td>
<td><em>Typical Form:</em> Ethnographic research over a long period, qualitative interviewing on more than one occasion, or qualitative content analysis of documents relating to different time periods.</td>
</tr>
<tr>
<td>Case study</td>
<td><em>Typical Form:</em> Survey research on a single case with a view to revealing important features about its nature.</td>
<td><em>Typical Form:</em> The intensive study by ethnography or qualitative interviewing of a single case, which may be an organisation, life, family, or community.</td>
</tr>
</tbody>
</table>

Table 3.2: Research design and method

Adapted from: Bryman (2012, p.76)
Based on the discussion above, it seems that a cross-sectional or survey design is the most appropriate research design for this study to achieve the key objective of this study as far as the advantages of this design such as high representativeness, comparatively low cost, convenient data collection, higher degree of reliability, absence of researcher subjectivity, and the use of robust and precise statistical results are taken into account.

3.5 Research methods:

Research methodology is concerned with the research strategy and theoretical analysis relating to the appropriate choice of methods in order to achieve the prime objective of a study (Henn, et al., 2006; Lister, 2007). Research methodology provides two broad approaches to research: qualitative and quantitative (Cavana, Delahaye, & Sekaran, 2000; Creswell, 2009).

3.5.1 Qualitative approach:

Qualitative research involves the systematic analysis of social phenomena through observing and apprehending how social beings perceive and interpret the world around them (Neuman, 1997; Marshall & Rossman, 2010). In qualitative research, data collection commonly relies on unstructured research methods, such as in-depth or focuses group interviews. It also depends on inductive reasoning to test hypotheses which are generated in the various stages of data collection and subsequent analyses (Boeije, 2009). The outcome of the qualitative approach tends to be subjective as this approach largely depends on the
personal capability of researcher(s) on how best they can interpret the social events (Cavana, et al., 2000; Henn, et al., 2006).

Qualitative research is grounded in the sense that it is based on the evidence gathered from the context or topic being studied. The data collected for grounded research provides the basis for inductive reasoning and theory development (Hair, Celsi, et al., 2011). The general goal of grounded theory research is to develop theories to comprehend specific contexts and phenomena (Hair, Celsi, et al., 2011).

3.5.2 Quantitative approach:

Quantitative approach indicates the systematic exploration of social events using multiple computational techniques (Gao, 2011). The method of measurement is a key element in this approach as it generates analyses of the essential links between empirical observation and mathematical expression of social events (Gill, Biger, & Mathur, 2010). The quantitative approach is based on the assumption that data can be quantified for the purpose of objective measurement. In this approach, data are usually gathered through survey questionnaires and are analysed statistically to provide objective outcomes which are reliable and valid (Cavana, et al., 2000). Table 3.3 provides some key contrasts between these two types of research approaches.
Table 3.3: Common contrast between quantitative and qualitative approach

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantitative approach</th>
<th>Qualitative approach</th>
</tr>
</thead>
</table>
| Purpose     | - Collect quantitative data  
             - More useful for testing  
             - Provides summary information on many characteristics  
             - Useful in tracking trends | - Collect qualitative data  
             - More useful for discovering  
             - Provides in-depth (deeper understanding) information on a few characteristics  
             - Discovers hidden motivations and values |
| Properties  | - More structured data collection techniques and objective ratings  
             - Higher concern for representativeness  
             - Emphasis on achieving reliability and validity of measures used  
             - Large samples (over fifty)  
             - Results relatively objective | - More unstructured data collection techniques requiring subjective interpretation  
             - Less concern for representativeness  
             - Emphasis on the trustworthiness of respondents  
             - Small sample size  
             - Results relatively subjective |

Adapted from Hair, Celsi, et al (2011, p.145)
3.5.3 Justification for employing the quantitative approach:

A quantitative cross-sectional survey design was considered the most suitable research design and approach to employ in this study for a number of reasons. Firstly, the key objective of this study could be better achieved by adopting the quantitative approach which involves collecting primary data and testing a theoretical model to predict future behaviors (Henn, et al., 2006). A common assumption of any theory is that it provides the foundation of some testable propositions, which can be investigated empirically (Davis, 1989). Research on uses of theory in social sciences shows that explanation and prediction are the two central points that articulates our understanding about a theory of interest (Gregor, 2006). Explanation indicates a subjective understanding of phenomena in relation to everyday reasoning and the nature of argumentation by articulating the answers of how, why, when, where (Toulmin, Rieke, & Janik, 1984; Gregor, 2006). In addition to explanatory uses, a theory can also be used for predictions by articulating answers of “what is and what will be” which permit a theory to be tested empirically to guide future course of actions (Gregor, 2006, p.620). Gregor (2006) furthers asserts that, even without an understanding of the reasons why outcomes occur, it is still possible to achieve the precise results of prediction of a theory is to predict by employing quantitative tools and techniques appropriately. Prior studies (e.g., Bagozzi & Yi, 1989; Krones et al., 2010; Park, Lee, & Jung, 2010) which have used the Theory of Planned Behaviour (TPB) as a theoretical framework adopted a quantitative approach to test the causal relationships among variables in...
the model. To better predict the intention of top managers to appoint women to senior management positions, this study uses the partial least squares based structural equation modelling (PLS-SEM) approach “to obtain values of the latent variables for predictive purpose” thus warranting to adopt only the quantitative research approach (Chin, 1998, p.301).

These studies also facilitated the availability of previously validated research instruments to be used in the current study. Moreover, this research opted for a quantitative approach over a qualitative one as the quantitative approach facilitates the processing of a large amount of data with the support of computers (Robson, 2002; Sekaran, 2009). Therefore, this research adopted the quantitative approach by obtaining primary data that were collected through the use of a structured questionnaire.

3.5.4 Study population and sampling frame:

Population refers to the universe of units from which a sample is drawn for a particular investigation (Bryman, 2012). According to the latest industry survey report of the Bangladesh Bureau of Statistics (BBS), which was prepared in 2005-2006, there were 1,620 large enterprises, 3,600 medium and 14,317 small-sized firms. These classifications of three sizes of industry have been made in accordance with government policy—specially, Industrial Policy-2010 by the Ministry of Industries, Government of Bangladesh, as shown in Appendix 3-A.
For the current study, the population comprises the Bangladesh human resource managers who are members of the two largest and oldest professional bodies of human resource managers in Bangladesh, Bangladesh Society for Human Resources Management (BSHRM) (http://www.bshrmbd.org) and the Institute of Personnel Management (IPM), Bangladesh (http://ipmbd.com/index.php). Therefore, the final sampling frame of this study was limited to 703 HR professionals (excluding non-HR professional members such as students and academics).

In large and medium organisations in Bangladesh, the head of human resources is termed the head/director/vice-president/manager/officer of human resources. In small organisations, generally a human resources officer or the proprietor performs the role of human resources manager. For this study, the term human resources (HR) manager has been used to refer to the above positions.

To be consistent with prior studies (e.g., Whitener, 2001; Collins & Smith, 2006; Van Buren, Greenwood, & Sheehan, 2011) and to achieve the study’s objective, only HR managers were targeted to participate in this study. The inclusion criteria are as follows:

a. The participant is a manager who is in a position to appoint or promote people to senior managerial roles.

b. The participant is the most senior manager responsible for the human resource functions within the company.
c. In small organisations, where there is no specific HR department, then the proprietor has been considered to be equivalent to the HR manager and is, therefore, the potential participant.
3.5.5 Sampling approach:

Determination of a sample size involves deciding the number of observations to be included in a sample adopting an appropriate sampling technique (Kothari, 2009). Sampling methods are classified into two broad categories: probability and non-probability sampling.

Probability sampling: in the probability sampling approach, each unit of elements in the target population has an equal and unbiased chance to be selected (Bryman, 2012, p.187). Proper application of probability sampling tends to result in a representative sample - “a sample that reflects the population accurately so that it is a microcosm of the population” (Bryman, 2012, p.187). The most commonly known probability sampling techniques are simple random sampling, systematic sampling, stratified sampling, cluster sampling and multi-stage sampling (Hair, Celsi, et al., 2011).

- Simple random sampling: this method is a simple and direct method of sampling in which every single element of the target population has an equal opportunity to be selected (Hair, Celsi, et al., 2011).
- Systematic sampling: this sampling technique relies on a specified system to constitute a sample. Systematic sampling is “a process that involves randomly selecting an initial starting point on a list, and thereafter every nth element in the sampling frame is selected” (Hair, Celsi, et al., 2011, p.169).
- Stratified sampling: in this technique, the researcher needs to partition the sampling frame into relatively homogeneous subgroups based on the characteristics of the target population which are distinct and non-overlapping (Hair, Celsi, et al., 2011).
Cluster sampling: in this sampling process, the target population is considered as a composition of heterogeneous groups, known as a cluster (Hair, Celsi, et al., 2011).

Multi-stage sampling: this is a process of sampling involving a sequence of stages to obtain the desired sample size (Hair, Celsi, et al., 2011).

Non-probability sampling: in this technique, not every element of the target population has an equal opportunity of being selected into the sample studied. Therefore, both inclusion and exclusion of elements in a sample depend on the judgement of the researcher (Hair, Celsi, et al., 2011). Quota, snowball/referral and convenience are the most common non-probability sampling techniques (Hair, Celsi, et al., 2011).

Quota sampling: quota sampling resembles stratified sampling except that is not actually carried out randomly because, in this technique, the final selection of the sample depends on the preference of a researcher. The objective of this technique lies in producing “a sample that reflects a population in terms of the relative proportions of people in different categories, such as gender, ethnicity, age groups, socio-economic groups, and region of residence, and in combinations of these categories” (Bryman, 2012, p.202).

Snowball sampling: snowball sampling is also referred to as “referral sampling”. The initial responses are used to identify other potential respondents in the target population. This method
continues until the optimum sample size is met (Hair, Celsi, et al., 2011).

- Convenience sampling: a convenience sampling involves selecting the sample units which are easily accessible to the researchers to obtain required information in a specific study (Hair, Celsi, et al., 2011).

Considering the cost and time required to collect data as well as the characteristics of respondents (i.e., head of human resource departments), the potential respondents were randomly selected from the databases of human resource managers as found in the annual directories of the two largest HR professional bodies—BSHRM and IPM.

### 3.5.6 Survey methods:

After considering the characteristics of respondents and the relative benefits and limitations of commonly used survey methods available, such as face-to-face or telephone surveys, it was deemed that the self-administered survey would be the most suitable approach for this study. A self-administered survey is cheaper and quicker compared with other methods, and is convenient for respondents in the absence of a researcher (Bryman, 2012). A self-administered survey is distributed in several ways, such as via postal, online (i.e., email containing the survey link), (Bryman, 2012). An online survey method was used, after consideration of its key advantages over other methods, as follows:

An online survey accelerates the speed and significantly reduces the cost of data collection as well as ensures high quality data (Heiervang & Goodman, 2011). It is particularly useful in obtaining data on highly
sensitive issues in which respondents might encounter embarrassment in a face-to-face situation (Griffiths, 2010). In addition, an online survey provides easier access to the group of people who would be difficult to reach through other means (Wright, 2005). Moreover, past research utilised online surveys in dealing with highly professional respondents, such as specialist clinicians or senior level managers (Pillay, Kelly, & Tones, 2010; Rutherford, Elliott, & Vinciullo, 2011; Taylor, Yates, Meyer, & Kinsella, 2011).

An online survey method was employed in this study after consideration of the characteristics of the respondents (i.e., the top level human resource executives) and the strict time pressure for completion of this project. However, a postal survey option was made available to the participants who expressed their wish, in their reply to the initial contact, to complete a printed version of the survey.
3.5.7 Process of data collection:

In the first stage, the contact addresses of potential participants were collected from the members’ directories published annually by BSHRM and IPM. In the second stage, eligible participants were approached via email containing the online survey link with a Participant’s Information Statement (PIS) attached and detailed instructions for completing the survey. The information statement specified that participation in this survey was voluntary and participation indicated their implied consent. The justification for providing clear instructions is provided on the ground that articulated guidelines significantly reduce the probability of having biased responses (Sekaran, 2009). At least ten follow-up emails and five telephone calls were also made over the thirteen week period (i.e., from September 26, 2011 to January 2, 2012,) of data collection to increase the likelihood of response rate.

3.5.8 Response rate:

From September 26, 2011 to January 2, 2012, out of 703 randomly selected human resource professionals, two hundred (200) responses were recorded via online survey, of which 109 surveys were found to have been completed. With respect to paper surveys, one hundred and fifty-six (156) surveys were mailed upon request, with 52 completed surveys returned via mail and 21 completed surveys personally collected by the researcher, thereby indicating a total sample size of 182, comprising 109 online and 73 paper surveys which amounted to a total response rate of 46.8 per cent.
There is a growing body of research (e.g., Olsen, 2009; MacDonald, Morrison, Rose, & Boyle, 2010; Windle & Rolfe, 2011) investigating whether there are any significant differences between internet and paper-based surveys. In line with the recommendations of these studies, comparison between these two sub-samples was made and it seemed that there were little differences between the two sub-samples (i.e., online and paper surveys) in terms of organisational and demographic attributes such as gender, positions occupied, years of local experience, tenure of organisations (see appendix 3-B). Moreover, the rate of response seemed satisfactory compared with that of other similar studies in the area of human resource management (e.g., Iverson & Zatzick, 2011; Mihalache, Jansen, Van Den Bosch, & Volberda, 2012; Ryan, Zhang, Prybutok, & Sharp, 2012; Vaccaro, Jansen, Van Den Bosch, & Volberda, 2012) which engaged respondents from top management teams. By reviewing 1607 published studies in 17 scholarly-referred management and behavioural science journals between 2000-2005, Baruch and Holtom (2008) concluded that the average online survey response rate for these studies was 37.6 per cent. Therefore, it seems that this response rate (i.e., 46.8 per cent) is typical.

The sample size of 182 seemed sufficient for this study as partial least squares-based structural equation modelling (PLS-SEM) was employed to analyse data. For PLS-SEM, the determination of appropriate sample size is relatively easier than other techniques, due to the availability of a commonly used “rule of thumb” to estimate the most appropriate sample size for a particular model in a study (Wold, 1982;
Barclay, Higgins, & Thompson, 1995; Chin & Newsted, 1999). For example, “[For] SEM minimum sample size should be equal to the larger of the following: (1) ten times the largest number of formative indicators used to measure one construct or (2) ten times the largest number of structural paths directed at a particular latent construct in the structural model” (Hair, Ringle, et al., 2011, p.144). There are thirteen paths in the proposed structural model. According to the second rule, the sample size of 130 would be sufficient for this study. Therefore, the eventual sample size of 182 facilitated robust statistical results through the use of PLS-SEM analysis.

3.5.9 Measures of constructs:

Measures of each of the constructs used in this study have been validated in a large number of prior empirical studies. Therefore, valid and reliable scale-items have been borrowed from the relevant literature to assess the constructs of this study, such as attitudes towards women as managers, human resource management policies and practices, organisational climate, anticipated affective reaction, attitudes towards the behaviour of promoting women, subjective norms, perceived behavioural control and intention to promote women to senior management roles. A summary of the constructs with their definitions is presented in Table 3.4.
<table>
<thead>
<tr>
<th>SL</th>
<th>Constructs</th>
<th>Dimension</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Attitudes towards women as managers (WAMS)</td>
<td>The Women as Managers Scale (WAMS) identifies and measures stereotypical attitudes toward women as managers (Terborg, Peters, Ilgen, &amp; Smith, 1977a)</td>
<td>Peters, Terborg et al. (1974)</td>
</tr>
<tr>
<td>02</td>
<td>Attitudes toward the behaviour of promoting women</td>
<td>Attitude refers to the degree to which a person has a favourable or unfavourable evaluation of the expected outcomes resulting from the performance of a particular behaviour (Fishbein &amp; Ajzen, 1975)</td>
<td>Ajzen (2002), Conner &amp; Abraham (2001)</td>
</tr>
<tr>
<td>03</td>
<td>Subjective norm</td>
<td>Subjective norms are the perceived social pressure and motivation to comply with those pressures to perform or not to perform the behaviour of interest (Fishbein &amp; Ajzen, 1975)</td>
<td>Ajzen (2002), Kwan and Bryan (2010), Conner &amp; Abraham, 2001</td>
</tr>
<tr>
<td>No.</td>
<td>Topic</td>
<td>Description</td>
<td>References</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>04</td>
<td>Perceived behavioural control</td>
<td>Perceived behavioural control (PBC) indicates the personal beliefs regarding the perceived ease or difficulty of performing the target behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles (Ajzen, 1991).</td>
<td>Ajzen (2002), Liem and Bernardo (2010)</td>
</tr>
<tr>
<td>05</td>
<td>Anticipated affective reaction</td>
<td>Anticipative affective reactions (AAR) are defined as the feelings that might arise about the consequences of behaviour either after a certain action or inaction (van der Pligt &amp; De Vries, 1998).</td>
<td>Richard, van der Pligt, et al. (1996), Conner and Abraham (2001) Perugini and Bagozzi (2001)</td>
</tr>
</tbody>
</table>
practices which significantly influence the career progression of organisational members (Konrad, 2007; Cong, 2009; Rowley, et al., 2009).

| 07 | Organisational climate | Organisational climate refers to “the atmosphere that employees perceive is created in their organisations by practices, procedures, and rewards” (Scheider, et al., 1994, p18) | (Muchinsky, 1976); (Pritchard & Karasick, 1973) |

Attitudes towards women as managers:

The scale for attitudes towards women as managers (WAMS) was developed by Peters, Terborg, and Taynor (1974) and has been widely used by other researchers (Terborg, Peters, Ilgen, & Smith, 1977b; Owen & Todor, 1993; Cordano, et al., 2002; Mostafa, 2005a; Galanaki, et al., 2009). WAMS is a measure of 21 items assessed on a seven-point Likert scale: 1 = Strongly Disagree to 7 = Strongly Agree. The WAMS has been found to have satisfactory reliability in previous studies. For example, Galanaki, et al. (2009) found the WAMS had a satisfactory degree of internal reliability. In line with the recommendations of Aycan (2004), who used WAMS in the context of Turkey, three items were dropped from the questionnaire because they might appear offensive to the religious feelings of potential respondents in Bangladesh, where more than 90% of the population identify themselves as Muslims, as is the case with Turkey.

Human resource management (HRM) policies and practices:

A dearth of consensus about methods of assessment of HRM policies and practices is evident in the literature (Ajzen, 2002; Mahudin, Cox, & Griffiths, 2012). Therefore, to operationalise the construct of HRM policies and practices, a comprehensive list of items developed by Tsui (1990), Delaney and Huselid (1996), Lawler, Mohrman et al. (2008b) and Baruch (1997) was taken into account. Due the length of the list, only items that addressed a key aspects of HRM practices, such as recruitment, selection, compensation, participation, training and development, as selected by Harel, Tzafrir and Baruch (2003) in their
studies, were used in this study to measure the constructs of HRM policies & practice. These twelve items were measured on a seven-point Likert scale (1 = Never True to 7 = Always True.

Organisational climate:

The items used to measure organisational climate in this study were derived from the study of Pritchard and Karasick (1973) and Muchinsky (1976). These items were measured on a seven-point Likert scale in which 1 = Not at all whereas 7 = To a great extent.

Subjective norm:

Subjective norm was assessed using seven items used in the studies of Ajzen (2003) and Kwan and Bryan (2010). All of these items were assessed on a 7-point Likert scale: 1 = Strongly Disagree to 7 = Strongly Agree.

Intention to promote women

Intention to promote women was measured using four items which were adapted from Ajzen (2003) with minor modification of their wording. All of these items were assessed on a seven-point Likert scale: 1 = Not at all to 7 = To a great extent.

Anticipated affective reactions (AAR):

Anticipated affective reaction was assessed using eleven items which were adapted from Richard, van der Pligt, et al. (1996), Conner and Abraham (2001) and Perugini and Bagozzi (2001). A seven-point Likert scale was used: 1 = Strongly Disagree to 7 = Strongly Agree.
Perceived behavioural control (PBC):

Perceived behavioural control was examined using seven items which were adapted from Ajzen (2002), and Liem and Bernardo (2010). A seven-point Likert scale was used: 1 = Strongly Disagree to 7 = Strongly Agree.

Attitudes toward the behaviour of promoting women:

Attitudes towards women’s promotion were measured by twelve semantic differential items on 7-point scales, defined by pairs such as bad-good, harmful-beneficial, unpleasant-pleasant, unenjoyable-enjoyable, useless-useful, ineffective-effective, disadvantageous-advantageous, relaxing-stressful, foolish-wise, joyless-joyful, boring-exciting and negative-positive. All of these items were adapted from Perugini and Bagozzi (2001) and Ajzen (2002).
3.6 Research setting:

This section provides a discussion on what types of industries comprise the economy of Bangladesh and their proportionate contribution to the Gross Domestic Product (GDP) of Bangladesh.

Economy of Bangladesh

According to the Bangladesh Bureau of Statistics (BBS) in 2012, Bangladesh is one of the emerging markets and developing economies in South East Asia. The economy of Bangladesh has been growing rapidly with an average growth of between six to seven per cent per annum since its independence from Pakistan in 1971. According to a report by the International Monetary Fund (IMF), the per capita income of Bangladesh in 2011 was estimated at US $1,697 in terms of purchasing power parity (PPP). In 2010, Bangladesh was the world’s 47th largest economy in terms of PPP (GDP of US$269.3 billion) and 57th largest in nominal terms (US $104.9 billion) (Zaman, 2011). Bangladesh’s economy comprises three main sectors: agriculture, industry and service (Bangladesh Bureau of Statistics, 2012). These three sectors are discussed below:

Agricultural sector

Historically, Bangladesh is an agrarian country. In 1971, the agriculture sector contributed 78 per cent of Bangladesh’s GDP and accounted for 95 per cent of employment in Bangladesh (Karim & Ahmed, 2005; Alam, Hoque, Khalifa, Siraj, & Ghani, 2009). According to the classification of Bangladesh Bureau of Statistics (2012), the agriculture sector incorporates farming crops, animals, fishery and forestry. Farming
crops include rice, sugarcane jute, vegetables, wheat and pulses. Animal farming comprises fishery, dairy, poultry and sericulture. Due to the expansion of the industry and service sectors, the contribution of the agriculture sector sharply declined to 14.4 per cent of GDP in the financial year (FY) 2010-11 from 78 per cent in 1971 (Bangladesh Bureau of Statistics, 2012). According to the latest 'Report on Monitoring of Employment Survey (MES) 2009' published by the Bangladesh Bureau of Statistics (BBS), the agricultural sector accounts for 43.5 per cent of Bangladesh’s labour force.

**Industrial sector**

The industrial sector accounts for 17.9 per cent of Bangladesh’s labour force, yet was the second largest contributor to Bangladesh's GDP in the FY 2010-11 (i.e., 28.6%) (Bangladesh Bureau of Statistics, 2012). The industrial sector comprises five sub-sectors: construction; gas and water distribution, power, manufacturing, and mining and quarrying (Bangladesh Bureau of Statistics, 2012). Of these five sub-sectors, manufacturing contributed the most to GDP during the FY 2009-2010 (i.e. 17.9%). Of the industries within the manufacturing sub-sector, the garments industry contributed the most to GDP (Bangladesh Bureau of Statistics, 2012).

Based on the value of fixed assets and the number of employees engaged, industries in Bangladesh can be classified as small, medium or large as mentioned in the Industrial Policy-2010 circulated by the Ministry of Industries, Bangladesh.
Services sector

The contribution of the services sector has been increasing over the last three decades so that the largest contributor to the GDP of Bangladesh. For example, according to the ‘Bangladesh Economic Review’ published by the Ministry of Finance in 2012, the service sector’s contribution to the GDP of Bangladesh was 49.5 per cent in FY 1980-81 and reached 53.0 per cent in the FY 2010-11. As classified by the Bangladesh Bureau of Statistics (BBS), the service sector consists of trade services and financial institutions (e.g., bank, insurance, storage and communication, public administration and defence, education, health, housing). According to the latest ‘Report on Monitoring of Employment Survey (MES) 2009’ published by the BBS, 38.6 per cent of the total labour force, which is the second highest proportion is employed in the services industry.

To sum up, the relative importance of the different sectors in the Bangladesh economy has shifted dramatically since the independence of Bangladesh in 1971. In the FY 1973-74, the agricultural sector was most important, followed by the industrial sector, and then the services sector. In contrast, in the FY 2010-11, the services sector was most important, followed by the industrial sector and then the agricultural sector.

The shift in the relative importance of Bangladesh’s different economic sectors arguably has led to an improvement in living standards within Bangladesh as indexed by lower infant mortality rates, increased immunisation of children, increased elementary-level enrolment rates,
increased life expectancy and fewer people living below the poverty line. One of the recent achievements of Bangladesh is advancement in the gender equity index (GEI). The 2012 GEI report demonstrates that Bangladesh surpasses Afghanistan, India and Pakistan in terms of gender equity as measured by the Gender Equity Index, which was prepared by an independent Manila-based civil society think tank.

3.7 Methods of data analysis:

The following sections provide a detailed discussion on the structural equation modelling (SEM) - the data analysis technique which has been employed in this study to examine the conceptual model, followed by discussion of a set of criteria used to interpret the measurement and structural models.

The data were imported into SPSS (version 19) to perform the descriptive analysis, to generate co-efficient tables, to assess risk of common method bias and multicollinearity. In addition, SPSS Macro developed by Andrew Hayes was utilised to examine the mediating effects as proposed in the conceptual model. Further comprehensive analysis was done using component-based structural equation modelling; widely known as partial least squares based structural equation modelling (PLS-SEM). SmartPLS-M3 (Ringle, Wende, & Will, 2005) was used to perform the PLS-analysis. The following sections provide detailed discussion of the tools and techniques, with a rationale for their use in this study.
3.7.1 Structural equation modelling:

Structural equation modelling (SEM) is a multivariate data analytic technique which can be used to demonstrate complex relationships between multiple latent variables (i.e., unobservable variables such as job satisfaction) and/or variables which are measured directly (e.g., age) in a single model (Stein, Morris, & Nock, 2012). SEM involves analysing a structural model, which represents “causal” relationships between constructs of interest based on theory(ies) (Bentler, 1988), by using a confirmatory (i.e., hypothesis testing) approach (Byrne, 2006).

3.7.2 Evolution of modern SEM:

SEM, the most widely used and popular statistical data analytic technique, is a multidisciplinary approach. While the origin of SEM lies in the fields of biology and psychology, it was also enriched by contributions from economics, before appearing as a fully-fledged multivariate technique in the field of statistics. Appendix 3-C provides an account of the developmental phases of modern SEM.

Key strengths and features of SEM:

A number of strengths and attributes of SEM make it distinct from other techniques which are used in multivariate analyses. A single statistical model or approach cannot provide the same coverage or flexibility as does SEM with regard to either research design or data analysis (Hoyle, 1995; Sroufe, 2003; Kline, 2011). According to Byrne (2006), the data-analysis approach adopted by SEM is confirmatory rather than exploratory, and a priori, which lends itself well to analyses that are
used to draw inferences. Furthermore, unlike most other multivariate
techniques such as exploratory factor analysis, which are mostly
descriptive in nature and unable to take measurement error into account,
SEM takes estimates of error variances into account while assessing
hypothesised relationships (Bagozzi & Phillips, 1982).

SEM has several other capabilities that make it superior to other
techniques. In particular, models containing latent constructs can be
specified and the relationships between the latent constructs and the
indicators which are used to represent them (i.e., the measurement model)
on the one hand, and the hypothesised relations among constructs (the
structural model) on the other can be estimated separately (Tomarken &
Waller, 2005). Thus, SEM can integrate both observed as well as
unobserved (latent) factors to examine a range of hypothesised
relationships simultaneously within a model (Shook, Ketchen Jr, Hult, &
Kacmar, 2004).

One of the most commonly agreed strengths of SEM is that “SEM
also allows researchers to directly test the model of interest rather than a
straw-man alternative” (Tomarken & Waller, 2005, p. 35). For instance,
SEM is mostly used in behavioural studies in which the theoretical
hypotheses are lined up with the alternative hypotheses instead of the null
hypothesis (MacCallum, Browne, & Sugawara, 1996; Tomarken & Waller,
2005). In addition, SEM is considered to be an exceptionally
comprehensive technique that involves modelling multivariate relations to
perform path analysis and confirmatory factor analysis while
simultaneously testing structural regression models (MacCallum, et al., 1996; Byrne, 2006; Kline, 2011). The following section provides detailed discussion of two schools of SEM.

### 3.7.3 Covariance based SEM (CB-SEM) and Component based SEM (PLS-SEM):

Two complementary schools have received attention in the domain of SEM: covariance-based SEM and component-based SEM. The most well-known SEM technique is covariance-based structural equation modelling (CBSEM) which was developed by Karl Joreskog (1970). The primary objective of CB-SEM is to examine the level of consistency between data obtained from a sample and a theoretical model (Blunch, 2008). The strength of CB-SEM lies in validating a model and obtaining a maximum amount of goodness-of-fit. CB-SEM can be performed in three types of theory testing: strictly confirmatory, alternative models and model generation (Henseler, Ringle, & Sarstedt, 2012a). Therefore, to employ CB-SEM, the proposed structural model should be built on a strong theoretical underpinning. The main assumption of CB-SEM is that the observed variables must meet the requirement of specific multivariate normal distribution (Reinartz, Haenlein, & Henseler, 2009).

An alternative to the CB-SEM technique is component-based partial least squares, which is commonly termed PLS-SEM. Unlike the covariance-based method, the PLS approach is employed “to obtain values of the latent variables for predictive purpose” (Chin, 1998, p.301). Herman Wold's (1966) PLS is better used to maximise the prediction
instead of obtaining a goodness-of-fit (Reinartz, et al., 2009). The PLS approach is useful in exploratory studies where the theoretical support is less strong and in which hypotheses are needed to be developed and tested (Götz, Liehr-Gobbers, & Krafft, 2010). The key differences between PLS-SEM and CB-SEM are shown in Table 3.5.
Table 3.5 Comparison between PLS-SEM and CB-SEM

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Component-based SEM (PLS-SEM)</th>
<th>Covariance-based SEM (CB-SEM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Prediction-oriented</td>
<td>Parameter-oriented</td>
</tr>
<tr>
<td>Approach</td>
<td>Variance-based</td>
<td>Covariance-based</td>
</tr>
<tr>
<td>Assumptions</td>
<td>Predictor specification (nonparametric)</td>
<td>Typically multivariate normal distribution and independent observations (parametric)</td>
</tr>
<tr>
<td>Parameter estimates</td>
<td>Consistent as indicators and sample size increases (consistency at large)</td>
<td>Consistent</td>
</tr>
<tr>
<td>Latent variable scores</td>
<td>Explicitly estimated</td>
<td>Indeterminate</td>
</tr>
<tr>
<td>Epistemic relationship between a latent variable and its measures</td>
<td>Can be modelled in either formative or reflective model</td>
<td>Typically only with reflective indicators</td>
</tr>
<tr>
<td>Minimum sample size</td>
<td>Recommended minimum number of observations range from 6-100</td>
<td>Recommended minimum number of observations range from 200-800</td>
</tr>
<tr>
<td>Implications</td>
<td>Optimal for prediction accuracy</td>
<td>Optimal for parameter accuracy</td>
</tr>
<tr>
<td>Model complexity</td>
<td>Large complexity (e.g., 100 constructs and 1000 indicators)</td>
<td>Small to moderate complexity (e.g., less than 100 indicators)</td>
</tr>
</tbody>
</table>

Source: Adapted from Chin and Newsted (1999)
3.7.4 Rationales for using PLS-SEM in this study:

According to Hair, Sarstedt, Pieper and Ringle (2012), the variance based PLS-SEM is the most preferred technique over others if the objective of a study lies in prediction instead of having confirmation of structural relationship. Therefore, the PLS approach seemed the most appropriate data analysis technique for this study because the study’s objective is to predict the intention of top managers to appoint women to senior management positions in Bangladesh. Methodologists argue that the PLS-SEM analysis provides statistically robust solutions where the basic assumptions of CB-SEM, such as large sample size, multivariate normality, less complex model and factor indeterminacy are difficult to satisfy (Fornell & Bookstein, 1982; Chin, 1998; Hair, Ringle, et al., 2011).

In the case of this study, the data do not satisfy the multivariate normality assumption, the theoretical model is comparatively complex and, the TPB has not typically been applied in the area of human resource management. Therefore, the PLS-SEM approach was employed in this study.

3.7.5 Two-step approach to partial least squares (PLS) analysis:

There is a common interest among researchers in the social sciences regarding some constructs, which are unable to measure or observe directly (Byrne, 2006). Such constructs are referred to as “Latent constructs or Factors”. Latent constructs are theoretical in nature as they cannot be measured directly (Abowitz & Toole, 2009). To measure latent constructs, researchers measure indicating variables using valid and
reliable scale items, which are referred to as observed variables. These observed variables appear as indicators of the underlying theoretical factors or constructs that they are presumed to represent (Borsboom, Mellenbergh, & Van Heerden, 2003; Byrne, 2006). Examples of latent constructs in this study are attitudes, subjective norms, perceived behavioural control, anticipated affective reactions, organisational climate and HRM practices & policies.

A two-step approach to partial least squares (PLS), as recommended by Anderson and Gerbing (1988) as well as by Chin (2010), was employed in this study. In the first phase, the measurement model is examined against a certain set of criteria that need to be met in order to be satisfied with the reliability and validity of measures. In the second phase, the hypothesised relationships among the latent constructs are tested in the structural model. The manner in which latent constructs in the theoretical model influence each other either directly or indirectly is specified in the structural model (Bentler, 1988; Chiou, Chan, Lettice, & Chung, 2011). The following sections provide discussion of the classification of the measurement model (i.e., formative and reflective measurement models), followed by discussion of the set of standards used to assess the reflective measurement model and the structural or inner model.
Formative and reflective measurement models:

There are two types of measurement models in PLS-SEM analysis: reflective and formative.

Reflective measurement model:

In the reflective measurement model, the path of causality is directed from the construct to their underlying measures. If any reflective indicator is removed from the measurement model, it does not necessarily change the meaning of the construct. Moreover, at the item level, measurement error is taken into account (Churchill Jr, 1979; Jarvis, MacKenzie, & Podsakoff, 2003; Vinzi, Chin, Henseler, & Wang, 2010).

Formative measurement model:

In the formative measurement model, the path of causality derives from the measures to their indicating construct. It is not commonly expected that formative indicators are correlated and if an indicator is removed from the measurement model this does not result in any change in the meaning of constructs. Therefore, statistical tests of internal consistency and reliability are not recommended for formative indicators (Diamantopoulos & Winklhofer, 2001). Multiple regression is the common basis of the formative model and multicollinearity is also taken into account (Diamantopoulos & Winklhofer, 2001; Vinzi, Chin, et al., 2010).

There has been considerable debate among researchers about whether the measurement model ought to be formative and/or reflective. Appendix 3-D provides a framework developed on theoretical and empirical considerations which can be used to make an appropriate
decision about whether formative and or reflective measures are best for assessing the measurement-mode. Taking the theoretical and empirical issues into account, only reflective measures were used in this study to test the TPB-based conceptual model to achieve the study objective (Mathieson, Peacock, & Chin, 2001; Lee & Larsen, 2009).
3.7.6 Assessment of the reflective measurement model:

In line with the recommendations of Hair, Ringle, et al. (2011), the reliability (i.e., internal consistency and indicator reliability) and validity (i.e., convergent validity and discriminant validity) of the measures were assessed in the reflective measurement model.

Internal consistency:

Cronbach’s alpha (α) is the most popular measure of internal reliability and should be higher than .70 (Nunnally, 1978b). When assessing the measurement model, composite reliability (p_c) is used for each group of indicators (Werts, Linn, & Jöreskog, 1974). The reason for choosing composite reliability instead of alpha in the reflective measurement model is that, “In comparison to Cronbach’s alpha, this measure does not assume tau equivalency among the measures with its assumption that all indicators are equally weighted. Therefore, while alpha tends to be a lower bound estimate of reliability, P_c is a closer approximation under the assumption that the parameter estimates are accurate” (Chin, 2010, p. 671). The assumption of composite reliability is less stringent compared to Cronbach’s alpha, which assumes that all of the indicators are equally reliable. Therefore, the measure of composite reliability is more appropriate for PLS analysis. Moreover, a composite reliability ranging from .70 to .90 is considered satisfactory in social science and business research (Bernstein & Nunnally, 1994).
Indicator reliability:

The indicator reliability indicates the proportion of indicator variance that is explained by the respective construct (Hair, Ringle, et al., 2011). An absolute standardised loading of greater than .70 for indicators was used to indicate satisfactory reliability of each indicator. Indicators with an absolute standardised loading of .70 or less were removed in order to ensure the composite reliability was above the recommended threshold (Hair, Ringle, et al., 2011).

Convergent validity:

Convergent validity indicates “the extent to which blocks of items strongly agree (i.e., converge) in their representation of the underlying construct they were created to measure” (Chin, 2010, p.674). To assess the reflective measurement model, convergent validity was measured using average variance extracted (AVE), as proposed by Fornell and Larcker (1981). The AVE represents the average squared factor loading or average communality of items used to measure an indicating latent construct. AVE “attempts to measure the amount of variance that an LV component captures from its indicators relative to the amount due to measurement error” (Chin, 2010, p.670). As a measure of reliability of a latent variable, the AVE should be .50 or higher, as this indicates that 50% or more of the variance of the indicators is explained by the relevant construct (Fornell & Larcker, 1981; Chin, 2010).
**Discriminant validity:**

Discriminant validity indicates the extent to which two theoretically related concepts are distinct from each other (Lu, Lee, & Cheng, 2012). Therefore, a latent construct should elucidate the variance of its own indicators better than it does the variance of other latent variables. To assess the discriminant validity of the reflective measurement model, two measures were used: Fornell-Larcker’s (1981) criterion and cross loadings (Hair, Ringle, et al., 2011). Fornell-Larcker’s (1981) criterion specifies that “the AVE of each latent construct should be greater than the latent construct’s highest squared correlation with any other latent construct” (Hair, Ringle, et al., 2011, p.146). An indicator’s loading with its underlying latent construct needs to be higher than its loadings with all of the other constructs in the conceptual model (Sosik, Kahai, & Piovoso, 2009; Hair, Ringle, et al., 2011). Table 3.6 below provides a summary of criteria to assess the reflective measurement model.
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal consistency</td>
<td>Composite reliability should be higher than .70.</td>
</tr>
<tr>
<td>Indicator reliability</td>
<td>Indicator loadings should be higher than .70</td>
</tr>
<tr>
<td>Convergent validity</td>
<td>The AVE should be .50 or higher.</td>
</tr>
</tbody>
</table>
| Discriminant validity     | The AVE of each latent construct should be greater than the construct’s highest squared correlation with any other latent construct (Fornell-Larcker criterion)  
An indicator’s loading with its respective latent construct should be greater than its cross loadings. |

Source: Adapted from Hair, et al., (2011, p.145)
3.7.7 Assessment of the structural model:

A structural model, commonly described as the theoretical model or causal model “represents the theory with a set of structural equations and is usually depicted with a visual diagram” (Hair, Black, Barry, Rolph, & Tathan, 2006, p. 845). A structural model identifies the association between the latent constructs in the conceptual model. In PLS analysis, the primary evaluation criteria of a structural model are the amount of variance explained and the level of significance of the path coefficients. Akin to ordinary least squares regression, the values of $R^2$ of the endogenous variables indicate the volume of variance in the construct of interest that is explained by the conceptual model (Chin, 2010). PLS analysis generates estimates of standardised regression coefficients for the structural paths demonstrated in the conceptual model. In the study under discussion, the level of significance of these path coefficients was assessed using bootstrapping, a nonparametric approach “for estimating the distribution of estimates of path coefficients by resampling with replacement from the original sample” (Hesterberg, Moore, Monaghan, Clipson, & Epstein, 2005; Sosik, et al., 2009, p.19). With a view to determining the significance of the path coefficients, one of three resampling methods can be employed: bootstrapping, jack-knifing, blindfolding.

**Bootstrapping:**

According to Chin (2010 p. 674) “The bootstrap approach represents a nonparametric approach for estimating the precision of the PLS estimates. N samples sets are created in order to obtain N estimates
for each parameter in the PLS model. Each sample is obtained by sampling with replacement from the original data set (typically until the numbers of cases are identical to the original sample set)”. Although bootstrapping is a widely used resampling technique in PLS analysis, it has some limitations compared to other techniques such as jack-knifing. For example, bootstrapping being a resampling with replacement technique “… means that each resample contains a random arrangement of the rows of the original dataset, where some rows may be repeated” (Kock, 2012 p. 12). Moreover, a larger sample size requirement with evenly distributed data points is the precondition for having stable resample path coefficients using bootstrapping (Kock, 2012). Nevitt and Hancock (2001) suggest not employing bootstrapping where the sample size is too small, for example, less than 100.

Jack-knifing:

Jack-knifing is a resampling technique that offsets the limitations of bootstrapping technique such as small sample size and the presence of outliers in the dataset (Chiquoine & Hjalmarsson, 2009). For example, jack-knifing “creates a number of resamples that equals the original sample size, and each resample has one case removed. That is, the sample size of each resample is the original sample size minus 1” (Kock, 2012 p. 12). Jack-knifing tends to provide more stable resample path coefficients than does bootstrapping; however, SMATPLS software, which is the PLS analysis software chosen for this study, does not have a jack-knifing option, so bootstrapping was used. Moreover, this study satisfied the basic assumptions of bootstrapping in terms of sample size
requirement. The sample size is 182, which is larger than the recommended minimum sample size for bootstrapping.

*Blindfolding:*

In order to test the significance of path coefficients and to assess the model’s predictive validity, the blindfolding resampling technique can be used in addition to bootstrapping and jack-knifing (Hair, Ringle, et al., 2011). Blindfolding is a “procedure, a sample re-use technique that omits every d\textsuperscript{th} data point part and uses the resulting estimates to predict the omitted part” (Hair, Ringle, et al., 2011, p.147). Unlike jack-knifing, in blindfolding, the researcher can set a number of resamples to be created by a blindfolding resampling algorithm (Kock, 2011). According to Hair, et al., (2011, p.147). “The blindfolding procedure is only applied to endogenous latent constructs that have a reflective measurement model specification”. The blindfolding approach was employed in this study to examine the conceptual model’s predictive relevance by estimating the Q\textsuperscript{2} values (Geisser, 1974a; Stone, 1974) of all the endogenous constructs in the conceptual model. The value of Q\textsuperscript{2} was obtained following a procedure called blindfolding, “a sample re-use technique that omits every d\textsuperscript{th} data point part and uses the resulting estimates to predict the omitted part” and “if an endogenous construct’s cross-validated redundancy measure value (i.e., Q\textsuperscript{2}) for a certain endogenous latent variable is larger than zero, its explanatory latent constructs exhibit predictive relevance” (Hair, Ringle, et al., 2011, p.147).
Table 3.7: Summary of criteria used to interpret a structural model

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$ values</td>
<td>.75, .50, or .25 for endogenous latent variables in the structural model can be described as substantial, moderate, or weak respectively.</td>
</tr>
<tr>
<td>Bootstrapping</td>
<td>can be used to assess the path coefficients’ significance. The minimum number of a bootstrap sample is 5,000, and the number of cases should be equal to the number of observations in the original sample. Critical $t$-values for a two-tailed test are 1.65 (significance level=10 per cent), 1.96 (significance level=5 per cent), and 2.58 (significance level=1 per cent).</td>
</tr>
<tr>
<td>Predictive relevance</td>
<td>Blindfolding is used to obtain cross-validated redundancy measures for each construct. It is important to make sure the number of valid observations is not a multiple integer number of the omission distance $d$. It is recommended to choose values of $d$ between 5 and 10. Resulting $Q^2$ values of larger than zero indicate that the exogenous constructs have predictive relevance for the endogenous construct under consideration.</td>
</tr>
</tbody>
</table>

Source: Adapted from Hair, Ringle, et al. (2011, p.145)
3.7.8 Mediation testing tool and technique:

A mediation effect in a model is established when an independent variable (X) affects a dependent variable (Y) indirectly via at least one mediating or intervening variable (M) (Baron & Kenny, 1986). As shown in Figure 3.1, a, b and c’ are the direct effects. The indirect effect is estimated by multiplying a and b. The sum of the direct and indirect effect is referred to as the total effect (C). Full mediation is reported when the direct effect between an independent and a dependent variable appears insignificant in the existence of mediator(s). Partial mediation is reported when the path coefficient of the direct effect between an independent and a dependent variable decreases but remains significant in the presence of mediator(s) (Judd & Kenny, 1981; Baron & Kenny, 1986).

\[ \text{Total effect} = C = c' + a \times b \]

Source: Baron and Kenny (1986)

Figure 3.1 A simple mediation model
Mediation test approaches:

There are a number of mediation testing approaches: causal step strategy, Sobel test, product-of-coefficients approach, distribution of the product strategy, and estimation of the significance of indirect effect have been largely employed (Preacher & Hayes, 2008). Causal step strategy, the most commonly used method, is employed to test the mediation effect in which the technique of ordinary least square (OLS) or structural equation modelling (SEM) is applied to estimate the path coefficients (Baron & Kenny, 1986). It is widely accepted that Baron and Kenny’s (1986) method is the most suitable for estimating models that have only one mediating variable (Preacher & Hayes, 2008).

The three steps of Baron and Kenny’s (1986) approach are as follows:

Step 1: regress the dependent variable (DV) on the independent variable (IV) in order to confirm the significance of the initial variable on the outcome variable— that is, condition 1;

Step 2: regress the mediator on the independent variable to confirm the independent variable is a significant predictor of the mediator— that is, condition 2; and

Step 3: condition 3 is satisfied when the mediator predicts the dependent variable while using mediator and independent variables simultaneously to predict the dependent variable— a correlation between the mediator and the dependent variable does not provide adequate evidence of mediation as both may occur due to the influence of an independent variable (Baron
& Kenny, 1986). However, a mediation effect may take place even though condition 1 is not satisfied (Kenny, Kashy, & Bolger, 1998).

Most of the literature on mediation testing endorses Baron and Kenny’s (1986) three-step approach for mediation tests. However, Baron and Kenny’s mediation approach has received numerous criticisms (MacKinnon, 2008; Zhao, Lynch, & Chen, 2010). Methodologists argue that Baron and Kenny’s approach accounts for less robust results when there are multiple independent variables and multiple dependent variables (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Shrout & Bolger, 2002; Chmura Kraemer, Kiernan, Essex, & Kupfer, 2008; Zacher, Heusner, Schmitz, Zwierzanska, & Frese, 2010). A number of simulation studies have demonstrated that, of the methods used to test mediation effects, Baron and Kenny’s approach is the most conservative, produces the lowest statistical power and thus tends to result in higher levels of Type II error (Preacher & Hayes, 2004; Fritz & MacKinnon, 2007; Hayes, 2009; Uchino, Bowen, Carlisle, & Birmingham, 2012).

According to several methodologists (e.g., Edwards & Lambert, 2007; Hayes & Preacher, 2010), the most appropriate and powerful approach for mediation estimation, especially for a complex model, is to test a non-zero indirect effect (i.e., the a*b path) and to employ Sobel’s (1982) test to estimate the product term (a*b). However, the most significant limitation of Sobel’s test is that it assumes the indirect effect (a*b) is to be normally distributed. This is a limitation, even though the variables comprising the product term (a*b) are normally distributed, the distribution of the indirect effect (a*b) may not be normal (Edwards &
Lambert, 2007). Thus, it is unlikely to satisfy the normality assumption of the Sobel test. Therefore, a more widely recommended and used method of testing the indirect effect is to employ the bootstrapped confidence interval (CI) technique (Preacher & Hayes, 2004; Edwards & Lambert, 2007; Hayes & Preacher, 2010).

As mentioned before, the dataset used in this study was not normally distributed. Consequently, in line with the recommendations of the above methodologists for mediation testing, the bootstrapped confidence interval method was employed to assess the level of significance of the coefficient of product term (a*b). SPSS macro (downloaded from Hayes’ website at http://www.afhayes.com/spss-sas-and-mplus-macros-and-code.html) was used to test the indirect effects in the conceptual model. This SPSS macro simultaneously assesses data using a causal-step approach (Baron & Kenny, 1986), non-parametric bootstrapping to obtain confidence intervals (Efron, 1987; Bollen & Stine, 1990) and a normal theory approach (Sobel, 1982).

3.8 Ethical considerations:

This study complies with all of the guidelines set out by the Human Research Ethics Committee of the University of Newcastle’s Human Research Ethics Committee (HREC). This study was provided with ethics approval from the HREC (see HR Ethics reference no H-2011-0182 in appendix 3-E, and the survey questionnaire and information statement in appendix, 3-F).
CHAPTER FOUR: RESULTS OF DATA ANALYSIS:

4.1 Introduction:

This chapter provides the results from PLS-SEM analysis of the conceptual model. Section 4.2 presents the demographic statistics. Section 4.3 presents results of the descriptive analysis. Section 4.4 presents results of assessment of the measurement and structural model. Section 4.5 presents results of predictive relevance and Section 4.6 provides results and discussion on global goodness-of-fit index for PLS-SEM, followed by Section 4.7 that presents results of control variables.

4.2 Characteristics of the respondents:

A total of 109 completed online surveys were received. One hundred and fifty-six (156) surveys were mailed, with 52 completed surveys being returned via mail to the researcher by respondents and 21 completed surveys personally collected by the researcher. The total sample size is therefore 182, comprising 109 online surveys and 73 paper surveys.

The participants’ demographic characteristics are summarised in Table 4.1 and Table 4.2. Table 4.1 shows the following: i) the majority of participants are male; ii) the majority of participants are more than 45 years old; iii) the majority of respondents have completed either a Bachelor or a postgraduate degree; iv) all but one of the participants was born in Bangladesh; and v) approximately half of the participants worked in the manufacturing industry.
<table>
<thead>
<tr>
<th>Item</th>
<th>Categories</th>
<th>Statistics (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>25-34</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>35-44</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>45+</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Education</td>
<td>Secondary School Certificate</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Higher Secondary Certificate</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Bachelor Degree</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Masters/ PhD</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Country of birth</td>
<td>Bangladesh</td>
<td>99.5</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Sectors employed in</td>
<td>Manufacturing</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Retail Trade</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Cultural &amp; Recreational</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Agriculture, Forestry, Fishing</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Banking, Finance &amp; Insurance</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Health &amp; Community Services</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Electricity, Gas &amp; Water Supply</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Transport and Storage</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Government Administration</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Wholesale Trade</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Construction &amp; Real Estate</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Tourism, hotel, &amp; restaurant</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Non-Government Organisations</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Media (Radio, Print and TV)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Communication Services</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Not for Profit Organisations</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4.2 displays the gender of respondents by management Level. Males occupied the significant proportion of all managerial roles, accounting for 88.5% of the total HR-related managerial positions.

**Table 4.2: Cross-tabulation of gender and occupational position**

<table>
<thead>
<tr>
<th>Positions held by the respondents</th>
<th>Male (%)</th>
<th>Female (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head/Director/Vice President of Human Resources</td>
<td>79 (88)</td>
<td>10 (12)</td>
<td>89</td>
</tr>
<tr>
<td>Human Resource/Personnel Manager</td>
<td>57 (87)</td>
<td>8 (13)</td>
<td>65</td>
</tr>
<tr>
<td>Human Resource/Personnel Officer</td>
<td>14 (82)</td>
<td>3 (18)</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>161 (89)</td>
<td>21 (11)</td>
<td>182</td>
</tr>
</tbody>
</table>
4.3 Descriptive analysis:

Table 4.3 contains the following descriptive statistics for the items that were used to measure the latent constructs: minimum, maximum, mean, and standard deviation. The assessment of skewness and kurtosis of the distributions was performed and revealed that the distributions are not normal. This finding is not of particular concern because partial least squares based-structural equation modelling (PLS-SEM) analysis does not require the data to be distributed normally (Chin, 2010; Hair, Ringle, et al., 2011).
Table 4.3: Descriptive statistics

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Survey section</th>
<th>Indicators</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes towards women as managers</td>
<td>Section -A</td>
<td>Item 1</td>
<td>1</td>
<td>7</td>
<td>5.45 (1.25)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 2</td>
<td>1</td>
<td>7</td>
<td>5.40 (1.28)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 3</td>
<td>1</td>
<td>7</td>
<td>5.42 (1.40)</td>
</tr>
<tr>
<td>Human resources policies and practices</td>
<td>Section -G</td>
<td>Item 1</td>
<td>1</td>
<td>7</td>
<td>3.73 (1.38)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 2</td>
<td>1</td>
<td>7</td>
<td>3.87 (1.39)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 3</td>
<td>1</td>
<td>7</td>
<td>3.72 (1.44)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 4</td>
<td>1</td>
<td>7</td>
<td>3.72 (1.52)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 5</td>
<td>1</td>
<td>7</td>
<td>4.13 (1.75)</td>
</tr>
<tr>
<td>Organisational climate</td>
<td>Section -J</td>
<td>Item 1</td>
<td>1</td>
<td>7</td>
<td>4.11 (1.32)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 2</td>
<td>1</td>
<td>7</td>
<td>4.14 (1.47)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 3</td>
<td>1</td>
<td>7</td>
<td>4.07 (1.49)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 4</td>
<td>1</td>
<td>7</td>
<td>3.95 (1.44)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 5</td>
<td>1</td>
<td>7</td>
<td>4.08 (1.57)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item 6</td>
<td>1</td>
<td>7</td>
<td>3.92 (1.48)</td>
</tr>
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**4.4 Results for the measurement and structural models:**

A two-step approach to PLS, as recommended by Anderson and Gerbing (1988) and by Chin (2010), was employed. This approach involves first testing the measurement or outer model and then testing the
structural or inner model. The following software programs were used: SmartPLS-M3 (Ringle, et al., 2005) and SPSS version 19.

4.4.1 Assessment of the measurement model (outer model):

In the PLS analysis, the measurement model is assessed by measuring the convergent and discriminant validity of the scales. The average variance extracted (AVE), which is the average squared loading of the items used to measure a latent construct, was computed by the PLS analysis to assess convergent and discriminant validity (Chin, 2010; Hair, Black, Babin, & Anderson, 2010). Convergent validity was further assessed by the composite reliability (CR), which can also be used to assess internal reliability (Chin, 2010; Hair, et al., 2010).

Convergent validity:

According to Fornell and Larcker (1981), three criteria need to be satisfied to confirm convergent validity. Firstly, the loadings of all indicators with their respective latent constructs should be significant and greater than .70. When an indicator loads .70 on its underlying construct, the indicator is usually considered reliable and valid (Nunnally, 1978a; Chin, 1998). Secondly, the latent construct should explain at least 50% of the total variance in its indicators (i.e., AVE should be greater than .50). Finally, the composite reliability (CR) should be higher than .80.

As shown in Table 4.4, all of the measures meet Fornell and Larcker’s (1981) criteria used for convergent validity. All of the indicators load greater than the recommended threshold value of .70 with a
significance level less than .001, and the AVE and CR for all of the constructs are greater than .50 and .80, respectively.
Table 4.4: Convergent validity

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^a p < .001 for all t values (two-tailed)

[ATFM=Attitudes towards women as managers, HRP=Human resource management policy and practices, ORG=Organisational climate, AAR=Anticipated affective reaction, ATITUD=Attitudes towards women’s promotion, SUB=Subjective norm, PBC=Perceived behavioural control, INTEN=Intention to promote women to senior management positions]
Discriminant validity:

Discriminant validity indicates the degree to which two factors are distinct and different from each other (Hair, et al., 2006; Lu, et al., 2012). The PLS analysis facilitates in confirming the discriminant validity of scales both at construct level and at indicator level.

Discriminant validity at indicator level:

According to Dilorio (2005), a “cross-loading indicates that the items share characteristics with items on more than one factor” (p. 273). Discriminant validity at the indicator level is confirmed when an indicator’s loading is higher than all of its cross-loadings (Hair, Ringle, et al., 2011). The results of the PLS-SEM analysis in Table 4.5 show that discriminant validity at indicator level was achieved because indicators’ loading on its parent construct appeared to be greater than its loadings with all the remaining constructs in the model (Fornell & Larcker, 1981; Thatcher & Perrewe, 2002; Henseler, et al., 2012a). Thus, the discriminant validity of the items is supported.
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</tr>
<tr>
<td>Item 5</td>
<td></td>
<td>.42</td>
<td>.42</td>
<td>.39</td>
<td>(.86)</td>
<td>.21</td>
<td>.20</td>
<td>.20</td>
<td>.55</td>
</tr>
<tr>
<td>Item 6</td>
<td></td>
<td>.44</td>
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<td>.38</td>
<td>.43</td>
<td>(.88)</td>
<td>.17</td>
<td>.19</td>
<td>.52</td>
</tr>
<tr>
<td>Item 7</td>
<td></td>
<td>.37</td>
<td>.38</td>
<td>.37</td>
<td>.48</td>
<td>(.84)</td>
<td>.20</td>
<td>.22</td>
<td>.46</td>
</tr>
<tr>
<td>Item 1</td>
<td>Sec-B</td>
<td>.20</td>
<td>.31</td>
<td>.14</td>
<td>.23</td>
<td>.09</td>
<td>(.84)</td>
<td>.50</td>
<td>.30</td>
</tr>
<tr>
<td>Item 2</td>
<td></td>
<td>.28</td>
<td>.42</td>
<td>.25</td>
<td>.28</td>
<td>.21</td>
<td>(.87)</td>
<td>.55</td>
<td>.42</td>
</tr>
<tr>
<td>Item 3</td>
<td></td>
<td>.20</td>
<td>.34</td>
<td>.24</td>
<td>.34</td>
<td>.21</td>
<td>(.86)</td>
<td>.37</td>
<td>.38</td>
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<td>.24</td>
<td>.28</td>
<td>.19</td>
<td>(.89)</td>
<td>.38</td>
<td>.42</td>
</tr>
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<td>.22</td>
<td>.41</td>
<td>.32</td>
<td>.22</td>
<td>.23</td>
<td>(.82)</td>
<td>.43</td>
<td>.46</td>
</tr>
<tr>
<td>Item 6</td>
<td></td>
<td>.05</td>
<td>.28</td>
<td>.22</td>
<td>.11</td>
<td>.14</td>
<td>(.78)</td>
<td>.31</td>
<td>.35</td>
</tr>
<tr>
<td>Item 1</td>
<td>Sec-F</td>
<td>.22</td>
<td>.48</td>
<td>.29</td>
<td>.25</td>
<td>.17</td>
<td>.45</td>
<td>(.90)</td>
<td>.38</td>
</tr>
<tr>
<td>Item 2</td>
<td></td>
<td>.26</td>
<td>.53</td>
<td>.39</td>
<td>.31</td>
<td>.34</td>
<td>.45</td>
<td>(.90)</td>
<td>.50</td>
</tr>
<tr>
<td>Item 3</td>
<td></td>
<td>.18</td>
<td>.43</td>
<td>.29</td>
<td>.28</td>
<td>.18</td>
<td>.42</td>
<td>(.83)</td>
<td>.37</td>
</tr>
<tr>
<td>Item 1</td>
<td>Sec-D</td>
<td>.42</td>
<td>.54</td>
<td>.47</td>
<td>.51</td>
<td>.58</td>
<td>.38</td>
<td>.39</td>
<td>(.91)</td>
</tr>
<tr>
<td>Item 2</td>
<td></td>
<td>.43</td>
<td>.59</td>
<td>.52</td>
<td>.46</td>
<td>.56</td>
<td>.43</td>
<td>.40</td>
<td>(.92)</td>
</tr>
<tr>
<td>Item 3</td>
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<td>.42</td>
<td>.59</td>
<td>.55</td>
<td>.39</td>
<td>.54</td>
<td>.47</td>
<td>.52</td>
<td>(.89)</td>
</tr>
</tbody>
</table>

[ATFM=Attitudes towards women as managers, HRP=Human resource management policy and practices, ORG=Organisational climate, AAR=Anticipated affective reaction, ATITUD=Attitudes towards women’s promotion, SUB=Subjective norm, PBC=Perceived behavioural control, INTEN=Intention to promote women to senior management positions]
Discriminant validity at construct level:

Consistent with Fornell and Larcker (1981), discriminant validity at the construct level was assessed as satisfactory in the model presented in the Table 4.6 because the square root of AVE of every construct exceeded the correlation with rest of the constructs. Table 4.6 also shows the highest correlation coefficient (i.e., .75) between Human Resource Policies and Practices (HRP) and Organisational Climate (ORG) that indicates the potential multicollinearity because multicollinearity tends to arise while the correlations are in the .60s and .70s. (Mathieu & Farr, 1991). Multicollinearity issue is discussed in the following section.
Table 4.6: Means, standard deviations and correlations

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ATFM</td>
<td>5.42 (1.13)</td>
<td></td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. HRP</td>
<td>3.82 (1.26)</td>
<td></td>
<td>.34*</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ORG</td>
<td>4.01 (1.29)</td>
<td></td>
<td>.28*</td>
<td></td>
<td>.75*</td>
<td>.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. AAR</td>
<td>4.29 (1.04)</td>
<td></td>
<td>.36*</td>
<td></td>
<td>.37*</td>
<td></td>
<td>.29*</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>5. ATITUD</td>
<td>4.86 (1.26)</td>
<td></td>
<td>.47*</td>
<td></td>
<td>.49*</td>
<td></td>
<td>.45*</td>
<td></td>
<td>.83</td>
</tr>
<tr>
<td>6. SUB</td>
<td>4.28 (1.21)</td>
<td></td>
<td>.24*</td>
<td></td>
<td>.40*</td>
<td></td>
<td>.28*</td>
<td></td>
<td>.21*</td>
</tr>
<tr>
<td>7. PBC</td>
<td>4.18 (1.20)</td>
<td></td>
<td>.25*</td>
<td></td>
<td>.55*</td>
<td></td>
<td>.37*</td>
<td></td>
<td>.25*</td>
</tr>
<tr>
<td>8. INTEN</td>
<td>4.23 (1.34)</td>
<td></td>
<td>.46*</td>
<td></td>
<td>.62*</td>
<td></td>
<td>.56*</td>
<td></td>
<td>.49*</td>
</tr>
</tbody>
</table>

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

* Square root of AVE is on the diagonal

[ATFM=Attitudes towards women as managers, HRP=Human resource management policies and practices, ORG=Organisational climate, AAR=Anticipated affective reaction, ATITUD=Attitudes towards women’s promotion, SUB=Subjective norm, PBC=Perceived behavioural control, INTEN=Intention to promote women to senior management roles]
Variance Inflation Factor (VIF):

The variance inflation factor (VIF) indicates the extent to which the variance of an estimated regression coefficient is influenced due to presence of multicollinearity (Fox, 1997; Baskin & Sommers, 2010; Dormann et al., 2012). The computation of VIF facilitates in determining to what extent the correlation among independent variables inflates the precision of the estimated coefficient ($R^2$) (Lust et al., 2011). There is little consensus in the literature as to the cut-off point of VIF. Some researchers argue that VIFs as low as two can have a substantial effect on results (Petraitis, Dunham, & Niewiarowski, 1996; Graham, 2003; Mar, DeYoung, Higgins, & Peterson, 2006); however, others (Neter, Wasserman, Kutner, & Li, 1996; Chatterjee & Hadi, 2006) argue that multicollinearity emerges only as severe when the VIFs are 10.

A review of the literature on PLS-SEM indicates the acceptable value of VIF ranges from 5 to 10. However, Henseler, Ringle, and Sarstedt (2012b) suggest that VIFs of 5 provide an indication of multicollinearity that warrants a review of the model set-up. In their PLS-SEM handbook, Götz, Liehr-Gobbers, and Krafft (2010) noted that “there is no clear threshold value for multicollinearity. As a rule of thumb, the VIF should not exceed a value of 10, but, in general, the critical value should be defined individually and be based on practical considerations in respect of each analysis” (p. 699).

According to the conservative criterion for VIFs usually considered in the PLS-SEM analysis, the VIFs should be less than 5; however, a more relaxed criterion indicates that VIFs are acceptable as long as they are not

The VIFs of all the latent constructs used in this study were computed by SPSS and are shown in Table 4.7. The results indicate that all of the VIFs, except that for human resource practices and policies, are below the most stringent criterion recently being used in the PLS-SEM analysis (i.e., VIF $\leq 3.30$).

The correlation coefficient for Human Resources Management Policies and Practices (HRP) and Organisational Climate (ORG) is .75, which is comparatively higher than the other correlation coefficients shown in Table 4.6. As a result, the value of VIF of HRP (3.39) slightly exceeds the most stringent maximum value (i.e., 3.30) that has been proposed by several researchers (e.g., Roberts & Thatcher, 2009; Xue, Bradley, & Liang, 2011; Benitez-Amado & Walczuch, 2012; Chen, Chuang, & Chen, 2012; Peña-Vinces, et al., 2012). In spite of these limitations, it seems that multicollinearity is unlikely to have a significant influence on the results of the structural model because Chin (1998) argues that the PLS-SEM analysis provides robust results despite the presence of moderate to strong multicollinearity.
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Predictor</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective Norm</td>
<td>Human resource management policy and practices (HRP)</td>
<td>2.28</td>
</tr>
<tr>
<td></td>
<td>Organisational climate (ORG)</td>
<td></td>
</tr>
<tr>
<td>PBC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to promote women to senior management roles (INTEN)</td>
<td>Human resource management policy and practices (HRP)</td>
<td>3.39</td>
</tr>
<tr>
<td></td>
<td>Organisational climate (ORG)</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>Subjective norm (SUB)</td>
<td>1.51</td>
</tr>
<tr>
<td></td>
<td>Perceived behavioural control (PBC)</td>
<td>1.84</td>
</tr>
<tr>
<td></td>
<td>Past behaviour related to promoting women (PASTBEV)</td>
<td>1.74</td>
</tr>
<tr>
<td></td>
<td>Attitudes towards women as managers (ATFM)</td>
<td>1.38</td>
</tr>
<tr>
<td></td>
<td>Anticipated affective reaction (AAR)</td>
<td>1.55</td>
</tr>
<tr>
<td></td>
<td>Attitudes towards women’s promotion (ATITUD)</td>
<td>1.84</td>
</tr>
<tr>
<td></td>
<td>AGE of the respondents (AGE)</td>
<td>1.29</td>
</tr>
<tr>
<td></td>
<td>Gender of the respondents (GENDER)</td>
<td>1.25</td>
</tr>
</tbody>
</table>
**Common method bias (CMB):**

The data are self-report and cross-sectional thus raising concerns about the potential effects of common method bias (CMB) (Harrison, McLaughlin, & Coalter, 1996; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Helm, 2012). There is a consensus that CMB significantly compromises the validity of constructs (Bartl, Füller, Mühlbacher, & Ernst, 2012; Helm, 2012). However, standard tests used to assess the discriminant and convergent validity are incapable of detecting CMB (Straub, et al., 2004; Richardson, Simmering, & Sturman, 2009).

One of the most widely used methods to address CMB is to perform Harman’s single-factor test, which examines whether a considerable amount of common variance is explained by a single factor (Podsakoff & Organ, 1986; Aulakh & Gencturk, 2000; Podsakoff, et al., 2003; Steensma, Tihanyi, Lyles, & Dhanaraj, 2005; Krishnan, Martin, & Noorderhaven, 2006). In line with the recommendations by the above methodologists, Harman’s single factor test was performed using SPSS.

All of the items that were used to measure the eleven factors in the conceptual model were subjected to a Principal Component Analysis (PCA). The results, which are presented in appendix 4-A, revealed that the first component explains 41.0 per cent of the total variance, thus indicating that the risk of bias associated with common method is unlikely to be a significant threat to the validity of study findings.

To summarise, the examination of reliability and validity of all the scales revealed that the measurement model has satisfactory convergent and discriminant validity, thus satisfying the requirement for the first step of
the PLS-SEM analysis recommended by Chin (2010). The results of the analysis of the conceptual model are provided in the following sections.

4.4.2 Assessment of the structural model (Inner model):

Similar to multiple linear regression, the PLS-SEM approach to the evaluation of proposed model quality focuses on the amount of variance explained by its independent constructs. Therefore, the evaluation criteria of a structural (inner) model relies on the measurement of the $R^2$ and the determination of significance level of the path coefficients (Chin, 2010; Hair, Ringle, et al., 2011).

*R-square:*

The $R^2$ obtained in the PLS analysis may be interpreted as the proportion of the total variance in the dependent variable that is explained by the independent variable (Vinzi, Chin, Henseler, & Wang, 2010). In PLS “predictive power of the structural model is assessed by the $R^2$ values of the endogenous constructs” (Chin, 2010, p. 674). The $R^2$ values of endogenous constructs were calculated in this study using the PLS analysis that indicates the overall prediction capability of the conceptual model.

*Path coefficients:*

Path coefficients generated through PLS-SEM are standardised linear regression coefficients and are employed in establishing the pathways between independent and dependent variables in a typical regression analysis (Shipley, 2002; Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). In PLS analysis, path estimation conveys the same interpretation as used in regression analysis and indicates the strength of the
relationships between exogenous and endogenous constructs in a structural model (Hair, Ringle, et al., 2011).

The significance of a path coefficient in PLS-SEM is estimated by employing a resampling procedure such as jackknifing or bootstrapping (Tenenhaus, et al., 2005; Vinzi, Trinchera, & Amato, 2010). In line with the recommendations of Hair, Ringle et al. (2011), bootstrapping resampling (sample size = 5,000) was employed using SmartPLS software because this technique provides the standard error and t value for each path coefficient. Using a student’s p value calculator, t value was converted into a p value to determine the level of significance of each path coefficient in order to decide whether or not to reject the null hypothesis.

**Results of the hypotheses test:**

The proposed hypotheses were assessed by examining the parameters in the structural model employing the PLS bootstrapping technique. The critical t-value for a two-tailed test is 1.96 for 5% level of significance and 2.60 for 1% level of significance and for a one tailed test, critical value of 1.645 for 5% level of significance and 2.34 for 1% level of significance at degree of freedom 181 (Hair, et al., 2010; Hair, Ringle, et al., 2011). The findings for the structural model are shown in Figure 4.1.
Figure 4.1 Results of the structural model assessment using PLS-SEM

[ATWM=Attitudes towards women as managers, HRP=Human resource management policy and practices, ORG=Organisational climate, AAR=Anticipated affective reaction, ATITUD=Attitudes towards women’s promotion to senior management positions, SUB=Subjective norm, PBC=Perceived behavioural control, INTEN=Intention to promote women to senior management positions]
Hypothesis 1: Positive attitudes to women as managers are positively related to anticipated affective reactions to women being promoted to senior management positions. The results of PLS analysis support Hypothesis 1 as shown in Table 4.8.

![Table 4.8: The relationship between attitude and anticipated affective reaction](image)

[ATWM=attitudes to women as managers, AAR=anticipated affective reactions]

Hypothesis 2: Anticipated affective reactions (AAR) are positively related to the intention of top managers (INTEN) to promote women to senior management positions. The results of the PLS analysis do not support Hypothesis 2, using a two-tailed test. However, as shown in Table 4.9, the results support Hypothesis 2 if a one-tailed test is utilised. One-tailed significance tests are justified on the basis of the directional hypotheses used in this study (Bakan, 1966; Levine & Banas, 2002).
Table 4.9: The relationship between anticipated affective reaction and intention

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient(β)</th>
<th>t value</th>
<th>p</th>
<th>hypothesis supported^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAR</td>
<td>INTEN</td>
<td>.11</td>
<td>1.67</td>
<td>.04</td>
<td>yes</td>
</tr>
</tbody>
</table>

Note: ^a hypothesis supported using one-tailed significance test

[AAR=anticipated affective reactions, Intention=intention to appoint women to senior management roles]

Hypothesis 3: There is a positive relationship between positive attitudes to the women as managers (ATWM) and the intention of top managers to appoint women to senior management positions (INTEN). The results of the PLS analysis support Hypothesis 3 as shown in Table 4.10.

Table 4.10: The relationship between attitude and intention

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient(β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATWM</td>
<td>INTEN</td>
<td>.12</td>
<td>2.20</td>
<td>.02</td>
<td>yes</td>
</tr>
</tbody>
</table>

[ATWM=attitudes to women as managers, Intention=intention to appoint women to senior management roles]
Hypothesis 5: A positive organisational climate (ORG) results in subjective norms (SUB) that encourage promoting women to senior management positions. The results of the PLS analysis do not support Hypothesis 5 as shown in Table 4.11.

Table 4.11: The relationship between organisational climate and subjective norm

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient(β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORG</td>
<td>SUB</td>
<td>-.07</td>
<td>.753</td>
<td>.45</td>
<td>no</td>
</tr>
</tbody>
</table>

[ORG=organisational climate, SUB= subjective norm]

Hypothesis 6: A subjective norm (SUB) that encourages promoting women to senior management positions is positively related to the intention of top managers to promote women to senior management positions (INTEN). The results of the PLS analysis support Hypothesis 6 as shown in Table 4.12.

Table 4.12: The relationship between subjective norm and intention

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient(β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUB</td>
<td>INTEN</td>
<td>.18</td>
<td>2.43</td>
<td>&lt;.01</td>
<td>yes</td>
</tr>
</tbody>
</table>

[SUB=subjective norm, INTEN=intention to appoint women in senior management roles]
Hypothesis 8: Organisational climate (ORG) is positively associated with the perceived behavioural control (PBC) of top managers with respect to promoting women to senior management positions. The results of the PLS analysis do not support Hypothesis 8 as shown in Table 4.13.

<p>| Table 4.13: The relationship between organisational climate and perceived behavioural control |</p>
<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORG</td>
<td>PBC</td>
<td>-.10</td>
<td>1.03</td>
<td>.30</td>
<td>no</td>
</tr>
</tbody>
</table>

[ORG=organisational climate, PBC=perceived behavioural control]

Hypothesis 9: Perceived behavioural control (PBC) over promoting women to senior management positions is positively related to the intention of top managers over promoting women to senior management positions (INTEN). The results of the PLS analysis do not support Hypothesis 9 as shown in Table 4.14.
Table 4.14: The relationship between perceived behavioural control and intention

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBC</td>
<td>INTEN</td>
<td>.10</td>
<td>1.36</td>
<td>.17</td>
<td>no</td>
</tr>
</tbody>
</table>

[Hypothesis 11: A positive organisational climate (ORG) that encourages promoting women to senior management positions is positively related to the intention of top managers with respect to promoting women in senior management positions (INTEN). The results of the PLS analysis support hypothesis 11 as shown in Table 4.15.]

Table 4.15: The relationship between organisational climate and intention

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORG</td>
<td>INTEN</td>
<td>.16</td>
<td>1.99</td>
<td>.04</td>
<td>yes</td>
</tr>
</tbody>
</table>
Hypothesis 12: Favourable HRM policies and practices (HRP) are positively related to Perceived Behavioural Control (PBC) over promoting women to senior management positions. The results of the PLS analysis support Hypothesis 12 as shown in Table 4.16.

Table 4.16: The relationship between human resource policies & practices and perceived behavioural control

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRP</td>
<td>PBC</td>
<td>.63</td>
<td>6.88</td>
<td>&lt;.01</td>
<td>yes</td>
</tr>
</tbody>
</table>

Hypothesis 13: Favourable HRM policies and practices (HRP) are positively related to the intention of top managers of promoting women to senior management positions (INTEN). The results of the PLS analysis support hypothesis 13 as shown in Table 4.17.
Table 4.17: The relationship between human resource policies & practices and intention

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRP</td>
<td>INTEN</td>
<td>.17</td>
<td>1.98</td>
<td>.04</td>
<td>yes</td>
</tr>
</tbody>
</table>

[HRP= human resource policies & practices, INTEN=intention to appoint women in senior management roles]

Hypothesis 15: Favourable HRM Policies and Practices (HRP) are positively related to a subjective norm (SUB) that encourages promoting women to senior management positions. The results of the PLS analysis support Hypothesis 15 as shown in Table 4.18.

Table 4.18: The relationship between human resource policies & practices and subjective norm

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRP</td>
<td>SUB</td>
<td>.47</td>
<td>5.05</td>
<td>&lt;.01</td>
<td>yes</td>
</tr>
</tbody>
</table>

[HRP= human resource policies & practices, SUB=subjective norm]
Hypothesis 17: There is a positive relationship between the attitudes towards women as managers (ATWM) and attitudes toward promoting women to senior management positions (ATITUD). The results of the PLS analysis support Hypothesis 17 as shown in Table 4.19.

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATWM</td>
<td>ATITUD</td>
<td>.48</td>
<td>5.99</td>
<td>&lt;.01</td>
<td>yes</td>
</tr>
</tbody>
</table>

[ATWM=attitudes toward women as managers, ATITUD=attitudes toward appointing women in senior management roles]

Hypothesis 18: There is a positive relationship between attitudes toward promoting women to senior management positions (ATITUD) and the intention of top managers related to promoting women to senior management positions (INTEN). The results of the PLS analysis support Hypothesis 18 as shown in Table 4.20.
Table 4.20: The relationship between attitude toward women as managers and intention to promote women

<table>
<thead>
<tr>
<th>Exogenous construct</th>
<th>Endogenous construct</th>
<th>path coefficient (β)</th>
<th>t value</th>
<th>p</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATITUD</td>
<td>INTEN</td>
<td>.28</td>
<td>3.58</td>
<td>&lt;.01</td>
<td>yes</td>
</tr>
</tbody>
</table>

[ATITUD=attitudes toward appointing women in senior management roles, INTEN=intention to appoint women in senior management roles]

Table 4.21: Summary of the hypotheses tests:

<table>
<thead>
<tr>
<th>Descriptions of Hypotheses</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 1:</strong> Positive attitudes to women as managers (ATWM) are positively related to anticipated affective reactions (AAR) over promoting women to senior management positions.</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Hypothesis 2:</strong> Anticipated affective reactions (AAR) are positively related to the intention of top managers (INTEN) over promoting women to senior management positions.</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Hypothesis 3:</strong> There is a positive relationship between positive attitudes to the women as managers (ATWM) and the intention of top managers over promoting women to senior management positions (INTEN).</td>
<td>YES</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Hypothesis 5:</strong></td>
<td>A positive organisational climate (ORG) results in subjective norm (SUB) that encourages promoting women to senior management positions.</td>
</tr>
<tr>
<td><strong>Hypothesis 6:</strong></td>
<td>A subjective norm (SUB) that encourages promoting women to senior management positions is positively related to the intention (INTEN) of top managers over promoting women to senior management positions.</td>
</tr>
<tr>
<td><strong>Hypothesis 8:</strong></td>
<td>Organisational climate (ORG) is positively associated with the perceived behavioural control (PBC) of top managers with respect to promoting women to senior management positions.</td>
</tr>
<tr>
<td><strong>Hypothesis 9:</strong></td>
<td>Perceived behavioural control (PBC) is positively related to the intention (INTEN) of top managers related to promoting women to senior management positions.</td>
</tr>
<tr>
<td><strong>Hypothesis 11:</strong></td>
<td>A positive organisational climate (ORG) that encourages promoting women to senior management positions is positively related to promoting women to senior management positions (INTEN).</td>
</tr>
<tr>
<td><strong>Hypothesis 12:</strong></td>
<td>Favourable HRM practices (HRP) are positively related to perceived behavioural control (PBC) over promoting women to senior management positions.</td>
</tr>
<tr>
<td><strong>Hypothesis 13:</strong></td>
<td>Favourable HRM practices (HRP) are positively related to intention of top managers to promote women to senior management positions (INTEN).</td>
</tr>
</tbody>
</table>
**Hypothesis 15:** Favourable HRM polices (HRP) is positively related to a subjective norm (SUB) that encourages promoting women to senior management positions.  

\[ \text{YES} \]

**Hypothesis 17:** There is a positive relationship between the attitudes towards women as managers (ATWM) and attitudes toward promoting women to senior management positions (ATITUD).

\[ \text{YES} \]

**Hypothesis 18:** There is a positive relationship between attitudes toward promoting women to senior management positions (ATITUD) and intention of top managers to promote women to senior management positions (INTEN).

\[ \text{YES} \]

**Mediation analysis:**

As depicted in Figure 4.2, it was hypothesised that attitudes towards women’s promotion and anticipated affective reactions (AAR) mediate the relationship between positive attitudes to women as managers (ATWM) and the intention of senior managers with respect to promoting women as senior managers (INTEN).

![Mediation model of attitude and anticipated affective reactions](image)

*Figure 4.2: Mediating model of attitude and anticipated affective reactions*
[ATWM=Attitudes towards women as managers, AAR=Anticipated affective reaction, ATITUD=Attitudes towards promoting women to senior management positions, INTEN=Intention to appointing women to senior management positions]

Figure 4.3 displays the model with multiple independent and mediating variables in which subjective norm (SUB), perceived behavioural control (PBC) were hypothesised to mediate the relationship between positive attitudes to women as managers (ATWM) and the intention of senior managers with respect to promoting women to senior management positions (INTEN).

Figure 4.3: Mediating model of subjective norm and perceived behavioural control

[HRP=Human resource management policy and practices, ORG=Organisational climate, SUB=Subjective norm, PBC=Perceived behavioural control, INTEN=Intention to promote women to senior management positions]
**Results of the mediation tests:**

The following sections present the results of the mediation hypotheses generated employing the bootstrapping 95% confidence interval (CI).

Hypothesis 4: The relationship between positive attitudes to women as managers (ATWM) and the intention to promoting women to senior management positions (INTEN) is mediated by anticipated affective reactions (AAR). Table 4.22 presents the results of the mediation analysis that was conducted to test Hypothesis 4. The bootstrapped 95% CI for the unstandardised indirect effect (.09) ranges from .03 to .19. Thus, Hypothesis 4 is supported.

**Table 4.22: Results of mediation analysis (Hypothesis 4)**

<table>
<thead>
<tr>
<th>Baron and Kenny’s (1986) steps:</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 INTEN regressed on ATWM [c path]</td>
<td>.55</td>
<td>.08</td>
<td>.29</td>
<td>7.02</td>
<td>.000</td>
</tr>
<tr>
<td>Step 2 AAR regressed on ATWM [a path]</td>
<td>.32</td>
<td>.06</td>
<td>.36</td>
<td>5.11</td>
<td>.000</td>
</tr>
<tr>
<td>Step 3 INTEN regressed on AAR [b path]</td>
<td>.28</td>
<td>.08</td>
<td>.11</td>
<td>3.36</td>
<td>.000</td>
</tr>
<tr>
<td>Step 4 INTEN regressed on ATWM including mediator [c’ path]</td>
<td>.22</td>
<td>.07</td>
<td>.12</td>
<td>2.98</td>
<td>.003</td>
</tr>
</tbody>
</table>

Bootstrapped results for indirect effect [ab path]

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Effect</th>
<th>SE</th>
<th>LL 95% CI</th>
<th>UL 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAR</td>
<td>.09</td>
<td>.03</td>
<td>.031</td>
<td>.192</td>
</tr>
</tbody>
</table>

[Note: N=182. LL=Lower Limit, UL=Upper Limit; CI=Confidence Interval; SE=Standard error. Bootstrapped sample size=5000]
Hypothesis 19: The relationship between positive attitudes to women as managers (ATWM) and the intention to promoting women to senior management positions (INTEN) is mediated by positive attitudes to promoting women to senior management positions (ATITUD). Table 4.23 presents the results of the mediation analysis that was conducted to test Hypothesis 19. The bootstrapped 95% CI for the unstandardised indirect effect (.23) ranges from .14 to .36. Thus, Hypothesis 19 is supported.

Table 4.23: Results of mediation analysis (Hypothesis 19)

<table>
<thead>
<tr>
<th>Baron and Kenny's (1986) steps:</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1  INTEN regressed on ATWM [c path]</td>
<td>.55</td>
<td>.08</td>
<td>.29</td>
<td>7.02</td>
<td>.000</td>
</tr>
<tr>
<td>Step 2  ATITUD regressed on ATWM [a path]</td>
<td>.52</td>
<td>.073</td>
<td>.48</td>
<td>7.15</td>
<td>.000</td>
</tr>
<tr>
<td>Step 3  INTEN regressed on ATITUD [b path]</td>
<td>.44</td>
<td>.07</td>
<td>.28</td>
<td>6.05</td>
<td>.000</td>
</tr>
<tr>
<td>Step 4  INTEN regressed on ATWM including mediator [c' path]</td>
<td>.22</td>
<td>.07</td>
<td>.12</td>
<td>2.98</td>
<td>.003</td>
</tr>
</tbody>
</table>

Bootstrapped results for indirect effect [ab path]

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Effect</th>
<th>SE</th>
<th>LL 95% CI</th>
<th>UL 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATITUD</td>
<td>.23</td>
<td>.05</td>
<td>.140</td>
<td>.368</td>
</tr>
</tbody>
</table>

[Note: N=182, LL=Lower Limit, UL=Upper Limit; CI=Confidence Interval; SE=Standard error. Bootstrapped sample size=5000]
Hypothesis 14: The relationship between favourable HRM practices (HRP) and the intention of top managers of promoting women to senior management positions (INTEN) will be mediated by perceived behavioural control over promoting women to senior management positions (PBC). Table 4.24 presents the results of the mediation analysis that was conducted to test Hypothesis 14. The bootstrapped 95% CI for the unstandardized indirect effect (.07) ranges from -.02 to .20. Thus, Hypothesis 14 is not supported.

Table 4.24: The results of mediation analysis (Hypothesis 14)

<table>
<thead>
<tr>
<th>Baron and Kenny’s (1986) steps:</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 INTEN regressed on HRP</td>
<td>.49</td>
<td>.09</td>
<td>.32</td>
<td>5.36</td>
<td>.000</td>
</tr>
<tr>
<td>[c path]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2 PBC regressed on HRP</td>
<td>.59</td>
<td>.08</td>
<td>.63</td>
<td>6.60</td>
<td>.000</td>
</tr>
<tr>
<td>[a path]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3 INTEN regressed on PBC</td>
<td>.12</td>
<td>.08</td>
<td>.10</td>
<td>1.62</td>
<td>.10</td>
</tr>
<tr>
<td>[b path]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4 INTEN regressed on</td>
<td>.31</td>
<td>.10</td>
<td>.17</td>
<td>3.18</td>
<td>.001</td>
</tr>
<tr>
<td>HRP including mediator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[c’ path]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bootstrapped results for indirect effect [ab path]

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Effect</th>
<th>SE</th>
<th>LL 95% CI</th>
<th>UL 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBC</td>
<td>.07</td>
<td>.05</td>
<td>-.024</td>
<td>.206</td>
</tr>
</tbody>
</table>

[Note: N=182. LL=Lower Limit, UL=Upper Limit; CI=Confidence Interval; SE=Standard error. Bootstrapped sample size=5000]
Hypothesis 16: The relationship between favourable HRM practices (HRP) and intention (INTEN) is mediated by subjective norm (SUB) over promoting women to senior management positions. Table 4.25 presents the results of the mediation analysis that was conducted to test Hypothesis 16. The bootstrapped 95% CI for the unstandardised indirect effect (.10) ranges from .02 to .23. Thus, Hypothesis 16 is supported.

Table 4.25: Results of mediation analysis (Hypothesis 16)

<table>
<thead>
<tr>
<th>Baron and Kenny’s (1986) steps:</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>INTEN regressed on HRP [c path]</td>
<td>.49</td>
<td>.09</td>
<td>.32</td>
<td>5.36</td>
</tr>
<tr>
<td>Step 2</td>
<td>SUB regressed on HRP [a path]</td>
<td>.42</td>
<td>.09</td>
<td>.47</td>
<td>4.33</td>
</tr>
<tr>
<td>Step 3</td>
<td>INTEN regressed SUB [b path]</td>
<td>.24</td>
<td>.07</td>
<td>.28</td>
<td>3.42</td>
</tr>
<tr>
<td>Step 4</td>
<td>INTEN regressed on HRP including mediators [c’ path]</td>
<td>.31</td>
<td>.10</td>
<td>.17</td>
<td>3.18</td>
</tr>
</tbody>
</table>

Bootstrapped results for indirect effect [ab path]

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Effect</th>
<th>SE</th>
<th>LL</th>
<th>95% CI</th>
<th>UL</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUB</td>
<td>.10</td>
<td>.05</td>
<td>.026</td>
<td>.232</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Note: N=182. LL=Lower Limit, UL=Upper Limit; CI=Confidence Interval; SE=Standard error. Bootstrapped sample size=5000]
Hypothesis 7: The relationship between a positive organisational climate (ORG) and the intention to promoting women to senior management positions (INTEN) is mediated by a subjective norm (SUB) that encourages promoting women to senior management positions. Table 4.26 presents the results of the mediation analysis that was conducted to test Hypothesis 7. The bootstrapped 95% CI for the unstandardised indirect effect (-.01) ranges from -.07 to .02. Thus, Hypothesis 7 is not supported.

**Table 4.26: Results of mediation analysis (Hypothesis 7)**

<table>
<thead>
<tr>
<th>Baron and Kenny’s (1986) steps:</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 INTEN regressed on ORG [c path]</td>
<td>.21</td>
<td>.09</td>
<td>.18</td>
<td>2.44</td>
<td>.015</td>
</tr>
<tr>
<td>Step 2 SUB regressed on ORG [a path]</td>
<td>-.056</td>
<td>.10</td>
<td>-.07</td>
<td>-.58</td>
<td>.560</td>
</tr>
<tr>
<td>Step 3 INTEN regressed SUB [b path]</td>
<td>.24</td>
<td>.07</td>
<td>.18</td>
<td>3.42</td>
<td>.000</td>
</tr>
<tr>
<td>Step 4 INTEN regressed on ORG including mediator [c’ path]</td>
<td>.24</td>
<td>.08</td>
<td>.16</td>
<td>2.85</td>
<td>.004</td>
</tr>
</tbody>
</table>

**Bootstrapped results for indirect effect [ab path]**

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Effect</th>
<th>SE</th>
<th>LL CI 95%</th>
<th>UL CI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUB</td>
<td>-.01</td>
<td>.02</td>
<td>-.072</td>
<td>.026</td>
</tr>
</tbody>
</table>

[Note: N=182, LL=Lower Limit, UL=Upper Limit; CI=Confidence Interval; SE=Standard error. Bootstrapped sample size=5000]
Hypothesis 10: The relationship between organisational climate (ORG) and Intention (INTEN) is mediated by Perceived behavioural control (PBC) over promoting women to senior management positions.

Table 4.27 presents the results of the mediation analysis that was conducted to test Hypothesis 10. The bootstrapped 95% CI for the unstandardised indirect effect (-.01) ranges from -.06 to .00. Thus, Hypothesis 10 is not supported.

Table 4.27: Results of mediation analysis (Hypothesis 10)

<table>
<thead>
<tr>
<th>Baron and Kenny's (1986) steps:</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 INTEN regressed on ORG [c path]</td>
<td>.21</td>
<td>.09</td>
<td>.18</td>
<td>2.44</td>
<td>.015</td>
</tr>
<tr>
<td>Step 2 PBC regressed on ORG [a path]</td>
<td>-.09</td>
<td>.09</td>
<td>-.10</td>
<td>-1.0</td>
<td>.305</td>
</tr>
<tr>
<td>Step 3 INTEN regressed on PBC [b path]</td>
<td>.12</td>
<td>.08</td>
<td>.10</td>
<td>1.62</td>
<td>.106</td>
</tr>
<tr>
<td>Step 4 INTEN regressed on ORG including mediators [c' path]</td>
<td>.24</td>
<td>.08</td>
<td>.16</td>
<td>2.85</td>
<td>.004</td>
</tr>
</tbody>
</table>

Bootstrapped results for indirect effect [ab path]

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Effect</th>
<th>SE</th>
<th>LL 95% CI</th>
<th>UL 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBC</td>
<td>-.01</td>
<td>.02</td>
<td>-.069</td>
<td>.006</td>
</tr>
</tbody>
</table>

[Note: N=182. LL=Lower Limit, UL=Upper Limit; CI=Confidence Interval; SE=Standard error. Bootstrapped sample size=5000]
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 4: The relationship between positive attitudes to women as managers (ATWM) and the intention of promoting women to senior management positions (INTEN) is mediated by anticipated affective reactions (AAR).</td>
<td>YES</td>
</tr>
<tr>
<td>Hypothesis 7: The relationship between a positive organisational climate (ORG) and the intention (INTEN) of top managers to promote women to senior management positions is mediated by a subjective norm (SUB) that encourages the appointment of women to senior management position.</td>
<td>NO</td>
</tr>
<tr>
<td>Hypothesis 10: The relationship between organisational climate (ORG) and Intention (INTEN) is mediated by perceived behavioural control (PBC) over promoting women to senior management positions.</td>
<td>NO</td>
</tr>
<tr>
<td>Hypothesis 14: The relationship between favourable HRM practices (HRP) and the intention of top managers to promote women to senior management positions (INTEN) will be mediated by perceived behavioural control over promoting women to senior management positions (PBC).</td>
<td>NO</td>
</tr>
<tr>
<td>Hypothesis 16: The relationship between favourable HRM practices (HRP) and intention (INTEN) is mediated by</td>
<td>YES</td>
</tr>
</tbody>
</table>
subjective norm (SUB) over promoting women to senior management positions.

Hypothesis 19: The relationship between positive attitudes to women as managers (ATWM) and the intention of top managers to promote women to senior management positions (INTEN) is mediated by positive attitudes toward promoting women to senior management positions (ATITUD).

| YES |

### 4.5 Predictive validity:

PLS-SEM literature recommends assessing predictive validity (Q²) (Geisser, 1974b; Stone, 1974) in addition to estimating R² and determining significant level of path coefficient. “Q² [Predictive validity] represents a measure of how well observed values are reconstructed by the model and its parameter estimates” (Chin, 1998, p.318). In line with the recommendations of Chin (2010), to estimate Q-squared coefficients of endogenous variables, a non-parametric blindfolding procedure, available in SmartPLS, was employed in this study. “Acceptable predictive validity in connection with an endogenous latent variable is suggested by a Q-squared coefficient greater than zero” (Kock, 2012, p. 03). The average Q-squared coefficient of all endogenous variables was found .22. In addition, none of the endogenous variable’s Q² coefficient was equal to or less than zero displayed in Table 4.29. As a rule of thumb, a model achieves adequate predictive validity when the coefficient Q² of a model becomes greater than .50 (Chin, 2010). Table 4.29 displays the Q² coefficient of
INTEN (Intention to appoint women to senior management positions) in the proposed model is equal to 0.501. Thus, conclusion can be drawn that the structural model confirms a significant amount of predictive validity.

<table>
<thead>
<tr>
<th>AAR</th>
<th>ATITUD</th>
<th>PBC</th>
<th>SUB</th>
<th>INTEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>.08</td>
<td>.15</td>
<td>.23</td>
<td>.12</td>
<td>.50</td>
</tr>
</tbody>
</table>

[AAR=Anticipated affective reaction, ATITUD=Attitudes towards promoting women to senior management positions, PBC=Perceived behavioural control, SUB=Subjective norm INTEN=Intention to promoting women to senior management positions]

4.6 Global goodness of fit (GoF) measure:

In line with the guidelines of Chin (2010), the value of global goodness of fit (GoF) was estimated for this model to ensure global validation of the PLS path model. GoF for PLS path modelling was estimated by calculating average $R^2$ and the geometric mean of the average communality of all the endogenous variables in a model (Tenenhaus, Amato, & Esposito Vinzi, 2004; Tenenhaus, et al., 2005). The proposed model provided the GoF value of 0.46 that exceeded the cut-off value of 0.36 for large size effect of $R^2$ (Cohen, 1988). This suggests that the proposed conceptual model has a significant explanatory power in relationship with baseline values ($GoF_{small}=0.1$, $GoF_{medium}=0.25$, $GoF_{large}=0.36$). $GoF = \sqrt{\frac{AVE \times R^2}{n}} = 0.465$. Thus, an inference can be drawn
that the data fit the theoretical model proposed in this study to a significant extent.

4.7 Results of the control variables:

As discussed in Chapter 2, Pastbev (past behaviour), Age (AGE of respondents), Gen (Gender) were considered as control variable in this study. Table 4.30 displays the path coefficients and the level of significance of control variable in the structural model using two tailed criteria.

Table 4.30: The PLS results of the control variables

<table>
<thead>
<tr>
<th>Control variables</th>
<th>Endogenous construct</th>
<th>Path coefficient</th>
<th>t-value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past behaviour</td>
<td>Intention</td>
<td>-.04</td>
<td>.51</td>
<td>.60</td>
</tr>
<tr>
<td>Age</td>
<td>Intention</td>
<td>.02</td>
<td>.38</td>
<td>.70</td>
</tr>
<tr>
<td>Gender</td>
<td>Intention</td>
<td>.05</td>
<td>1.23</td>
<td>.21</td>
</tr>
</tbody>
</table>

Chapter summary:

From the above findings, it can be concluded that PLS-SEM analysis confirmed the adequacy of the measurement model because all the measurement scales achieved a satisfactory amount of reliability and validity. Similarly, results of the assessment of the proposed structural model employing PLS-SEM analysis provided the standardised coefficient of hypothesized paths and their t value which provided evidence to draw conclusion (i.e., to accept or reject null hypothesis). Thus, PLS analysis facilitated in achieving the prime objective of this study by predicting the
intention ($R^2=62\%$) of top managers to promote or appoint women into senior management roles. In addition, the GoF index (.46) for the PLS path model provided a substantial amount of model fit. Following Chapter 5 (Discussion and Conclusions) provides comprehensive discussion based on the results of the data analysis in light of the findings of related empirical studies with theoretical and managerial implications.
5.1 Introduction:

This chapter consists of six sections. Section 5.2 contains discussion of the major findings with respect to the hypotheses proposed in this study. Section 5.3 contains an account of the practical implications of the findings. Section 5.4 contains discussion of both the major limitations of this study and avenues for future research. Finally, Section 5.5 provides a discussion on summary and concluding remarks.

5.2 Overview of the major findings:

The primary objective of this study was to examine the extent to which organisational factors (i.e., structural and attitudinal factors) influence the intention of top managers to appoint women to senior management positions. The results of the partial least squares-based structural equation modelling (PLS-SEM) analysis and bootstrapped confidence interval analysis, as reported in Chapter 4, provide overall support for the hypotheses and for the research model. Out of nineteen hypotheses, thirteen were supported.

This is the only known study that utilises the theory of planned behaviour (TPB) to develop a comprehensive theoretical model to understand the intention of human resource managers in relation to the promotion of women to senior management in Bangladesh.

The effect of three latent constructs—attitudes toward women as managers, anticipated affective reactions and attitudes toward the behaviour of promoting women —on the outcome variable, the intention of
top managers with respect to appointing women to senior management positions is discussed in the following sections. The test of five hypotheses confirmed significant positive relationships between the predictors and outcome variables. In addition, the mediating effect of anticipated affective reactions and attitudes toward the behaviour of promoting women to senior management were also examined.

*Explaining intention using attitudes toward women as managers:*

PLS-SEM analysis reveals a significant relationship between positive attitudes to women as managers and the intention of top managers to appoint women to senior management positions. This finding indicates that a stronger positive evaluation of women’s management capabilities significantly enhances the intention of top managers to appoint women to the top management team. One of the implications of this finding relates to equity-related promotion decisions. Gender equity in promotion decisions is a key policy objective in many organisations (Dickens, 2006). This finding suggests that interventions that promote positive attitudes toward women as managers and address attitudinal bias will enhance the positive intention of top managers with respect to performing merit-based promotion in the organisation, thus increasing the likelihood of equity in promotion. In addition to enhancing gender-related equity in promotion decisions, these findings are also relevant to issues of gender equity in the senior management team.

This study’s results are consistent with extant literature on gender equity in top management (e.g., O’Leary, 1974; Schein, 2001, 2007; Michailidis, Morphitous, & Theophylatou, 2012), which indicates that
negative attitudes to women as managers remain a significant barrier to
women seeking senior management positions. The current study also
builds on existing research in the discipline of human resources
management—more particularly, gender equity in senior management
positions. The construct ‘attitudes toward women as managers’ was
previously used to assess only gender stereotypical attitudes toward
female managers and had not been used to examine the extent to which
attitudes toward women as managers influence the intention of top
managers associated with the intention of promoting women (Terborg,
This study, by investigating the impact of attitudes on promotion-related
decision intentions, extends our understanding of how top managers’
gender stereotypical attitudes influence their intention related to promoting
women in senior management positions. This is particularly significant in
the development of effective human resource management interventions
because intention toward a behaviour is an immediate antecedent of
enacting an actual behaviour (Ajzen, 2012).

*Explaining intention using anticipated affective reactions:*

PLS-SEM analysis reveals a significant positive relationship
between anticipated positive affective reactions and the intention of top
managers to promote women to senior management positions. This
finding suggests that top managers’ anticipation of positive feelings
consequent to their behaviour has a significant effect on their intention to
promote women. This result is important because it contributes to our
understanding the extent to which top managers’ anticipation of positive

emotional reaction consequent to their behaviour triggers their behavioural intention with respect to promoting people in the organisation. A number of prior studies (e.g., Sandberg & Conner, 2008b; Masser, et al., 2009; Conner, et al., 2012) have investigated the role of anticipated affective reaction in decision-intention, mostly in health-related behaviours such as blood donation and unprotected sexual behaviour. Sayegh, Anthony and Perrewe (2004) extended management decision theory by incorporating the role of emotion in managerial decision-making under crisis situations. Therefore, this current finding is important because this is the first study to apply anticipated affective reaction to our understanding of factors influencing the intention of top managers to promote women.

Explaining intention using attitudes toward the behaviour of promoting women:

The findings of this study provide support for the proposition that the attitudes of top managers toward women’s promotion to senior management positions are a significant predictor of the intention of top managers to appoint women to such positions. By understanding the factors antecedent to the intention to promote women, this study has identified important levers that can be used to enhance gender equity. In addition, these findings suggest that addressing attitudinal bias related to women as managers will increase the likelihood of equity in promotion (Johns, 2013b).

The positive link between attitude and intention has been widely examined in various research settings utilising attitude-behaviour theories such as the theory of reasoned action (TRA) and theory of planned
behaviour (Fishbein & Ajzen, 1975; Ajzen, 1985) however, this is the first study to investigate the link of attitude and intention in relation to the appointment of women to senior positions. Support for this path contributes to our understanding of how the intention of top managers is influenced by their evaluation of promotion and its implications. The findings suggest that interventions that are designed to enhance positive attitudes towards the behaviour of promoting women in senior management positions are likely to increase gender equity in male-dominated management teams (Shen, Chanda, D'Netto, & Monga, 2009). These results also indicate that the same interventions, by addressing negative perceptions of women managers, are likely to support equity in promotion decision-intention. In addition, this study lends support to cognitive dissonance theory (Festinger, 1957) in which people tend to pursue consistency between their cognition and behaviour and reinforces the applicability of this theory to human resource management decision-making.

**Mediating role of anticipated affective reactions:**

In addition to the direct link between attitudes to women as managers and the intention of top managers to appoint women to senior management positions, bootstrapping confidence interval analysis reveals that the relationship between positive attitudes to women as managers and the intention of top managers to appoint women to senior management positions is partially mediated by anticipated positive affective reactions.
The current findings suggest that a higher degree of positive attitudes predicts anticipated positive emotional reaction consequent to promoting women, which in turn influences behavioural intention associated with this decision. The findings demonstrate that positive attitudes towards a particular behaviour may not directly influence the intention of top managers to promote women due to the presence of intervening factors, such as people’s anticipated positive emotional reaction. This path is consistent with previous findings that people tend to avoid experiencing negative emotional reaction consequent to their behaviour (Conner & Abraham, 2001; Rivis, Sheeran, & Armitage, 2009b). Therefore, leaders are well advised to promote the awareness of women’s managerial and leadership capability through interventions such as awards recognising specific achievements (Ely, Ibarra, & Kolb, 2011), which are likely to trigger the anticipation of positive emotional reactions consequent to impartial promotional initiatives.

Most of the prior studies (e.g., Richard et al., 1995; Rivis, et al., 2009b; Conner, et al., 2012) have considered attitudes toward the intended behaviour and anticipated affective reactions as independent predictors of intention and reported only the direct link between anticipated affective reaction and behavioural intention. The mediating effect of anticipated affective reaction has been confirmed in several health and safety studies, such as intention to commit driving violations (Parker, et al., 1995); preventing AIDS (Richard, et al., 1998); and predicting consumer behaviour (Sheeran & Orbell, 1999). However, the role of anticipated affective reaction on promotional intention remains
relatively unexplored (Ashkanasy, Härtel, & Daus, 2002). Thus, the results contribute to research investigating the intervening role of anticipated emotion on gender equity-related managerial intention more particularly predicting the intention of top managers to promote women. The current finding also addresses an articulated gap in the extant literature relating to the functional role of emotion— as operationalised “anticipated affective reaction” in managerial decision-making. Sheeran and Armitage (2009b) suggest that “despite evidence supporting the discriminant and convergent validity of anticipated affective reactions and attitudes/behavioural beliefs, it remains unclear how well anticipated affects predicts intentions” (p. 2988). Support for this path contributes to our understanding of the effect of attitudes toward women as managers on managerial decision-intention through positive anticipated affect.

Mediating role of attitudes toward the behaviour of promoting women:

Bootstrapping confidence interval analysis reveals that positive attitudes of top managers associated with promoting women to senior management positions partially mediate the direct link between positive attitudes to women as managers and the intention of top managers to appoint women to senior management positions. This finding indicates that a stronger positive evaluation regarding women’s management capability (i.e., attitudes to women as managers) does not only have direct influence on the intention of top managers to promote women but also the relationship exists indirectly with the partial intervening effect of positive attitudes toward the behaviour of promoting women to senior management roles. This highlights the importance of understanding
intervening factor of attitudes of the top managers related to the behaviour of promoting women, which may facilitate the intention of top managers to promote women to senior positions.

There is a growing interest in understanding the interrelationship among the three components of attitude—cognitive attitude, affective attitude and behavioural attitude. For example, Conner, et al. (2012) examined the effects of cognitive, affective, and behavioural attitude in predicting blood donation intention and found they independently predicted blood donation intention.

The mediating role of attitude has been widely examined in a wider research context (e.g., Van Acker, van Buuren, Kreijns, & Vermeulen, 2010) in order to predict people’s behavioural intention. However, the mechanism through which cognitive attitudes influence behavioural attitudes in promotion-related decisions has not been examined before. The current findings are important as they extend our understanding of the role of cognitive attitudes (i.e., attitudes toward women as managers) and behavioural attitudes (i.e., attitudes to appoint women to senior managers) in predicting intention leading to decision making in the area of human resource management. Thus, linking cognitive and behavioural components of attitude, these findings provide a significant contribution to the research investigating gender equity in senior management positions.

In the following sections, the effect of four latent constructs—human resource policies and practices, organisational climate, subjective norm and perceived behavioural control on the outcome variable, the intention of top managers to appoint women to senior management positions is
discussed. In addition, the mediating effects of subjective norm and perceived behavioural control on the links, such as human resource management (HRM) policies & practices and intention as well as the link of organisational climate and intention associated with promoting women to senior management roles, were significantly examined.

*Explaining intention using human resource management policies and practices:*

PLS-SEM analysis indicated that favourable human resource management (HRM) policies and practices are positively related to the intention to promote women to senior management positions. This finding can be interpreted as indicating that a higher level of fair and transparent human resources policies and practices enhances the capacity of top managers to make unbiased promotional decisions. This finding is in alignment with prior studies, which indicate that selection and promotional systems governed by fair and transparent human resources policies create less room for discrimination in terms of promotion on the ground of gender or race (Virick & Greer, 2012).

Favourable human resource practices and their implications for gender equity have received significant interest in the literature on human resource management (HRM). For example, Kirton and Healy (2009) found a positive link between competency-based human resource management practices and intention to increase gender equity within the judiciary. However, no prior study has examined the extent to which human resource management policies and practices predict the intention of top managers to appoint women to senior management positions. The
current finding addresses this gap and reinforces the value of fair human resource systems in facilitating the promotion of women, which may increase the intention to make equitable decisions related to promotion. This finding also lends support to the assumptions of resource dependence theory (Salancik & Pfeffer, 1978; Pfeffer & Salancik, 2003), which contends that when an organisation adopts fair and equitable HRM policies and practices, the intention of top managers to address skill shortages by implementing an impartial staffing process, as well as their subsequent behaviours, are influenced (Blum, et al., 1994).

Explaining intention using organisational climate:

PLS-SEM analysis demonstrates that a positive organisational climate is significantly related to the intention of top managers to appoint women to senior management positions. Prior research indicates that positive organisational climate positively influences ethical decision making related to merit-based pay, for example (Fritzsche, 2000). However, this is the first study to investigate the role of organisational climate in predicting the intention of top managers concerning the promotion of women to senior management level. This finding has implications for equity in promotion by suggesting that the perception of broader organisational support for equity and collegiality can enhance the intention of top managers to promote women (Gonzalez & Denisi, 2009).

Explaining intention using subjective norm:

PLS-SEM analysis reveals that a subjective norm that supports the appointment of women to senior management positions is positively related to the intention of top managers to appoint women to senior
management positions. Social norm theory (Perkins & Berkowitz, 1986) suggests that an individual’s intention to perform a given behaviour is influenced not only by his/her own behavioural beliefs about outcomes but also by the opinions of significant others and the degree of motivation to comply with those opinions. The current result indicates that a higher degree of positive support from important people in a social network, conceptualised as subjective norm, has a substantial positive effect on the intention of top managers associated with appointing women to senior management roles.

The positive link between subjective norm and intention is well established within the theoretical framework of the theory of reasoned action (TRA) and the theory of planned behaviour (TPB). This finding is consistent with that of prior studies confirming a positive link between subjective norm and intention (e.g., Venkatesh & Davis, 2000b). However, such a link has not been examined in the context of promotion decisions; this study is the first to find support for the influence of perceived norms in the intention of top managers to promote women to senior management positions.

According to social cognition theory (Bandura, 2001, 2011), perceived external support, conceptualised as subjective norms, has a significant influence on people’s intention to perform an actual behaviour. On the basis of this argument, top managers would be willing to maintain a fair and equitable promotional intention and behaviour in order to represent the organisation as an equal opportunity employer thereby maintaining rapport with key stakeholders such as customers,
shareholders and employees, both existing and potential, whom they consider important.

*Explaining intention using perceived behavioural control:*

PLS-SEM analysis indicates that perceived behavioural control over the appointment of women to senior management has no significant effects on the intention of top managers to appoint women to senior management positions. This result is contrary to the proposition that perceived behavioural control has a substantial positive effect on intention evidenced in past research (e.g., Bagozzi & Kimmel, 1995; Ajzen & Fishbein, 2005; Conner & Sparks, 2005). The findings of this study suggest that the intention of top managers to promote women is not dependent on the perception of control over the promoting behaviour but rather that it is largely influenced by other factors such as attitudes and subjective norms associated with promoting people. The insignificant relationship between perceived behaviour control and intention is not unexpected, particularly as attitudes and subjective norms are strong predictors of intention. This findings are in line with previous research on the TPB model (e.g., Huchting, Lac, & LaBrie, 2008; Hurtz & Williams, 2009; McCarthy, et al., 2010; White, Terry, Troup, Rempel, & Norman, 2010; Zoogah, 2010) in which perceived behaviour control did not emerge as a critical component due to stronger influences of others factors such as attitudes and subjective norms.
**Mediating role of subjective norm:**

The bootstrapped confidence interval analysis reveals that the relationship between favourable HRM policies and practices and the intention of top managers is partially mediated by subjective norms that encourage promoting women to senior management roles. This finding indicates that fair and supportive human resource policies and practices does not have direct influence on the intention of top managers to promote women to senior management roles but also the relationship exists indirectly with the partial intervening effect of subjective norm associated with promoting women thus, indicating that top managers may take into account of the opinions of significant others such as colleagues and senior executives (i.e. subjective norm) when making promotion related decisions. Such subjective norms emerge consequent to favourable human resource systems and are the mechanisms explaining their effect.

The current findings are important because most of the prior research in human resource management has investigated only the direct link between subjective norm and intention. For example, Abrams, Ando and Hinkle (1998) found that subjective norm significantly predicts turnover intention of employees working in Japanese and British commercial academic organizations. The current study is the only study investigating the intervening role of subjective norms while making promotion-related decision-intentions. Its finding about this intervening role provides support to our understanding of the mechanisms influencing gender-equity related intention of top management through HRM policies and practices.
Similarly, bootstrapped confidence interval analysis indicates that the relationship between a positive organisational climate and the intention to appoint women to senior management positions is not mediated by subjective norms. This results indicate that the intention of top managers to promote people is directly associated with their perception of the organisational climate in which organisational members work so that this intention is not influenced by subjective norms.

*Mediating role of perceived behavioural control:*

The current results show that perceived behavioural control has neither direct nor indirect association with the intention of top managers to promote people. Bootstrapped confidence interval analysis indicates that the relationship between organisational climate and intention is not mediated by perceived behavioural control over the intention to promote women to senior management positions. Similar analysis also reveals that the relationship between favourable HRM policies & practices and the intention of top managers to appoint women to senior management roles is not mediated by perceived behavioural control over the intention to promote women to senior management positions.

Although the perception of positive organisational climate as well as presence of positive human resource management policies and practices directly predict the intention of top management to promote women to senior leadership roles, this promoting intention is not explained by the extent to which top managers perceive the amount of control they have over promoting people. These findings are in accordance with prior studies (e.g., Ajzen & Madden, 1986; Huchting, et al., 2008; Hurtz & Williams,
2009; White, et al., 2010; Zoogah, 2010) in which perceived behavioural control was not found to play a significant mediating role to predict intention.

Research shows that organisations in which there is a scarcity of facilitating resources to enact behaviour may result in lower degrees of control over intending behaviour (Hurtz & Williams, 2009). The current findings that human resources managers in the organisations studied may experience a lack of adequate resources and support services to execute intended behaviours which, in turn, may contribute to a non-significant relationship between control over promoting people and intention to promote people—either directly or indirectly.

In summary, the current findings provide a number of valuable contributions to our understanding of how personal and psychological factors predict the intention of top managers to promote women to senior management positions. It confirms these relationships inadequately studied context, Bangladesh, and supports the utility of the theory of planned behaviour in understanding human resource management decisions. In particular, these findings contribute to the literature as they reveal the importance of cognitive antecedents to decisions to promote women. As such, they have relevance for the implementation of gender equity initiatives by supporting the utility of a range of factors in predicting women’s promotion. In addition, these findings suggest levers that may increase the proportion of women to top management, which has implications for gender equity and associated senior management performance. Previous findings linking gender equity to organisational
outcomes suggest that understanding these factors may have significant performance consequences (Dezső & Ross, 2012b). Further, this study builds on previous studies that have explored factors that influence women’s advancement to senior management positions. Past research has identified personal, psychological and organisational barriers to women’s advancement to senior leadership roles (Krishnan, 2009; Baumgartner & Schneider, 2010); however, this study extends current work by focusing on factors that are capable of increasing the likelihood of promotion from the perspective of the decision-makers’ cognitive and behavioural attitudes and their antecedents.

5.3 Implications of the findings for practices:

From a practical point of view, a number of suggestions are provided based on the findings of this study. Prior research indicates that gender stereotypical attitudes of male-dominated top leadership remain a significant barrier to women’s advancement to senior leadership roles (Wellington, Kropf, & Gerkovich, 2003). The findings of this study demonstrate that a positive attitude to women as managers significantly predicts the intention of top managers to promote women to senior management roles. Therefore, organisations should prioritise initiatives that facilitate creating and sustaining positive attitudes toward women managers. For example, the use of gender-diverse work teams may enhance positive perceptions about the leadership capability of women in senior positions, because prior research shows more diverse management teams accelerate the process of firm innovation and performance (Wu & Shanley, 2009). In addition, a diverse work team significantly reduces the
gender stereotypical attitudes held by colleagues and supervisors to a large extent, thus contributing to reshaping attitudes about the leadership capability of female managers.

The theory of cognitive dissonance (Festinger, 1957), suggests that people tend to reduce dissonance caused by holding two conflicting ideas at the same time. In the light of this theory, it can be suggested that when top managers have positive attitudes toward women as managers, they tend to promote women to senior management roles in order to bring consistency between positive attitude and behaviour.

The findings of this study also show that anticipated positive affective reactions have a positive influence on the intention of top managers to promote female managers to senior leadership roles. When top managers are convinced of the leadership capability of their female colleagues and subordinates, this may contribute to an anticipated positive emotional reaction of top managers consequent to appointing qualified women to senior management roles or anticipated negative emotional reaction for not promoting women. For example, regret theory (Bell, 1982; Loomes & Sugden, 1982) states that people anticipate regret when they make a wrong choice of action. Individuals consider this anticipated regret when they make another decision in future. Fear of regret plays an important role in motivating people whether or not to repeat the intended action in future (Saffrey, et al., 2008).

The results of this study also demonstrate that favourable human resource practices and policies positively influence the intention of top managers with respect to promoting women to senior management.
positions. The findings suggest that positive human resources policies and practices, in terms of hiring and promoting people, facilitate top managers’ promotion related decision-making using a set of objective criteria rather than subjective criteria, and thus increase the likelihood of gender equity in senior management positions in the organisation.

A higher level of transparency about HR policies and practices such as recruitment, selection, performance evaluation, training and development contributes to implementation of merit based promotion systems (Bowen & Ostroff, 2004). (Bowen & Ostroff, 2004; Ambrose & Schminke, 2009; Lavelle et al., 2009; Lehmann, Grohmann, & Kauffeld, 2012). The current study reinforces the utility of fair and transparent human resource policies and practices in the workplace in facilitating the positive intention of top managers related to promoting women to senior levels of management.

The findings of this study indicate that a positive organisational climate positively influences the intention of top managers to appoint women to senior management positions. This study suggests creating and sustaining a positive organisational climate by implementing organisational polices aimed at ensuring impartial procedural justice in every aspect of organisational decision making such as promotion. When top managers discharge their authority and responsibility based on clear guidelines, this may convey a positive signal to employees that organisational rewards such as salary, training opportunity and promotion are totally based on performance. Such positive perception of employees reinforces the utility of creating a positive organisational climate by adopting an unbiased
promotion initiative (Olsen & Martins, 2012). Perryer and Jordan (2005) suggest that successful leaders of an organisation can create a positive organisational climate by assisting followers to set and achieve individual career goals that simultaneously lead to the achievement of organisational goals. It is well evidenced that positive organisational climate has a significant effect on the job satisfaction and commitment of employees as well as the enhancement of organisational performance (Ngo, et al., 2009; Jing, Avery, & Bergsteiner, 2011). It is, therefore, important for practitioners to develop and sustain a positive organisational climate that enhances the positive intention of top managers to appoint female managers to senior management levels.

Adam’s (1966) equity theory suggests that employees value fair treatment in terms of remuneration and an equal opportunity to take part in career development programs, which motivate them to be more loyal and committed to the organisation and its strategic goals. Thus, positive climate also boosts the morale of employees (Mulki, Jaramillo, & Locander, 2008). The current findings support prior research (e.g.,James & James, 1989; Neal, West, & Patterson, 2005b), which has confirmed that organisational policies, practices and procedures, along with organisational climate, have a direct effect on firm performance.

5.4 Limitations and direction of future research:

In spite of its contributions, like all research, this study suffers a number of limitations, which are required to be recognised so that future studies may address them systematically.
Because of the constraints of time, cost and human resources, the data for this study were collected from a self-report, cross-sectional survey, using the same instrument at a time may raise concern about common method bias. Harman’s single factor test reveals that no single component explains a major part of the total variance, thus indicating that the risk of bias associated with common method is unlikely to be a significant threat to the validity of data and subsequent findings (MacKenzie, Podsakoff, & Podsakoff, 2011).

A higher variance inflation factor (3.39) of human resource policies and practices may raise concern regarding multicollinearity; however, this VIF is much less than the commonly accepted cut off point 5 (Hair, et al., 2010; Kline, 2011). Therefore, multicollinearity is unlikely to have a significant influence on the validity of results of the structural model. In addition, Chin (1998) argues that the PLS-SEM is capable of generating robust results despite the presence of moderate to strong multicollinearity.

The findings of this study may have limited generalisability due to the presence of different management styles and practices across nations (Hofstede, 1980b); however, the results of this study have facilitated the ability to predict the intention of human resource managers in Bangladesh to promote women to senior management positions, thus enhancing our understanding of the future pattern of women’s advancement to senior corporate leadership in the context of developing countries.

The current study suggests a number of future research directions. Firstly, the conceptual model used in this study predicts only intention, not actual behaviour, of top managers with respect to promoting female
managers to top management teams. Future research could add objective measures of actual behaviour to the model by employing a longitudinal design.

Secondly, this conceptual model could be applied in the context of countries other than Bangladesh, which would allow greater generalisation.

Thirdly, this research has collected data only from single sources, that is, from the heads of human resources department. It is found that human resources managers are placed in staff or advisory authority (except in sole proprietorship organisations); as argued in this study, they usually have limited line authority to make independent promotional decisions. Therefore, future research could address this limitation by incorporating responses from the chief executive officers (CEOs) as well as from aspirant female managers who are at entry or middle level positions in order to clearly understand to what extent they are willing to assume future leadership roles for their organisations.

Finally, this study utilised only a quantitative method; future study could utilise a mixed method to address not only the question of how but also why personal, emotional, and organisational factors do influence the intention of top managers toward promoting women to senior management positions.

5.5 Summary and concluding remarks:

Despite some limitations, this study attempted to make a unique contribution to our understanding of the extent to which organisational, attitudinal and emotional factors influence the intention of top managers
with respect to promoting female managers to senior management teams by examining a conceptual model based on the TPB and employing PLS-SEM data analytic technique. It is expected that findings of this study may offer significant theoretical and practical contributions to the understanding of academics, researchers, corporate leaders and policy makers about how attitudinal, emotional and organisational factors influence the extent of women’s presence to senior management positions.
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## Appendix 3-A: Classifications of industry in Bangladesh

<table>
<thead>
<tr>
<th>sizes of industry:</th>
<th>Manufacturing industry</th>
<th>Service industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>Large industry refers to enterprises with either the value (replacement cost) of fixed assets excluding land and building in excess of Tk. 300 million or with more than 250 workers.</td>
<td>For services, ‘large industry’ refers to enterprises with either the value (replacement cost) of fixed assets excluding land and building in excess of Tk. 150 million or with more than 100 workers.</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium Industry, in manufacturing, includes the enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. 100 million and Tk. 300 million, or with</td>
<td>For services, ‘medium industry’ comprises enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. 10 million and Tk. 150 million, or with between 50 and 100</td>
</tr>
</tbody>
</table>
| Medium Industry, in manufacturing, medium industry encompasses the enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk.
100 million and Tk. 300 million, or with between 100 and 250 workers. | For services, ‘medium industry’ will correspond to enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk.
100 million and Tk. 150 million, or with between 50 and 100 workers. | between 100 and 250 workers. | workers. |
<table>
<thead>
<tr>
<th>Small</th>
<th>Small Industry, in manufacturing, corresponds to enterprises with either the value (replacement cost) of fixed assets excluding land and building between Tk. 5 million and Tk. 100 million or with between 25 and 99 workers.</th>
<th>For services, 'small industry' will correspond to enterprises with either the value (replacement cost) of fixed assets excluding land and buildings between Tk. 500,000 and Tk. 10 million or with between 10 and 25 workers.</th>
</tr>
</thead>
</table>

Source: Adapted from the Industrial Policy-2010 by the Ministry of Industries, Government of Bangladesh
### Appendix 3-B Demographic comparison between online and paper surveys:

<table>
<thead>
<tr>
<th>Demographic attributes</th>
<th>Online (%)</th>
<th>Paper (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>85.3</td>
<td>93.2</td>
</tr>
<tr>
<td>Female</td>
<td>14.7</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>Position occupied:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head/Director/Vice President of Human Resources</td>
<td>51.4</td>
<td>45.2</td>
</tr>
<tr>
<td>Human Resource/Personnel Officer</td>
<td>7.3</td>
<td>12.3</td>
</tr>
<tr>
<td>Human Resource/Personnel Manager</td>
<td>33</td>
<td>39.7</td>
</tr>
<tr>
<td>Proprietor/Owner</td>
<td>8.3</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Local Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>48.6</td>
<td>39.7</td>
</tr>
<tr>
<td>5 to less than 10</td>
<td>29.4</td>
<td>32.9</td>
</tr>
<tr>
<td>10 to less than 20</td>
<td>12.8</td>
<td>21.9</td>
</tr>
<tr>
<td>20 or More</td>
<td>9.2</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Tenure of organisations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>5.5</td>
<td>13.7</td>
</tr>
<tr>
<td>5 to less than 10</td>
<td>6.4</td>
<td>13.7</td>
</tr>
<tr>
<td>10 to less than 20</td>
<td>27.5</td>
<td>28.8</td>
</tr>
<tr>
<td>20 or More</td>
<td>60.6</td>
<td>43.8</td>
</tr>
</tbody>
</table>
### Appendix 3-C: Origins of modern SEM:

<table>
<thead>
<tr>
<th>Originated in the Field</th>
<th>Contributions</th>
<th>Contributors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Genetics</td>
<td>Regression Analysis</td>
<td>Galton (1889)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Factor Analysis</td>
<td>Spearman (1904), Thurstone (1935, 1947)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>Path Modelling</td>
<td>Wright (1934)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>Simultaneous Equation Modelling</td>
<td>Haavelmo (1943), Koopmans (1953), Wold (1954)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>Method of Maximum Likelihood Estimation</td>
<td>R.A. Fisher (1921), Lawley (1940)</td>
</tr>
<tr>
<td></td>
<td>Synthesis into Modern SEM and Factor Analysis</td>
<td>Jöreskog (1970), Lawley &amp; Maxwell (1971), Goldberger and Duncan (1973)</td>
</tr>
</tbody>
</table>

Sources: Schumacker and Lomax (2004, p. 5), Kline (2011, p. 15-16)
**Appendix 3-D: Framework of reflective and formative model:**

<table>
<thead>
<tr>
<th>Theoretical considerations:</th>
<th>Reflective model</th>
<th>Formative model</th>
<th>Relevant literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Nature of construct</td>
<td>➢ Latent construct exists independent of the measures used.</td>
<td>➢ Latent construct is determined as a combination of its indicators.</td>
<td>(Borsboom, et al., 2003)</td>
</tr>
<tr>
<td>❖ Direction of causality between items and latent construct</td>
<td>❖ Variation in the construct causes variation in the item measures ❖ Variation in item measures does not cause variation in the construct</td>
<td>❖ Variation in the construct does not cause variation in the item measures ❖ Variation in item measures causes variation in the construct</td>
<td>(Bollen &amp; Lennox, 1991) (Edwards &amp; Bagozzi, 2000; Rossiter, 2002; Jarvis, et al., 2003) (Rossiter, 2002) (Jarvis, et al., 2003)</td>
</tr>
<tr>
<td>Characteristics of items used to measure the construct</td>
<td>Items share a common theme</td>
<td>Items need not share a common theme</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Items are interchangeable</td>
<td>Items are not interchangeable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adding or dropping an item does not change the conceptual domain of the construct</td>
<td>Adding or dropping an item may change the conceptual domain of the construct</td>
<td></td>
</tr>
</tbody>
</table>
## Empirical Considerations:

<table>
<thead>
<tr>
<th>Construct</th>
<th>Formative model</th>
<th>Relevant literature</th>
<th>Reflective model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item intercorrelation</td>
<td>Items should have high positive intercorrelation</td>
<td>Items can have any pattern of intercorrelation but should possess the same directional relationship</td>
<td>(Cronbach, 1951; Nunnally, Bernstein, &amp; Berge, 1967; Churchill Jr, 1979)</td>
</tr>
<tr>
<td>Item relationships with construct antecedents and sequences</td>
<td>Items have similar sign and significance of relationships with antecedents/sequences as the construct</td>
<td>Items may not have similar significance of relationships with the antecedents/sequences as the construct</td>
<td>(Bollen &amp; Lennox, 1991; Diamantopoulos &amp; Winklhofer, 2001; Diamantopoulos &amp; Siguaw, 2006)</td>
</tr>
<tr>
<td>Consequences</td>
<td>Construct</td>
<td></td>
<td></td>
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<tr>
<td>--------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- Measurement error and collinearity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Error term in items can be identified.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Error term cannot be identified if the formative measurement model is estimated in isolation.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Coltman, Devinney, Midgley, and Venaik (2008, p.1252)
Appendix 3-E: Human research ethics approval

HUMAN RESEARCH ETHICS COMMITTEE

Notification of Expedited Approval

To Chief Investigator or Project Supervisor: Doctor Gian Casimir
Cc Co-investigators / Research Students: Doctor Rebecca Mitchell, Mr Kumar Biswas

Re Protocol: Predicting the intention of top managers in Bangladesh to appoint women to senior management positions: An examination and extension of the Theory of Planned Behaviour

Date: 20-Jul-2011
Reference No: H-2011-0182
Date of Initial Approval: 20-Jul-2011

Thank you for your Response to Conditional Approval (minor amendments) submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under Expedited review by the Ethics Administrator.

I am pleased to advise that the decision on your submission is Approved effective 20-Jul-2011.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory assessment, of annual progress reports. If the approval of an External HREC has been "noted" the approval period is as determined by that HREC.

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal Certificate of Approval will be available upon request. Your approval number is H-2011-0182.
If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants. You may then proceed with the research.

**Conditions of Approval**

This approval has been granted subject to you complying with the requirements for Monitoring of Progress, Reporting of Adverse Events, and Variations to the Approved Protocol as detailed below.

PLEASE NOTE:
In the case where the HREC has "noted" the approval of an External HREC, progress reports and reports of adverse events are to be submitted to the External HREC only. In the case of Variations to the approved protocol, or a Renewal of approval, you will apply to the External HREC for approval in the first instance and then Register that approval with the University's HREC.

- **Monitoring of Progress**

Other than above, the University is obliged to monitor the progress of research projects involving human participants to ensure that they are conducted according to the protocol as approved by the HREC. A progress report is required on an annual basis. Continuation of your HREC approval for this project is conditional upon receipt, and satisfactory assessment, of annual progress reports. You will be advised when a report is due.

- **Reporting of Adverse Events**

1. It is the responsibility of the person first named on this Approval Advice to report adverse events.
2. Adverse events, however minor, must be recorded by the investigator as observed by the investigator or as volunteered by a participant in the research. Full details are to be documented, whether or not the investigator, or his/her deputies, consider the event to be related to the research substance or procedure.
3. Serious or unforeseen adverse events that occur during the research or within six (6) months of completion of the research, must be reported by the person first named on the Approval Advice to the (HREC) by way of the Adverse Event Report form within 72 hours of the occurrence of the event or the investigator receiving advice of the event.
4. Serious adverse events are defined as:
   - Causing death, life threatening or serious disability.
   - Causing or prolonging hospitalisation.
   - Overdoses, cancers, congenital abnormalities, tissue damage, whether or not they are judged to be caused by the investigational agent or procedure.
   - Causing psycho-social and/or financial harm. This covers
everything from perceived invasion of privacy, breach of confidentiality, or the diminution of social reputation, to the creation of psychological fears and trauma.
  o Any other event which might affect the continued ethical acceptability of the project.

5. Reports of adverse events must include:
  o Participant's study identification number;
  o date of birth;
  o date of entry into the study;
  o treatment arm (if applicable);
  o date of event;
  o details of event;
  o the investigator's opinion as to whether the event is related to the research procedures; and
  o action taken in response to the event.

6. Adverse events which do not fall within the definition of serious or unexpected, including those reported from other sites involved in the research, are to be reported in detail at the time of the annual progress report to the HREC.

- **Variations to approved protocol**

If you wish to change, or deviate from, the approved protocol, you will need to submit an Application for Variation to Approved Human Research. Variations may include, but are not limited to, changes or additions to investigators, study design, study population, number of participants, methods of recruitment, or participant information/consent documentation. Variations must be approved by the (HREC) before they are implemented except when Registering an approval of a variation from an external HREC which has been designated the lead HREC, in which case you may proceed as soon as you receive an acknowledgement of your Registration.

**Linkage of ethics approval to a new Grant**

HREC approvals cannot be assigned to a new grant or award (ie those that were not identified on the application for ethics approval) without confirmation of the approval from the Human Research Ethics Officer on behalf of the HREC.

Best wishes for a successful project.
Professor Alison Ferguson  
Chair, Human Research Ethics Committee

For communications and enquiries:
Human Research Ethics Administration

Research Services  
Research Integrity Unit  
HA148, Hunter Building  
The University of Newcastle  
Callaghan NSW 2308  
T +61 2 492 18999  
F +61 2 492 17164  
Human-Ethics@newcastle.edu.au

Linked University of Newcastle administered funding:

<table>
<thead>
<tr>
<th>Funding body</th>
<th>Funding project title</th>
<th>First named investigator</th>
<th>Grant Ref</th>
</tr>
</thead>
</table>

280
Appendix-3-F: Survey questionnaire

PREDICTING THE INTENTION OF TOP MANAGERS IN BANGLADESH TO
APPOINT WOMEN TO SENIOR MANAGEMENT POSITIONS: AN EXAMINATION
AND EXTENSION OF THE THEORY OF PLANNED BEHAVIOUR

SURVEY QUESTIONNAIRE

GENERAL INSTRUCTIONS
281
1. Please note the following before completing the survey.

**WHO SHOULD FILL IN THE SURVEY?**

Are you in a position in which you are required to appoint or promote people to senior management positions?

<table>
<thead>
<tr>
<th>YES</th>
<th>If Yes, Please continue the survey.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>If No, Please discontinue. Thank you for your time.</td>
</tr>
</tbody>
</table>

2. It is important that you answer all of the questions, even if some appear similar to each other. There are no right or wrong answers. The survey should take approximately 30 minutes to complete.

3. Please read the questions and instructions for each question carefully. Most of the questions can be answered simply by circling the appropriate number.

4. If precise details are not possible, then your best estimate will suffice.

5. If you have any questions related to the questionnaire or would like to know the outcome of this research, please contact Mr. Kumar Biswas:

   Mobile: +88 0191 126 8096
   Phone: +88 027 176 184
   Email: Kumar.Biswas@uon.edu.au

6. This project has been approved by the University of Newcastle's Human Research Ethics Committee, Approval No.: H-2011-0182

**Complaints about this research**

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone +61249216333, email Human-Ethics@newcastle.edu.au.
### Section A:

1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. A woman’s place is near her husband and at home being a good mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A2. Family life is more disorganised for women who work than for women who do not work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A3. On average, a woman who stays at home with her children is a better mother than is a woman who works outside the home for half a day or more.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A4. It is acceptable for women to compete with men for top executive positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A5. Female managers will be successful only if they work in areas that are more suitable for women than for men.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A6. Women would no more allow their emotions to influence their managerial behaviour than would men.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A7. It is not acceptable for women to assume leadership roles.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A8. Women cannot be assertive in business situations that demand it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A9. On average, female managers are less capable of contributing to an organisation’s overall goals than are male managers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A10. Challenging work is more important to men than it is to women.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A11. There is more disagreement between spouses when the woman works outside the home than when she stays at home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A12. Society should equally value the work of female and male managers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A13. The business community should accept women in key managerial positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A14. Women have the objectivity required to evaluate business situations properly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A15. Women possess the self-confidence required of a good leader.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A16. The possibility of pregnancy does not make women less desirable employees than men.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A17. Women are less capable of learning mathematical and mechanical skills than are men.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>A18. To be a successful executive, a woman does not have to sacrifice her femininity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

### Section B:

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B1. Most people in my social network want me to appoint well-qualified women to senior management positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>B2. Most people who are important to me think that I should appoint well-qualified women to senior management positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>B3. Most people in my social network would approve of me appointing well-qualified women to senior management positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
**Section B:**

<table>
<thead>
<tr>
<th>B4. Most of my co-workers occupying the same position like me would appoint well-qualified women to senior management positions.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>B5. Most people in my social network who are in a position to appoint women to senior management positions would do so.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>B6. People who I respect are not prejudiced against female managers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>B7. In general, I do what most people who are important to me think I should do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**Section C:**

1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree

| C1. I would feel glad if I appointed well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C2. I would feel relaxed if I appointed well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C3. I would feel satisfied if I appointed well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C4. I would feel excited if I appointed well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C5. I would feel ashamed if I missed an opportunity to appoint well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C6. I would feel guilty if I missed an opportunity to appoint well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C7. I would feel worried if I missed an opportunity to appoint well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C8. I would feel frustrated if I missed an opportunity to appoint well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C9. I would feel regret if I missed an opportunity to appoint well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C10. I would feel tensed if I missed an opportunity to appoint well-qualified women to senior management positions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Section D:

<table>
<thead>
<tr>
<th>1 = Not at all, 2 = To a minimal extent, 3= To a very slight extent, 4= To a slight extent, 5 = To a moderate extent, 6 = To a large extent, 7=To a great extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1. I intend to appoint women who are equally qualified to their male counterparts to senior management positions.</td>
</tr>
<tr>
<td>D2. I am likely to appoint women who are equally qualified to their male counterparts to senior management positions.</td>
</tr>
<tr>
<td>D3. I will appoint women who are equally qualified to their male counterparts to senior management positions.</td>
</tr>
<tr>
<td>D4. I will appoint women to senior management positions if they are the best candidates for the positions.</td>
</tr>
</tbody>
</table>

Section E:

Please place an X in the given space that best describes your opinion for the following statement:

**Appointing women who are well qualified to senior management positions would be:**

<table>
<thead>
<tr>
<th>a.</th>
<th>Extremely</th>
<th>Quite</th>
<th>Slightly</th>
<th>Neither</th>
<th>Slightly</th>
<th>Quite</th>
<th>Extremely</th>
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<tbody>
<tr>
<td>Bad</td>
<td></td>
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<td>Harmful</td>
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<td>Disadvantageous</td>
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</tr>
<tr>
<td>Relaxing</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Foolish</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Joyless</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Boring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Beneficial</th>
<th>Pleasant</th>
<th>Enjoyable</th>
<th>Useful</th>
<th>Effective</th>
<th>Advantageous</th>
<th>Stressful</th>
<th>Wise</th>
<th>Joyful</th>
<th>Exciting</th>
<th>Positive</th>
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</thead>
</table>

285
### Section F:

<table>
<thead>
<tr>
<th></th>
<th>1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1.</td>
<td>It is easy for me to appoint well-qualified women to senior management positions.</td>
</tr>
<tr>
<td>F2.</td>
<td>I have complete control over the appointment of qualified women to senior management positions.</td>
</tr>
<tr>
<td>F3.</td>
<td>I am confident that I will be able to appoint well-qualified women to senior management positions.</td>
</tr>
<tr>
<td>F4.</td>
<td>I am able to appoint well-qualified women to senior management positions if I think it will benefit the organisation.</td>
</tr>
<tr>
<td>F5.</td>
<td>Whether or not I appoint well-qualified women to senior management position is entirely up to me.</td>
</tr>
<tr>
<td>F6.</td>
<td>I am confident that I could overcome any obstacles that might prevent me from appointing well-qualified women to senior management positions.</td>
</tr>
<tr>
<td>F7.</td>
<td>It is beyond my control to appoint well-qualified women to senior management positions.</td>
</tr>
</tbody>
</table>

### Section G:

<table>
<thead>
<tr>
<th></th>
<th>1 = Never True, 2 = Rarely True, 3 = Sometimes True, 4 = Frequently True, 5 = Most of the Time True, 6 = Almost Always True, 7 = Always True</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1.</td>
<td>The selection systems followed in this organisation are highly scientific and rigorous.</td>
</tr>
<tr>
<td>G2.</td>
<td>This organisation hires people who have the desired knowledge, skills, and attitudes.</td>
</tr>
<tr>
<td>G3.</td>
<td>This organisation has policies that ensure equal opportunity for all employees.</td>
</tr>
<tr>
<td>G4.</td>
<td>This organisation identifies training needs through a formal performance appraisal mechanism rather than subjective preference.</td>
</tr>
<tr>
<td>G5.</td>
<td>The performance of employees is measured based on objective quantifiable results.</td>
</tr>
<tr>
<td>G6.</td>
<td>Each employee in this organisation is well aware of his/her career path.</td>
</tr>
<tr>
<td>G7.</td>
<td>This organisation counsels all employees on career development irrespective of their gender.</td>
</tr>
<tr>
<td>G8.</td>
<td>Promotional opportunities to senior management in this organisation largely go to males, even if females are equally qualified.</td>
</tr>
<tr>
<td>G9.</td>
<td>Women are promoted over men in cases where the female candidates possess better qualifications.</td>
</tr>
</tbody>
</table>
G10. This organisation has policies on equal pay between male and female.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

G11. What proportion of employees in this organisation are provided with leadership training?  

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

G12. What proportion of female employees are trained for future leadership roles?  

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

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**Section H**

H1. During the last three years, how many times have you had the opportunity to appoint women to senior management positions?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Almost never</th>
<th>A few times</th>
<th>Occasionally</th>
<th>Often</th>
<th>Quite often</th>
<th>Many times</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

H2. I have previously appointed women to senior management positions.  

Yes | If Yes, please answer question H3

No

H3. During the last three years, how many women did you appoint to senior management positions? (please specify the number below)

---

**Section I:**  

1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree

I1. The technology in our industry is changing rapidly.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I2. Technological changes provide big opportunities in our industry.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I3. It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>7</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I4. A large number of new products and ideas have been made possible through technological breakthroughs in our industry.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I5. Technological developments in our industry are rather minor.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
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<tbody>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section J:

1 = Not at all, 2 = To a minimal extent, 3 = To a very slight extent, 4 = To a slight extent, 5 = To a moderate extent, 6 = To a large extent, 7 = To a great extent

| J1. Managers have freedom in day-to-day operational decisions in this organisation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J2. Managers in this organisation compete with each other for resources. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J3. This organisation has a friendly and warm social atmosphere. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J4. This organisation specifies the methods and procedures for accomplishing tasks. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J5. This organisation prefers to specify and codify, and write things down explicitly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J6. In this organisation, policies and structure are clearly defined. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J7. Managers are well rewarded (e.g., salary, fringe benefits, and other status symbols) in this organisation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J8. The reward system of this organisation is fair and appropriate. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J9. This organisation delegates complete responsibility to managers for making decisions regarding hiring and promotion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J10. This organisation is interested in and is willing to support its managers in both job and non-job related matters. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

### Section K:

1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree

| K1. After work, I come home too tired to do some of the things I’d like to do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K2. On the job, I have so much work to do that it takes away from my personal interests. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K3. My family/friends dislike how often I am preoccupied with my work while I am at home. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K4. My work takes up time that I’d like to spend with family/friends. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K5. My job or career interferes with my home responsibilities. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K6. My job or career keeps me from spending the amount of time I would like to spend with my family. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K7. I’m too tired at work because of the things I have to do at home. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K8. My personal demands are so great that it takes away from my work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K9. My superiors and peers dislike how often I am preoccupied with my personal life while at work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K10. My personal life takes up time that I’d like to spend at work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K11. My home life interferes with my | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Section M: Demographic information:

[Please place an X in the given box that best describes you]

M1. What is your gender?

☐ Male    ☐ Female

M2. What is your country of birth?

☐ Bangladesh    ☐ Other (Please specify__________________________________________________________)

M3. How old are you?

☐ Less than 25    ☐ 25 to 34    ☐ 35 to 44    ☐ 45 to 56    ☐ 57 or More

M4. What is your highest academic qualification?

☐ Secondary School Certificate    ☐ Higher Secondary Certificate    ☐ Diploma

☐ Bachelor Degree (First-degree)    ☐ Master/ PhD (Higher-degree)

---

Section L:

| L1. I never hesitate to go out of my way to help someone in trouble. | True | False |
| L2. I have never intensely disliked anyone. | True | False |
| L3. There have been times when I was jealous of the good fortune of others. | True | False |
| L4. I would never think of letting someone else be punished for my wrongdoings. | True | False |
| L5. I sometimes feel resentful when I don't get my way. | True | False |
| L6. There have been times when I felt like rebelling against people in authority even though I knew they were right. | True | False |
| L7. I am always courteous, even to people who are disagreeable. | True | False |
| L8. When I don't know something, I don't mind at all admitting it. | True | False |
| L9. I can remember 'playing sick' to get out of something. | True | False |
| L10. I am sometimes irritated by people who ask favours of me. | True | False |

Section M: Demographic information:

K12. My home life keeps me from spending the amount of time I would like to spend on job or career related activities.

1 2 3 4 5 6 7
M5. What is the title of your current position?

☐ Head/Director/Vice President of Human Resources  ☐ HR/Personnel Officer

☐ Human Resource/Personnel Manager  ☐ Proprietor/Owner

Other (Please specify) _________________________________________________________________)

M6. How many years have you been in your current position?

☐ Less than 5  ☐ 5 to less than 10

☐ 10 to less than 20  ☐ 20 or More

M7. How many years of international work experience do you have?

☐ Nil  ☐ 1 or 2  ☐ 3 or 4  ☐ 5 or 6  ☐ 6 or More

M8. What is your religion? [Optional]

☐ Islam  ☐ Hinduism  ☐ Christian

☐ Buddhism  ☐ Not at all Affiliated

Other (Please specify) ___________________________________

M9. To what extent do you consider yourself as a highly religious person? [Optional]

<table>
<thead>
<tr>
<th>Not at all</th>
<th>To a minimal extent</th>
<th>To a very slight extent</th>
<th>To a slight extent</th>
<th>To a moderate extent</th>
<th>To a large extent</th>
<th>To a great extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Section N: Organisational Information:

[If precise details are not possible, then your best estimate will suffice.]

N1. In total, how many employees (both managerial and non-managerial) are there in your organisation?

☐ Less than 100  ☐ 100 to less than 300  ☐ 300 to less than 600  ☐ 600 or More

N2. In total, how many female employees (both managerial and non-managerial) are there in your organisation?

☐ Less than 100  ☐ 100 to less than 300  ☐ 300 to less than 600  ☐ 600 or More

N3. How many employees in total (both male and female) are in middle-level and top-level positions in your organisation?

☐ Nil  ☐ Less than 5  ☐ 5 to less than 10  ☐ 10 to less than 15  ☐ 15 or More
N4. How many women are in middle-level and top-level positions in your organisation?

- [ ] Nil
- [ ] Less than 5
- [ ] 5 to less than 10
- [ ] 10 to less than 15
- [ ] 15 or More

N5. How many employees in total (both Male and Female) are in top-level positions in your organisation?

- [ ] 1 or 2
- [ ] 3 or 4
- [ ] 5 or 6
- [ ] 7 or 8
- [ ] 9 or More

N6. How many women are in top-level positions in your organisation?

- [ ] Nil
- [ ] 1 or 2
- [ ] 3 or 4
- [ ] 5 or 6
- [ ] 6 or More

N7. For how many years has your organisation been in operation?

- [ ] Less than 5
- [ ] 5 to less than 10
- [ ] 10 to less than 20
- [ ] 20 or More

N8. Which of the following best describes the ownership of your organisation?

- [ ] Foreign owned/controlled
- [ ] Predominantly locally owned/controlled
- [ ] Locally owned (including joint venture)
- [ ] Predominantly foreign owned (including joint venture)

If your answer is predominantly foreign owned, please specify the origin of country

====================================
**N9. In which sector does your organisation operate?** [Please use X to mark the most appropriate sector]

<table>
<thead>
<tr>
<th>Manufacturing</th>
<th>Wholesale Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry, Fishing</td>
<td>Tourism, hotel, &amp; restaurant</td>
</tr>
<tr>
<td>Cultural &amp; Recreational</td>
<td>Construction &amp; Real Estate</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>Education</td>
</tr>
<tr>
<td>Banking, Finance &amp; Insurance</td>
<td>Non-Government Organisation (NGO)</td>
</tr>
<tr>
<td>Health &amp; Community Services</td>
<td>Media (Radio, Print and TV)</td>
</tr>
<tr>
<td>Electricity, Gas &amp; Water Supply</td>
<td>Communication Services</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>Not for Profit Organisation</td>
</tr>
<tr>
<td>Government Administration</td>
<td>Other (Please specify):</td>
</tr>
</tbody>
</table>

Please return the completed questionnaire to the researchers in the envelope provided.

**Thank You for Your Help**
Information Statement for the Research Project:

Predicting the intention of top managers in Bangladesh to appoint women to senior management positions: An examination and extension of the theory of planned behaviour

You are invited to participate in the research project identified above which is being conducted by Mr. Kumar Krishna Biswas, who is a PhD student from the Newcastle Business School at the University of Newcastle. This project is part of Mr. Kumar Krishna Biswas’ doctoral studies at the University of Newcastle and is being supervised by Dr. Gian Casimir and Dr. Rebecca Mitchell from the Newcastle Business School, University of Newcastle, Australia.

Why is the research being done?
The purpose of the research is to explore the extent to which organisational factors influence the intention of top managers in Bangladesh to appoint women to senior management positions.

Who can participate in the research?
Human Resource Managers of Small and Medium Enterprises and public limited companies in Bangladesh, who are involved in the appointment of senior managers, are invited to participate in this research project identified above. Your name has been selected at random from the directories published annually by the Bangladesh Society for Human Resource Managers (BSHRM), and the Bangladesh Chamber of Commerce (BCC), and the official website of your organisation.

What choice do you have?
Participation in this research project is entirely your choice. If you do decide to participate, you may discontinue completing the survey without giving a reason. Your decision to participate or not to participate in this project will not affect you in any way and no one will know whether or not you have participated in this study. Additionally, not participating in this study will not affect your relationship with the University of Newcastle. Your consent to participate in this project will be considered as implied, once you return the completed questionnaire. Please note that, because the questionnaire is to be completed anonymously, you will not be able to withdraw from this research project after you have returned the completed questionnaire to the researchers.

What will you be asked to do?
You will be asked to complete an anonymous survey. You can complete the hard copy of the survey that is included in the package and return the completed survey to the researchers via the reply-paid envelope that is also included in the package. Alternatively, you can complete an electronic version of the survey, which is available at the following link:
http://newcastlebusandlaw.qualtrics.com/SE/?SID=SV_6DqNhXbuzxaWVIQ

Returning the completed survey to the researchers or completing the survey online will be taken as your implied consent to participate in this research project. Please note that because the survey is anonymous, you will not be able to withdraw from the study after you have completed the survey.
How much time will it take?
If you wish to take part in this study, it will take approximately 30 minutes to complete the questionnaire.

What are the risks and benefits of participating?
There are no risks or direct benefits to you associated with participation in this study. Your participation in this research will help us explore the extent to which organisational factors influence the intention of top managers in Bangladesh to appoint women to senior management positions. The findings from this research may also contribute to the development of policies relating to equal employment opportunities for women, particularly in Bangladesh.

How will your privacy be protected?
All of the responses obtained by the online or hard copy version of the survey for this research project are anonymous. It will not be possible to identify you or your organisation from your responses. Respondents or their organisations will not be identified in any report or publication. The security and storage of data obtained from the online survey will be assured by using the online survey software. The Newcastle Business School is subscriber of this online survey software from Qualtrics for the researchers. Qualtrics does not sell or rent respondents’ contact information to other marketers or vendors. Only the researchers will have access to the collected data. Raw data will be stored in a password protected file in the researchers’ computers for a minimum of five (05) years of awarding the degree as per the university’s data storage policies.

How will the information collected be used?
The information obtained from this survey will primarily be used to produce the PhD thesis of Kumar Krishna Biswas. The findings, however, may be reported in edited publications, conference presentations or media release, and utilised in the development of equal employment policies, particularly in Bangladesh. A brief summary of the results of this project will be available from the project supervisor from July 28, 2012. Please feel free to contact the project supervisor by email if you would like to have an electronic copy of the summary.

What do you need to do to participate?
Please read this Information Statement and be sure you understand its contents before you consent to participate. If you would like to participate, please complete and return the anonymous questionnaire in the reply paid envelope provided. Alternatively, if you prefer to complete the survey online, you can complete an electronic version of the survey, which is available at the following link: http://xxxx/yyzz/zzz.html. Please contact the project supervisor if there is anything you do not understand about this study or if you have any questions about this study.

Further information
If you would like further information about this study, then please contact the project supervisor, Dr. Gian Casimir by email or phone (Gian.Casimir@newcastle.edu.au, + 65 6468 0789).
Thank you for considering this invitation. We encourage you to retain this copy of information sheet for your record.

Yours sincerely,

Kumar Krishna Biswas          Rebecca Mitchell          Gian Casimir

Complaints about this research

This project has been approved by the University of Newcastle’s Human Research Ethics Committee, Protocol Reference No. H-2011-0182.

Should you have concerns about your rights as a participant in this research, or you have any complaints about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, you can contact the following people: i) The Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone +61249216333, email Human-Ethics@newcastle.edu.au; and ii) The Registrar, Jagannath University, 9-10 Chittaranjan Avenue, Dhaka-1100, Bangladesh, Telephone +880-2-7110415, Email: registrar@juni.net.
Appendix 4-A: Harman’s single factor test:

a. principal component factor analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
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</thead>
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</table>

Extraction Method: Principal Component Analysis.