

The Impact of Corporate Supplier Diversity Programs on Corporate Purchasers' Decision-Making Regarding Women-Owned Enterprises: An Empirical Test Using the Theory of Planned Behavior

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ABSTRACT

Though 48% of all privately-held firms are at least 50% owned by a woman or women, women-owned enterprises received only 9% of the institutional investment deals and 2% of the dollars in 1999 in 2006. In the corporate supplier market, women-owned enterprises obtained only 4% of the market share. These figures indicate that women or women-owned enterprises face some level of hurdles in the marketplace. Drawing on Ajzen's (1991) theory of planned behavior, the study explored the impact of corporate supplier diversity programs on corporate purchasers' intention to purchase from women-owned enterprises. Two hundred seventy two corporate purchasers across a diverse range of industries and geographical regions in the U.S. participated in a scenario-based mail survey. The findings suggest that corporate supplier diversity programs did influence the purchasers' intention to purchase, and the influence was more direct than indirect, contrary to some of the hypotheses proposed in the study. The findings contribute to both the corporate social responsibility literature and the women's entrepreneurship studies. With regard to the corporate social responsibility literature, the findings demonstrate that it is possible for business to incorporate positive duty into its core economic activities without compromising its financial gains and that the economic-aligned and duty-aligned orientations can be integrated. Concerning the women's entrepreneurship studies, the findings point to a way to overcome the hurdles that women-owned enterprises face. Given that 40% of the corporations do not have a supplier diversity program, the findings have practical implications as well; corporations are urged to implement a supplier diversity program if they do not have one, and to be committed to implementing their programs if they already have established one, for doing so is simply another case of doing well by doing good.

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CHAPTER 1

THE RESEARCH PROBLEM

1.1. Motivation for the Study

Women-owned enterprises in the U.S. have made impressive gains in the past few years (Center for Women's Business Research, 2006 & 2005). The following statistics from the Center for Women's Business Research (2006 & 2005) exemplify such advances. Between 1997 and 2006, the number of women-owned businesses grew nearly twice as fast (42%) as that of all firms (24%). Firms that were at least 50% owned by a woman or women amounted to around 10.4 million, constituting more than 50% of all privately-held firms. Women-owned enterprises are also contributing significantly to the economic well-being of the society. They generated more than \$1.9 trillion in sales and employed over 12.8 million people in 2006; and in 2005 they were estimated to have spent \$546 billion annually on salaries and benefits (Center for Women's Business Research, 2006 & 2005).

Though women's enterprises are proving to be a powerful economic force, unique barriers to these enterprises can easily be identified. In the marketplace, they are sometimes marginally received by market players from traditionally male-dominated institutions. The Center for Women's Business Research (2005) also indicates that, in the equity capital markets, women received only 9% of the institutional investment deals and 2% of the dollars in 1999. In the corporate supplier market, women-owned enterprises obtained only 4% of the market share in 2003.

One may ascribe the disadvantages that women-owned enterprises encounter to some attributes of women-owned enterprises, such as the size and the relatively young history of these

firms. For example, compared with 6% of men-owned enterprises, only 3% of women-owned enterprises had revenues exceeding \$1 million (Center for Women's Business Research, 2006). Despite that, the Center for Women's Business Research (2005) also indicated that the majority of women entrepreneurs aimed at growth (86% African-American, 71% Asian, 80% Caucasian, and 84% Latina). If growth is the general intent, then some hurdles may exist for these aspiring enterprises as growth necessitates huge capital and market demand, among other factors.

Without a doubt, both men-owned and women-owned enterprises face challenges when they start and grow their businesses. Yet, hurdles for the growth of women-owned enterprises sometimes seem to be higher than those for men-owned enterprises (Brush et al., 2004, p.24). The unique problems that women-owned enterprises face prompted me to conduct the study.

1.2. Problem Statement

Research on women's entrepreneurship started in the late 1970s. In the early days, studies were conducted to distinguish between male and female entrepreneurs on psychological and sociological dimensions based on the assumption that there were very few differences between them (e.g., Schrier, 1975; Schwartz, 1976). In 1979, the President's Interagency Task Force produced the largest study on female entrepreneurs (Bottom Line, 1979) and uncovered cases of discrimination and barriers experienced by women business owners in starting their businesses. Since then, female entrepreneurs and their enterprises have evolved as subjects for research effort (Brush, 1992).

Both male and female-owned enterprises face challenges at various stages of their business evolution. Gartner (1985) identified four dimensions relevant to new venture creation: individuals who are involved in starting a new organization; the kind of organization that is

started; environment that surrounds and influences the new organization; and the processes engaged in by the individuals to start the venture. In other words, the entrepreneur's psychological traits and demographic facts, the strategies the entrepreneur chooses to start a business, the processes he or she chooses to build the enterprise, and the degree of support in the business environment all explain the success or failure of a new venture.

The most salient hurdles often emerge when a business attempts to grow. In a study of rapid growth firms, Barringer et al. (2005) attributed rapid growth to four categories of attributes: founder characteristics, firm attributes, business practices, and human resource management practices. For example, an enterprise with a founder who has an MBA degree and prior industry experience, with a commitment to growth, with products that add unique value, and with financial incentives for employees is more likely to experience rapid growth than an enterprise with a founder who has a high school diploma and no prior industry experience, with no commitment to growth, with average products or services, and with little employee training.

Past research on women's entrepreneurship indicates that women-owned enterprises face unique barriers. For example, Buttner and Rosen (1988), in observing the difficulties that women entrepreneurs face in obtaining financing, reported that bank officers attributed characteristics of successful entrepreneurs more often to men than to women. This differential attribution of entrepreneurial characteristics has implications for male and female entrepreneurs in their loan applications. Other studies have also reported unfair treatment of female entrepreneurs in their attempts to obtain loans. Fay and Williams (1993), for example, demonstrated that women had to be more educated to receive the same amount of loan dollars as men. Coleman (2002) also reported that women often had to pay higher interest rates and provide more collateral than men.

The particular hurdles that women-owned enterprises face can be attributed to traditional beliefs and prejudices about women and women-owned enterprises, which make it harder for women and their enterprises to be equal to traditionally male players in the marketplace, such as venture capitalists, suppliers, and purchasers as customers (Brush et al., 2004). The existing literature on barriers to women-owned enterprises has mostly focused on the characteristics of women and their enterprises and the operations of these enterprises (e.g., Coleman, 2002; Hisrich & Brush, 1983; Brush, 1990; Chrisman & Leslie, 1989). Further, although there have been a very few attempts to explore this issue from the perspectives of market players (i.e., their beliefs and prejudices) (e.g., Buttner & Rosen, 1988; Buttner & Rosen, 1989; Riding & Swift, 1990), those studies have almost exclusively focused on the difficulties that women-owned enterprises face in acquiring financial capital. Finally, although hurdles for women-owned enterprises have been recognized, attempts have rarely been made regarding overcoming these hurdles.

In this dissertation, I study this issue in the context of women-owned enterprises as potential suppliers of big corporations - why corporate purchasers decide to buy or decide not to buy supplies from women-owned enterprises. Specifically, based on Ajzen's theory of planned behavior (Ajzen, 1985, 1991), the dissertation explores the impact of Commitment to Supplier Diversity Program on purchasers' Intention to purchase from women-owned enterprises, first through its immediate influence on the beliefs composites, and then through its secondary influence on Attitude, Subjective Norm, and Perceived Behavioral Control about purchasing from women-owned enterprises. Hence, the problem statement consists of the following:

1. Does Commitment to Supplier Diversity Programs make a difference to
 - (1.1) the Behavioral Beliefs Composite;
 - (1.2) the Normative Beliefs Composite; and

- (1.3) the Control Beliefs Composite?
2. If so, to what extent do the impacted beliefs composites influence the immediate predictors of Intention?
 - (2.1) To what extent do impacted Behavioral Beliefs Composite influence Attitude toward purchasing from women-owned enterprises?
 - (2.2) To what extent do impacted Normative Beliefs Composite influence Subjective Norm about purchasing from women-owned enterprises?
 - (2.3) To what extent do the impacted Control Beliefs Composite influence Perceived Behavioral Control?
 3. To what extent do Attitude about behavior, Subjective Norm, and Perceived Behavioral Control respectively influence Intention to purchase from women-owned enterprises? And finally,
 4. Does Commitment to Supplier Diversity Program have an impact on purchasers' Intention?

1.3. Context for the Study

The study utilized a randomly generalized sample of 2,600 subjects representing 78 industries from the database of the Institute for Supply Management, the largest supply management association in the world, and a highly respected organization. The sample represented corporate purchasing personnel of different ranks in the U.S. As it was not limited by industries, geographical regions, or the presence of diversity programs, the sample was well-suited for studying corporate purchasers' decision-making relative to women-owned enterprises.

1.4. Data Sources and Methodology

Four scenarios were designed to elicit responses on “Intention”, “Attitude”, “Subjective Norm”, “Perceived Behavioral Control”, “Behavioral Beliefs Composite”, “Normative Beliefs Composite”, and “Control Beliefs Composite”. The scenarios were designed based on a 2x2 between-subjects factorial design: the two factors were gender (male/female) of enterprise owner and purchaser’s familiarity/unfamiliarity with the enterprise. Subjects were randomly divided into four groups for the four scenarios. Survey questions based on the scenarios were then sent to the four groups of subjects via mail. Approval by the Institutional Review Board at Virginia Tech was obtained before the surveys were sent out (Appendix 1).

The dependent variable (Intention or intent to purchase from women-owned enterprises) and the immediate predictor variables (Attitude toward behavior, Subjective Norm, and Perceived Behavioral Control) were constructed based on each of the scenarios and following the guidelines by Ajzen (2002, 2006). Belief composites (Behavioral Beliefs Composite, Normative Beliefs Composite, and Control Beliefs Composite) were constructed based on the contents of interviews with purchasers. Commitment to Supplier Diversity Program was constructed using three 7-point items. Finally, structural equation modeling (AMOS) and regression analyses were used to determine the relationships among the constructs.

1.5. Dissertation Contributions

As an attempt to explore ways to overcome barriers to women-owned enterprises, the dissertation contributes to both women’s entrepreneurship literature and corporate social responsibility literature. Regarding difficulties women entrepreneurs and their enterprises face, the literature has mostly focused on problems (e.g., Brush et al., 2002; Coleman, 2002 & 2000;

Buttner & Rosen, 1988 & 1989). This study, instead, was oriented toward solutions. It pointed to an effective way to overcome the barriers of women-owned enterprises.

In addition to its contribution to women's entrepreneurship literature, the dissertation also adds to business ethics/corporate social responsibility (CSR) literature, particularly in the discussion of the integration between the economic and duty-aligned perspectives (e.g., Swanson, 1995; Trevino and Weaver, 1994). The CSR area has been characterized by a tension between the two perspectives. The economic orientation, drawing on classical and neo-classical economic theories, largely stresses economic consequences and compliance with social constraints for economic ends and pays little attention to extending individual entitlements. The duty-aligned orientation, on the other hand, inspired by both rights and justice theories, emphasizes the moral personhood of others (Boatright, 1993; Brady, 1985, De George, 1990; Donaldson, 1989; Freeman & Gilbert, 1988; Velasquez, 1982) and places emphasis on both negative duties (protection of individual entitlements) and positive duties (extension of individual entitlements). The study empirically demonstrated that the reconciliation of the two perspectives is attainable; namely, performing positive or affirmative duty to others can be an integral part of a business's core (economic) activities, at least under the circumstances described in the study.

The study therefore has important policy implications for corporations. By effectively implementing corporate supplier diversity programs, purchasers could be directed to modify their decision-making and purchase more from women-owned enterprises. In this way, the programs help women entrepreneurs and their enterprises to overcome the hurdles that they face.

1.6. Organization of the Dissertation

The dissertation is organized into six chapters. Chapter 2 starts by situating this study in existing literature. It then examines relevant theories that offer insight into why barriers to women-owned enterprises exist. In particular, it looks into social capital theory, expectation states theory, and attitude-behavior theories. Chapter 3 starts with an explanation of the theory of reasoned action and the theory of planned behavior. It then develops a set of hypotheses based on the theory of planned behavior regarding the impact of supplier diversity programs on decision-making. Chapter 4 explains in detail the research design and methodology. Chapter 5 describes the empirical results from SPSS and AMOS analyses. Finally, Chapter 6 discusses the implications of the study results.

CHAPTER 2

LITERATURE REVIEW

2.1. Overview

This chapter provides a background for the study of corporate purchasers' decision-making. It first identifies a gap in existing literature. Following that, it examines several theories that provide insights into the challenges that women-owned enterprises face. These theories include social capital theory, expectation states theory, and attitude-behavior theories.

2.2. Existing Research

Among the abundance of research on women's entrepreneurship, there has been relatively little research on barriers to women-owned enterprises (see Brush, 1992; Gatewood, et al., 2003). Among those on perceptions and attitudes of market players that deal with women entrepreneurs or women-owned enterprises, findings have been mixed. Some studies have reported that women entrepreneurs perceived discrimination (e.g., Read, 1994; Buttner & Rosen, 1992), while others uncovered evidence of discrimination (e.g., Buttner & Rosen, 1988; Fay & Williams, 1993; Coleman, 2000; Ennew & Read, 1988). Still others disputed the notion of discrimination with empirical evidence (e.g., Read 1994; Fabowale, Orser, & Riding, 1995; Haomes, Jr., Orser, & Riding, 1999).

In an empirical study of entrepreneurs in Norway, the U.K., and New Zealand, Kolvereid, Shane, and Westhead (1993) reported that women perceived greater hostility and difficulty in the start-up environment than men did. Read (1994) indicated that, in a comparative study of the experiences of male and female business owners in arranging finance with banks, 12.5% of

women business owners felt that they received unfair or discriminatory treatment from their bank because of their gender. Further, Buttner and Rosen (1992), in a study of male and female entrepreneurs' perceptions of the reasons for loan rejections, found that women tended to attribute loan rejections to gender bias more often than men did. These studies all indicate that women, to some degree, perceive some form of discrimination or hostility when dealing with some market players. Brophy (1989) observed that these difficulties could be attributed to attitudes held by representatives of male-dominated institutions.

While the above studies indicate perceived discrimination, other studies revealed concrete evidence of bias or discrimination. In exploring bank loan officers' perceptions of characteristics of successful entrepreneurs, Buttner and Rosen's (1988) found that bank loan officers attributed characteristics of successful entrepreneurs more often to men than to women. Fay and Williams (1993) also found that education played a more important role for women than for men in acquiring a loan. In another study, Coleman (2000) found that women obtained credit under less favorable terms: although women were given equal access to capital, they paid higher interest rates and were required more collateral than men (Riding and Swift, 1990). Finally, McKechnie, Ennew and Read (1988) reported discriminatory behaviors in the personal interactions between female business owners and bank managers.

In spite of reported perceived discrimination and ample empirical evidence of gender-based discrimination, as indicated above, some studies indicated otherwise. Read (1994) found that there were more similarities than differences between male and female entrepreneurs in their experiences of dealing with banks. Fabowale, Orser and Riding (1995) reported no difference in the rate of loan rejections or terms of credit between men and women business owners (Haines, Jr., Orser, & Riding, 1999).

Still other researchers discovered some factors to explain the uneven treatment by bank loan officers. Riding and Swift (1990) reported that women received less favorable financing conditions, but women-owned firms also tended to be younger and smaller than male-owned firms. This finding was corroborated by Coleman (2000, 2003), who pointed out that small size and limited prospects for growth and profitability placed many women-owned enterprises at a disadvantage in dealing with lenders.

In short, while the findings have been mixed, a conclusion can be drawn that some level of barriers does exist for women-owned enterprises. The study asks the following question: given the barriers that women-owned enterprises face, do policies that are designed to assist them work? In particular, for this study, do corporate supplier diversity programs help promote women-owned enterprises? Corporate purchasing takes place in the context of a corporation. The implementation of a corporate policy is likely to give rise to new opportunities for and constraints against corporate behavior (cf. Johns, 1991; Mowday & Sutton, 1993). The implementation of a supplier diversity program can bring purchasers opportunities to purchase from new suppliers; yet lack of experience with these suppliers and possibly lack of trust in the capabilities of these enterprises may also pose a constraint to their purchasing from these suppliers.

In addition, the implementation of a policy can provide new meaning for corporate behavior (cf. Johns, 2006). In this case, a supplier diversity program can add a new dimension of meaning to a professional purchaser's job with the belief that what he or she does can empower traditionally disadvantaged suppliers. The policy thus influences him/her at the cognitive level. This cognitive level of influence eventually can be translated into intention and action.

A corporation that is deeply committed to carrying out a policy can also make a given behavior an imperative. In other words, the policy becomes the will or dictates of the corporation, the violation of which may have negative consequences for an affected employee. If, for example, the corporation provides a quota for purchasers to buy supplies from women-owned enterprises, a corporate purchaser who does not fulfill this quota by the end of the year is unlikely to be rewarded for his/her inaction.

In short, a strongly advocated policy can transform and compel behavior in certain fashion. A well-intended, socially significant policy intrinsically injects meaning in the performer and extrinsically motivates behavior. A policy that does not provide obvious meaning can also compel the performer to conform in order to escape punishment or to obtain extrinsic reward.

Despite the desired effects of a soundly implemented diversity program, the degree of commitment to supplier diversity programs in reality varies widely (McLymont, 2004). While some companies are passionately implementing a supplier diversity program, others may have such a policy in place as a “public-relations, looking-good effort, as opposed to really looking for minorities and women as partners in their business” (McLymont, 2004).

Research on the effects of supplier diversity programs is limited. A major concern for corporate purchasers to purchase from minority-owned enterprises is finding qualified minority suppliers (Adu, 2005). Shah and Ram (2006) reported that some purchasers attributed government pressure as an important influence on how they approached supplier diversity. This study explores the impact of corporate supplier diversity programs on purchasers’ decision-making relative to women-owned enterprises.

The majority of studies on women's entrepreneurship have been conducted in the context of capital acquisition. Though capital acquisition plays an essential role in starting and growing a business, other factors are equally important for the success of women-owned enterprises. In addition to creditors and venture capitalists, women-owned enterprises also need to have customers, suppliers, employees, and so on. Only by understanding the difficulties women-owned enterprises face in different contexts can we get a more accurate picture of the nature of the barriers that they encounter. For this reason, I study corporate purchasers' decision-making relative to women-owned enterprises.

In the following part, I examine theories that offer insights into barriers to women-owned enterprises. First I present social capital theory. Then I describe expectation states theory. Finally I explain attitude-behavior theories, which will lead to the theory of planned behavior in the next chapter, the model I use for this study.

2.3. Social Capital Theory

Social capital as a construct is in its "emerging excitement" phase of the life cycle (Hirsch & Levin, 1999; Adler & Kwon, 2002). Social scientists often distinguish two forms of social capital: bridging and bonding (Adler & Kwon, 2002). The bridging form of capital focuses on resources that can be generated from a social network that ties a focal actor to other actors. It is "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (Bourdieu, 1985: 248). The bonding form of capital, in contrast, focuses on the cohesiveness of a collectivity (e.g., an organization, community, and nation) that facilitates the pursuit of collective

goals (Adler & Kwon, 2002). It is “the web of cooperative relationships between citizens that facilitate resolution of collective action problems” (Brehm & Rahn, 1997: 999).

In an effort to integrate the two forms of capital, Adler and Kwon provide the following definition of social capital:

Social capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor’s social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor (2002: p. 23).

Put differently, social capital originates from one’s social relations, which generate good will. Good will leads to such benefits as information about opportunities, influence over peers, and solidarity among colleagues.

Social capital is essential in all phases of the entrepreneurial cycle (Aldrich, 1999). Entrepreneurs utilize their social capital to gain such benefits as critical information about business opportunities (e.g., Ardichvili, Cardozo, and Ray, 2003; Davidsson and Honig, 2003), physical and financial capital (Aldrich and Zimmer, 1986; Zimmer and Aldrich, 1987; Birley, 1985), emotional support for risk taking (Bruderl and Preisendorfer, 1988) and persistence in the entrepreneurial endeavor (Gimeno et al., 1997; Hoang and Gimeno, 2002), and legitimacy and endorsement (Deeds et al., 1997; Stuart et al., 1999; Delmar and Shane, 2000).

Like any other enterprises, women-owned enterprises have networks and social capital to nurture their ventures, yet, their networks and social capital are often constrained in the marketplace, partly due to stereotypes and traditional role ascriptions. Men often tend to include mostly men in their professional networks, which precludes women from deriving the benefits from such networks. That may partly explain the difficulties women face in acquiring venture capital or angel capital (e.g., Brush et al., 2002) and the small amount of contracts Fortune 1000

corporations have granted to women-owned enterprises (Center for Women's Business Research, 2005).

As social capital is the nexus between an entrepreneurial firm and other economic actors in the marketplace for resource exchanges (Aldrich, 1999; Brush et al., 2002), the lack of connections with professionally important, male-dominated networks in the marketplace could constitute a major barrier to the operations of women-owned enterprises. In fact, social capital is a source of competitive advantage and the lack of it can lead to firm dissolution (e.g., Pennings et al., 1998).

2.4. Expectation States Theory

Expectation states theory initially seeks to explain the emergence and maintenance of inequitable structures in collectively oriented task settings. It has now been expanded to explain inequitable structures in socially important, task-oriented, but not necessarily collectively oriented settings (Correll & Ridgeway, 2003). In a task setting, individuals, often unconsciously, have differential performance expectations for members who perform the task based on status characteristics, such as gender, race, and education. For example, an educated person is generally believed to be more competent than a less educated person is. Or, a male attorney is generally believed to be more competent than a female attorney.

Expectation states theorists distinguish two kinds of status characteristics: specific and diffuse. A specific status characteristic such as computer expertise often influences performance expectations in limited, task-specific situations. A diffuse status characteristic, such as gender, race, and education, in contrast, carries performance expectations across a wide range of settings.

The linking of status characteristics to one's competence and worthiness can be compared to group stereotyping. The difference is that those disadvantaged by a status belief also accept it as a social fact that the other group is more competent and status worthy (Jost & Burgess, 2000; Ridgeway, Boyle, Kuipers, & Robinson, 1998; Ridgeway & Erickson, 2000), while group stereotypes, in its general sense, tend to disparage the other group in favor of one's own (Brewer & Brown, 1998; Mullen, Brown, & Smith, 1992; Tajfel, 1978).

Status beliefs often influence behavior in a self-fulfilling fashion so that those disadvantaged by the beliefs under-perform those who are advantaged. Steele (1997) showed that when a test was characterized as diagnostic of ability, African American college students performed more poorly than white counterparts. However, when the same test was not described as diagnostic of ability, the two groups performed equally. In an experimental study, Ridgeway, Johnson, and Diekema (1994) found that group members were resistant to the meritocratic leader (highly skilled at the task, but disadvantaged by education) and more willing to comply with the status advantaged leader (advantaged by age and education).

Expectation states theory provides fine insight into the barriers to women-owned enterprises in the marketplace. In interactions with other market players, women, generally speaking, as a disadvantaged status group, are judged by both male and possibly female market players less favorably than men in terms of competence (see Buttner and Rosen, 1988). This general performance expectation regarding women can spill over to their enterprises. Ultimately, women/women-owned enterprises receive much less venture capital from venture capitalists and many fewer contracts from corporate buyers than men/men-owned enterprises (Center for Women's Business Research, 2005).

2.5. Attitude and Behavior

Attitudes have been extensively studied in social psychology. Attitudes can predict related behavior (e.g., Ajzen and Fishbein, 1977; Lord, Lepper, & Mackie, 1984). There are different conceptualizations of attitudes. In this section, for the purpose of this study, I utilize the belief-based model of attitude. I shall first explain the conception of attitude as a trilogy of cognition, affect, and conation (Fishbein & Ajzen, 1975, P. 11). Then I shall explain the link between attitude and behavior.

2.5.1. A Definition of Attitude

Attitude can be defined as a person's learned disposition to react, in a consistently favorable or unfavorable manner, to an object, behavior, person, institution, event, or issue (henceforth attitude object or object for brevity) (Fishbein & Ajzen, 1975, p.6). The attitudinal reactions to an object can be placed in three related, yet conceptually distinct categories: cognition, affect, and conation (see e.g., Allport, 1954; Hilgard, 1980, and McGuire, 1985).

Among the three components, affect can be said to be the distinguishing feature of attitude (see e.g., Thurston, 1931; Bem 1970; Fishbein & Ajzen, 1975). Simply put, attitude is mostly expressed as degree of favorableness or unfavorableness toward an attitude object: e.g., I love organic food, or, I don't like cold weather.

Whereas the affect dimension of attitude refers to a person's feelings toward an object, cognition, mostly expressed as belief, constitutes the basis of such feelings. Belief denotes the judgment of an attitude object based on the information an individual has about it. It associates an attitude object with some attribute. For example, the belief "Organic food is healthy"

associates “organic food” with the attribute “healthy”. This belief, in turn, becomes the source of an individual’s feelings (affect) for the organic food.

Conation, the third component of attitude, represents behavioral intentions relative to the attitude object. Just as affect mostly derives from belief, conation is often built on affect. If, for instance, one likes organic food (affect), s/he is likely to want to buy organic food (conation).

2.5.2. The Link between Attitude and Behavior

The sequential chain of cognition (belief), affect, and intention (conation), eventually results in behavior, all things equal. Figure 2.1 provides a schema of the relations among belief, affect, intention, and actual behavior. The schema indicates that belief forms the bedrock of affect.

Once a belief is formed toward an attitude object owing to various experiences with it, stable

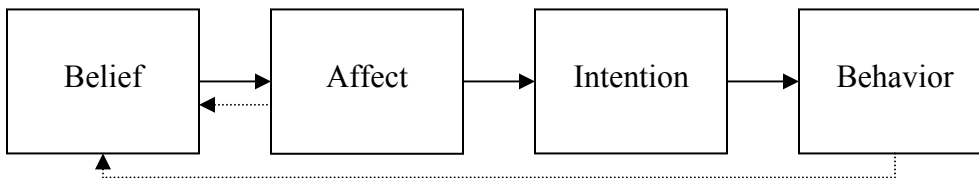


Figure 2.1 Schematic Presentation of Relations among Belief, Affect, Intention, and Behavior (Fishbein and Ajzen, 1975)

(Adapted with permission from the authors)

attitude can be evoked in the actual or symbolic presence of the object. This attitude, or affect, in turn, predisposes an individual with behavioral intentions relative to the attitude object. Since behaviors often follow from intentions, attitude can eventually result in actual behavior.

This unidirectional influence of attitude on behavior, however, does not preclude a feedback loop. For instance, once affect about an attitude object is formed based on belief, the

affect could, in turn, predispose a cognitive response to it. Further, actual behavior, with added experiences with the attitude object, can modify the existing belief about the attitude object.

We may apply the model to corporate purchasers' decisions to purchase from women-owned enterprises. For example, if corporate purchasers believe that women-owned enterprises provide goods and services that are comparable to or even better than those of their established suppliers, they may have a favorable attitude toward women-owned enterprises. The positive attitude in turn may influence their intention to purchase from women-owned enterprises; and the intention eventually will result in behavior. If, on the other hand, corporate purchasers believe that women-owned enterprises are less competent than their traditional suppliers, they may feel less favorable toward these enterprises. The relative unfavorable attitude will lead to their decision not to purchase from women-owned enterprises. The few contracts between corporate purchasers and women-owned enterprises may then be directly explained by corporate purchasers' negative intention and ultimately by their negative beliefs about women-owned enterprises.

2.5.3 Attitude as a Predictor of Behavior: Some Methodological Considerations

The attitude-behavior model, though conceptually appealing, has not gained expected empirical support. In a review of attitude-behavior studies, Wicker (1969) stated, "Taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than attitudes will be closely related to action" (p. 65). Wicker concluded, "The present review provides little evidence to support the postulated existence of stable, underlying attitudes within the individual which influence both his verbal expressions and his actions" (p. 75).

Fishbein (1980) attributed the failures of intentions to predict behavior to inadequate methodological measures rather than the ineffectiveness of the intention-behavior relationship. Frequently, investigators did not distinguish between single behaviors, behavioral categories, and behavioral outcomes. Consequently, a lack of correspondence between the intentional measure and the behavioral criterion often results. For instance, dieting is a behavioral category consisting of a range of single behaviors that may vary from person to person: e.g., eating less fat, taking less sugar by drinking less coffee, exercising more. Thus, it would be inappropriate to match intention to lose weight with an unrepresentative single behavior. Further, eventual loss of weight or improved health is an outcome of the behavior rather than the behavior itself, and as such should not be used as measures of behavior.

Further, as Fishbein (1980) pointed out, every behavior stands for a human decision involving four elements: the *action* itself, the *target* of the action, the *context* of the action, and the *time* of the action. Thus, there is a distinction between the general intention to lose weight, for example, and intention to lose weight in the next month. To confuse a general intention with a specific intention would not produce desired results.

In short, according to Fishbein (1980), intentions do predict and explain behavior (Ajzen & Fishbein, 1977). When an investigator explores an intention-behavior relationship, it is essential to make sure that the intentional measure and the behavioral criterion match and avoid the confusion of single behaviors, behavioral categories, and behavioral outcomes. In deciding on a behavioral criterion, it is necessary to bear in mind that a behavior is a human decision to act in a given spatial and temporal context.

2.6. Summary and Conclusions

In this chapter, I delineated the issues faced by women-owned enterprises, as evidenced by existing literature: women-owned enterprises sometimes face unfavorable treatment in the marketplace. The unfavorable treatment may originate in part from traditional gender stereotypes and in part from the attributes of these enterprises such as small size and brief history. Against this backdrop, the study intends to examine the effects of corporate supplier diversity programs on purchasers' decision-making relative to women-owned enterprises with the aim of finding ways to ease the barriers.

With regard to barriers that potentially arise from gender stereotypes, I then provided three theoretical frameworks that offer insights into the issue. Social capital theory explains the benefits that social networks offer. With professional men traditionally including mostly men in their social and professional networks, women and their enterprises can be deprived of the benefits and opportunities offered by those networks. Thus, the absence of the right social network constitutes one hurdle for women-owned enterprises.

The expectation states theory, on the other hand, provides insight into social members' unconscious, inequitable expectations and judgments of individuals' performance based on such status characteristics as gender, race, and education. In this sense, women, as a disadvantaged status group, are generally less favorably received in the marketplace, which has traditionally been dominated by men. This social schema constitutes another hurdle to women-owned enterprises.

Finally, related to expectation states theory, attitude theories posit that one's attitudes predict behavior. Whereas expectation states theory points to the potential unfavorable attitude toward women-owned enterprises, attitude theories point out that such unfavorable attitude will

negatively influence behavior related to women-owned enterprises. Hence, attitude is the ultimate hurdle for women and their enterprises.

The link between attitude and behavior is a simplistic representation of the reality. In practice, one's decisions and ultimate behaviors are influenced by more complex factors. For this reason, in the next chapter, I explain two increasingly sophisticated attitude-behavior models: the theory of reasoned action and the theory of planned behavior, from which I then develop the hypotheses for the study.

CHAPTER 3

THEORY OF REASONED ACTION, THEORY OF PLANNED BEHAVIOR, AND HYPOTHESES DEVELOPMENT

3.1. Overview

This chapter first describes two related attitude theories: theory of reasoned action and theory of planned behavior. Following that, the chapter develops hypotheses regarding the impact of corporate supplier diversity programs on purchasers' intention to purchase from women-owned enterprises based on the two theories.

3.2. Theory of Reasoned Action

The theory of reasoned action (Fishbein & Ajzen, 1975; Fishbein, 1980) is a model that explains human behavior based on both one's own attitude toward the behavior and significant others' attitudes toward the behavior (Figure 3.1). Compared with the schematic representation of attitude and behavior relationship, as represented in Figure 2.2, the theory of reasoned action is a more realistic representation. This is because the attitude object in the theory is focused only on behavior rather than anything related to the behavior, e.g., the agent of the behavior. In other words, the theory says that a person performs certain behavior because he likes performing the behavior rather than because he likes a person or an object, although liking a person or object may also indirectly influence one's performing the behavior. Further, the theory takes into account the influence of social pressures on behavior as well.

More specifically, according to the theory of reasoned action, human intentions to act arise from two factors: Attitude toward the behavior and Subjective Norm. Attitude toward the

behavior suggests an individual's favorable or unfavorable evaluation of performing the behavior, such as a person's approval of drinking tea or distaste for smoking. Subjective Norm, on the other hand, reflects an individual's perceived social pressure on him/her to perform the behavior. For example, a high school student may feel pressured to go to college because his friends are all going to college and because his parents strongly urge her to do so. In short, an individual will intend to perform a behavior if s/he thinks favorably of performing the behavior (attitude toward behavior) and if s/he perceives significant others favor the behavior as well (Subjective Norm). On the other hand, if both factors are lacking, s/he is unlikely to hold such an intention. Of course, the two factors may not play equal roles. Under some circumstances, an individual's own attitude toward the behavior may play a more significant role in influencing his or her intention to act; while under other circumstances, the perceived social pressure on an individual may outdo that person's attitude toward it. However, their combined strength eventually influences one's intention to behave.

Intention is eventually explained by beliefs or beliefs composites. An individual's belief that behavior leads to certain outcomes underlies his/her attitude toward the behavior. This belief, meanwhile, is subject to his or her evaluation of the outcomes of the behavior. For instance, one's belief that taking multivitamins is generally beneficial to health can be moderated by his/her being now in very good shape. The beliefs and the evaluations of the outcomes combined form Behavioral Beliefs Composite, which influence Attitude, for example, toward taking vitamins. On the other hand, an individual's belief that important others think s/he should perform the behavior underlies Subjective Norm. The belief can also be strengthened or attenuated by his or her motivation to comply with the pressures. The Normative Beliefs

Composite therefore is a combination of one's beliefs about expectations from significant individuals or groups and one's motivation to comply with these individuals or groups.

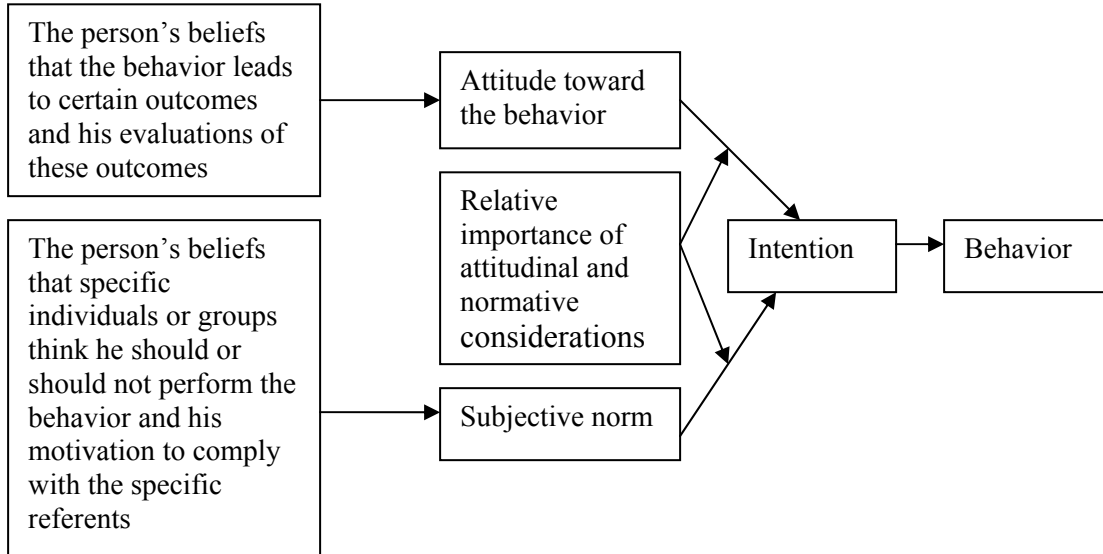


Figure 3.1 Theory of Reasoned Action (Fishbein, 1980)

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The theory of reasoned action predicts that behavior arises largely from a person's intention to perform that behavior, which can ultimately be explained by one's beliefs toward the behavior and one's beliefs of social pressures on it. This theory does not deny other variables that may have an influence on behavior. It maintains that all other variables, described as external variables, only indirectly influence behavior, by influencing personal and normative beliefs about the behavior (See Figure 3.2). These external variables include demographic variables (e.g., age, sex, occupation, socio-economic status, religion, education, and race), personality traits (e.g., intra-extraversion, neuroticism, and dominance), and attitude toward the targets (e.g., attitude toward people, and attitude toward institutions).

The theory of reasoned action is built on two assumptions: human rationality in decision-making and volitional control of behavior. Human beings come to rational decisions to act by basing their decisions on the information available to them. Further, human behavior is under volitional control and a behavior mostly results from a decision or resolve to act. Yet, as we shall see in the next section, this assumption can be flawed.

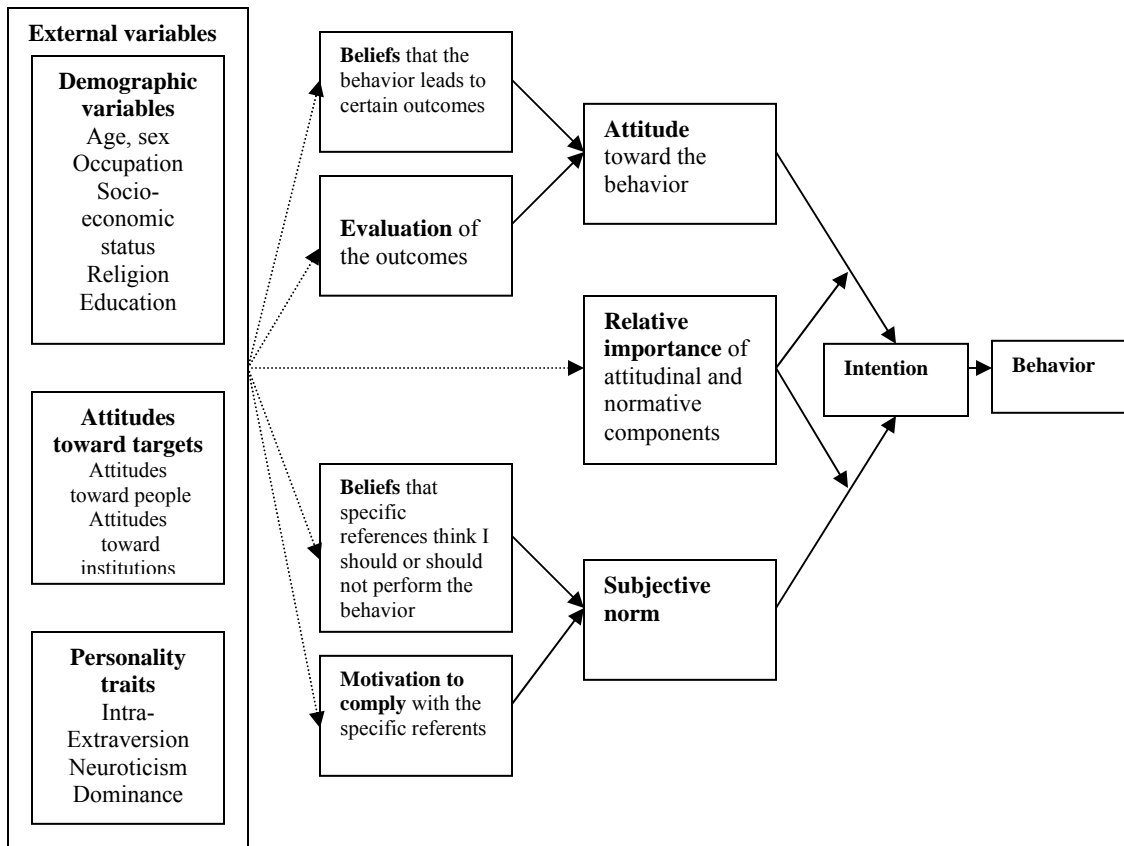


Figure 3.2 External Variables as Indirect Effects in Theory of Reasoned Action

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3.3. Theory of Planned Behavior

The central factor of the theory of reasoned action is one's intention to perform a given behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Intention denotes motivation: the stronger intention one holds, the more likely one will perform a behavior. Realizing the limitations of the theory of reasoned action in explaining behaviors that are often beyond one's volitional control, Ajzen (1985, 1987, 1991), in his theory of planned behavior, states that human behaviors often result from a combination of intention, or volition, and perceived behavioral control (Figure 3.3).

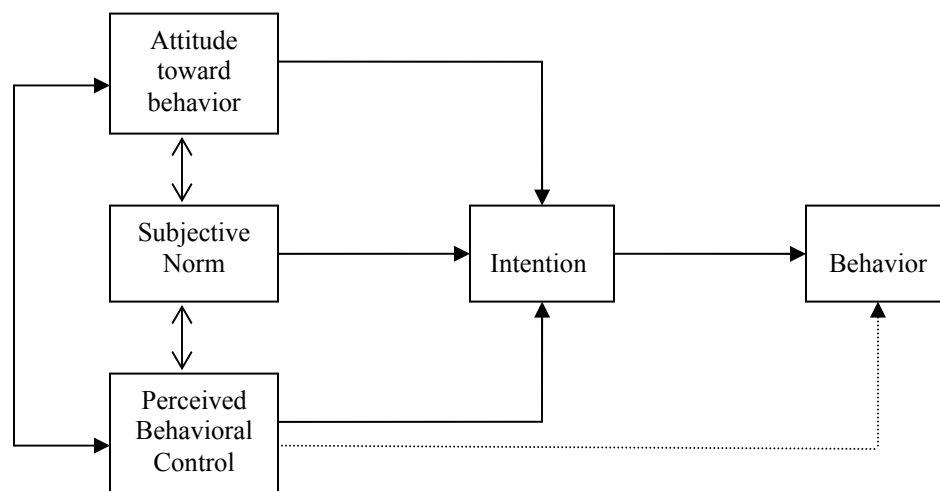


Figure 3.3 Theory of Planned Behavior (Ajzen, 1991)
(Reproduced with permission from the publisher)

Though intention, to a large extent, directs us to what we want to do, our perceived behavioral control - our perception of how easily we could perform the behavior of interest - also influences our intentions and determines whether we would eventually carry out the behavior. For instance, a child may be highly motivated to receive a college education when he grows up; and his parents may also wish that he could go to college. However, his circumstances (e.g., poverty, poor educational system, need to support family) may prevent him from receiving a proper primary and secondary education. Eventually, he gives up the idea of going to college

altogether because he does not see a chance of passing the entrance examinations. The example illustrates that motivations can be attenuated by perceived lack of behavioral control, which ultimately can lead to inaction.

Perceived Behavioral Control thus either heightens or diminishes one's motivation to perform a given behavior; it also directly influences one's actual carrying out of the behavior. Just as Attitude is further predicted by Behavioral Beliefs Composite and Subjective Norm predicted by Normative Beliefs Composite, Perceived Behavioral Control is also further predicted by the Control Beliefs Composite, a combination of control beliefs - about the necessary resources and opportunities that one believes one possesses for the behavior (Ajzen, 1991, p. 196) - and control power. The Control Beliefs Composite determines whether an individual thinks the behavior is easy or difficult. The contribution of the theory of planned behavior henceforth lies in its inclusion of Perceived Behavioral Control in the prediction and explanation of both intention and behavior.

3.4. Hypotheses development

Based on the theory of planned behavior, in this section, I develop hypotheses about the impact of Commitment to Supplier Diversity Program, first on the beliefs composites, and finally on Intention to purchase from women-owned enterprises.

In the theory of reasoned action, Fishbein and Ajzen (1980) (Figure 3.2) categorize any other variables that are not included in the model as external variables that influence intention and behavior indirectly through beliefs. Treating "Commitment to Supplier Diversity Program" as an external variable, for this study, I examine its influence on the three sets of beliefs composites (see Figure 3.3)—Behavioral Beliefs Composite, Normative Beliefs Composite, and

Control Beliefs Composite—and how it eventually influences corporate purchasers’ decision to purchase from women-owned enterprises.

Strictly speaking, Commitment to Diversity Program is not an external variable in the sense intended by Fishbein and Ajzen (1980). The external variables in Fishbein and Ajzen’s theory of reasoned action refer to those related in various ways to the performer of a given behavior, including his/her demographic characteristics, attitude toward targets, and personality traits (see Figure 3.2). Yet, an organizational setting can shape one’s behavior as much as one’s own characteristics do (cf. Johns, 2006; Mowday and Sutton, 1993). Hence, I use “Commitment to Supplier Diversity Program” as an external variable to the model of planned behavior (Figure 3.4).

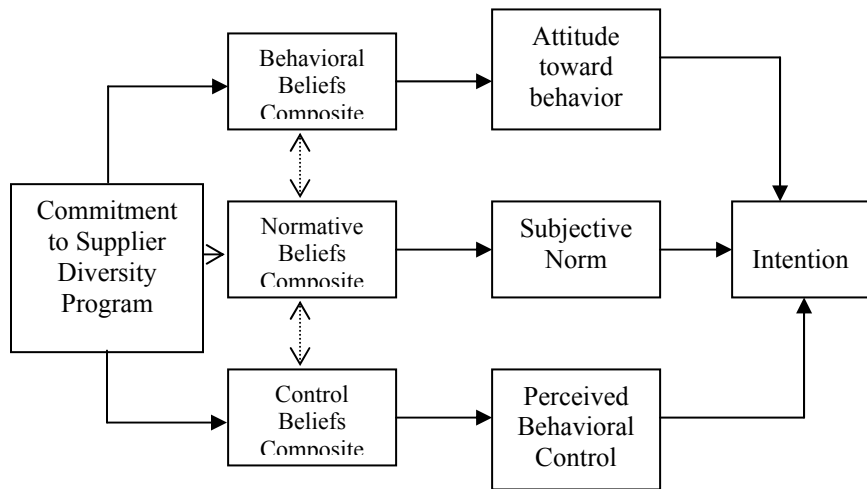


Figure 3.4 Commitment to Supplier Diversity Program as an External variable to the theory of planned behavior

An organizational context can provide meaning to what we do (Johns, 2006). A quality supplier diversity program injects meaning to what a purchaser does, giving him/her a sense of

helpfulness or empowerment to the traditionally less privileged business partners. Hence, a well-intended, socially significant diversity program can influence a purchaser at the cognitive or belief level. On the other hand, an organization that is oblivious to social problems may not raise purchasers to such a cognitive level. With traditional beliefs and stereotypes about minority suppliers, it is hard for purchasers from organizations driven by purely economic incentives to be aware of the benefits of purchasing from women-owned enterprises.

Hypothesis 1. Behavioral Beliefs Composite regarding purchasing from women-owned enterprises is a positive function of a corporation's Commitment to Supplier Diversity Program.

A strongly implemented policy can also become a mandate. For instance, if a corporate policy stipulates that 20% of the supplies one purchases need to come from minority-owned businesses, a purchaser who does not fulfill the quota is unlikely to be rewarded for his/her lack of performance in the area. The policy hence becomes a criterion for supervisors and even peers to evaluate or judge one's performance. On the other hand, if one fulfills and even exceeds the quota, he/she is likely to be thought of positively by his supervisors and peers. In short, a firm's policy can be translated into supervisors' and peers' expectations of one's performance.

Given also the meaning that a supplier diversity program brings, supervisors and peers may have negative thoughts for those who do not fulfill the quota. For instance, peers may think that a purchaser who does not fulfill the required quota to purchase from women-owned enterprises is unsympathetic to minority-owned businesses. In this sense, a policy can be translated into a social expectation.

In summary, corporate commitment to a policy directs participants' expectation of an individual's behavior in certain fashion. Not complying with a policy can raise significant referents' doubts about one's competence or values.

Hypothesis 2. Normative Beliefs Composite regarding purchasing from women-owned enterprises is a positive function of a corporation's Commitment to Supplier Diversity Program.

Further, an organizational context can facilitate opportunities and pose constraints for behavior (cf. Johns, 2006; Johns, 1991; Mowday & Sutton, 1993). The implementation of a supplier diversity program opens new opportunities for purchasers to buy supplies from minority-owned enterprises. A well-crafted policy may be accompanied by organizational efforts to bring purchasers in contact with minority suppliers and provide financial incentives for purchasing from them. In this sense, the organization provides necessary resources and creates opportunities for purchasers to perform the behavior. Although the policy may also pose some challenges to purchasers as they are asked to purchase from non-traditional and unfamiliar suppliers, the support of the organization facilitates the behavior.

Hypothesis 3. Control Beliefs Composite regarding purchasing from women-owned enterprises is a positive function of a corporation's Commitment to Supplier Diversity Program.

The theory of planned behavior, consistent with Fishbein and Ajzen's (1975) theory of reasoned action, posits that Attitude develops from salient behavioral beliefs. These beliefs, in turn, are moderated by an individual's evaluation of the importance of these beliefs. Although empirical research has given support for the relationship between the Behavioral Beliefs Composite and Attitude (e.g., Fishbein & Ajzen, 1981; Godin & Shephard, 1987), the magnitude of the relationship has sometimes been poor, with Behavioral Beliefs Composite explaining only about 10-36% of the variance in standard attitude measures (Ajzen, 1991). In a recent study on attitude toward internet purchasing (George, 2002), Behavioral Beliefs Composite explained about 16% of the variance. Though the magnitude of relationship is relatively small for various reasons, Behavioral Beliefs Composite nevertheless predicts Attitude to some extent.

Hypothesis 4. Commitment to Supplier Diversity Program will positively influence corporate purchasers' Attitude toward purchasing from women-owned enterprises through its direct influence on the Behavioral Beliefs Composite.

The theory of planned behavior also posits that Subjective Norm is predicted by Normative Beliefs Composite, which consists of a combination of normative beliefs - the individual's perceptions that significant referent individuals or groups approve or disapprove of performing a given behavior - and an individual's motivation to comply with the beliefs. The strength of each normative belief is multiplied by the person's motivation to comply with the referent in question. The magnitude of the relationship between Normative Beliefs Composite and Subjective Norm has been shown to be stronger than that between Behavioral Beliefs

Composite and Attitude and is usually in the range between 0.40 and 0.80 (e.g., Ajzen & Madden, 1986; Fishbein & Ajzen, 1981).

In corporations, significant referents, such as supervisors and colleagues, are likely to exert varying degrees of influence on an employee's behavior and the employee is likely to comply with at least some of the expectations of significant referents in an organizational setting.

Hypothesis 5. Commitment to Supplier Diversity Program will positively influence Subjective Norm about purchasing from women-owned enterprises through its direct influence on the Normative Beliefs Composite.

Finally, in a similar manner, the theory of planned behavior posits that the Control Beliefs Composite predicts Perceived Behavioral Control, which consists of a combination of control belief and perceived power of a particular control factor. For the theory of planned behavior, this relationship probably has been least examined (Ajzen, 1991). In a study on leisure, Ajzen and Driver (1992) found empirical support for the relationship. Based on the theory, we hypothesize that:

Hypothesis 6. Commitment to Supplier Diversity Program will positively influence Perceived Behavioral Control to purchase from women-owned enterprises through its direct influence on the Control Beliefs Composite.

In an extensive meta-analysis of 87 separate studies with a total sample of 12,624, Sheppard et al. (1988) reported that a frequency-weighted average correlation for the Attitude + Subjective Norm –Intention relationship was 0.66 ($p < 0.001$).

In a review of 16 empirical studies, Ajzen (1991) found that the addition of perceived behavioral control considerably improved the prediction of intentions - the regression coefficients of perceived behavioral control were significant in all 16 studies. With regard to Attitude in these studies, with one exception, it contributed significantly to Intention. However, the predictive power of Subjective Norm remained uncertain: more than half of the regression coefficients were insignificant. This suggests that the predictive power of Subjective Norm may be moderated by such factors as personalities in some situations. Recent studies utilizing the theory of planned behavior have also found general empirical support for the theory (e.g., Chan et al., 2001; Krueger, Jr. et al., 2000), though Krueger, Jr. et al. (2000) also found all immediate predictors but Subjective Norm to be significant predictors of Intention.

Although empirical results on the predictive power of Subjective Norm have been mixed, for this study, I propose that Subjective Norm positively influences Intention to purchase from women-owned enterprises. Unlike behaviors that largely result from individual will or choice, such as losing weight and not getting drunk, where Subjective Norm can play a dubious role, corporate purchasing is carried out in the context of a corporation, which can exert considerable influence on individual behavior through policies, culture, and supervision (Johns, 2006).

Therefore, I propose:

Hypothesis 7. Commitment to Supplier Diversity Program ultimately positively influences corporate purchasers' Intention to purchase from women-owned

enterprises through its indirect influence on (7.1) Attitude toward behavior, (7.2) Subjective Norm, and (7.3) Perceived Behavioral Control.

3.5. Summary and Conclusions

In this chapter, I described in detail the theory of reasoned action and the theory of planned behavior. Both predict intention and behavior. The theory of reasoned action predicts behavior that is mostly under volitional control. The theory of planned behavior advances the theory of reasoned action by placing behavior in the context of available resources and opportunities. Given the complex and unpredictable nature of the world, the theory of planned behavior is a more realistic representation of behavior in many situations. Based on the theory of planned behavior and the theory of reasoned action, I developed hypotheses concerning the impact of Commitment to Supplier Diversity Program on corporate purchasers' decision to purchase from women-owned enterprises. I hypothesized that Commitment to Supplier Diversity Program could influence corporate purchasers' decision to purchase from women-owned enterprises by first directly influencing Behavioral Beliefs Composite, Normative Beliefs Composite, and Control Beliefs Composite, and then by indirectly influencing Attitude, Subjective Norm, and Perceived Behavioral Control. The next chapter will delineate the execution of the study.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1. Overview

In this chapter, I explain the method of the study. More specifically, I describe the research design, measures of the variables used in the study, the sample for the study, and the method of data collection.

4.2. Research Design

The research design consisted of a 2x2 scenario-based, cross-sectional, factorial design. The two factors were *gender* (male/female) of the small business owner and the *familiarity/unfamiliarity* of the subject (a corporate purchaser) with the business. The four scenarios are presented below. Scenarios 1 and 2 consisted of a female-owned business with which the purchaser is unfamiliar (scenario 1) or familiar (scenario 2). Scenarios 3 and 4 consisted of a male-owned business with which the purchaser is unfamiliar (scenario 3) or familiar (scenario 4). Respondents were asked to first read a scenario and then answer the survey questions based on the scenario.

Scenario 1. After planning for it for years, Jennifer Lee finally started her business, Millennium Computing, which manufactures and sells a new generation of hand-held computing devices. Married and a mother of two, aged 4 and 2, Jennifer has about 8 years of experience working for a high-tech company. She has now hired about 10 employees and will hire more as business expands. She has a manufacturing facility located in the vicinity of her office. Jennifer's targeted customers are corporations. Jennifer is aware that there are other competitors in the market and that her products are comparable in terms of price and quality.

Suppose your company has a need for hand-held computing devices and you are responsible for choosing a supplier within the next six months and you have the right technological expertise to do so. Suppose also that you have never heard of Millennium Computing or Jennifer Lee and you do not know other suppliers, either. Now an employee from Millennium Computing approaches you to sell their products.

Scenario 2. (The background information is the same as scenario 1). Suppose your company has a need for hand-held computing devices and you are responsible for choosing a supplier within the next six months and you have the right technological expertise to do so. Suppose you got to know a few suppliers, including Jennifer Lee, her company Millennium Computing, and its products at a trade show. Now an employee from her company approaches you to sell their products.

Scenario 3. After planning for it for years, Steve Ward finally started his business, Millennium Computing, which manufactures and sells a new generation of hand-held computing devices. Married and a father of two, aged 4 and 2, Steve has got about 8 years of experience working for a high-tech company. He has now hired about 10 employees and will hire more as business expands. He has a manufacturing facility located in the vicinity of his office. Steve's targeted customers are corporations. Steve is aware that there are other competitors in the market and that his products are comparable in terms of price and quality.

Suppose your company has a need for hand-held computing devices and you are responsible for choosing a supplier within the next six months and you have the right technological expertise to do so. Suppose also that you have never heard of Millennium Computing or Steve Ward and you do not know other suppliers, either. Now an employee from Millennium Computing approaches you to sell their products.

Scenario 4. (The background information is the same as scenario 3). Suppose your company has a need for hand-held computing devices and you are responsible for choosing a supplier within the next six months and you have the right technological expertise to do so. Suppose you got to know a few suppliers, including Steve Ward, his company Millennium Computing, and its products at a trade show. Now an employee from his company approaches you to sell their products.

4.3. Measures

Measures of the constructs in the theory of planned behavior were designed based on the scenarios and according to Ajzen's (2002 & 2006) instructions on questionnaire designs for the theory of planned behavior. "Commitment to Supplier Diversity Program" was also constructed for this study. The following describes the measures.

4.3.1. Dependent variable

Intention to purchase from women-owned enterprises is the dependent variable of this study. It consists of three 7-point, semantic differential items:

- 1. Given that your company has a need for hand-held computing devices, how likely are you to order this product from Millennium?**

Very unlikely							Very likely
1	2	3	4	5	6	7	

- 2. There is a _____ chance that I would buy hand-held computing devices from Millennium, if my company has a need for such a product.**

Very remote						Very good
1	2	3	4	5	6	7

- 3. I would not want to purchase products from Millennium Computing.**

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

4.3.2 Predictor variables

Based on the full model of planned behavior, Attitude toward behavior, Subjective Norm, and Perceived Behavioral Control are immediate predictor variables of Intention. Attitude toward purchasing was measured by two 7-point, semantic differential items. The first item was intended to elicit three responses of the instrumental dimension of Attitude:

- 1. I feel that purchasing hand-held computing devices from Millennium Computing will be _____.**

extremely detrimental						extremely beneficial
1	2	3	4	5	6	7
totally worthless						extremely worthwhile
1	2	3	4	5	6	7
extremely bad						extremely good
1	2	3	4	5	6	7

The second item was intended to elicit responses of the affective dimension of Attitude:

- 2. I am _____ about purchasing from Millennium Computing.**

extremely uninterested						extremely interested
1	2	3	4	5	6	7

For Subjective Norm, four 7-point rating scales were used to measure the construct in this situation:

1. Are there any individuals or groups who approve of your purchasing from women/men-owned enterprises?
2. Are there any individuals who disapprove of your purchasing from women/men-owned enterprises?
3. Are there any other individuals or groups who come to your mind when you think about purchasing from women/men-owned enterprises?
4. What are the advantages and disadvantages of purchasing from a familiar/unfamiliar enterprise?

As a result, normative beliefs were constructed using the following three bipolar scoring items (see Ajzen, 2002; 2006):

1. **My boss would _____ of purchasing hand-held computing devices or related products from a company such Millennium Computing.**
 absolutely disapprove (-3 -2 -1 0 1 2 3) absolutely approve
2. **My colleagues at work would think that I _____ purchase hand-held computing devices or related products from a company such as Millennium Computing.**
 absolutely should not (-3 -2 -1 0 1 2 3) absolutely should
3. **My fellow professionals in the same industry would expect me to purchase hand-held computing devices or related products from a company such as Millennium Computing.**
 Extremely Unlikely (-3 -2 -1 0 1 2 3) Extremely Likely

And the *motivation to comply* with each of the referent was measured using a unipolar scoring item (see Ajzen, 2002; 2006):

1. **When it comes to making purchasing decisions, how much do you care whether your boss approves or disapproves of your decisions?**
 Extremely unconcerned (1 2 3 4 5 6 7) Extremely concerned
2. **When it comes to making purchasing decisions, how much do you care what your colleagues think you should do?**

Due to the large number of constructs (eight in total), the actual survey questions were reduced, including two items for Intention and its immediate predictor variables, namely Attitude, Subjective Norm, and Perceived Behavioral Control. Appendix 3 provides a list of the construct items that were actually used in the survey.

4.4. Sample

Upon request, the Institute for Supply Management provided a cross-sectional random subject pool of 3,000 corporate purchasing personnel from its membership list, which consists of more than 40,000 domestic and international supply management professionals. As the study context is U.S. corporate purchasing professionals, subjects who do not strictly meet this criterion, e.g., corporate purchasing personnel from other countries, purchasing researchers, salespeople, and those whose positions were unidentified, were removed from the subject pool. Consequently, 2,600 purchasers were contacted for the study.

The 2,600 subjects represented purchasing personnel of various ranks from 78 industries. Among them, 1,092 (42%) were female and 1,508 (58%) male. Given the diversity of the industries and the gender distribution, the sample constituted a good representation of the population of corporate purchasing personnel in the U.S.

4.5. Data Collection

Data collection comprised the following procedures. First, approval of the protocol from the University was obtained. The study was granted IRB exempt approval by Virginia Tech's Office of Research Compliance (see Appendix 1²). Second, a pilot study was conducted to detect any

² The IRB at Virginia Tech requires that the principal investigator be a faculty member. Hence, the principal investigator listed on the letter is Dr. Richard Wokutch, the dissertation committee chair.

potential blind spots in the design or confusing wording in the research design and to gauge a response rate and resource requirements. Finally, building on the pilot study, the full study was conducted. In the following section, I first explain the pilot study; after that, I describe the full study and present the response rate.

4.5.1. The Pilot Study

More specifically, a pilot study was conducted for the following major purposes:

1. To detect possible confusion and errors in the wording of the questionnaire;
2. To improve the research design based on detected errors;
3. To gauge the response rate within a given period of time;
4. To estimate resource requirements; and
5. To pre-test the hypotheses.

One hundred subjects were randomly selected from the sample pool for the pilot study. Each subject was sent a scenario-based survey, accompanied by an IRB-approved cover letter (see Appendix 2³). In accordance with the general gender distribution in the sample, 60 surveys were sent to male respondents and 40 to female respondents. The respondents were then evenly divided among the four different scenarios (i.e., 15 males and 10 females per scenario).

The pilot study obtained a response rate of 17%. Of the 17 returned surveys, 16 were usable and 1 was not thoroughly completed. The general information related to the 16 respondents who completed their surveys is summarized in Table 4.1.

The participants were, generally speaking, experienced purchasers, averaging 12 years of purchasing experience with their current employers and 17 years of experience with their current

³ Again, the cover letter is written in accordance with the IRB requirement that a faculty member be the principal investigator.

industries (see Table 4.1). The employers with diversity programs were fewer (43.75%) than those without diversity programs (56.25%); and the employers that belonged to Fortune 1000 companies constituted 37.50%. In terms of participation in the study, male respondents were, to some extent, over-represented (68.75% versus 52% in the subject pool) and female respondents somewhat under-represented (31.25% versus 48% in the sample). Additionally, with regard to race, white participants were over-represented.

Number of Respondents	Male	Female	Average age of respondents	Race	Average years with employer	Average years with industry	Employer with diversity programs	Employer belonging to Fortune 1000 company
16	11	5	50	All	12	17	7	6
	(68.75%)	(31.25%)	(range: 38-65)	white			(43.75%)	(37.50%)

Table 4.1: Pilot Study Respondent Information

Correlation analyses revealed that most predictor variables had a positive correlation with Intention (Table 4.2). Among the six predictor variables in the original planned behavior model, four were significantly related to Intention. These predictors were Normative Beliefs Composite, Control Beliefs Composite, Attitude, and Subjective Norm. The two that were insignificantly related to Intention were Behavioral Beliefs Composite and Perceived Behavioral Control. Contrary to the hypothesis, Commitment to Diversity Program was insignificantly associated with Intention - the relationship was even negative.

Regression analyses also indicate that Attitude and Subjective Norm were significant predictors at a relatively large confidence level ($p < .1$ and $p < .05$ respectively). Other variables were shown to be insignificant predictors at this stage (see Table 4.3).

		Existence of diversity programs	Behavioral Beliefs Composite	Normative Beliefs Composite	Control Beliefs Composite	Attitude	Subjective Norm	Perceived Behavioral Control
Intention	Pearson Correlation	-.390	.215	.766(**)	.607(*)	.691(**)	.794(**)	.473
	Sig. (2-tailed)	.135	.425	.001	.013	.003	.000	.064
	N	16	16	16	16	16	16	16

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4.2: Pilot Study Correlations

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.387	2.260		-1.498	.172
	Attitude	.477	.256	.426	1.867	.099
	Subjective Norm	.909	.315	.916	2.888	.020
	Perceived Behavioral Control	.343	.204	.290	1.681	.131
	Behavioral Beliefs Composite	.009	.027	.079	.327	.752
	Normative Beliefs Composite	-.019	.022	-.230	-.874	.408
	Control Beliefs Composite	-.005	.016	-.049	-.288	.781
	Commitment to diversity program	.382	.412	.196	.928	.381

a Dependent Variable: Intention

Table 4.3: Pilot Study Coefficients

As the major focus of the research is the effect of Commitment to Supplier Diversity Program on purchasers' Intention to purchase from women-owned enterprises, I re-examined the construct Commitment to Supplier Diversity Program. I followed up the pilot study with three respondents via email concerning their decisions to purchase from a woman-owned enterprise (some respondents left their email addresses on the returned surveys so as to receive a summary

report of the study once the study was finished; I explained to them why I used their email contact information and wrote to them before the study was concluded.) Participation in this email correspondence was again voluntary. The three subjects were selected because they indicated a strong intention to purchase from a woman-owned enterprise in their survey questionnaires while their companies did not have a supplier diversity program. One response was received. The following is the email exchange based on scenario 2 (a woman-owned enterprise whom the respondent had gotten to know at a trade show):

Question: “Since you seem to be under no pressure to purchase from this company (there is no supplier diversity program in your firm), what made you want to buy products from this company rather than another firm? Could you explain your decision process?”

Answer: “As long as her prices are competitive and the quality is equal, Jennifer appears to have the background for service, support and a manufacturing facility close at hand. She is a new company and will strive to increase her business by performance. In my professional opinion, smaller companies have a tendency to provide better service and support. Their customer base is vital to their success and they will go above and beyond to provide the same success for their customers. As a buyer, there are sometimes advantages to getting in at the ground level with a new company when negotiation power tends to favor the corporations allowing for my company to decrease cost.”

Though the information was limited, it provided a glimpse of insight into the decision-making process of some corporate purchasers. It seemed somehow to explain the inverse and insignificant relationship between Commitment to Supplier Diversity Program and Intention. Still, I further scrutinized the measures of Commitment to Supplier Diversity Program and replaced an existing item with a new one. The new item was the following:

The supplier diversity program in my corporation is not well-implemented.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

And the item that was replaced was the following:

My corporation is _____ about how much we should purchase from women-owned enterprises every year.

extremely unclear	unclear	somewhat unclear	Neither clear nor unclear	somewhat clear	clear	extremely clear
1	2	3	4	5	6	7

The rationale for the change was that the other two items of the measure are general questions about Commitment to Supplier Diversity Program. The item that was replaced, however, tended to be more concrete about details. Hence, I replaced it with a more general question to achieve consistency among the items (Note: Appendix 3 reflects this change).

In summary, the purpose of the pilot study was to test out for the full research. It provided an optimistic indication of the response rate and signaled the time and resources needed to collect the surveys. Though the minimal sample did /could not help me to validate the hypotheses, the pilot study did lead me to scrutinize the measurement of the variable “Commitment to Supplier Diversity Program” so the full study could proceed with more confidence.

4.5.2. The Full Study

The remaining 2,500 subjects after the pilot study were then mailed the revised surveys for the full study. Among them, 1,450 (58%) were male and 1,050 (42%) female. The subjects were proportionally divided among the four scenarios (i.e., 363 male subjects, 262 female subjects, and a total of 625 subjects per scenario). 277 completed surveys were returned; among them 272 were usable. 71 surveys were returned without completion due to the subjects’ job changes and other reasons. Thus, the survey resulted in an 11.4% response rate.

4.6. Summary and Conclusions

In this chapter, I have described the methodologies of the study. A 2x2 scenario-based, cross-sectional, experimental factorial design was created. Measures were constructed based on the scenarios and according to Ajzen's instructions (2002; 2006) on construct design and further refined after a pilot study. Questionnaires were sent via mail to 2500 subjects and a 11.40% response rate was obtained. The next chapter describes the results of the study.

CHAPTER 5

ANALYSES OF DATA AND RESULTS

5.1. Overview

In this chapter, I present descriptive statistics of the data of the full study and the results of data analyses in light of the hypotheses. To achieve optimal analysis results, I used both SPSS and AMOS as tools for data analysis.

5.2. Characteristics of the Respondents and the Employers

Tables 5.1a and 5.1b show the demographic characteristics of the respondents. About two thirds of the respondents were male (68%, n=185) and one third were female (31.6%, n=86). In terms of age, the median was 50 and the average was 49 and the ages ranged from 25 to 72. Regarding the racial background, 90.4% (n=246) of the respondents were white; Asians, Pacific Islanders, and Indians constituted 2.2%, Black/African Americans 1.5%, Hispanics 2.9%, and Native Indians or Alaskan Natives constituted 0.4% of the total respondents. In terms of their educational backgrounds, the average level of education was slightly higher than four-year

		Range	Mean	Median	SD
N=272	Age	25-72	49.24	50	8.87
	Race	1-6	4.81	5	0.77
	Level of Education	2-9	6.1	6	1.57
	Years with Current Employer	1-35	12.84	10	9.26
	Years in Current Industry	1.5-48	19.26	20	9.94

Table 5.1a Demographic characteristics of respondents (I)

Note: For **Race**, 1=Asian, Pacific Islander, Indian; 2=Black/African American; 3=Hispanic;4=Native Indian or Alaskan native; and 5=White; 6=Other, including mixed. For **Level of Education**, 1=less than high school; 2=High school or GED; 3=Trade or technical school beyond high school; 4=Some College; 5=Two-year associates' degree; 6=Four/five-year bachelor's degree; 7= Professional degree in medicine, law, dentistry; 8= Master's degree; 9=Doctorate; and 10=Other.

N=272	n	%
Gender		
Female	86	31.6
Male	185	68
Missing	1	0.4
Age		
25-29	8	2.9
30-39	35	12.9
40-49	77	28.3
50-59	117	43
60-69	26	9.6
70-75	1	0.4
Missing	8	2.9
Race		
Asian, Pacific Islander, Indian (India)	6	2.2
Black/African American	4	1.5
Hispanic	8	2.9
Native Indian or Alaskan native	1	0.4
White	246	90.4
Other, including mixed	3	1.1
Missing	4	1.5
Level of Education		
High school or GED	8	2.9
Trade or technical school beyond high school	5	1.8
Some College	36	13.2
Two-year associates' degree	16	5.9
Four/five-year bachelor's degree	122	44.9
Professional degree in medicine, law, dentistry	1	0.4
Master's degree	78	28.7
Doctorate	2	0.7
Missing	4	1.5
Years of Experience with current employer		
1-5	74	27.2
6 to 10	66	24.3
11-15	43	15.8
16-20	30	11
21-30	34	12.5
31-35	22	8.1
Missing	3	1.1
Years of Experience in current industry		
1-5	32	11.8
6-10	36	13.2
11-15	31	11.4
16-20	50	18.4
21-30	90	33
31-40	28	10.3
More than 40	2	0.7
Missing	3	1.1

Table 5.1b Demographic characteristics of respondents (II)

college, which was also the median level of education (44.9%, n=122). Further, the respondents who had obtained a master’s degree constituted 28.7% (n=78). Finally, regarding the respondents’ years of experience both with their current employers and industries, the average of the former was 12.84 years and that of the latter 19.26. In short, the respondents represented, generally speaking, a diverse group of male and female purchasers, especially in terms of age, educational backgrounds, and experience.

With respect to employer characteristics (Table 5.2), the employers who had established a supplier diversity program constituted 58.8% (n=160), compared with 41.2% (n=112) that did not. Further, a little fewer than half of the employers were Fortune 1000 companies (43.4%, n=118), while 55.1% (n=150) were not.

<i>Employer Characteristics (n=272)</i>		
	n	%
Supplier Diversity programs		
Yes	160	58.8
No	112	41.2
Employer being Fortune 1000 company		
Yes	118	43.4
No	150	55.1
Missing	4	1.5

Table 5.2 Employer characteristics

5.3. Data distribution among the four scenarios

In terms of the distribution of responses among the scenarios, in general, the responses were fairly evenly distributed (see Table 5.3). Scenario 1 obtained 79 (29%) responses; scenario 2 gained 61 (22.4%); and scenarios 3 and 4 received 63 (23.2%) and 69 (25.4%) responses respectively.

n=272	n	%
Scenario		
1	79	29.0
2	61	22.4
3	63	23.2
4	69	25.4

Table 5.3 Data Distribution among the four scenarios

5.4. Descriptive Statistics of the Variables

Descriptive characteristics of the variables include the minimum, maximum, mean, standard deviation, skewness, and kurtosis statistics. Standard deviation measures the dispersion of data scores around the mean. Mathematically, it is the square root of variance: the smaller the statistic is, the closer the data points are to the mean. Skewness and kurtosis further characterize data. Skewness depicts the degree of symmetry or asymmetry of data: a normal/symmetrical data distribution has a skewness statistic of zero or close to zero (Byrne, 1998). Negative or positive values for skewness indicate whether the data are skewed left or right. When the data is skewed left, the left tail is long; when the data is skewed right, the right tail is long. On the other hand, kurtosis measures how peaked or flat a data distribution is, relative to a normal distribution, which has a kurtosis value of zero or close to zero (Byrne, 1998). A peaked distribution is represented by a kurtosis statistic greater than 2.0 while a flat distribution is indicated by a kurtosis value smaller than -1.0 (Huck, 2000).

Table 5.4 reports the descriptive statistics of the observed variables used in this study. Regarding skewness, the table shows that skewness statistics of the observed variables ranged from -0.662 to 0.827 and kurtosis statistics ranged from -1.714 to 2.624. In a discussion of the robustness of test statistics, Curran, West, and Finch (1996) regarded skewness values ranging from 2.00 to 3.00 (absolute values) and kurtosis scores ranging from 7.00 to 21.00 (absolute

values) as moderately nonnormal. Further, they regarded skewed values greater than 3.00 and kurtosis values greater than 21.00 to characterize extreme nonnormality. Given that the skewness statistics and kurtosis values as shown in Table 5.4 lay far below those moderately nonnormal ranges, the data for this study could be determined as normally distributed.

N=272

Observed Variables	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BBC1	0	21	10.50	4.028	.092	.148	-.110	.294
BBC2	0	21	12.06	4.614	.168	.148	-.238	.294
BBC3	-4	21	9.49	4.699	-.022	.148	-.142	.294
NBC1	-14	21	1.36	5.862	.202	.148	.463	.294
NBC2	-21	21	-.07	5.124	.039	.148	2.411	.294
NBC3	-15	12	-.10	4.049	.129	.148	2.008	.294
CBC1	-12	18	.53	4.143	.762	.148	2.624	.294
CBC2	-14	21	1.53	5.034	.283	.148	1.687	.294
CBC3	-12	12	1.21	3.600	.827	.148	1.831	.294
A1	1	7	4.37	1.083	-.662	.148	.706	.295
A2	1	7	4.57	.934	-.120	.148	.820	.294
SN1	1	6	3.86	1.048	-.202	.148	.441	.295
SN2	1	6	4.02	1.069	-.391	.148	.557	.294
PBC1	1	7	4.82	1.559	-.521	.148	-.820	.294
PBC2	1	7	3.85	1.592	.188	.148	-1.164	.294
I1	1	7	4.13	1.005	-.275	.148	.567	.294
I2	1	7	4.25	1.168	-.380	.148	.352	.294
CDP1	1	7	3.46	2.338	.186	.148	-1.637	.294
CDP2	1	7	3.21	2.054	.168	.148	-1.446	.294
CDP3	1	7	3.72	2.444	-.021	.148	-1.714	.294

Table 5.4 Descriptive Statistics of the observed variables

BBC=Behavioral Beliefs Composite; NBC=Normative Beliefs Composite; CBC=Control Beliefs Composite; A=Attitude; SN=Subjective Norm; PBC=Perceived Behavioral Control; I=Intention; and CDP=Commitment to Diversity Program. A numerical number indicates an observed variable of the underlying construct. For example, CDP is measured by three items: CDP1, CDP2, and CDP3. For specific corresponding items, see Appendix 4.

5.5. Reliability of the Research Instrument

Having examined the descriptive statistics of the observed variables and determined that the data for the study were normally distributed, I then examined how well these variables measured their latent constructs. This was done in two ways: an analysis of Cronbach’s alpha and a confirmatory factor analysis.

5.5.1. Cronbach’s alpha analysis

Cronbach’s alpha, known as the reliability test, measures the internal consistency of the observed variables of a latent construct (Nunnally, 1978). It is a function of the number of observed variables and the average inter-correlation among the items. A high reliability coefficient indicates unidimensionality of the latent construct, while a low coefficient signifies multidimensionality. Generally, a reliability coefficient of 0.7 or higher is considered acceptable, although that of .6 is leniently accepted (Nunnally, 1978). Table 5.5 shows the results of the

	<i>Number of items</i>	<i>Cronbach's alpha</i>
<i>Endogenous Variables</i>		
Behavioral Beliefs Composite	3	0.739
Normative Beliefs Composite	3	0.821
Control Beliefs Composite	3	0.774
Attitude	2	0.666
Subjective Norm	2	0.78
Perceived Behavioral Control	2	0.594
Intention	2	0.879
<i>Exogenous Variable</i>		
Commitment to Diversity Program	3	0.967

Table 5.5 Cronbach’s alpha analyses

Cronbach’s alpha analyses for this study. The statistics indicate that all constructs in the proposed model but Attitude and Perceived Behavioral Control had reliability coefficients

greater than .7. The alpha for Attitude was 0.666 and that for “Perceived Behavioral Control” was 0.594; both lay close to the cutoff point of 0.6 and could be accepted in a lenient sense. The low coefficients could partly be attributed to the few number of items used to measure them. The alphas of Behavioral Beliefs Composite, Normative Beliefs Composite, Control Beliefs Composite, Subjective Norm, Intention, and Commitment to Diversity Program were all greater than 0.7. In short, Cronbach’s alpha analysis indicates that the observed variables, in general, demonstrated good internal consistency.

5.5.2. Confirmatory factor analysis

Another way to assess the relationship between the observed variables and a latent variable is through factor analysis. There are two types of factor analyses: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The former is used when links between the observed variables and the latent constructs are uncertain and to ascertain if the observed variables do measure their designated latent constructs (Byrne, 2001, p.5). It is thus used for exploratory purposes, as the name suggests. Confirmatory factor analysis, a technique used in structural equation modeling, on the other hand, is used to assess hypothesized relationships based on theory and prior empirical research. The observed variables, unlike in exploratory factor analysis, are restricted to load only to their designated factors and not to other factors (Byrne, 2001, p. 6). In both cases, the relationship between observed variables and a latent construct is determined by factor loadings.

As the planned behavior model has been, generally speaking, empirically supported and the measurement instruments in this study were designed based on Ajzen’s (2002 & 2006) instructions. The current proposed model has only one added latent construct, Commitment to

Diversity Program, which is highly divergent from the variables in the planned behavior model and had an alpha of 0.967 (see Table 5.5). Given the situation, confirmatory factor analysis seemed appropriate for this study.

A major concern in structural equation modeling is how well the proposed model or the measurement instruments describe the data. The degree of fit is explained by such goodness-of-fit indices as chi-square (χ^2), CFI, RMSEA, and Hoelter, generated by statistical tools such as AMOS. The indices generated in this study (Table 5.6) are explained below.

Goodness-of-fit index: Chi-square (χ^2): In structural equation modeling, the null hypothesis (H_0) assumes the validity of the proposed model. In other words, it assumes that, in the confirmatory factor analysis, the relationships between latent constructs and their respective observed variables are valid: the latent constructs positively influence the observed variables. Therefore, for Chi-square (χ^2), the likelihood ratio test statistic, the greater its value is, the better fitted the proposed model (i.e., the factorial structures) is to the data. The high p value (0.418) was one indication of the validity of the null hypothesis (see Table 5.6).

The next index, **comparative fit index (CFI)**, has been recommended by Bentler (1990) as the criterion of choice. The CFI values range from zero to 1.00 and a cutoff value close to 0.95 is regarded as signifying a well-fitting model (Hu & Bentler, 1999). The CFI value of 0.999 here (see Table 5.6) indicates superior model fit of the measurement instrument used for this study.

χ^2	DF	P	CFI	RMSEA	RMSEA (LO 90)	RMSEA (HI 90)	RMSEA PCLOSE	ECVI	Hoelter .05	Hoelter .01
144.857	142	0.418	0.999	0.009	0	0.03	1	1.184	320	345

Table 5.6 Goodness –of-fit indices for the proposed CFA model

Following CFI, *the root mean square error of approximation (RMSEA)* is regarded as one of the most informative indicators of model fit. It considers the error of approximation in the population (Byrne, 2001). Browne & Cudeck (1993) regarded RMSEA values less than 0.05 as indicating good fit and those as high as 0.08 as indicating reasonable fit. MacCallum et al. (1996) further explained that RMSEA values ranging from 0.08 to 0.10 signified tolerable fit while those greater than 0.10 indicated poor fit. In addition, AMOS also reports 90% confidence intervals around the RMSEA value and a closeness of fit (PCLOSE) value. Joreskog and Sorbom (1996) recommended the closeness of fit value be greater than 0.5. Table 5.6 reveals that the RMSEA value for the confirmatory factor analysis was 0.009, with the 90% confidence interval ranging from 0.000 to 0.030; and the p value was 1.000. In other words, the RMSEA value (0.009) and the upper bound of the 90% interval (0.030) lay far below the cutoff point of 0.05 suggested by Browner and Cudeck (1993); and the p value (1.000) was also greater than the suggested value of 0.5 (Joreskog & Sorbom, 1996). Given the RMSEA values, I conclude that the eight latent-construct factor model fit the data very well.

Further, another index, the *expected cross-validation index (ECVI)* also determines if the proposed model in a given sample cross-validates across similar-sized samples from the same population (Browne & Cudeck, 1989). Unlike most of the previous-mentioned goodness-of-fit indexes, ECVI can take on any value. As a result, there is no appropriate range of values for it. The ECVI of the proposed model, however, is often determined by comparison with ECVIs of the saturated model and the independence model. The smaller the value is, the better fitting the model is to the population. The ECVI value of the proposed model (1.184) (see Table 5. 6) compares favorably with that of the saturated model (1.697) and that of the independence model

(13.203). Further, the 90% intervals range from 1.173 to 1.304, another indication of goodness of fit of the proposed model for the population.

Finally, *Hoelter's critical N (CN)* assesses the adequacy of sample size. Hoelter (1983) recommended that a value greater than 200 suggests satisfactory sample size. Table 5.6 shows that the .05 and the .01 critical Ns for the hypothesized model were 320 and 345, respectively, both staying far above the recommended 200 value. The critical values indicate that the sample (N=272) for the confirmatory factor analysis was adequate.

In short, all the goodness-of-fit indices of the confirmatory factor analysis suggest that the measurement instrument used for the study was reliable and valid. Factor loadings lend further support to this conclusion (see Table 5.7). As shown in Table 5.7, the critical ratios (C.R.) were all greater than 1.96 at the 0.05 level, indicating that the factor loadings were statistically significant. Moreover, all the standardized factor loadings were substantial and not close to zero. (The standardized factor loadings indicate the change of standard deviations in the observed variable influenced by the change of a standard deviation in the latent variable.)

In summary, the goodness-of-fit indices (χ^2 , CFI, RMSEA, ECVI, and Hoelter's critical Ns) and the statistics of factor loadings all point to the adequacy of the fit of the measurement instrument to the sample data. Although one could not entirely rely on fit indices to determine the adequacy of the model (Sobel & Bohrnstedt, 1985, Bentler & Chou, 1987), one could, nevertheless, conclude that the confirmatory factor analysis did not reveal a lack of fit. As a result of the superior fit indices, there seemed no need to modify the measurement instrument. In conclusion, the proposed measurement instrument provided a solid basis for path analysis, the next step in data analysis.

	Unstandardized factor loadings	S.E.	C.R.	P	Standardized factor loadings
BBC3 <--- BBC	1.000				.740
BBC2 <--- BBC	.822	.092	8.966	***	.620
BBC1 <--- BBC	.832	.082	10.164	***	.718
NBC3 <--- NBC	1.000				.725
NBC2 <--- NBC	1.464	.110	13.262	***	.839
NBC1 <--- NBC	1.608	.126	12.754	***	.806
CBC3 <--- CBC	1.000				.616
CBC2 <--- CBC	1.992	.197	10.087	***	.877
CBC1 <--- CBC	1.348	.145	9.311	***	.722
A1 <--- Attitude	1.000				.736
A2 <--- Attitude	.807	.069	11.786	***	.690
SN2 <--- SN	1.000				.780
SN1 <--- SN	1.027	.072	14.245	***	.818
PBC2 <--- PBC	1.000				.698
PBC1 <--- PBC	.849	.239	3.549	***	.605
I2 <--- Intention	1.000				.907
I1 <--- Intention	.830	.041	20.352	***	.875
QDP3 <--- CDP	1.000				.974
QDP2 <--- CDP	.818	.021	38.147	***	.948
QDP1 <--- CDP	.930	.025	37.909	***	.947

Table 5.7 Unstandardized and Standardized Factor Loadings of the Proposed Structural Model⁴

Note: ***p<.001

5.6. Path Analysis

In this section, I examine the effects of Commitment to Diversity Programs (CDP) on Intention using structural equation modeling analysis. To ascertain the effects of CDP on the variables in the planned behavior model, I performed the analysis in two steps. First I looked into the validity of the planned behavior model in this study. After establishing it, I then investigated the impact of CDP on Intention through its direct influences first on the predictors and then mediators of Intention.

⁴ An explanation of abbreviations is provided on p. 56.

5. 6. 1. Path analysis: The planned behavior model

Table 5.8 shows the unstandardized regression weights of the planned behavior model. With the exception of the relationship between Perceived Behavioral Control and Intention, all other relationships were statistically significant. Further, the influence of Attitude on Intention was

		Unstandardized Regression Weights	S.E.	C.R.	P
Attitude	<--- Behavioral Beliefs Composite	.251	.025	9.982	***
Subjective Norm	<--- Normative Beliefs Composite	.276	.023	11.832	***
Perceived Behavioral Control	<--- Control Beliefs Composite	.130	.048	2.738	.006
Intention	<--- Subjective Norm	.283	.106	2.671	.008
Intention	<--- Attitude	.940	.120	7.803	***
Intention	<--- Perceived Behavioral Control	-.007	.033	-.217	.828

Table 5.8 Unstandardized regression weights of the Planned Behavior Model

Note: ***p<.001

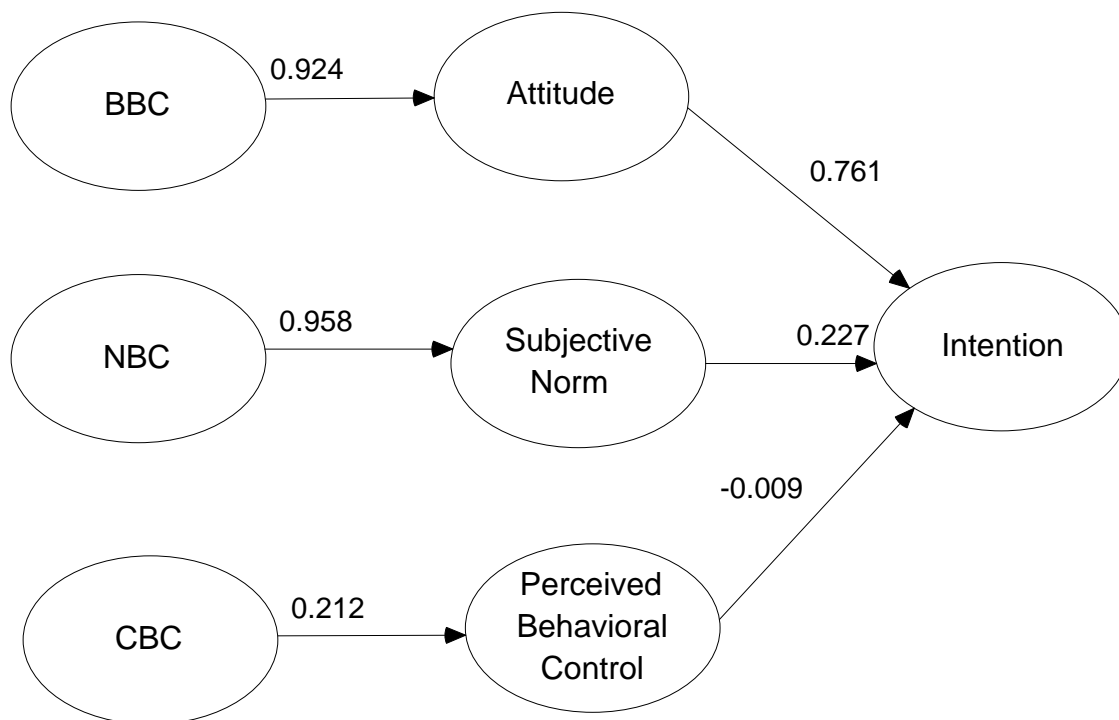


Figure 5.1 Standardized Regression Weights of the Planned Behavior Model

Note: BBC =Behavioral beliefs composite; NBC=Normative beliefs composite; and CBC=Control beliefs composite

stronger than that of Subjective Norm, the regression weight of the former being 0.94 and that of the latter 0.283; and the influence of Behavioral Beliefs Composite on Attitude was similar in strength to the influence of Normative Beliefs Composite on Subjective Norm: the regression weights being 0.251 and 0.276, respectively. Figure 5.1 shows the standardized regression weights of the model. The relationship between Perceived Behavioral Control and Intention was shown to be statistically insignificant and negative.

Goodness-of-fit indices also reveal the validity of the structural model (see Table 5.9). Although the chi square value of 182.409, with 110 degrees of freedom and a probability value of less than .0001 ($p < .0001$) suggested inadequacy of the fit of the data to the Planned Behavior Model, X^2 statistic has nevertheless been found to be sensitive to sample size and sometimes problematic as a fit index (MacCallum et al., 1996). Other goodness-of-fit-indices, however,

X^2	DF	P	CFI	RMSEA	RMSEA (LO 90)	RMSEA (HI 90)	RMSEA PCLOSE	ECVI	Hoelter .05	Hoelter .01
182.409	110	0.000	0.968	0.049	.036	0.062	.522	1.116	202	220

Table 5.9 Goodness –of-fit indices for the planned behavior model

pointed to the soundness of the model. Comparative fit index (CFI) (0.968) was greater than 0.95, the cutoff point for a well-fitting model (Hu & Bentler, 1999). Further, RMSEA (0.049) was smaller than the cutoff point of 0.05 (Browne & Cudeck, 1993), another indication of good fit. The high end of the 90% RMSEA confidence interval value of 0.062 rested within the range of reasonable fit (MacCallum et al. 1996). Additionally, the closeness of fit (p value) was greater than 0.5, the suggested threshold value (Joreskog & Sorbom, 1996). Moreover, the ECVI value

(1.116) of the model was smaller than those of both the saturated model and the independence model⁵, indicating that the model would cross-validate reasonably well in similar sample sizes from the same the population (Browne & Cudeck, 1989). Finally, Hoelter’s critical N was greater than 200, both at the 0.05 level and the 0.01 model, indicating adequate sample size (Hoelter, 1983).

In summary, the statistics associated with the regression weights and the goodness-of-fit indices indicate the validity of the Planned Behavior Model in this study. All relationships were validated with statistical significance except the one between Perceived Behavioral Control and Intention.

5.6.2 Path analysis: The full model

Having establishing the general empirical validity of the Planned Behavior Model, I then added the latent variable “Commitment to Diversity Program” (CDP) and its observed variables to the model. Figure 5.2 depicts the full structural model.

Table 5.10 depicts both the unstandardized and standardized regression weights of the

		Unstandardized Regression Weights	S.E.	C.R.	P	Standardized Regression Weights
BBC	<--- CDP	.165	.102	1.622	.105	.112
NBC	<--- CDP	.119	.081	1.468	.142	.096
CBC	<--- CDP	.099	.061	1.616	.106	.108
Attitude	<--- BBC	.188	.022	8.720	***	.771
SN	<--- NBC	.264	.023	11.376	***	.941
PBC	<--- CBC	.115	.049	2.377	.017	.168
Intention	<--- SN	.481	.057	8.447	***	.451
Intention	<--- Attitude	.824	.072	11.419	***	.796
Intention	<--- PBC	-.001	.027	-.041	.967	-.002

Table 5.10 Unstandardized and Standardized Regression Weights of the Full Model

Note: An explanation of the abbreviations is provided on page 56.

⁵ Due to the constraint of space, the ECVI values for both the Saturated Model and the Independence Model were not provided in Table 5.10.

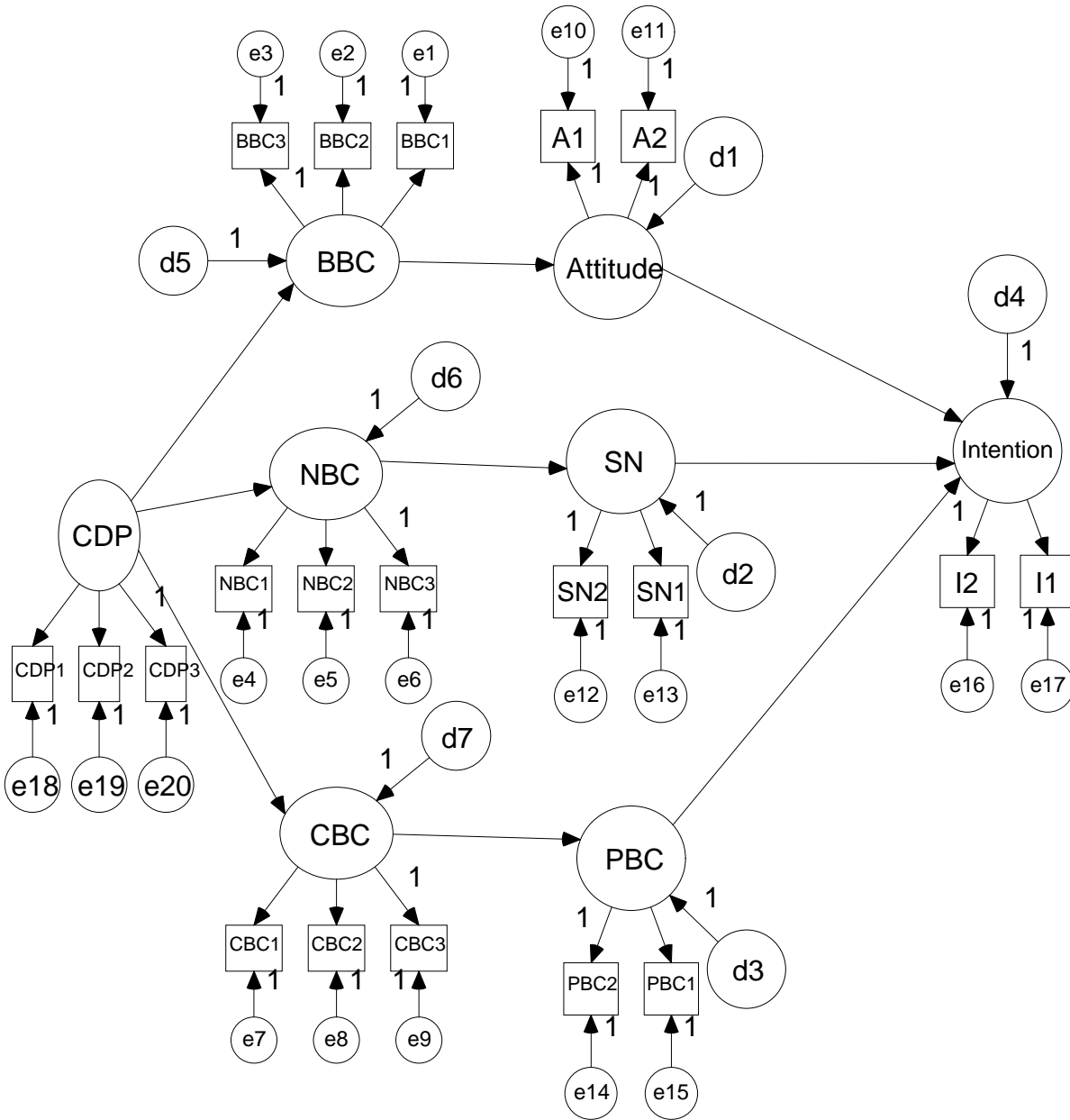


Figure 5.2 The full model: Commitment to Diversity Program as an exogenous variable

Note: BBC=Behavioral Beliefs Composite; NBC=Normative Beliefs Composite; CBC=Control Beliefs Composite; A=Attitude; SN=Subjective Norm; PBC=Perceived Behavioral Control; I=Intention; and CDP=Commitment to Diversity Program. A number indicates an observed variable of the underlying construct. For example, CDP is measured by three items: CDP1, CDP2, and CDP3. d represents residual error of an endogenous variable; and e represents measurement error of an observed variable.

full model. The regression weights for the relationships in the Planned Behavior Model show a similar pattern, as when the model was analyzed separately. However, the influence of CDP on Behavioral Beliefs Composite, Normative Beliefs Composite, and Control Beliefs Composite was, respectively, statistically insignificant. In addition, the standardized regression weights of CDP on the three variables were insubstantial, compared with others, except for that of PBC on Intention.

The goodness-of-fit indices (Table 5.11) also indicated poor fit of the model to the data. Chi-square (515.845, df=161, $p < .0001$), CFI (0.893), RMSEA (.090) and PCLOSE (.000) all suggest that the indices lay out of the range of the recommended values (c.f. Hu & Bentler, 1999; Browne & Cudeck, 1993; Joreskog & Sorbom, 1996), which suggests that the model was poorly fitted to the data. For CFI, the higher value it is, the better fitting the model is to the data; and the CFI cutoff point is 0.95, according to Hu & Bentler (1999). The CFI value of 0.893 lay below the cutoff point. Further, for RMSEA, a smaller value is desired; and the cutoff point is 0.05 (Browne & Cudeck, 1993). The RMSEA value of .090 suggests misfit of the model.

χ^2	DF	P	CFI	RMSEA	RMSEA PCLOSE	ECVI	Hoelter .05	Hoelter .01
515.845	161	0.000	0.893	0.090	.000	2.413	101	109

Table 5.11 Goodness-of-fit indices for the full model

Additionally, Joreskog & Sorbom (1996) suggest a closeness of fit value greater than 0.5; the p-value of .000 in this model is another indication of poor fit. Moreover, the ECVI (2.413) was greater than that of the saturated model (1.697), but smaller than that of the independence model

(13.155). Finally, Hoelter’s critical Ns were both smaller than 200, indicating inadequate sample size (Hoelter, 1983). In short, both the regression weights and the goodness-of-fit indices suggest that “Commitment to Diversity Program” served as a poor exogenous variable to the Planned Behavior Model.

5. 7. SPSS Multivariate Analysis of Variance: The Effects of Diversity Programs

Though Commitment to Diversity Program was found to be a poor exogenous variable to the planned behavior model, the question whether a supplier diversity program had an effect on Intention or other indirect endogenous variables remains unanswered. To answer the question, I performed MANOVA, using both CDP (an ordinal variable) and Presence of a diversity program (a categorical variable) as predictors, respectively, and all the variables in the planned behavior model as dependent variables. “Commitment to Diversity Programs,” an ordinal measurement, was found to have a significant effect on Intention ($p < .05$) (Table 5.12). However, it had no effect on other variables.

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Behavioral Beliefs Composite	652.3847	1	652.3847	0.717029	0.39787
	Normative Beliefs Composite	206.3348	1	206.3348	1.212864	0.271747
	Control Beliefs Composite	275.3443	1	275.3443	2.414668	0.121375
	Attitude	0.376295	1	0.376295	0.487362	0.485707
	Subjective Norm	3.05155	1	3.05155	3.332231	0.069039
	Perceived Behavioral Control	0.066731	1	0.066731	0.092821	0.760855
	Intention	4.166418	1	4.166418	3.977379	0.047121

Table 5.12 MANOVA: Commitment to Supplier Diversity Program as an Independent Variable

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Behavioral Beliefs Composite	882.4475	1	882.4475	0.970798	0.325363
	Normative Beliefs Composite	311.4089	1	311.4089	1.8347	0.176706
	Control Beliefs Composite	194.017	1	194.017	1.696975	0.193794
	Attitude	1.014758	1	1.014758	1.318312	0.251911
	Subjective Norm	3.688288	1	3.688288	4.037935	0.045483
	Perceived Behavioral Control	0.052114	1	0.052114	0.072484	0.78796
	Intention	6.507563	1	6.507563	6.264154	0.012912

Table 5.13. MANOVA: Presence of Supplier Diversity Program as an Independent Variable

The categorical variable Presence of a Diversity Program was found to have a similar effect on Intention (Table 5.13). In addition, it also had a significant effect on Subjective Norm ($p < 0.05$), though, similarly, its effects on all other variables were insignificant.

In summary, the above analyses indicate that, the presence of a diversity program and the commitment to it did have a significant effect on purchasers' decision-making. In addition, the presence of a diversity program also had a significant effect on Subjective Norm. Its effects on other variables in the planned behavior model were insignificant.

5.8. SPSS Multivariate Analysis of Variance: The Effects of Scenarios

Finally, MANOVA was performed to determine the effects of Scenarios on the variables in the planned behavior model. Four scenarios were administered to four groups of participants respectively. The scenarios were distinct from each other in terms of gender (male/female) of the owner of the enterprise and the respondent's familiarity/unfamiliarity with the owner. As shown in Table 5.14, Scenario, as a categorical variable, had no effect on any of the variables in the planned behavior model.

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	F	Sig.	Observed Power
Corrected Model	Behavioral Beliefs Composite	999.9187904	3	0.364135	0.778954	0.12121003
	Normative Beliefs Composite	37.22921966	3	0.07214	0.974843	0.062815734
	Control Beliefs Composite	157.2036147	3	0.454392	0.714406	0.14100306
	Attitude	0.665008251	3	0.285366	0.835953	0.104542099
	Subjective Norm	1.101355205	3	0.394803	0.756845	0.127856807
	Perceived Behavioral Control	1.714799009	3	0.795948	0.497051	0.220932214
	Intention	1.973739078	3	0.618614	0.603494	0.178601579

Table 5.14 MANOVA: Scenario as an Independent Variable

The results of the analysis indicate that gender of the owner of the small business enterprise and the respondents' familiarity/unfamiliarity with the owner/business enterprise played little role in the respondents' cognitive process in evaluating and making decisions about the enterprise they were presented with. In other words, they seemed to treat a male-owned enterprise and a female-owned enterprise fairly equally and whether they were familiar with the enterprise or not did not constitute a significant factor in their decision-making, either.

5.9. Summary of Findings Relative to Hypotheses

In this section, I describe the empirical findings relative to each of the hypotheses posited in Chapter 3. Seven hypotheses were put forward regarding the effect of "Commitment to Diversity Program." Hypotheses 1-3 describe the effects of Commitment to Diversity Program on the three sets of beliefs composites:

Hypothesis 1. Behavioral Beliefs Composite is a positive function of Commitment to Supplier Diversity Program.

Hypothesis 2. Normative Beliefs Composite regarding purchasing from women-owned enterprises is a positive function of Commitment to Supplier Diversity Program.

Hypothesis 3. Control Beliefs Composite regarding purchasing from women-owned enterprises is a positive function of Commitment to Supplier Diversity Program.

The hypotheses posited that Commitment to Diversity Program positively influences Behavioral Beliefs Composite, Normative Beliefs Composite, and Control Beliefs Composite, respectively. The empirical evidence from this study suggests that none of the hypotheses were supported (see Table 5.10): “Commitment to Diversity Program” did not have a significant statistical effect on any of these variables.

Hypothesis 4. Commitment to Supplier Diversity Program will positively influence corporate purchasers’ Attitude toward purchasing from women-owned enterprises through its direct influence on the Behavioral Beliefs Composite.

Hypothesis 5. Commitment to Supplier Diversity Program will positively influence Subjective Norm about purchasing from women-owned enterprises through its direct influence on the Normative Beliefs Composite.

Hypothesis 6. Commitment to Supplier Diversity Program will positively influence Perceived Behavioral Control to purchase from women-owned enterprises through its direct influence on the Control Beliefs Composite.

Hypotheses 4-6 described the indirect effects of Commitment to Diversity Program on Attitude, Subjective Norm, and Perceived Behavioral Control, through their respective mediating variables Behavioral Beliefs Composite, Normative Beliefs Composite, and Control Beliefs Composite. Although Normative Beliefs Composite had a significant direct effect on Subjective Norm, Normative Beliefs Composite did not play a significant mediating role (see Table 5.10). For other relationships, Behavioral Beliefs Composite had a significant effect on Attitude ($p < 0.001$) (see Table 5.10), but Commitment to Diversity Program played no role in the relationship. Likewise, although Control Beliefs Composite had a significant effect on Perceived Behavioral Control ($p < .05$) (Table 5.10), the significant relationship was not affected by Commitment to Diversity Program. In short, the three sets of beliefs composite significantly influenced Attitude, Subjective Norm, and Perceived Behavioral Control, respectively; however, they did not play a mediating role between Commitment to Supplier Diversity Program and their respective dependent variables.

Hypothesis 7. Commitment to Supplier Diversity Program ultimately positively influences corporate purchasers' Intention to purchase from women-owned enterprises through its indirect influence on (7.1) Attitude toward behavior, (7.2) Subjective Norm, and (7.3) Perceived Behavioral Control.

Finally, Hypothesis 7 describes the ultimate influence of Commitment to Diversity Program on Intention, through two layers of mediating variables (see Figure 5.2). Commitment to Diversity Program was shown to have a significant direct influence on Intention ($p < .05$) (see Table 5.12), yet the mediating effects of the predicting variables in the planned behavior model

were not supported. In short, the influence of Commitment to Supplier Diversity Program on Intention was direct rather than indirect.

5.10 Summary and Conclusions

In this chapter, I described the results of the data analyses and summarized the findings in light of the hypotheses. Ajzen's theory of planned behavior model was again corroborated in this study. Commitment to Supplier Diversity Program was found to have a direct effect on Intention instead of the hypothesized indirect effect.

CHAPTER SIX

DISCUSSION

6.1. Overview

In this chapter, I discuss the contribution of the study in light of the findings, first to business ethics literature and then to women's entrepreneurship literature. I then discuss the limitations of the study. Next, I point to future research. Finally, I discuss the implications of the study.

6.2. Review of Research Findings

The findings suggest that Commitment to Diversity Program had a significant influence on purchasers' Intention to purchase (see Table 5.12). Further, the mere Presence of a Supplier Diversity Program (a categorical variable) positively influenced Subjective Norm as well as Intention (see Table 5.13). However, Commitment to Supplier Diversity Program served as a poor exogenous variable to the planned behavior model (see Table 5.10), indicating that it did not influence purchasers' intention the way it was hypothesized. In short, its influence on Intention was more direct than indirect.

In spite of the insignificant effects of Commitment to Supplier Diversity Program on the three sets of Beliefs Composites, the planned behavior model was again validated in this study. With the exception of the relationship between Perceived Behavioral Control and Intention, all other relationships in the planned behavior model were statistically significant. In summary, going back to the four research questions posed in Chapter 1, I conclude that 1) Commitment to Supplier Diversity Program did not make a difference to Behavioral Beliefs Composite, Normative Beliefs Composite, or Control Beliefs Composite; 2) the Behavioral Beliefs Composite, Normative Beliefs Composite, and Control Beliefs Composite positively influenced

Attitude toward purchasing from women-owned enterprises, Subjective Norm about purchasing from women-owned enterprises, and Perceived Behavioral Control, respectively; 3) Attitude about behavior and Subjective Norm both significantly influenced Intention, but Perceived Behavior Control did not have a significant effect on it; and finally, 4) Commitment to Corporate Supplier Diversity Program had a significant effect on Intention.

6.3. Contribution to Literature

The study on the impact of Corporate Supplier Diversity Program on purchasers' Intention to purchase contributes mainly to two areas of study: business ethics/corporate social responsibility and women's entrepreneurship.

6.3.1. Contribution to business ethics/corporate social responsibility literature

The findings that both Commitment to Supplier Diversity Program and the Presence of a Supplier Diversity Program had an impact on purchasers' Intention to purchase make a noteworthy contribution to the business ethics literature. The business ethics area has long experienced a tension between the economic and duty-aligned orientations as conveyed in corporate social responsibility (CSR) literature at large (Swanson, 1995; 1999). The economic orientation views economic responsibility as the necessary condition and key component of CSR; in addition, it also recognizes the social constraints, such as public policy, the law, and social norms, which bind or limit business conduct (Friedman, 1962; 1970; Swanson, 1995). CSR according to the economic orientation, therefore, largely focuses on (economic) consequences and compliance with social constraints that are viewed as beneficial to such ends.

In contrast to the economic orientation, the duty-aligned orientation focuses on the motivation for behavior with an emphasis on the respect for the moral personhood of others (Boatright, 1993; Brady, 1985; De George, 1990; Donaldson, 1989; Freeman & Gilbert, 1988; Velasquez, 1982). Hence, intentionality is key to understanding the nature of duty. This orientation largely draws from rights and justice theories in moral philosophy. The rights approach encompasses both negative duties and positive duties – negative duties emphasize protections of individual entitlements and positive duties focus on extensions of the entitlements (Velasquez, 1982; Werhane, 1985). The justice approach, on the other hand, seeks fair distribution of benefits and burdens (Rawls, 1971). It is related to the rights approach in that it provides justification for the protection of negative rights and extension of positive rights (Beauchamp & Bowie, 1993).

The economic and the duty-aligned orientations overlap in the concern for the protection of negative rights; yet, the economic orientation is markedly indifferent to positive or affirmative duty to others (Swanson, 1995; Etzioni, 1988; Hausman, 1992; Sen, 1987). As a result, positive duty in the CSR literature has often been overlooked or downplayed, despite pleas from business ethics scholars for an exploratory stance toward the integration of the two orientations (e.g., Swanson, 1995, 1999; Trevino & Weaver, 1994; Victor & Stevens, 1994; Singer, 1998).

Justice theories compellingly argue for both the protection of negative rights and the extension of positive rights (Beauchamp & Bowie, 1993; Rawls, 1971). The relative lack of attention to positive duties in the CSR literature implies that this literature has little to say to practitioners in this area. The study of corporate purchasers' decision-making relative to women-owned enterprises helps close this gap, as explained below.

The stress on economic responsibility in the economic orientation suggests that issues not subject to social constraints, such as the inequitable distribution of corporate contracts to suppliers, are unidentified, ignored or downplayed in CSR research, especially to the extent that these issues are seen to be in the realm of positive duty. The findings that both a corporation's Commitment to a Supplier Diversity Program and the presence of such a program can have an impact on purchasers' decision-making demonstrate that positive duty can be incorporated in business activities and that the economic and the duty-aligned orientations can be compatible in this context (see Swanson, 1995): with some channeling of behaviors from the corporation through corporate supplier diversity programs, purchasers could be guided to purchase more from women/minority-owned enterprises. This small shift of focus in purchasing decisions can help mitigate some inequitable income distribution, thus aligning affirmative (positive duty) and justice in decision making to some degree. To the extent that such decisions are financially beneficial to the firm, the economic and dutiful perspectives can be viewed as compatible in this practice. Along these lines, future studies might explore the effect of this type of practice on social capital, a concept discussed in Chapter 2 of this dissertation as involving the generation of good will and other social benefits that may enhance the economic functioning of a firm.

One reason CSR theorists have downplayed positive duty is that the motivation in the duty-aligned perspective is difficult to operationalize empirically. This study further suggests that one way to resolve the problem is to use planning as a proxy for intentionality. Planning, in the form of implementing a supplier diversity program in a corporation, for example, bridges intentionality (e.g., a commitment to enact positive duty to women/minority owned enterprises) and consequence (the impact on corporate economic efficiency). In short, the integration of the

economic perspective's focus on ends and the duty-aligned emphasis on motivation can be made empirically feasible by operationalizing positive duty through such proxies as planning.

6.3.2. Contribution to the women's entrepreneurship literature

The findings of the study contribute to women's entrepreneurship literature as well. The stream of literature has mostly focused on the characteristics of women and their enterprises and the operations of these enterprises (e.g., Coleman, 2002; Hisrich & Brush, 1983, 1983; Brush, 1990; Chrisman & Leslie, 1989). Hurdles to women-owned enterprises have been explored mostly in the banking industry (e.g., Buttner & Rosen, 1988; Buttner & Rosen, 1989; Riding & Swift, 1990). This study explores women's entrepreneurship in the corporate supplier market – an area that has rarely been studied before to explore issues related to women's entrepreneurship. Thus, it complements and enriches the existing literature. More importantly, with the findings that the presence of a corporate supplier diversity program and commitment to it significantly influence corporate purchasers' decision-making relative to women-owned enterprises, the study pointed to a way to overcome the hurdles; namely, by introducing and effectively implementing supplier diversity programs, corporations can create more market opportunities for women-owned enterprises. The study is thus significant in that it seeks effective solutions instead of focusing on problems, which have dominated the stream of literature.

6.4. Limitations of the Study and Future Research

That Commitment to Supplier Diversity Program served as a poor exogenous variable to the planned behavior model indicates that conceptually the construct may be ill-fitted to be one. As I mentioned in Chapter 3, strictly speaking, Commitment to Supplier Diversity Program is not an

external variable to Fishbein and Ajzen's model (1980) in the sense intended by them. The external variables in Fishbein and Ajzen's theory of reasoned action refer to those related in various ways to the performer of a given behavior, including his/her demographic characteristics, attitude toward targets, and personality traits. Commitment to Supplier Diversity Program is a characteristic of one's corporation instead of a characteristic of oneself. Thus, in retrospect, the proposed link between it and the beliefs composites may be flawed, as an organizational characteristic may not work the same way on an individual's beliefs as an individual's characteristic.

On the other hand, the findings also raise a question pertaining to the adequacy of the planned behavior model to explain socially responsible behavior in an organizational context. The planned behavior model assumes free human volition constrained only by perception of behavioral control (Ajzen, 1985; 1991). Yet, in an organizational context, one's behavior is largely prescribed in the form of duties dictated by one's organization and profession; corporate direction or the lack of it significantly influences socially responsible behavior in an organizational context as well. Thus, not including an organizational variable such as Commitment to Supplier Diversity Program in directly explaining socially responsible behavior in an organizational context seemed to miss a significant part of the picture.

Given that both Commitment to Supplier Diversity Program and the Presence of such a program were shown to have a significant direct effect on Intention, I propose that future studies be conducted to further validate the relationship, using Commitment to Supplier Diversity Program or the Presence of such a program as a direct predictor of Intention and adding it to Attitude, Subjective Norm, and Perceived Behavioral Control, the other predictors in the planned behavior model. Further, the findings also showed that the Presence of Supplier Diversity

Program had a significant effect on Subjective Norm, which in turn had a significant effect on Intention. Future studies could therefore also test the mediating effect of Subjective Norm on the relationship between the Presence of/Commitment to Supplier Diversity Program and Intention, further adding to the understanding of the impact of Commitment to Supplier Diversity Program.

Methodologically, future research could refine the study in the following ways. First, future studies could design more complex and realistic scenarios so that respondents could respond to a more life-like situation. Alternatively, a video portrayal of a small business owner and his/her enterprises could be used, as visual images speak more plainly and intuitively to viewers than written paragraphs to readers; the latter demands cognitive efforts, potentially resulting in unintended interpretations of the text. To further enhance the reliability and validity of the study, future studies could use more items to measure the constructs: the questionnaire was constrained by length and used only two items for Intention and each of its immediate predictors. Consequently, a couple of constructs, Attitude and Perceived Behavioral Control in particular, resulted in relative low Cronbach's alpha (see Table 5.5). Finally, future studies could also build potentially more reliable constructs of the beliefs composites by interviewing a greater number of purchasers.

6.5. Practical Implications

The findings that the Presence of Supplier Diversity Program and Commitment to such a program had a significant effect on purchasers' Intention to purchase had significant practical implications. With a slight shift of focus in purchasing decision-making, purchasers could potentially redress the inequitable distribution of corporate contracts to suppliers in the market place (Center for Women's Business Research, 2005) by providing women/minority-owned

enterprises with more contracts, which these enterprises may otherwise not be able to obtain. Corporate supplier diversity programs thus play a significant, socially beneficial role. Given that about 40% of the corporations have not yet introduced a supplier diversity program (Table 5.2), the study strongly calls for those corporations to establish one. And, as Commitment to Supplier Diversity Program is positively associated with Intention to purchase, the study also calls for the corporations that have already established a supplier diversity program to be committed to their programs.

6.6. Summary and Conclusions

In this chapter, I first described the contribution of the study to two streams of literature: business ethics/corporate social responsibility and women's entrepreneurship. With regard to its contribution to the corporate social responsibility literature, the study demonstrated the theoretical and empirical viability of the integration between the economic and duty-aligned orientations. With regard to its contribution to women's entrepreneurship literature, the study revealed an effective way to help women-owned enterprises overcome the barriers. I then pointed to directions for future research, suggesting using Commitment to Supplier Diversity Program as a direct predictor of Intention, along with Attitude, Subjective Norm, and Perceived Behavioral Control, the other direct predictors in the planned behavior model. Finally, I pointed out the practical implications of the study. Corporations are urged to introduce supplier diversity programs and be committed to them, for doing so benefits women/minority owned enterprises and redresses the inequitable distribution of corporate contracts to suppliers in the marketplace.

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Appendix 1. IRB Approval

Office of Research Compliance

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Blacksburg, Virginia 24061
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E-mail: ctgreen@vt.edu
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FWA00000572 (EXPRESS 7/20/07)
IRB # is IRB 00000667

Date: March 16, 2006

MEMORANDUM

TO: Richard E. Wokutch
Jiyun Wu

FROM: Carmen Green

SUBJECT: **IRB Exempt Approval:** "The Impact of Corporate Supplier Diversity Programs on Corporate Purchasers' Decision-making Regarding Women-owned Enterprises: An Empirical Test Using the Theory of Planned Behavior", IRB # 06-110.

I have reviewed your request to the IRB for exemption for the above referenced project. I concur that the research falls within the exempt status. Approval is granted effective of March 16, 2006.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changed in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The purposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subject or others.

Cc: File

Appendix 2. Questionnaire Cover Letter

Jane Doe, Asst VP
MC NC1 023 09 01
525 N Tryon St
Charlotte, NC 28255

January 10, 2007

Dear Ms. Doe,

Allow me to introduce myself. My name is Rich Wokutch, and I am head of the Department of Management in the Pamplin College of Business at Virginia Tech. I am writing to seek your help in a meaningful nation-wide academic study, which I am conducting with my colleague, June Wu, at Virginia Tech. In particular, we would deeply appreciate it if you could answer the questions in the attached scenario-based questionnaire. The Institute of Supply Management provided us with your contact information.

The study explores corporate purchasers' decision-making. We hope that the final study results will benefit corporate purchasers in their purchasing decisions. Should you decide to participate, and should you wish, we would be very happy to send you a summary report of the final results of the study, once the study is completed. The study involves about 3,000 corporate purchasers. We hope to ultimately publish the results in an academic journal.

I would like to assure you that your participation is voluntary and your responses will be kept completely confidential. Any results we report will include only a summary of the data, so there is no way your answers can be connected directly to you or your firm. We place an identifier on the return envelope for the purpose of keeping track of returned surveys. The study has received the approval of the Human Subjects Committee, Institutional Review Board at Virginia Tech.

The questionnaire will take about 10 minutes. I would greatly appreciate your filling out the survey enclosed and returning it to me as soon as possible and ideally no later than May 20, 2007. Please let me know if you have any questions. I could be reached at 540-231-6353 or wokutch@vt.edu. June Wu can be reached at 607-257-1426 or jiwu2@vt.edu.

Sincerely,

Richard E. Wokutch, PhD

Pamplin Professor and Head
Department of Management

Appendix 3. Construct Measures Used in the Study

Intention

- 1. Given that your company has a need for hand-held computing devices, how likely are you to order this product from Millennium?**

Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely Nor unlikely	Likely	Somewhat Likely	Likely	Very Likely
1	2	3	4	5	6		7

- 2. There is a _____ chance that I would buy hand-held computing devices from Millennium, if my company has a need for such a product.**

very remote	remote	somewhat remote	neither remote nor good	somewhat good	good	very good
1	2	3	4	5	6	7

Attitude toward behavior

- 1. I feel that purchasing hand-held computing devices from Millennium Computing will be _____**

totally worthless	worthless	somewhat worthless	neither worthwhile nor worthwhile	worthless	somewhat worthwhile	worthwhile	extremely worthwhile
1	2	3	4	5	6	7	

- 2. I am _____ in purchasing from Millennium Computing.**

extremely uninterested	uninterested	somewhat uninterested	neither uninterested nor interested	somewhat interested	interested	extremely interested
1	2	3	4	5	6	7

Subjective Norm

- 1. The people whose opinions I value at work would think that I _____ purchase hand-held computing devices or such products from a company such as Millennium Computing.**

absolutely should not	should not	somewhat should not	neither should nor should not	somewhat should	should	absolutely should
1	2	3	4	5	6	7

- 2. The people whose opinions I value at work would want me to purchase hand-held computing devices and related products from a company such as Millennium Computing.**

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Perceived Behavioral Control

- 1. Given the work environment I am in, the decision to purchase hand-held computing devices from a company such as Millennium Computing is beyond my control.**

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

- 2. Given the work environment I am in, whether or not I purchase hand-held**

computing devices from a company such as Millennium Computing is a decision entirely up to me.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Nor Disagree	Agree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7	

Behavioral Beliefs Composite

1. If I purchase hand-held computing devices from a company such as Millennium Computing, I feel that the product will add value to my company.

Extremely Unlikely	Unlikely	Somewhat Unlikely	Neither Nor Likely	Unlikely	Somewhat Likely	Likely	Extremely Likely
1	2	3	4	5	6	7	

Purchasing products that add value to my company is _____.

extremely unimportant	unimportant	somewhat unimportant	neither nor important	unimportant	somewhat important	important	extremely important
-3	-2	-1	0	1	2	3	

2. I will feel confident about the reliability of hand-held computing devices purchased from a company such as Millennium Computing.

Extremely Unlikely	Unlikely	Somewhat Unlikely	Neither Nor Likely	Unlikely	Somewhat Likely	Likely	Extremely Likely
1	2	3	4	5	6	7	

Feeling confident about the reliability of purchased products is _____.

extremely unimportant	unimportant	somewhat unimportant	neither nor important	unimportant	somewhat important	important	extremely important
-3	-2	-1	0	1	2	3	

3. I feel that it is meaningful to purchase hand-held computing devices from a company such as Millennium Computing.

Extremely Unlikely	Unlikely	Somewhat Unlikely	Neither Nor Likely	Unlikely	Somewhat Likely	Likely	Extremely Likely
1	2	3	4	5	6	7	

Making purchasing decisions that are meaningful is _____.

extremely unimportant	unimportant	somewhat unimportant	neither nor important	unimportant	somewhat important	important	extremely important
-3	-2	-1	0	1	2	3	

Normative Beliefs Composite

1. My boss would _____ of purchasing hand-held computing devices or related products from a company such Millennium Computing

absolutely disapprove	disapprove	somewhat disapprove	neither nor approve	disapprove	somewhat approve	approve	absolutely approve
-3	-2	-1	0	1	2	3	

When it comes to making purchasing decisions, how much do you care whether your boss approves or disapproves of your decisions?

Extremely Unconcerned	Unconcerned	Somewhat Unconcerned	Neither Unconcerned Nor Concerned	Unconcerned	Somewhat Concerned	Concerned	Extremely Concerned
1	2	3	4	5	6	7	

2. My colleagues at work would think that I _____ purchase hand-held computing devices or related products from a company such as Millennium Computing.

absolutely should not	should not	somewhat should not	neither nor should not	should	somewhat should	should	absolutely should
-3	-2	-1	0	1	2	3	

When it comes to making purchasing decisions, how much do you care what your colleagues think you should do?

Extremely Unconcerned	Unconcerned	Somewhat Unconcerned	Neither Unconcerned Nor Concerned	Unconcerned	Somewhat Concerned	Concerned	Extremely Concerned
1	2	3	4	5	6	7	

3. My fellow professionals in the same industry would expect me to purchase hand-held computing devices or related products from a company such as Millennium Computing.

Extremely Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Unlikely	Somewhat Likely	Likely	Extremely Likely
-3	-2	-1	0	1	2	3	

When it comes to making purchasing decisions, how much do you care what your fellow professionals in the same industry think you should do?

Extremely Unconcerned	Unconcerned	Somewhat Unconcerned	Neither Unconcerned Nor Concerned	Unconcerned	Somewhat Concerned	Concerned	Extremely Concerned
1	2	3	4	5	6	7	

Control beliefs composite

1. I am experienced in purchasing products from companies like Millennium Computing.

Definitely False	False	Somewhat False	Neither False Nor True	False True	Somewhat True	True	Definitely True
1	2	3	4	5	6	7	

Being experienced in purchasing from such companies would make it _____ for me to purchase from Millennium Computing.

extremely unlikely	unlikely	somewhat unlikely	neither nor likely	unlikely	somewhat likely	likely	extremely likely
-3	-2	-1	0	1	2	3	

2. I have many professional contacts from companies like Millennium Computing.

Definitely False	False	Somewhat False	Neither False Nor True	False True	Somewhat True	True	Definitely True
1	2	3	4	5	6	7	

Having many such professional contacts would make it _____ for me to purchase from Millennium Computing.

extremely unlikely	unlikely	somewhat unlikely	neither nor likely	unlikely	somewhat likely	likely	extremely likely
-3	-2	-1	0		1	2	3

3. I have mostly purchased products from companies like Millennium Computing.

Definitely False	False	Somewhat False	Neither Nor True	False True	Somewhat True	True	Definitely True
1	2	3	4	5	6	7	

Having mostly purchased from such companies would make it _____ for me to purchase from Millennium Computing.

extremely unlikely	unlikely	somewhat unlikely	neither nor likely	unlikely	somewhat likely	likely	extremely likely
-3	-2	-1	0		1	2	3

Supplier diversity programs:

1. My corporation has a supplier diversity program.

Yes
No

If Yes, please answer the following questions (if no, skip questions 2, 3, and 4 of this section, and go to the next section.)

2. My corporation is committed to carrying out a supplier diversity program.

Absolutely Uncommitted	Uncommitted	Somewhat Uncommitted	Neither Nor Uncommitted	Committed	Somewhat Committed	Committed	Absolutely Committed
1	2	3	4	5	6	7	

3. The supplier diversity program in my corporation is not much implemented.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Nor Disagree	Agree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7	

4. I believe my supplier diversity program is _____ than that in other corporations.

far worse	worse	somewhat worse	neither nor better	worse	somewhat better	better	far better
1	2	3	4	5	6	7	

Appendix 4. Symbols for Observed Variables

BBC1	I will feel confident about the reliability of hand-held computing devices purchase from a company such as Millennium Computing.*
BBC2	If I purchase hand-held computing devices from a company such as Millennium Computing, I feel that the product will add value to my company.
BBC3	I feel that it is meaningful to purchase hand-held computing devices from a company such as Millennium Computing.
NBC1	My boss would _____ of purchasing hand-held computing devices or related products from a company such Millennium Computing
NBC2	My colleagues at work would think that I _____ purchase hand-held computing devices or related products from a company such as Millennium Computing.
NBC3	My fellow professionals in the same industry would expect me to purchase hand-held computing devices or related products from a company such as Millennium Computing.
CBC1	I have many my professional contacts from companies like Millennium Computing.
CBC2	I am experienced in purchasing products from companies like Millennium Computing.
CBC3	I have mostly purchased products from companies like Millennium Computing.
A1	I am _____ in purchasing from Millennium Computing.
A2	I feel that purchasing hand-held computing devices from Millennium Computing will be _____
SN1	The people whose opinions I value at work would think that I _____ purchase hand-held computing devices or such products from a company such as Millennium Computing.
SN2	The people whose opinions I value at work would want me to purchase hand-held computing devices and related products from a company such as Millennium Computing.
PBC1	Given the work environment I am in, the decision to purchase hand-held computing devices from a company such as Millennium Computing is beyond my control.
PBC2	Given the work environment I am in, whether or not I purchase hand-held computing devices from a company such as Millennium Computing is a decision entirely up to me.
I1	Given that your company has a need for hand-held computing devices, how likely are you to order this product from Millennium?
I2	There is a _____ chance that I would buy hand-held computing devices from Millennium, if my company has a need for such a product.

*Note: For simplicity reasons, the moderators of the belief composite items are not listed here. They can be found in Appendix 3.