

# ATTITUDES AND COMPANY PRACTICES AS PREDICTORS OF MANAGERS' INTENTIONS TO HIRE, DEVELOP, AND PROMOTE WOMEN IN SCIENCE, ENGINEERING, AND TECHNOLOGY PROFESSIONS

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Women in professional science, engineering, and technology (SET) are underrepresented in SET organizations, and companies have undertaken a multitude of initiatives to remedy the problem. The outcomes of these efforts have been mixed, and the underrepresentation of women in SET continues. In this study, we examined the correlates of middle managers' intentions to hire, promote, develop, and retain SET women. The theory of planned behavior (TPB; Ajzen, 1991) was used to assess and predict managers' behavioral intentions to engage in women-friendly behaviors (WFB). An elicitation study was first conducted to determine the most salient behavioral, normative, and control beliefs with respect to the behaviors of interest. These data guided the development of items for a survey that was distributed through online social networks and completed by 233 middle managers in SET organizations. Hierarchical regression analyses showed that the most significant factors associated with SET managers' intentions to engage in WFB were their Attitudes, Perceived Behavioral Control, Past Behavior, and Affect toward SET women. Furthermore, the manager's gender moderated the relationship between Subjective Norms and Intentions. Women managers' intentions were more strongly affected by the Subjective Norms. The combination of theory-derived and exploratory variables (Company Practices, Past Behavior, and Affect) explained 71% of the variance in managers' intentions toward WFB. Implications for consulting psychologists are discussed.

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Science, engineering, and technology (SET) are among the most important sources of U.S. economic growth (U.S. Department of Labor, Employment, & Training Administration, 2007). Women in professional science, engineering, and technology are underrepresented in SET organizations in the U.S. (U.S. Bureau of Labor Statistics, 2009). The same problem is widespread in Europe, despite the growing number of women with SET degrees there (European Commission Directorate-General for Research, 2006). Metaphors, such as the “leaky pipeline,” the “glass ceiling,” and the “labyrinth” are often used in the literature to refer to the imbalance in the number of professional SET women leaving their organizations, the small number of women in leadership roles in these organizations, and the barriers women face in these organizations (Eagly & Carli, 2007). Despite numerous initiatives to address SET women’s underrepresentation in SET organizations and turnover, it remains a prevalent problem.

According to a report from the U.S. Bureau of Labor Statistics, 60% of women were in the labor force in 2008. This percentage has remained fairly constant over the past several years. However in 2009, women comprised only 12% of the engineering workforce, 27% of the computers and mathematics workforce, and 44% of the life, social, and physical sciences workforce (Bureau of Labor Statistics, 2009). These already low numbers decrease even more at the executive levels. Additionally, retention rates for males in engineering significantly exceed those for females (Frehill, DiFabio, Hill, Traeger, & Buono, 2008; Morgan, 2000). The greatest dropout of females generally occurs when they are in their mid to late 30s (Ashcraft & Blithe, 2009), which suggests that women face career hurdles at the same time that family commitments increase.

The underrepresentation of professional SET women in organizations may be disadvantageous to the technology sector in a number of ways. First, a lack of required skills in these professions continues to be a major industry growth problem (Overby, 2006); the low numbers of women in SET professions represent a potential loss of talent for the technology sector. Second, the underrepresentation of women in SET professions can create a male-dominant viewpoint in the innovation and design processes of new products or services and may result in products and technologies that are suitable for, or consumed by, a smaller range of the consumer base (Ely & Meyerson, 2000a, 2000b). Third, the underrepresentation of professional SET women in SET organizations may lead to decreased diversity of thought and perspectives in the workplace and, therefore, affect creative problem-solving and innovation. Gender diversity has the potential to increase the accessible range of perspective, style, knowledge, and insight that can be brought to bear on complex organizational problems and needs. In particular, gender diversity in the workplace has been documented as being positively associated with financial performance, increased return on equity, user-driven innovation, improved decision making, and increased competitiveness in the marketplace, as well as decreased absenteeism and turnover (European Commission, 2006; Pelled, Eisenhardt, & Xin, 1999; Vitalari & Dell, 1998). On the other hand, it is also true that gender diversity has been associated with performance losses and a negative impact on group performance and processes. Examples include group conflict, hindered communication and cohesion, and interference with cooperation, thereby lowering performance (Adams & Ferreira, 2009; Ahern & Dittmar, 2010; Clement & Schiereck, 1973; Murnighan & Conlon, 1991; Tsui, Egan, & O’Reilly, 1992; Vecchio & Brazil, 2007). Research on demographic diversity has indicated that despite the potential benefits of diversity, the way diversity is conceptualized and implemented has an impact on the subtle or not so subtle experiences of minority group members (Turner, 2007).

Most research on gender diversity has focused on the effects of gender diversity on individual and organizational outcomes. A number of studies have focused on the antecedents to gender diversity, including organizations’ dedication to diversity as reflected in staffing collateral, the number of women on corporate boards, group effectiveness, and personality characteristics (Lee & Farh, 2004; Rau & Hyland, 2003; Sawyerr, Strauss, & Yan, 2005; Singh & Point, 2006). It is important to note that most of the research on antecedents to gender diversity has focused on

organization and individual precursors and less on precursors related to attitudes toward gender roles.

Middle managers' beliefs, values, attitudes, priorities, and judgments are significant factors affecting the career development and growth of their employees, as well as the organization's performance, new initiatives' success, and change management initiatives (Schein, 1992, 1999; Smircich & Morgan, 1982; Tichy & Cohen, 2002; Ulrich, 1997). Middle managers in organizations exercise strong influence over the way individuals are treated, developed, promoted, and compensated. Managers also have an impact on employees' motivation, job-related stress levels, and their use of available company policies and career development opportunities. Middle managers have a potentially important role in lowering turnover (Goff, Mount, & Jamison, 1990), employees' intentions to leave, and perceived work-family conflict (Allen, 2001; Lapierre & Allen, 2006; Thompson, Beauvais, & Lyness, 1999). In short, the beliefs and attitudes of middle managers are crucial in terms of their consequences for SET professional women in SET organizations.

Defining the term *middle management* is complex, as middle managers do not form a distinct and consistent group that can be easily distinguished across different organizations (McConville & Holden, 1999). However, there is some agreement in the literature that middle managers are above first-line professionals and first-line supervisors and below the senior C-level executives (Robbins, Bergman, Stagg, & Coulter, 2000; Roomkin, 1989). Huy (2001) described middle managers as "managers two levels below the CEO and one level above line workers and professionals" (p. 73). Floyd and Wooldridge (1996) argued that the role of the middle manager is to implement effectively the strategy set by senior management and create momentum to get work done. In this context, the middle manager's role can be seen as championing, synthesizing, facilitating, and implementing C-suite strategy. The middle manager can support employee development, improve company results, and support the organization's culture.

### Theories About the Link Between Attitudes and Behavior

Some elements of managers' behavior may be explained through the use of attitude-behavior theories in social psychology. These theories include the theory of reasoned action (TRA; Fishbein & Ajzen, 1972), and the more fully developed theory of planned behavior (TPB; Ajzen, 1985, 1991). In this section, we review these theories and employ the principles in the theory of planned behavior to create a model of managers' attitudes and behaviors toward developing and retaining women in SET organizations.

#### Theory of Reasoned Action (TRA)

The TRA was developed out of discontent with conventional attitude-behavior research, which overwhelmingly found "weak correlations between attitude measures and performance of volitional behaviors" (Hale, Householder, & Greene, 2003, p.259). The TRA was formulated to demonstrate how a specified behavior is produced by an individual's beliefs, attitudes, and intentions toward that behavior; it included the element of *subjective norm* (i.e., the person's perceptions of the social pressures to carry out or not carry out the behavior; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1972; Hankins, French, & Horne, 2000).

The TRA has been used in business, sociology, and psychology; multiple studies have demonstrated that the model is of value in predicting and explaining variance in intentions and behavior. Results from 15 studies support the TRA model (Zint, 2002). Zacharia (2003) found that the TRA model confirms that beliefs affect attitudes and that attitudes affect intentions. At the same time, Ajzen (as cited in Godin & Kok, 1996) realized that one of the theory's drawbacks was in predicting behavioral intent when people feel they have limited control over their behaviors.

Ajzen (1988) noted that intention often depends on the level of volitional control that individuals have over their behavior; that is, "behaviors that do not require special skills, resources, or support and hence can be performed at will" (Zint, 2002, p. 827). In situations in which an individual has volitional control, attitude will play a significant part in predicting intentions and thus behavior.

In situations in which little volitional control exists, the intention to act will be less significant in predicting behavior. To address these observations, Ajzen added *perceived behavioral control* (PBC) as an additional construct to the theory of reasoned action, resulting in the creation of the theory of planned behavior (TPB).

### Theory of Planned Behavior

The TPB was developed with the objective of trying to understand and predict what influences an individual's behavior and what strategies need to be used to influence change in a target behavior (Conner et al., 2002; Fishbein & Ajzen, 1975). According to the TPB (see Figure 1), an individual's decision to perform or not to perform behavior is based on her or his salient beliefs relevant to the behavior. These salient beliefs are considered to be the prevailing determinants of a person's intentions and actions. Three types of belief constructs lay at the foundation of TPB: behavioral, normative, and control beliefs. According to the theory, the direct measures, attitudes toward the behavior, subjective norms, and PBC are based on corresponding sets of beliefs that eventually guide intention and performance of the behavior. According to the TPB, "The relationship between attitude and behavior will be strongest when both are measured to the same degree of specificity with respect to each element" (Ajzen & Fishbein, 2005, p. 275). Hence, a behavior consists of the following elements: an action performed toward a goal or on an object, in a specific setting, at a specified time or event. This is an important aspect of the present study, which focuses on specific attitudes, subjective norms, and PBC of middle managers vis-à-vis aspects of women-friendly behaviors (WFB; i.e., development, retention, and promotion of SET women in SET organizations).

The TPB is based on *cognitive processing*, which distinguishes it from affective processing models. Researchers point out that it is useful to make a distinction between "evaluative and affective judgments" (Abelson, Kinder, Peters, & Fiske, 1982; Ajzen & Timko, 1986). Some attitude-behavior researchers have claimed that the TPB overlooks emotional variables, such as fear and other negative (or positive) feelings, because attitude and perceived behavioral control in TPB are based on cognitive beliefs (Dutta-Bergman, 2005). Other researchers have suggested that both the social-normative items and the belief items are likely to reflect some affective components (Bartolini, 2005; Millstein, 1996). These points are important in the present study because some of the attitudes, values, and behaviors concerning professional SET women in these organizations may

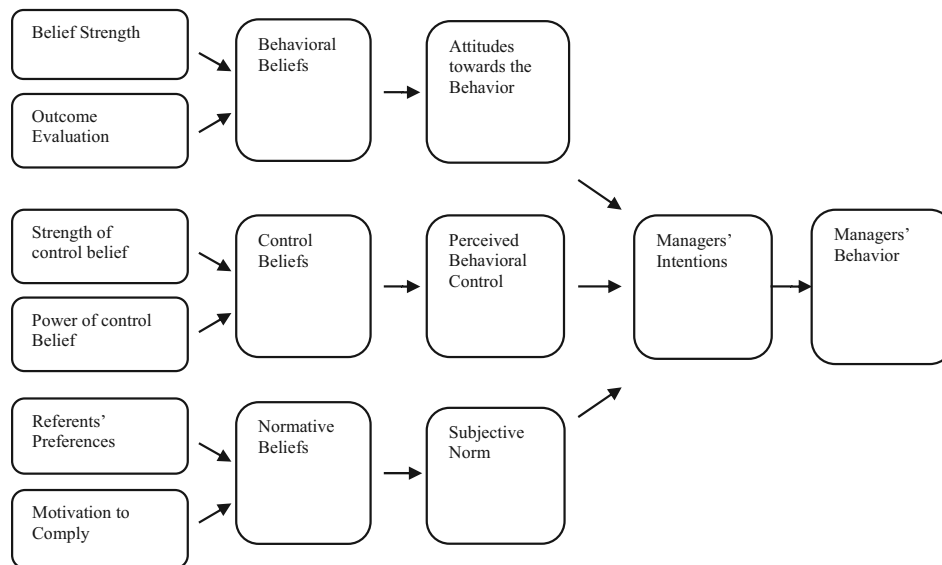


Figure 1. The theory of planned behavior. Adapted from Ajzen, 1985.

represent “a cluster of affective, unconscious social expectations and practices that reinforce sex-based inequality” (Rhode & Kellermann, 2007, p. 959). Gender stereotypes and unconscious bias concerning SET women may represent significant barriers for them. A number of researchers have also suggested that adding additional factors into the model may increase its predictive power (Conner & Armitage, 1998). One such variable of interest to consulting psychologists may be the perceived organizational climate or context, discussed in the next section.

### Perceived Organizational Work Practices

Organizational climate is defined by Reichers and Schneider (1990) as “the shared perception of the way things are around here,” (p. 22) and by Isaksen and Ekvall (2007) as, “the recurring patterns of behavior, attitudes, and feelings that characterize life in the organization” (p. 178). It is typically thought of as “shared perceptions of practices, organizational policies, and procedures, both formal and informal” (Peterson & White, 1992, p. 177). While organizational culture is rooted in beliefs and values, climate is typically considered to be more oriented around behavior, which represents the feelings and perceptions of individuals about their organization. Climate can be understood as an exterior demonstration or expression of the underlying culture, describing the overt and observable facets of shared perceptions and behaviors within the organization without looking into the underlying values and assumptions that help shape it (Mohr & Nevin, 1990; Moorman, 1995; Patterson et al., 2005). Climate is “relatively temporary and subject to direct control” (Denison, 2001, p. 624). Climate is more readily changed than culture. For example, an organization can establish a climate of accountability or creativity within the framework of its general organizational culture (Patterson et al., 2005; Schein, 1990; Sparrow, 2001). Changes in organizational climate are typically influenced by the organization’s leadership team via mechanisms, such as communication, setting new standards or roles of behavior, and through rewards and sanctions. In the present study we used the term *organizational work practices* or *company practices* as a broad concept to include perceived organizational climate and corporate practices with respect to SET women (Bower, 1970; Burgelman, 1983; Denison, 1990; Haspeslagh & Jemiso, 1991; Schein, 1985).

### Tests of Relationships Among Key Constructs in the Theory of Planned Behavior

The present research examined relationships put forth in Figure 2 as applied to the case of middle managers in SET organizations. The hypotheses relate to the second and third columns of the model:

*Hypothesis 1:* SET middle managers’ behavioral beliefs about engaging in WFB will be significantly and positively associated with their attitudes toward engaging in WFB.

*Hypothesis 2:* SET middle managers’ normative beliefs toward engaging in WFB toward professional women in their organizations will be significantly and positively associated with their subjective norms.

*Hypothesis 3:* SET middle managers’ control beliefs toward engaging in WFB toward professional women in their organizations will be significantly and positively associated with their PBC toward WFB.

### Prediction of Behavioral Intent (to Engage in FWB)

Hypotheses 4 through 6 relate to the prediction of middle managers’ behavioral intentions to engage in women-friendly practices:

*Hypothesis 4:* SET middle managers’ attitudes toward engaging in WFB toward professional women in SET will be significantly and positively associated with their behavioral intentions to engage in WFB.

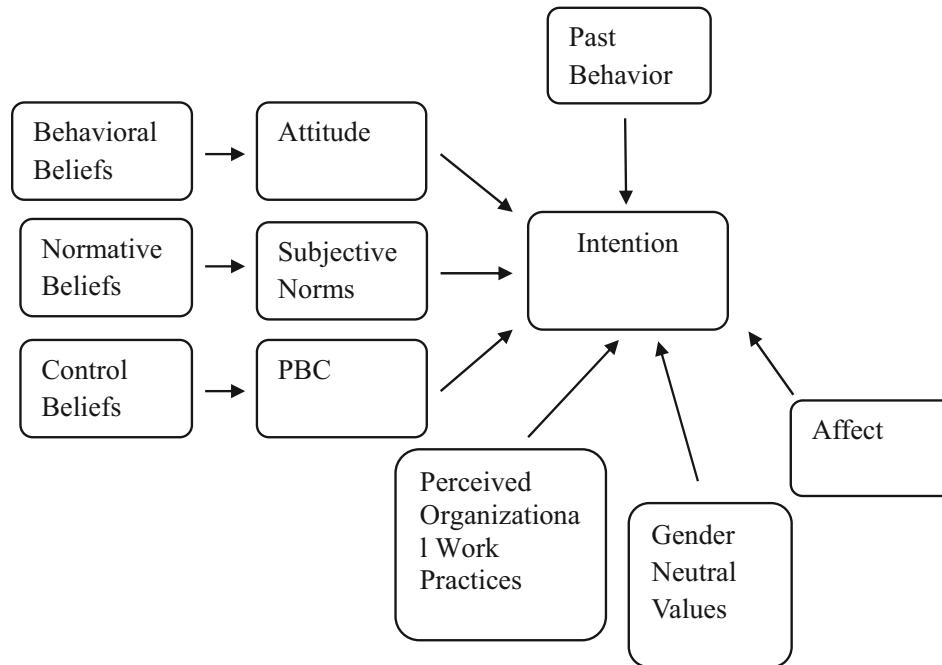


Figure 2. Schematic model for relationships tested, including the TPB variables, perceived organizational work practices, and the exploratory variables identified through the elicitation interviews. PBC = perceived behavioral control.

*Hypothesis 5:* SET middle managers who believe they have greater behavioral control over engaging in WFB toward professional SET women will be significantly more likely to report behavioral intentions to engage in WFB.

*Hypothesis 6:* SET middle managers who report subjective norms in favor of engaging in WFB toward professional SET women will be significantly more likely to report behavioral intentions in favor of WFB.

Hypothesis 7 is a new addition to the model (not shown in Figure 2).

*Hypothesis 7:* Perceived supportive organizational work practices toward SET women will be significantly and positively associated with middle managers' intentions to engage in WFB.

## Method

A mixed-methods design included a qualitative study (the elicitation study) to elicit the beliefs of middle managers about women in SET professions and a survey study, built upon the first study, to examine the strength and direction of relationships among variables in the model. Following Ajzen and Fishbein (1980), the method consisted of four parts: (a) the design, using open-ended elicitation interviews, execution, and data analysis (b) the construction of a survey based on the elicitation study findings, (c) an informal pilot test of the developed survey instrument, and (d) finalization of the online survey for the second study, with a greater number of participants.

### Study 1: Qualitative Study Using Elicitation Interviews

**Participants.** The sample included 20 middle managers in public SET organizations, drawn both from the first author's SET network and from responses to invitations that were posted on

professional and business-related social media networking sites, such as LinkedIn. Respondents were invited to participate in a study about managerial talent management practices. A standard e-mail message explained the study and asked managers to participate and to provide referrals for additional participants. Participants were both male and female (15 males and 5 females) working in SET public companies in people management roles. These numbers are representative of the industry ratio of about 75% male and 25% female managers in SET organizations. Only managers from established, publically traded companies were used in the sample. Public companies are generally better resourced and are potentially able to increase awareness and understanding around women's inclusion than are pre-IPO companies. Additional criteria for inclusion were managers from public companies with more than 500 employees in the science, engineering, and technology industries. A broad definition of middle managers was used: "all levels of management between the first supervisory level and the top level (C suite senior executive), that have direct reports" (Robbins et al., 2000, p. 7).

**Interviews.** Elicitation interviews were open-ended, semistructured, in-person interviews to identify prominent behavioral, normative, and control beliefs about the targeted behaviors that underlie SET middle managers' attitudes, subjective norms, and PBC, with respect to engaging in WFB (see the first two columns in Figure 2). The interview questions were directed toward three categories: (a) salient beliefs about the consequences of performing the behavior (behavioral beliefs), (b) salient beliefs about the views of important others (normative beliefs), and (c) salient beliefs about factors that may facilitate or impede performance of the behavior (control beliefs).

An example of a question that was asked during the elicitation interviews is: "What do you think would be the advantages of your promoting SET professional women in your group?" In addition, in order to establish the control beliefs items, participants were asked to list the factors that would make it easy or difficult for them to engage in WFB.

Interviews were conducted by the first author in a manner that was careful to avoid leading, influencing, or encouraging participants to provide responses that were socially desirable. She focused the beginning of each interview on building rapport and increasing interviewees' comfort and willingness to provide candid responses. Interviewees were told that their names or personal information would not be associated with any responses. Follow-up questions and probes were used to encourage discussion; then participants were given the opportunity to raise any additional issues that had not been covered during the interview. Interviews were concluded once data saturation had been reached.

Salient beliefs were considered to be those that first came to mind during the interviews when SET middle managers were asked open-ended questions. Notes were taken on the answers, as well as the comments and questions asked by the interviewees. Immediately after each interview, notes were "cleaned up" to ensure greater accuracy in recording.

**Content analysis.** Two graduate students were trained in the process of coding data by the first author. Coders read the interview transcripts and identified and labeled belief themes, which focused on advantages, disadvantages, normative beliefs, and beliefs about factors that may facilitate or impede performance of middle managers' behavior. The coders grouped comments into categories, labeled the categories, and noted their frequencies. The analysis resulted in a list of modal salient outcomes, referents, and control factors (see Tables 1, 2, and 3). The data coding process reduced the initially large number of items that were identified in the interviews (see Table 4). This list was used to construct items for the final survey instrument.

**Survey instrument development.** The survey included two sections: (a) factors affecting middle managers' engagement with WFBs toward SET women in their organizations and (b) demographic information. The most frequent beliefs that emerged in the elicitation study were selected as items for the closed-ended survey. Items were constructed for each measure of behavioral belief (belief strength and outcome evaluation), for each normative belief (referents' preference and motivation to comply), and for each control belief (strength and power of control). All items were measured using a 7-point Likert-type scale and were developed based on the guidelines provided by Ajzen and Fishbein (1980) and Francis et al. (2004). To assess behavioral

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Table 1  
*Behavioral Beliefs Constructs Themes, Frequency, and Sample Quotes*

Belief construct	Belief theme	Freq.	Sample quotes
Advantage/Like	Diversity of thought, behavior, capabilities.	20	"Improve work group diversity." "Men and women think differently. Women's thinking is wider/men are more focused on the problem at hand."
	Improve teamwork, collaboration, morale.	18	"Women are open, collaborative, better communicators, all of that improves teamwork."
	Improve team's performance and work product.	15	"Better product for the organization when women are involved in the development process." "Women are more focused/better quality work product for the group."
Disadvantage/Dislike	Women have higher EQ	7	"More emotionally developed" "Sensitive to other people."
	Women are more emotional/ require more effort from a managerial perspective.	14	"As a manager you have to be more careful and gentle with women." "Women are more sensitive and emotional; sometimes it is exhausting to manage them."
	Women have other responsibilities at home/lower job commitment/less flexible.	16	"Women are less flexible with their work time commitments because they need to support their children and household activities."
	Women are perceived as less capable.	7	"In some industries (hardware, physics) women are perceived as less competent."
	Men can build better relationships with other men.	7	"Men connect with each other around activities or because of convenience, i.e., activities such as sports, drinking, or where their relationship is based on the exchange of work-related needs and or favors."
Talent management practices are not connected to gender	They become a minority within the group.	5	"Women tend to talk and share personal things." "Small number of women in a group tends to be problematic, as they tend to group together."
	Hiring, promoting in technology is focused on skills, experience, and performance and not on gender	5	

Note. Freq. = frequency of participants' endorsing theme.



Table 2  
*Normative Beliefs Constructs Themes, Frequency, and Sample Quotes*

Belief construct	Belief theme	Salient frequency	Sample quotes
Approve	Hiring managers	15	"Managers and peers hire people based on their skill set and their prior performance."
	Other employees in the group/Peers	11	
	HR	6	"HR is usually supportive of hiring a minority if they are a good match in terms of skill set."
	Women	4	"Women tend to hire more women."
Disapprove	People with passion for the topic	2	"Some men prefer to hire men." "Men sometimes are perceived as more competent and a better fit."
	Hiring managers	8	
	Other men in the group	7	

intention, respondents were asked to rate the likelihood of their intention to engage in each of the specific WFBs. All survey items and more detailed information on scoring each construct are available in Braun (2012).

**Perceived organizational work practices.** Eleven items, measured on a 7-point scale were used to measure work context/practices. The stem item was: "My company promotes the following initiatives to further women's careers," followed by 11 work practices, for example: (a) actively tries to attract more women to the organization, (b) provides trainings for women to support their professional and leadership skills. Cronbach's alpha for this set of items was .94.

**Additional exploratory variables.** After the elicitation study was completed and the results analyzed, we noted that some participants mentioned three concepts that were not part of Ajzen's (1991) TPB. The first concept was related to their past behavior. Some respondents mentioned that they had engaged in WFB toward SET women in the past and reported that they would continue to do so. The second concept or belief that was mentioned by some participants, but was not common enough to be included as part of the belief section of the survey, was the notion that talent management practices should not take gender into account. The third concept resulted in an affect item related to how desirable it was for middle managers to work with SET women. Some of the participants described affect that was either positive or negative. These three concepts were thus added to the survey questionnaire: (a) past behavior, (b) gender neutral value, and (c) affect.

**Past behavior.** In his writings, Ajzen, (1991) stated that TPB "is, in principle, open to the inclusion of additional variables if it can show they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account" (p. 199). In some of the TPB studies, past behavior was successfully used as a predictor of behavioral intention (Conner, Warren, Close, & Sparks, 1999; Lam & Hsu, 2004; Norman & Smith, 1995; Ryu & Jang, 2006). Ouellette and Wood (1998) found in their meta-analyses of 22 TPB studies that past behavior was a significant factor affecting intention and behavior. Based on this data, past behavior was included as an exploratory variable.

Three questions were developed using a 7-point disagree/agree scale: "In the past, I did what I could to assist women in my group balance their work and family commitments," "In the past, I have taken actions to help women in my group advance their careers and achieve their career goals," and, "In the past year, I have taken deliberate actions and focused time and resources on hiring, developing, and retaining SET women in my organization." Cronbach's alpha for this set of items was .82.

**Affect.** SET managers' affect toward working with SET women was possibly influencing SET managers' intentions. Many research studies have demonstrated that affect has a large impact on

Table 3  
*Control Beliefs Constructs Themes, Frequency, and Sample Quotes*

Belief construct	Belief theme	Salient frequency	Sample quotes
Enabling factors	Climate/Work environment/Inclusive culture/gender equity.	17	"Culture that is open and inclusive/values/diverse workforce."
	Supportive WF practices/Performance-based practices.	15	"Evaluating women in SET based on their performance and results, not based on their time spent at work." "Managers and organizations that support flexible work arrangements."
	Women who have supportive spouse or supportive home environment.	14	"Supportive spouse and accommodating home environment."
	Women themselves	13	"Women who are ambitious and motivated to succeed at work."
	Where SET women would feel welcomed, as part of the group.	8	
Impeding factors	CEO championship.	5	"CEO/Leader that support and champions women at work."
	Stigma and stereotyping about women's capability or ambition.	11	"Work environment that think about women in stereotypical way." "Some SET disciplines judge women to be less suitable—hardware, physics, mechanical engineering are perceived more as male professions."
	Politics/lip service.	4	"It is translated in many places as the politically correct thing to do, or a compliance thing." "Lip service practices."
	Lack of awareness of this problem.	4	"Few organizations or managers think that there is a problem, so it is not addressed by the organization or the managers."

*Note.* WF = wife friendly; SET = science, engineering, technology; CEO = chief executive officer.

Table 4  
*Belief Categories: Selected Themes From Salient Beliefs Study*

Belief constructs	Belief themes
Behavioral beliefs	Diversity Improved teamwork and morale Improve work product Managerial challenge: women are more challenging to manage/emotional/sensitive, etc. Women have other life commitments Women are less committed to work, less ambitious, limited time
Normative beliefs	Hiring managers Other employees in the group/peers HR Women Your manager
Control beliefs	Inclusive culture/A culture that believes in gender equality Women's supportive home environment Women themselves Organizational practices such as flexible time, performance-based practices Stigma and stereotypes/Boys network

people's decision making. Affect here refers to a person's opinion about the overall desirability of working with SET women (Keer, Van den Putte, & Neijens, 2012). This is different than a SET manager's attitude toward engaging in WFBS, as measured by the attitude variable in the TPB model. In the TPB, the variable attitude refers to "the evaluation of an object, concept, or behavior along a dimension of favor or disfavor, good or bad, like or dislike" (Fishbein & Ajzen, 1975, p. 314).

Studies have shown that *affective evaluation* is a different construct than attitude, and studies employing affective evaluation as a separate construct in the TPB show that it has an impact on behavior and intention over and above standard TPB variables, including attitude. One question was developed using a 7-point Likert-type scale: "Working with SET women is . . ." with possible answers ranging from *extremely desirable* to *extremely undesirable*.

**Gender-neutral values.** As stated earlier, some participants mentioned that they do not make any talent management decisions (i.e., hiring, promoting, and developing individuals in the workforce) based on gender. They may have been conveying a message about nondiscrimination. However, this view raises a question about accountability for diversity initiatives in talent management processes. Many organizations incorporate talent management strategies that are designed to increase gender representation in the management pipeline up to senior levels. Gender-neutral values were assessed by one survey item using a 7-point Likert-type scale, with answers ranging from *strongly disagree* to *strongly agree*, "Talent Management practices such as hiring, developing, and promoting, should not take gender into account." Figure 3 provides the full schema for relationships tested in the final survey.

## Study 2: Online Survey

The finalized survey was administered to a different sample of participants in the summer of 2012 using QuestionPro. The survey was posted on 16 LinkedIn SET social network discussion and talent group sites multiple times over the course of 3 months. QuestionPro survey software enabled distribution of the survey to a panel of 3,000,000 people across the United States to find the appropriate target population. About 14,000 people started the survey and either did not continue or complete it or were disqualified based on the survey criteria. Prior to data analysis and consistent

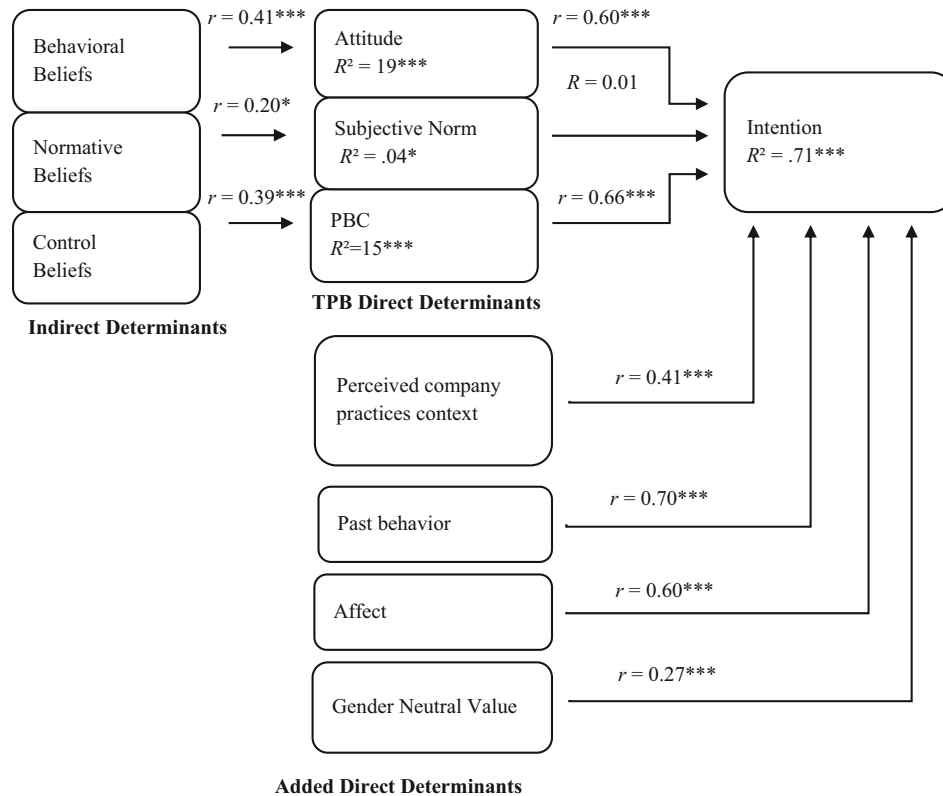


Figure 3. Diagram of study results. \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .0001$ ;  $R^2 = .71^{***}$  = R square for intention with all direct determinants of TPB plus four exploratory variables (perceived company practices, past behavior, affect, gender-neutral value).

with Ajzen's (2006) model and recommended by Francis et al. (2004), derived variables were calculated.

**Participants.** See Table 5 for respondent demographic characteristics. Two hundred and 54 questionnaires were accessed by respondents. Two hundred and 33 middle managers from SET public organizations actually completed the survey. All respondents managed SET employees. Their experience managing ranged from 1 to over 15 years, with the majority ( $n = 72$ ) with experience over 15 years, followed by 6–10 years ( $n = 58$ ), 1–5 ( $n = 57$ ), and 10–15 ( $n = 46$ ). One hundred and 72 (74%) were males and 61 (27%) were females. This percentage is similar to the demographic representation of women managers in SET, which is about 25% (U.S. Department of Commerce, 2011). In regard to the 24 surveys that were eliminated, respondents either did not complete the entire instrument and/or dropped out after answering some of the questions. Analysis of the questionnaires of participants who dropped out revealed that there was no specific pattern; thus, dropping out was unrelated to study variables.

## Results

### Descriptive Statistics

Cronbach's coefficient alphas were computed for all variables and derived variables. According to Francis et al. (2004), in TPB studies, Cronbach's alpha coefficients are acceptable if they exceed .60 ( $\alpha > .60$ ). The summated scales ranged from .68 (for subjective norm) to .94 (for company

Table 5  
*Respondents' Demographic Characteristics*

Category	<i>n</i>	%
Gender ( <i>N</i> = 233)		
Male	172	73.82
Female	61	26.18
Type of company ( <i>N</i> = 233)		
Pharmaceutical	19	8.15
Computer software	15	6.44
Computer hardware	7	3.00
Telecommunication	21	9.01
IT	45	19.31
Semiconductor	5	2.15
Energy and solar	8	3.43
Medical devices	25	10.73
Computer services	14	6.00
Biomedical & Biotechnology	13	5.58
Chemical	19	8.15
Electronics	22	9.44
Robotics	11	4.72
Clean Technology	9	3.86
Number of company employees ( <i>N</i> = 233)		
Up to 300	0	0
301–600	36	15.45
601–1,000	33	14.16
1,001–3,000	42	18.03
3,001–5,000	20	8.58
5,001–8,000	17	7.30
Above 8,000	85	36.48
Number of men in your group? ( <i>N</i> = 233)		
1–5	56	24.03
6–10	38	16.31
11–20	42	18.03
21–30	29	12.45
31–50	17	7.30
51–100	19	8.15
101–300	12	5.15
Above 300	20	8.58
Number of women in your group? ( <i>N</i> = 233)		
1–5	92	39.48
6–10	45	19.31
11–20	33	14.16
21–30	9	3.86
31–50	20	8.58
51–100	14	6.01
101–300	12	5.15
Above 300	8	3.43

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practices). Table 6 provides descriptive statistics. Table 7 displays the Pearson product–moment correlations among TPB variables. As suggested in the TPB model, the indirect measures of the TPB (belief constructs) provided the foundation for the formation of attitudes, subjective norms, and PBC. We therefore expected to find positive and significant correlations. Surprisingly, however,

Table 6  
*Descriptive Statistics and Scale Alpha Coefficients for Derived Variables*

Variable	<i>M</i>	<i>SD</i>	Min	Max	$\alpha$
Intention	5.16	1.24	1	7	0.90
Attitude	5.16	1.16	1	7	0.80
Subjective norm	3.66	1.41	1	7	0.68
PBC	4.90	1.25	1	7	0.83
Behavioral belief	6.66	5.03	-10	21	0.83
Normative belief	4.85	6.66	-11	21	0.90
Control belief	5.94	6.37	-9	21	0.90
Past behavior	5.17	1.16	1	7	0.82
Company practices	5.09	1.14	1	7	0.94

*Note.* All variables were measured on a 7-point scale ranging from 1 to 7. Higher numbers indicate higher levels of the construct (e.g., higher subjective norm means others prefer the manager to engage in women-friendly behaviors and the manager is more motivated to comply with them). Constructs are scored in the direction that is predicted to increase intention to hire, promote, and retain women. PBC = perceived behavioral control; Min. = minimum; Max = maximum.

subjective norm did not correlate significantly with intention. This unexpected finding will be explored later to examine whether subjective norms interacted with gender. We also investigated relations among participants' demographics (ordered and categorical) and the model predictor variable (intention). None of the demographic variables were significantly associated with intention.

Nonetheless, it is interesting to note that some of the categorical demographics correlated with other study variables. The variables perceived behavioral control (PBC), behavioral belief, normative belief, control belief, and perceived company practices were found to have significant correlations with company type. Based on Kruskal-Wallis analyses, respondents working in computer type companies, compared to those in pharmaceutical/biotechnological or semiconductor/clean industry, indicated significantly higher levels of PBC. They also showed significantly higher behavioral, normative, and control beliefs, significantly higher levels of past behavior, and different degrees of company practices.

### Testing SET Managers' Intentions to Engage in Women Friendly Behaviors

As recommended by Francis et al. (2004), the hypotheses were tested using regression analyses. First, three regressions of the indirect variables (behavioral belief, normative belief, control belief) on the direct variables (attitude, subjective norm, PBC) were conducted, and then a hierarchical regression was performed to test all relationships. The study results follow.

**Hypothesis 1.** Hypothesis 1 proposed that SET middle managers' behavioral beliefs toward engaging in WFB toward professional women in SET would be significantly and positively associated with their attitudes. Hypothesis 1 was supported by the data. Behavioral belief explained 19% of the variance in attitude.

**Hypothesis 2.** Hypothesis 2 proposed that SET middle managers' normative beliefs toward engaging in WFB toward professional women in SET would be significantly and positively associated with their subjective norms. Normative belief explained 4% of the variance in subjective norm.

**Hypothesis 3.** It was expected that SET middle managers' control beliefs toward engaging in WFB toward professional women in SET would be significantly associated with their perceived behavioral control (PBC). Hypothesis 3 was supported. Control belief explained 15% of the variance in PBC.

**Hypothesis 4.** Hypothesis 4 proposed that SET middle managers' attitudes toward engaging in WFB toward professional women in SET organizations would be positively and significantly associated with their behavioral intentions to engage in WFB. That is, holding a positive attitude

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Table 7  
Pearson Zero Order Correlations (Pearson's R) Among Model Variables

Model variable	I	A	SN	PBC	BB	NB	CBI	PB	PCP	GNV	AFF
I	—										
A	0.60***	—									
SN	0.01	-0.22**	—								
PBC	0.66***	0.418***	0.02	—							
BB	0.62***	0.41***	0.13*	0.47***	—						
NB	0.44***	0.39***	0.20*	0.36***	0.61***	—					
CB	0.46***	0.34***	0.15*	0.39***	0.68***	0.73***	—				
PB	0.70***	0.40***	0.19*	0.59***	0.54***	0.46***	0.45***	—			
PCP	0.41***	0.23**	0.16*	0.43***	0.62***	0.60***	0.58***	0.53***	—		
GNV	0.27***	0.03	-0.01	0.33***	0.20*	0.09	0.15*	0.29***	0.26***	—	
AFF	0.60***	0.54***	-0.01	0.34***	0.70***	0.54***	0.54***	0.47***	0.48***	0.10	—

Note. I = intention; A = attitude; SN = subjective norm; PBC = perceived behavioral control; BB = behavioral belief; NB = normative belief; CB = control belief; PB = past behavior; PCP = perceived company practices; GNV = gender neutral value; AFF = affect.  
\*  $p < .05$ . \*\*  $p < .001$ . \*\*\*  $p < .0001$ .

toward WFB is related to intention to act in ways that are also positive toward WFB. This hypothesis was supported,  $r(231) = .59, p < .0001$ .

**Hypothesis 5.** Hypothesis 5 proposed that SET Middle managers who believe they have greater PBC over engaging in WFB toward professional SET women would be positively and significantly more likely to report behavioral intentions to engage in WFB. Hypothesis 5 was supported by the data. PBC accounted for 44% of the variance in intention.

**Hypothesis 6.** It was expected that there would be an association between SET managers' subjective norms and their behavioral intentions. However, SET managers' subjective norms toward WFB was not significant, with a correlation coefficient of  $r(231) = .007, p < .92$ . This shows that there is no association between the two variables; thus Hypothesis 6 was not supported.

**Hypothesis 7.** Hypothesis 7 proposed that company practices which were perceived as supportive would be positively and significantly associated with middle managers' behavioral intentions to engage in WFB toward professional SET women. Hypothesis 7 was supported by the data. SET managers' perceived company practices had a correlation coefficient of  $r(231) = .41, p < .0001$ .

Table 8 contains the results of the hierarchical regression used to predict SET managers' behavioral intentions to engage in WFB including the demographic variables. First, a hierarchical regression analysis, with intention to engage in WFB as the dependent variable, was performed. Behavioral intention was regressed on the three direct predictors of the model, plus the added constructs of perceived company practices, affect, past behavior, and gender-neutral value. Six steps were used to investigate the amount of variance explained when new variables were added in each step of the regression analysis. In the first step, the demographic variables were entered into the equation and yielded  $R^2 = .04, F(12, 220) = 0.95, p = .40$ . The demographic variables accounted for 4% of the variance in intention; however, they were not significant. Next, to determine the predictive power of each one of the direct determinants of the TPB, the direct determinants were entered into the regression model in steps, based on their zero order correlations with intention. In the second step, the PBC construct was entered, yielding  $R^2 = .45, F(13, 219) = 13.53, p < .0001$ . PBC accounted for 44.5% of the variance in intention. Furthermore, an analysis was conducted to check if the increment in additional variance accounted for was statistically significant. The test yielded,  $\Delta R^2 = .44, F(3, 219) = 156.5, p < .0001$ .

In the third step, the attitude construct was added. The third step of the regression yielded  $R^2 = .57, F(14, 218) = 21.30, p < .0001$ . In this step, the significant variables were PBC ( $\beta = .47$ ),  $p < .0001$  and attitude,  $\beta = .45, p < .0001$ . The variables in the equation in Step 3 of the regression accounted for 57% of the variance in intention. The attitude construct increased the explained variance by 12%, which yielded a statistically significant increment,  $\Delta R^2 = .12, F(4, 218) = 68.21, p < .0001$ .

In the fourth step, the subjective norm construct was added, resulting in  $R^2 = .59, F(15, 217) = 20.11, p < .0001$ . In this step the significant variables were PBC,  $\beta = 0.47, p < .0001$ , and attitude,  $\beta = 0.46, p < .0001$ . Subjective norm was not significant. The variables in the equation in Step 4 of the regression accounted for 58% of the variance in intention. Subjective norm increased the explained variance in intention by 1%, a statistically insignificant increment,  $\Delta R^2 = .01, F(15, 217) = 2.05, p = .15$ .

In the fifth step of the hierarchical regression, the construct perceived company practices was added. The fifth step of the regression yielded  $R^2 = .59, F(16, 216) = 19.58, p < .0001$ . In this step, the significant variables were attitude ( $\beta = 0.45$ ),  $p < .0001$ , PBC,  $\beta = 0.43, p < .0001$ , and perceived company practices ( $\beta = 0.13$ ),  $p < .05$ . The variables in Step 5 of the regression accounted for 59% of the variance in intention. Perceived company practices increased the total explained variance in Intention by 1%, a statistically significant increment,  $\Delta R^2 = .01, F(16, 216) = 5.48, p < .05$ . This step supported Hypothesis 7.

In the final step, the three exploratory variables (affect, gender neutral value, and past behavior) were added into the regression model, resulting in  $R^2 = .71, F(19, 213) = 28.04, p < .0001$ . In this step, the significant variables were attitude,  $\beta = 0.22, p < .0001$ , PBC,  $\beta = 0.30, p < .0001$ , affect,  $\beta = 0.28, p < .0001$ , and past behavior,  $\beta = 0.38, p < .0001$ . The analysis showed that the 12%



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Table 8  
Hierarchical Regression of Intention of SET Managers to Engage in WFB Including Demographic Variables

Variable	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$
Demographic variables	.04				.12***		.01		.01*		.12***	
Male		-.24		-.18		-.11		-.11		-.11		-.11
Computer		.25		-.12		-.23		-.24		-.24		-.34
Pharma/Bio		-.13		-.25		-.29		-.30		-.30		-.22
No. of employees		-.06		-.03		-.01		-.01		-.01		-.03
Number of men		-.03		-.02		-.01		-.01		-.01		-.01
Number of women		.04		.01		.02		.02		.02		.01
Education		.05		.08		.05		.02		.02		.05
Age		.01		.01		-.04		-.02		-.02		-.01
Years managing		.03		-.05		.02		.02		.02		-.02
No. of emp. in group		.04		.01		.02		.02		.02		.02
African American		.28		.21		.24		.23		.23		.01
Caucasian		.04		.05		-.01		-.01		-.01		-.01
PBC				.66***		.47***		.47***		.43***		.30***
Attitude						.45***		.46***		.45***		.22***
Subjective norm								.06		.04		-.01
PCP										.13*		-.10*
Past behavior												.38***
Affect												.28***
Gender-neutral value												.06
$R^2$	.04		.45***		.57***		.58***		.59***		.71***	

Note. Pharma/Bio = pharmaceutical biological; No. = number; Emp. = employees; PBC = perceived behavioral control; PCP = perceived company practices. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

increment in variance accounted for was statistically significant,  $\Delta R^2 = .12$ ,  $F(19, 213) = 30.44$ ,  $p < .0001$ . In this final step of the regression, subjective norm and perceived company practices reversed their values to negative values,  $\beta = -.01$ , (nonsignificant), and,  $\beta = -.101$ ,  $p < .05$ , respectively. Given that the correlation between perceived company practices and intention was positive,  $r(231) = .45$ ,  $p < .0001$ , this appears to be a case of suppression because perceived company practices was significantly and positively associated with intention. In summary, it is important to emphasize that the variables in the equation in the final stage of the regression explained 71% of variance in intention, which is a very large amount of variance to account for in social science research. See Table 9 for results of hierarchical regression.

Moreover, to check whether the effect of the behavioral belief constructs (i.e., behavioral belief, normative belief, and control belief) on intention were mediated by the TPB direct determinants (attitude, subjective norm, and perceived behavioral control), three models were examined (see Table 10). In the first model, intention was regressed on the indirect determinants behavioral belief, normative belief, and control belief. In the second model, intention was regressed on behavioral belief, normative belief, control belief, attitude, subjective norm, and PBC, as predictors. In the third model, intention was regressed with attitude, subjective norm, and PBC as predictors.

The first step of the regression yielded  $R^2 = .39$ ,  $F(3, 229) = 48.18$ ,  $p < .0001$ . In this step, the significant variable was behavioral belief,  $\beta = .13$ ,  $p < .001$ . The variables in the equation in Step 1 of the regression accounted for 39% of the variance in Intention. In the second step, the direct

Table 9  
*Hierarchical Regression of Intention of SET Managers to Engage in WFB*

Predictor	$R^2$	$\Delta R^2$	$\beta$
Step 1	.166***	.166	
Company practices			.44***
Step 2	.387***	.221**	
Company practices			.003
Behavioral belief			.134**
Normative belief			.017
Control belief			.003
Step 3	.623***	.236**	
Company practices			-.036
Behavioral belief			.076**
Normative belief			-.000
Control belief			.001
Attitude			.335**
Subjective norm			.026
Perceived behavioral control			.392**
Step 4	.707***	.084**	
Company practices			-.145*
Behavioral belief			.041*
Normative belief			-.005
Control belief			.001
Attitude			.225**
Subjective norm			-.012
Perceived behavioral control			.266**
Gender-neutral value			.048
Affect			.175*
Past behavior			.371**

\*  $p < .05$ . \*\*  $p < .001$ . \*\*\*  $p < .0001$ .

Table 10  
*Regression of Intention, Testing Mediation of the TPB Direct Determinants With Three Models*

	Predictor	$R^2$	$\Delta R^2$	$\beta$
Step 1		.39***		
	Behavioral belief			.13**
	Normative belief			.02
Step 2	Control belief			.02
		.62***	.23**	
	Behavioral belief			.07**
	Normative belief			-.00
	Control belief			.01
	Attitude			.34**
	Subjective norm			.03
Step 3	Perceived behavioral control			.39**
		.56***		
	Attitude			.44***
	Subjective norm			.08
				.48***

\*  $p < .05$ . \*\*  $p < .001$ . \*\*\*  $p < .0001$ .

determinants of the TPB were added to the indirect determinants, yielding  $R^2 = .62$ ,  $F(6, 226) = 62.33$ ,  $p < .0001$ . In this step, the significant variables were behavioral belief,  $\beta = .07$ ,  $p < .001$ , attitude,  $\beta = .34$ ,  $p < .001$ , and PBC,  $\beta = .39$ ,  $p < .001$ . The variables in the equation in Step 2 of the regression accounted for 62% of the variance in intention. The direct determinants of the TPB increased the total explained variance in intention by 23%. In addition, an analysis was conducted to check if the increment in additional variance accounted for was statistically significant, the test yielded,  $\Delta R^2 = .23$ ,  $F(3, 226) = 47.27$ ,  $p < .0001$ .

The final step regressed intention on attitudes, subjective norms, and PBC as predictors. The last step, yielded  $R^2 = .57$ ,  $F(3, 229) = 99.89$ ,  $p < .0001$ . In this model, the significant variables were attitude,  $\beta = .45$ ,  $p < .0001$ , and PBC,  $\beta = .48$ ,  $p < .0001$ . Mediation is shown by the additional  $R$ -square from attitude, subjective norm, and PBC in Model 2,  $\Delta R^2 = .23$  being much smaller than the  $R$ -square in Model 3,  $R^2 = .57$ . Furthermore, mediation is also shown in the effects of the predictor variables (behavioral belief, normative belief, control belief). Beta values ( $\beta$ ) are significantly reduced when a hypothesized mediating variable is included in the regression analysis (as shown in Step 2). It is important to note that there is some mediation going on, but the increment in  $R$ -square in the second step is still very significant.

### Exploratory Testing of the Role of Gender in the Model

As shown, all of the components of the TPB except SN correlated positively and significantly with behavioral intention. However, when considered separately, the relationship between subjective norm and intention was not significant for males,  $r = -.09$ ; but, this relationship was significant for females,  $r = .33$ ,  $p < .001$ . Therefore, females, but not males, appeared to be influenced by SN. To further explore potential gender differences in SET managers' intentions to engage in WFB, a backward stepwise elimination regression was conducted.

In the final step, the only interaction term that was found to be significant was the Male  $\times$  Subjective Norm interaction,  $R^2 = .69$ ,  $F(9, 223) = 56.83$ ,  $p > .0001$ . This means that subjective norm is positively and significantly associated with intention among female SET managers and is negatively and not significantly associated with SET managers' intention.

## Discussion

The purpose of this study was to examine the correlates of SET middle managers' intentions to engage in women-friendly behaviors (WFB), including hiring, promoting, developing, and retaining women in SET organizations. We were interested in whether managers in SET organizations would report intent to engage in WFB at work. The theory of planned behavior (TPB; Ajzen, 1991) was used to assess and predict managers' behavioral intentions. While this model has been very useful in other behavioral domains, it has not been used previously to understand behaviors that either enhance or deter women's success in a male-dominant profession and industry.

There were three key findings from the elicitation study. First, interviewees confirmed what we thought to be the benefits of promoting women (diversity, team work and morale, and improvements in work products). On the other hand, they were forthcoming about their reservations (women are harder to manage; they are emotional, sensitive, and distracted by family-related commitments), indicating that some characteristics may detract from focusing on their work and career and perhaps result in their being less committed to their work or to advancing their careers. This finding was unexpected given the strong pressure to be unbiased and to avoid using negative stereotypes about women. The second interesting finding was that SET managers recognized the importance of the attitudes and behavior of key others who influence WFB, including managers, other employees/peers, HR, women in the group, and their own managers. The third finding was related to factors enabling and/or impeding SET managers to engage in hiring, developing, and retaining SET women in SET organizations. Enabling factors were an inclusive culture that promotes a belief in gender equality, women's supportive home environments, and organizational practices, such as flexible time and performance-based practices. Impeding factors reported by SET managers included the stigma and stereotypes related to women. Some of the beliefs expressed by managers in this study are well documented in prior research, either as expressions of how SET women feel in SET organizations, or as reasons that SET women choose to leave their organizations. We were only surprised to see managers express them so openly.

The findings of the survey provided support for the use of Ajzen's (1991) TPB in predicting and explaining SET managers' behavioral intentions to engage in WFB. In our novel application of this model, each of the three indirect determinants of the TPB constructs was positively and significantly associated with its corresponding direct determinants of behavior. Hypotheses derived from the TPB indicated, as expected, that attitudes toward engaging in WFB and PBC over these behaviors predicted intention to promote women in SET organizations.

It was surprising that subjective norms (or perceptions of what others would expect these managers to do) did not predict managers' intentions to promote women. However, further exploration indicated a significant interaction between subjective norms and gender. Gender moderated the relationship between subjective norm and intention. This means that women managers tended to report that their perceptions of others' attitudes (e.g., colleagues or bosses) would affect whether they hired, promoted, and retained women. In contrast, male managers indicated that their perceptions of others' attitudes would not significantly influence their intentions to engage in WFBs in their companies. It is both interesting and unfortunate that women managers indicated less independence than men managers in their decisions to promote SET women.

The current study made a significant contribution in finding that other variables, over and beyond those associated with TPB, also predicted whether managers intended to engage in WFB behaviors in their companies. Specifically, three individual-differences variables predicted managers' intent. The managers' past behavior in this regard, their general affect toward women, and whether or not they thought practices should be neutral with respect to gender. Not surprisingly, those who had promoted women in the past, those describing women in more affectively positive terms, and those who believed practices should not be gender-neutral reported that they would be more likely to hire, promote, and retain women. Finally, an organizational-level variable, that of perceived company practices, predicted managerial intentions. The more the company was seen as having favorable practices toward women, the more managers intended to engage in the behaviors that would be beneficial to women professionals in science, engineering, and technology.

A surprising outcome of the present study was the robust strength of the theory and our additional variables to predict managerial intent surrounding such important decisions as hiring, promoting and retaining women SET professionals. The combination of TPB variables (attitude, subjective norms, and PBC), and perceived company practices predicted 58% of the variance for intention, and the inclusion of the exploratory variables (past behavior, affect, and gender-neutral value) increased the explained variance to 71%, which is a very large amount of variance to account for in social science research. These data suggest that there are numerous possible ways to have an impact on the number of women who are promoted as professionals in SET companies.

SET leaders, managers, and practitioners can take advantage of the results of this study to develop organizational interventions that can generate positive work experiences for SET professional women in SET organizations, and contribute to making these organizations more inclusive, supportive, and motivating for these employees. Interventions can be designed to focus on changing SET managers' intentions and behaviors toward SET women by shaping their belief systems and attitudes about engaging in WFB.

SET companies will need to take steps to know and understand their managers' beliefs, attitudes, and intentions with respect to SET women. Effective programs and processes to foster change in the intentions and behavior of SET managers can be developed once a decision is made on the goals they will try to reach regarding hiring, promotion, and retention. Importantly, we found that both women and men managers need support to change their beliefs and biases about SET women's behavior, particularly women's stereotypical affective behavior. This point is illustrated by some of the comments that came from both women and men managers in the elicitation study. We suspect that managers can behave in a more inclusive manner if they feel more skilled and empowered in the use of soft skills, particularly in managing and mentoring employees with different behavioral styles.

Third, there are a number of interventions that practitioners and leaders could use. Possibilities include observations and modeling, information sessions, teaching and coaching managers to use new metaphors and descriptions to discuss bias, training SET managers to identify unexamined bias in their own and others' actions, and using social media ads, articles, or other forms of exposure to useful practices.

According to the theory, it is important to focus on variables that "account for significant variance in intention and behavior" (Ajzen, 2006, p. 1). Specifically, leaders should focus on training SET managers in techniques that will help them to: (a) stay aware, alert, and in control of their responses to gender issues within their own organizations, and (b) know how to react to these gender issues in a professional manner. Practitioners should make sure that SET managers can create processes and procedures to make it easier for them to carry out the desired behavior. For example, they could set up an annual process to help middle managers create a detailed plan as to (a) the challenges and opportunities related to SET women in their organizations, (b) the potential solutions and behaviors that will lead to change or improvement, and (c) when and how the "wanted" behaviors will be carried-out (Gollwitzer, 1999). These plans will not only help managers execute newly formed intentions and behaviors, but they will also help make these behaviors more habitual and further reinforce the impact of "past behavior" on their future behavioral intentions.

Some limitations of the present research should be noted. First, respondents self-selected to participate in this research via social networks or access to the targeted populations, via the QuestionPro tool. This may make the participants different from the general SET managerial population. Future research should target specific companies and conduct research across several companies. Second, this survey did not measure respondents' behaviors, but instead focused on their behavioral intentions. Information about SET managers' actual WFB behavior was not collected and/or measured in this study, because of the complexity associated with collecting such data within organizations and the difficulty of preserving respondents' anonymity. In future research, it would be useful to directly observe the extent to which SET managers actually engage in WFB behaviors. This type of data collection should be done using unobtrusive methods, if possible, so as not to influence the data. Alternatively, data could be collected from those with whom managers work on a regular basis, inquiring into the extent and/or frequency to which the focal manager engages in

WFB. Finally, the third limitation relates to tracking the names of the companies that respondents worked for. Because we did not track the names of the respondent's companies on the survey, we have no information relative to the total number of individual companies that were represented in this study or whether there were multiple respondents from the same company. This limits the ability to deal with potential variance associated with specific companies. Future research should consider tracking the names of companies to enable the possibility of addressing variance associated with particular companies.

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