Women Entrepreneurs: How Important Are Their Perceptions?

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April 2006

Keywords: Women entrepreneurs; Perceptions; Entrepreneurial motivation; Canonical correlation; Support; Success

Ref #: MDS-06-002
Abstract

Archived transcripts of 57 women entrepreneurs were qualitatively (using content analysis) and quantitatively (using canonical correlation) analyzed. Content analysis was conducted to create nominal scales, which could be quantitatively investigated with canonical correlation analysis. The goal was to determine the relationship between women entrepreneurs’ support and success from both actual and perceptual perspectives. Analysis supported research propositions suggesting women’s perceptions of support have a greater effect on their success in entrepreneurial ventures than actual support, regardless of whether traditional measures or women’s own perceptions of success were considered. Women’s motivations toward entrepreneurship were strongly correlated with perceptions of success. Additionally, women’s perceptions of success were highly correlated with their perceptions of support, suggesting that women may perceive actual or future success as a form of support. Implications for the use of research findings, is discussed.
Introduction

The “radical acceleration” (Weiler and Bernasek, 2001, 85) of women entrepreneurs, and their significant contribution to the global economy, has increased public interest increasing research on their entrepreneurship (Bennett and Dann, 2000; The Independent, 2000; Malaysian Business, 2001). Women-owned firms comprise 25-33% of businesses worldwide, and in many countries the number of women-owned businesses are growing faster than the respective country’s national economy (NFWBO, 1999). Bureau of Labor (1998) statistics show that women make up 50% of the US labor force, with sixty percent of all women employed outside the home (Management Review, 1997). Women earn in excess of $1 trillion annually (Walker, 1998), including an 81.2% increase in women’s business receipts between 1982-1987 (Van Auken and Rittenburg, 1994). The “sharp rise in [the] number of women entrepreneurs” (35) is estimated to have risen by over 22% between 1998 and 2001, consisting of nearly 33% of all new ventures (Financial Management, 2001).

Women have been starting businesses at twice the rate of men and this trend of women-owned businesses, which increased by 57.4% between 1982 and 1987 (Van Auken and Rittenburg, 1994), led to projections that by the end of the year 2000, 66% of all business in the US would be women-owned (Van Auken and Rittenburg, 1994; Walker, 1998), reversing the majority from male-owned businesses (Bureau of US Census, 1998). The 5.4 million, women-owned businesses employed 7.1 million people and generated $818.7 billion in 1997 alone (US Bureau of Census, 2001). Women do outnumber men in self-employment in the US, UK, and Australia (Bennett and Dann, 2000; NFWBO, 2000). According to Bureau of Census data (1998) women-owned businesses increased in all sectors except in the finance industry, with the most significant increases in traditionally male-dominated industries, such as construction (94.78%), agriculture (72.99%), and wholesale trade (87.29%), although nearly half of women’s businesses are in retail, leisure, and personal services industries (Financial Management, 2001). Between 1992 and 1997 women-owned businesses increased at three times the rate of all start-ups (US Bureau of Census, 2001).

However, empirical research on women entrepreneurs and constructs significant specifically to their success is fragmented at best and, therefore, deficient (Russell and Burgess, 1998; Stevenson, 1990). Investigating sociological and psychological factors unique to women – from a feminist perspective (Kilduff and Mehra, 1997) – is necessary because “there is a need to feminize the research conducted on entrepreneurs in order to include the experiences of women” (Stevenson, 1990, 439). Coviello and Jones (2004) call for “research designs that integrate positivist with interpretivist methodologies” (485) in international entrepreneurship research for the same reasons such research is necessary in research on women entrepreneurs.

The original research, upon which this paper is based, attempted to fill such gaps (Perry, 2002) by addressing two goals: 1) to create a new model for understanding women entrepreneurs, which will be discussed in another paper and 2) to increase understanding about women’s perceptions as related to their success, which is the focus of this paper.
Literature Review

Women’s entrepreneurial endeavors provide so much satisfaction that 58% of women, who have left secular employment for entrepreneurship, state there is noting attracting them to return to the corporate world (Catalyst, 1998). Given that this trend is not likely to reverse, Stevenson’s (1990) emphasis to “feminize” research on women entrepreneurs to better understand their experiences, becomes important. The main deficiency of current research in this area is that traditional measures of entrepreneurial success are limited to financial success and growth measure identified often at traditional, venture capital standards, which reduces the number of women entrepreneurs in research samples (Perry, 2002). The characteristics identified in the literature as being associated with entrepreneurial success are often determined from completely male samples (Hunter College, 1995; MacDonald, 1985). For example, only 57 studies investigating women entrepreneurs were conducted in the fourteen years between 1977-1991 (Brush, 1992). However, women who meet those traditional measures of success may have “feminist” components of success, misinterpreted because traditional measure often overlook sociological and psychological factors of entrepreneurial success (Coviello and Jones, 2004; Kilduff and Mehra, 1997).

Such factors are especially important to understand, because research suggests that women perceive their businesses, not as separate economic units, but rather as integrated facets of their own lives and identities (Brush, 1992; Chodorow, 1995; Kent, Sexton and Vesper, 1982). Therefore, women’s perceptions and identities must be considered in addition to traditional business measures (Betz, 1994; Brush, 1992), using an “Integrative Perspective” (Brush, 1992, 6) “to combine theoretical, empirical, and anecdotal perspectives” (Weiler and Bernasek, 2001, 90) in research. This study investigated women entrepreneurs using both the traditional and non-traditional (or perceptual) constructs to address the deficiency in understanding women’s entrepreneurial experiences.

Although research suggests a difference between men and women, research on the relationship between managerial, demographic, psychological, and motivational variables is minimal (Geoffee and Scase, 1985; Holmquist and Sundin, 1990; Van Auken and Rittenberg, 2000). Women appear to face more economic discrimination in self-employment than in wage employment (Weiler and Bernasek, 2001); women-owned businesses appear to be less successful than men-owned businesses (Lustgarten, 1995) in capital acquisition endeavors despite being equally as credit worthy, (NFWBO, 2000), however, women entrepreneurs do not fail at a higher rate than men (Perry, 2002) as would be supposed. Perhaps as a result, women-owned businesses “fail” at a higher rate than those of men. The assumption in this research was that the differentiating factor was in the way women perceived themselves, their support, and their success, which led to different financial (Carter, Brush, Green, Gatewood and Hart, 2003), advertising (Van Auken and Rittenberg, 2000), and management (Hodgson and Watson, 1987; Jelinek and Adler, 1988) strategies and choices (Perry, 2002).

Because many studies have found that women often lack the management and strategy skills to be successful in career advancement, many women entrepreneur development programs focus on helping women develop such skills. However, according to Devine (1994) women entrepreneurs may have a higher level of skills than non-entrepreneurial women and there is no evidence their skills are inferior to male entrepreneurs, which should result in higher success rates for women-
owned businesses. Factors such as access to capital (Carter, et al., 2003) and networking discrimination (Moore and Buttner, 1997) are only partial answers. Women typically do not undertake their own venture until they are confident they have the abilities (Moore, 2003), but once start a business tend to solicit more outside advice and have more varied career experiences to draw from, than men (Journal of Accountancy, 2001).

According to Neider (1987) entrepreneurial research on women can be divided into three distinct categories: “[1] dealing with the personal characteristics of women entrepreneurs, [2] reports…to pinpoint specific issues/barriers, …and [3] studies which explore organizational characteristics” (22) of their ventures. The research presented here attempts to better understand the reasons why some women entrepreneurs succeed while others fail, despite highly differentiated levels of support on their behalf. The goal was to determine which specific sources of support, if any, are most salient to a woman’s perception of success and how women’s perceptions correlate with actual success. Contemporary research often investigates sources of support, despite acknowledging that women’s perceptions have a stronger effect on behavior (Chodorow, 1995). However, the problem is that understanding the effect of women’s perceptions of support must include broad interdisciplinary research which can originate in the fields of sociology, organizational socialization, social psychology, psychology, and feminist and entrepreneurship studies (Pollard, 2001).

The interdisciplinary perspective focused on identifying women’s perspectives with regard to support and success, rather than relying on the traditional interpretations of factors deemed necessary for successful entrepreneurial ventures with “recognition of the systematic…gaps” which demand new “conceptual frameworks” (Hess and Ferree, 1987, 11). “Deconstructing” traditional constructs (Kilduff and Mehra, 1997; Mumby and Putnam, 1992) to discriminate new findings from existing literature as suggested by Roseneau (1992), was considered an interpretive strength of this research because the discussion of constructs did not subscribe to existing causal models (Linstead, 1993). For example, psychological and demographic trends of women in business and the organizational climate affecting their choices, perceived and real, are often investigated as a function of a woman’s personality (Betz, 1994). Personality research (such as Bandura, 1977; Troki and Orioli, 1994) was applied to women’s standards, and self-reports, of success, which create misunderstandings in actual and perceptual failures for women (Inman, 1997; Russell and Burgess, 1998), underscoring the need to understand how women cope with barriers and obstacles (Buttner and Moore, 1997), and what factors lead to success (Betz and Fitzgerald, 1993; Hunter College, 1995; Neider, 1987). These factors range from perceptual and subjective, to tangible and measurable, validating the need to investigate actual and perceived, success and support. Considering Barerra’s (1986) assertion, this research interpreted women’s stories on an individual basis rather than exclusively through traditional variables and their assessment (Chodorow, 1995; Mumby and Putnam, 1992; Russell and Burgess, 1998).

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1 This interdisciplinary literature review conducted during construct development will be discussed in another paper.
Methodology

The original research, upon which this paper is based, was an exploratory investigation, designed to better understand women entrepreneurs and to create new areas of research, specific to women (Ehlers and Main, 1998; Gergen and Thatchenkery, 1996; Stevenson, 1990), with the goal of configuring variables to be used as the basis for the development of a model explaining the complex relationship between variables affecting the success of women entrepreneurs, which can be drastically different across women. The research assumed that women’s perceptions are more predictive of women’s success than actual support in starting and succeeding with a new venture. “In other words, there is something either empowering or inhibiting in the way women perceive the obstacles and challenges they face. Such a supposition led to the creation of the Center to Develop Women Entrepreneurs (CDWE) and was the impetus (Pollard, 2001, 45)” for the collection of data used in this research. Others (see Chrisman, Carsrud, DeCastro and Herron, 1990; Ehlers and Main, 1998; Inman, 2000) have recognized the need as well. The research focused on three propositions:

1) A significant difference in the amount of perceived support between the two groups (successful or unsuccessful) of women entrepreneurs would be reported.
2) Higher levels of perceived support reported by women would be highly correlated with success and, therefore, more predictive of a woman’s success potential, and vice versa.
3) The source of support will not be as indicative as the perception of it, for women’s success.

Archived transcripts of women’s narratives from a series of structured interviews with 57 women protégés in the CDWE were analyzed using content analysis. The content analysis method used, was designed explicitly to investigate inconsistencies between the literature and women’s actual experiences. The qualitative coding, conducted by the researcher and a trained coder, resulted in a 2x2 rubric for each woman, which was then quantitatively analyzed using canonical correlation, in a two-part process (Table 1). The quantitative analysis was based on the significance of perceptual trends found in women’s stories of entrepreneurship (a feminist, post-modern approach), allowing significant results to be linked to individual stories before being generalized to a larger population, as Gergen and Thatchenkery’s (1996) suggest:

Research technologies may produce data, but both the production and interpretation of the data must inevitably rely on forms of language embedded within cultural relationships. …At the same time, there is nothing about post modernism that argues against the possibilities of using empirical technologies (366).

Variables that emerged from the literature review were thematically categorized to cross-reference and trace intersections across constructs significant to women, such as, personality

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2 Original data was collected from a series of structured interviews, using open-ended questions designed to elicit women’s stories of entrepreneurship, and track those experiences over a three-year period. The interviews were recorded and then transcribed into verbatim transcripts, which constituted the raw data used for the research presented herein. The original interview questions are located in Appendix A.
traits, perceived support, actual support, and motivation (Pollard, 2001). The content analysis method designed for this investigation, utilized inductive classifications of actual and perceived, support and success with emergent non-traditional variables based upon feminist theory, as well as comparisons to traditional measures of success and support, such as financial, business growth, and longevity measures.

For example, the complexity of women’s identity and multi-role perceptions (Osipow, 1990; Super, 1990) suggest that congruence between mutual roles, and congruence between women’s occupational expectations and the choices they make (Betz, 1994) are especially important in understanding women entrepreneurs. To emphasize emergent themes, content analysis focused on how women perceived actual support and success factors without making assumptions about whether factors were traditionally considered supportive or unsupportive (Chodorow, 1995). Although both perceived and actual support are accepted variables in most theoretical models, unique to this research, constructs were coded using women’s interpretation of the affect of construct, allowing results to reflect each woman’s perceptual processing of her environment (Chodorow, 1995; Mumby and Putnam, 1992).

Because psychological complexity does not lend itself to hypothesis testing, which often minimizes multiple relationships and individual variation, each construct was coded for the positive or negative affect a woman perceived or faced. Statistical analysis was conducted on the data that emerged from the content analysis, to determine the level of significance of women’s perceptions of support and success when correlated with the actual support in their environments, and traditional measures of success. Canonical Correlation Analysis (CCA) was selected for its sensitivity to non-directional, non-causal regression models common to exploratory research goals and new model development (Kenny, 1979; 1994). CCA did not assume that success was caused by support, but rather investigated the relationship between all proposed research constructs simultaneously, to understand the relationships between women’s actual and perceived, support and success, through three types of investigation: “1) to understand each variable as a separate entity, 2) to understand pairs of variables as relationships, and 3) to understand groups of variables as models” (Hartwig and Dearing, 1979, 77).

Subjects included actual and potential women entrepreneurs in the Silicon Valley of California between 1994-1998. All the women in the study were members in the CDWE mentorship program, which paired each woman protégé with a volunteer mentor (a successful woman entrepreneur); participating in longitudinal research, which generally lasted for three years, was an explicit requirement of all CDWE protégés. CDWE women were diverse in age, income, ethnicity, marital and familial status and education. Two-thirds of the women were married without children and only 14% had less than a bachelor’s degree. They were single and married mothers, single and married without children, stay-at-home mothers, full- and part-time employees (both satisfied and unsatisfied). Nearly 30% had no additional household income (to

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3 Although many constructs emerged in the original research, only three are discussed here, in order to present a broad overview of the research methodology, with emphasis on aiding the reader in understanding the results. The content analysis developed for the original research will be fully discussed in another paper.

4 For example, children are traditionally considered an obstacle, yet some women viewed young children in the home as very supportive, whereas other women viewed the demands of childrearing -- even for school-age children -- as a lack of support.
supplement their entrepreneurial income), yet, only 9% had a personal income level of less than $10,000 a year. (Only 12% of the CDWE women had a personal income of less than $20,000 per year.) Women in the sample primarily considered themselves Caucasian, however, minority women consisted of a third of the group. The major similarity between the women was their interest in entrepreneurship and hearing about the program through some affiliation, even distant, with San Jose State University, where the CDWE program was housed.

Methodological Reliability and Validity

Several supplemental reliability and validity calculations were conducted to assess the strength of the research model. Because of the subjectivity associated with content analysis, and because this was exploratory research investigating emergent themes, inter-rater reliability measures were used to validate the content analysis model was reliably measuring significant constructs; inter-rater reliability was very high (? = .93, p < .00001, F [28, 169] = 13.68). Table 2 presents the inter-rater reliability values across constructs. {insert Table 2 here}

Assessing the validity of CCA is also difficult, since “no general guidelines have been established for the interpretation of [CCA]. Assessment...is normally based on the contribution of the findings to better understand the research problem” (Hair, Anderson, Tatham and Black, 1995; 1996) under investigation. To strengthen the claim of validity, Thompson’s (1984) interrelated research questions were used to explain and/or uncover the complex relationship between the constructs of success and support, as a tool to assess the validity of the research design. As an exploratory investigation, this research expanded the knowledge on the variables investigated and their relationship to women entrepreneurs.

The research model limited the CCA to two functions, since the maximum number of functions performed on the data must equal the number of variables in the smallest data set (Hair et al., 1995). The first function, which measured correlation between all four constructs, was significant (R = .86, p < .01) in explaining the correlation, so the second function was not discussed.

Reliability for CCA is difficult to assess because of the complexity of specifying the commonalities between interrelated variables (Wollenberg, 1977). However, a redundancy coefficient is the substantive measure of reliability for CCA (Thompson, 1984), and performs two functions: 1) measuring the proportion of variance for each set, which is explained by its own canonical variance, and 2) measuring the proportion of variance for each set, which is explained by the opposite canonical variance.

Only ? = .26 of the total variance was not explained by differences between the constructs investigated. Because ? was large and significant ([4, n = 47] = 77.98, p < .0001) the interrelatedness of variables, and the relationships between them was supported. The support construct explained ? = .61 of its own variance and ? = .65 of the variance in the success construct. The success construct explained ? = .88 of its own variance and ? = .45 of the variance in the support construct. None of the single canonical correlations would be statistically

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5 Inter-rater reliability is assumed to be unusually high, and is explained as a result of extensive training of the rater, which included a number of transcripts (excluded from inter-rater reliability calculations), which were orally coded in tandem.

6 All statistics were significant at p < .001, 2-tailed, unless specified otherwise.
significant if considered individually, suggesting the relationship between variables investigated in this research are complex and inter-related. The perceptual variables (support and success), however, contributed more to the function than actual variables, further supporting the notion that women’s perceptions of the environment are more important than the environment itself.

Canonical loadings assess the contribution variables make to their respective canonical construct before canonical weights are assessed. The canonical loadings for support corroborated research suggesting that women’s perceptions of support are more important than actual support. The canonical loadings for success were both large (actual success, \( r = .90 \), and perceived success, \( r = .98 \)) reinforcing the literature that women value actual (traditional tangible) and perceptual (personal satisfaction) measures of success equally.

Canonical cross-loadings measure the correlation between each variable including the aggregate weights of the opposite canonical composite. Cross loading values were consistent with the canonical loading values, suggesting that the relationships between variables were stable. These values suggest that CCA was an appropriate method of analysis for the data investigated in this research.

**Results**

CCA corroborated previous research findings that perceived and actual support are not highly correlated \( (r = .43) \), however, perceived and actual success constructs in this research were strongly correlated \( (r = .79) \). Although actual support was weakly correlated with actual success \( (r = .35) \) and perceived success \( (r = .41) \), perceived support was highly correlated with both \( (r = .77 \) and \( r = .84 \), respectively). Each proposition is discussed in further detail.

**Proposition 1:** A significant difference in the amount of perceived support between the two groups (successful or unsuccessful) of women entrepreneurs would be reported.

After sorting data into three groups (a continuum of successful and unsuccessful women entrepreneurs, and those who fit neither category) the perceived support construct was analyzed for the successful and unsuccessful women at either end of the continuum. Successful women entrepreneurs did perceive greater support in their environment than their non-successful counterparts. A protégé was considered successful if her actual success score, derived from the content analysis, was greater than two and unsuccessful if her actual success score was less than zero. Because the actual and perceived success constructs were highly correlated, the disadvantage to choosing one over the other was minimized, and since the standard deviation for actual success was smaller that that of perceived success, it was used as the more stable

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7 Actual support contributed, ? = .04; actual success contributed, ? = .14; perceived support contributed, ? = .41; and perceived success contributed, ? = .31 to the canonical function.

8 Actual support contributed, ? = .48, whereas perceived support contributed, ? = .99 to the support construct.

9 Actual support contributed, ? = .41, and perceived support contributed, ? = .86 to the support constructs after considering success variable weights. Actual success contributed, ? = .72, and perceived success contributed, ? = .841 to the success constructs after considering the contribution of support variable weights.
construct. Of 57 women in the study, 37 were classified as successful, 11 as unsuccessful, and the remaining 9 were excluded in the categorized statistics.

Linear regression analysis suggests that the relationship between perceived support and actual success for the successful entrepreneurs was $r = .62$, $p < .0001$, 2-tailed. Results were insignificant for the unsuccessful protégés. Perceived support appears to be a significant construct in a successful woman’s success, but not for an unsuccessful woman, as can be seen in the ANOVA results in Table 3. {insert Table 3 here}

**Proposition 2:** Higher levels of perceived support reported by women would be highly correlated with success and, therefore, more predictive of a woman’s success potential, and vice versa.

The perception of support had the highest correlation with success for the sample at large. The perception of support was strongly correlated with actual success ($r = .77$) and very strongly correlated with the perception of success ($r = .84$) at the $p < .0001$ level of significance. In contrast, actual support was weakly correlated with actual success ($r = .35$, $p < .01$) and perceived success ($r = .41$, $p < .001$). Figure 1 illustrates the differences between actual success and perception of support in the two categories (successful and unsuccessful), suggesting that the most successful women entrepreneurs in the study perceived a positive amount of support in their environments. {insert Figure 1 near here} Eighty percent of the successful entrepreneurs had significant perceptions of success, whereas much lower perceptions of support were found among the unsuccessful protégés; ninety percent of the unsuccessful protégés perceived very little or negative amounts of support in their environment.

**Proposition 3:** The source of support will not be as indicative as the perception of it, for women’s success.

The source of support was not as indicative as the perception of it for a woman’s success. By confirming this proposition, one of the major foundations of this research was supported. When actual and perceived support were compared, only a moderate correlation ($r = .44$, $p < .001$) resulted. The perceived and actual success constructs had a stronger correlation ($r = .66$, $p < .001$), so additional analysis was conducted to validate the significance, despite reliable redundancy analysis.

When classified in either successful or unsuccessful categories, the correlation between perceived and actual success constructs appeared more variable. For successful entrepreneurs the correlation was less moderate ($r = .57$, $p < .0001$, 2-tailed). For unsuccessful protégés, correlation was relatively the same ($r = .679$) but less significant ($p < .02$, 2-tailed). However, when compared to the perception of support, the relationship between variables differed significantly between the two groups of women. The correlation between the perception of success and perception of support had a moderately weak and insignificant result ($r = .36$, $F[1,10] = 1.33$, $p < .28$) for the unsuccessful protégés, but a strong and significant correlation ($r = .73$, $F[1, 36] = 40.13$, $p < .0001$, 2-tailed) occurred for the successful entrepreneurs. These results would suggest that perceived support is a discriminating variable for both groups of women.
Additional Findings

In addition, women’s perceptions of support were more strongly correlated with success that with actual support sources available to them. In fact, one perceptual source of support appeared to be the perception of success, which had the highest correlation ($r = .84$, $p < .0001$) with the perception of support, leading to the assumption that perceived success functions as a source of support (Pollard, 2001).

Discussion of Results

As an exploratory investigation the research served its purpose by isolating trends, which can be investigated further. The strength of this research is the degree to which it provided greater understanding of how powerful women’s perceptions are in affecting the success of their entrepreneurial ventures. In addition, the model utilized was an effective model for simultaneously investigating the insights gained from unique, individual stories, and generalizing empirical results to a larger population. However, as exploratory research the model conceptualization should continue to be tested, so the discussion of results identifies areas for further research.

The strong correlation between women’s perceptions of, and actual success, may be the result of limitations in the research model, but there may be other explanations as well. The strength of women’s perceptions seems to be validated, yet there may be an unclear boundary between actual and perceived success, which may demonstrate incompatibility between traditional success formulas and the CDWE women’s criterion for success (Inman, 2000; Perry, 2002). For example, CDWE women included traditional, external success qualifications in their own definitions of success; they wanted to “operate in the black”, “show a profit”, and “make a decent wage”. However, meeting these success objectives was not enough to perceive success and many profitable women did not feel successful if these were the only objectives they met. Success also meant “giving back”, “doing something for others”, “maintaining balance”, and “having an impact on society.” The high correlations between actual and perceived success could have been the result of this “additive” nature of success; there seems to be a difference between criteria necessary for success, and criteria a woman must meet to perceive herself successful (Pollard, 2001). Handy, Kassam and Ranade (2002) report similar findings in their research on Indian women, 40% of whom have altruistic goals and 100% who consider success as “giving back” (147) to society. Additional research on this relationship should be considered.

Although results exhibited some variation and insignificant relationships, they did suggest consistent relationships between constructs. Investigating multiple variables, in conjunction with each other, rather than the study of individual variables in series, was hoped to lead to an increased knowledge of these complex relationships and should be continued (Coviello and Jones, 2004).

Practical Applications

Transcripts of the women in this study often included accounts of support found within the CDWE program; women were “happy just to know someone else is going through the same
thing.” Disseminating the results of research investigating constructs unique to women entrepreneurs might be influential for other women.

Practitioners could utilize the results during one-on-one mentoring, to help a woman understand how her perceptions and definition of success strengthens or inhibits her potential, and would complement other types of skill development work. Several women in the study remarked that such self-understanding was critical in their decision to become an entrepreneur. Fischer, Reuber, and Dyke (1993) found that practitioners differed in the type of advice they gave to men and women, by presenting women with more, but less complex guidance. Although the reason for this was not explained, a better understanding of the complexity of women’s entrepreneurial issues could result in more effective guidance. Intuitively, the advice given to a woman who states “I think positive… I don’t think I’m ever going to have obstacles” should differ from advice given to a woman who feels “I never know what’s going to hit me next. There are so many obstacles that keep you from the obstacles that you need to get through” – suggesting practitioners may need to give more individualized, yet complex generalizations.

One way to increase the complexity of information provided is to utilize construct pairs and the relationships between them, in addition to discussion single variables. For example, a practitioner could help a woman include both perceptual and tangible success factors, so that she understands what level of personal satisfaction she needs in order to consider, and present, herself as a successful entrepreneur. CDWE stories illustrate the significance of such knowledge. Several protégés were already self-employed when they joined the program; some considered themselves successful already, “I’m a successful entrepreneur. I can eat now.” Others did not, despite acknowledging they had met several external income, length of business, and growth success criteria. For example, “I’ve been hitting the numbers I’m supposed to hit, but I just don’t know where I need to be to be successful” or “I have two full-time employees now, and a person to help part-time, but I don’t feel like I’m doing it right.” Neither woman was confident to take the measured risks to expand their businesses to the next step; a practitioner who understands the strength of a woman’s perceptions could help women understand factors of success in different ways.

Another practical application derives from the original impetus for this research – to spawn further research. Entrepreneurship development programs could collect data with the intent of critiquing the effectiveness of using approaches designed uniquely for women. For instance, “microenterprise” training programs typically ignore sociocultural conditions women must manage (Ehlers and Main, 1998, 424). Research specific to different populations of women could help understand the different obstacles and barriers, different types of entrepreneurs, experience.

Conclusion

“Social science is cumulative, not in possessing ever-more refined answers about fixed questions, but in possessing an ever-richer repertoire of questions” (Cronbach, 1986, 91). This research, therefore, attempted to do as Kilduff and Mehra (1997) championed, using “the simultaneous availability of apparently incongruous research methods, including…experiments, deconstruction, ethnography, and sophisticated statistical analysis” (464), to increase understanding of complex relationships unique to women and their entrepreneurial efforts. The
results were consistent with other literature, suggested new insights, and presented several areas for further research.
References


Center to Develop Women Entrepreneurs. (1996), [CDWE women’s stories], unpublished raw data.


### Table 1 Research Rubric

#### Support

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Construct 1</th>
<th>Predictor</th>
<th>Construct 2</th>
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<tr>
<td>Self-disclosure</td>
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<td>Locus-of-control</td>
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<tr>
<td>Internal recognition of support</td>
<td>Actual Support Score</td>
<td>Perceived obstacles</td>
<td>Evaluation of support</td>
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<td>External support</td>
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<td>Perceived Support Score</td>
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#### Success

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<tr>
<th>Criterion</th>
<th>Construct 1</th>
<th>Criterion</th>
<th>Construct 2</th>
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<tr>
<td>Entrepreneurship</td>
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<td>Expectations of Success</td>
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<tr>
<td>Risk-aversion</td>
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<td>Gender stereotypes</td>
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<tr>
<td>Definition of success</td>
<td>Actual Success Score</td>
<td>Focus &amp; Discipline</td>
<td>Perceived Success Score</td>
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### Table 2 Variable Correlation Matrix

#### Variable Correlation Matrix

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<tbody>
<tr>
<td>Act.Sup</td>
<td>(r = .52)</td>
<td>(r = .47)</td>
<td>(r = .47)</td>
<td>(r = .41)</td>
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<tr>
<td>Perc.Sup.</td>
<td>(r = .17)</td>
<td>(r = .78)</td>
<td>(r = .66)</td>
<td>(r = .67)</td>
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<tr>
<td>Act.Suc.</td>
<td>(r = .30)</td>
<td>(r = .78)</td>
<td>(r = .75)</td>
<td>(r = .74)</td>
</tr>
<tr>
<td>Perc.Suc.</td>
<td>(r = .13)</td>
<td>(r = .72)</td>
<td>(r = .67)</td>
<td>(r = .76)</td>
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### Table 3 ANOVA Comparison
### ANOVA Successful Entrepreneurs

<table>
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<tr>
<th>Model</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>8.700</td>
<td>1</td>
<td>8.700</td>
<td>22.00</td>
<td>.0001</td>
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<tr>
<td>Residual</td>
<td>13.839</td>
<td>35</td>
<td>.395</td>
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<tr>
<td>Total</td>
<td>22.540</td>
<td>36</td>
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### ANOVA Unsuccessful Proteges

<table>
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<tr>
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<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
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<td>1</td>
<td>5.708</td>
<td>3.474</td>
<td>.10</td>
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<tr>
<td>Residual</td>
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<td>9</td>
<td>1.643</td>
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<tr>
<td>Total</td>
<td>20.495</td>
<td>10</td>
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</tbody>
</table>

a  predictors: (Constant), PERCSUP

b  Dependent Variable: ACTUSUC
## Figures

Figure 1 Level of Perceived Support by Category

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Value PERCSUPP</th>
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</thead>
<tbody>
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<td>Successful</td>
<td>6</td>
</tr>
<tr>
<td>Successful</td>
<td>4</td>
</tr>
<tr>
<td>Successful</td>
<td>2</td>
</tr>
<tr>
<td>Successful</td>
<td>0</td>
</tr>
<tr>
<td>Successful</td>
<td>-2</td>
</tr>
<tr>
<td>Successful</td>
<td>-4</td>
</tr>
<tr>
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<tr>
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<td>Unsuccessful</td>
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</tr>
</tbody>
</table>

**CATEGORY**

- successful proteges n = 37
- unsuccessful proteges n = 11