

Women Entrepreneurs, Growth, and Implications for the Classroom

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Elizabeth J. Gatewood Wake Forest University

Candida G. Brush, Boston University

Nancy M. Carter, Catalyst,

Patricia G. Greene, Babson College

Myra M. Hart, Harvard Business School

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Women business owners are an important and growing force in the United States economy, both in terms of the number of participants and the gross revenues and employment they represent. The number of women-owned businesses continues to grow at twice the rate of all U.S. firms and one in eighteen women in the U.S. is a business owner (Center for Women's Business Research, 2004).

The estimates for 2004 (extrapolated from the 1997 Census) continue to document the impact of women entrepreneurs in the U.S. economy. In 2004, there were a projected 10.6 million privately-held businesses in which a woman or women owned at least 50 percent. The majority women-owned firms were projected to be 30 percent of all businesses, some 6.7 million businesses, while equally-owned firms represented another 18 percent of all firms. The 10.6 million women-owned and equally-owned firms employed 19.1 million people and generated \$2.46 trillion in revenue. The growth of women ownership continues to exceed the national averages for all firms. From 1997 to 2004, the number of women-owned firms grew at a rate of 17 percent. They registered revenues increases of 39 percent. This was in comparison to a 9 percent growth in the number of firms overall and a 34 percent increase in revenues.

Although women owners are a growing force in the U.S. economy, not all the statistics on women-owned businesses paint a positive picture for women with

entrepreneurial aspirations. The reality is that, in spite of the fact that female entrepreneurship is growing at a very rapid pace, the actual number of men who are thinking of or starting new businesses annually is still greater (Minniti & Bygrave, 2003; Carter & Brush, 2004). Furthermore, women-owned businesses are, on average, smaller than those owned by men (Kalleberg & Leicht, 1991; Fischer, Reuber, & Dyke, 1993; Rosa, Carter & Hamilton, 1996; Chaganti & Parasuramana, 1996; Watson, 2002). This paper reviews the literature on women's entrepreneurship to determine underlying explanations for these gender-based differences and examines the long term implications for women entrepreneurs who want to start and grow their own businesses. We discuss research about larger and growth oriented women-owned businesses to determine what distinguishes these business owners from their colleagues. Finally we consider the classroom and teaching implications of the research.

Startup Activity

Entrepreneurial activity of women lags that of men in a majority of countries. In fact in 2001 – 2003, the Global Entrepreneurship Monitor (GEM) countries reported that entrepreneurial activity of men across all countries was 60 percent higher than that of women. Although U.S. women are very entrepreneurial when compared to women in other GEM countries at 8.2 percent of the total female population, US men are also actively engaged in starting new businesses. Consequently the ratio of US women's entrepreneurial participation to men's was actually lower than for all GEM countries in the aggregate. In 2003, there were 1.9 U.S. men involved in entrepreneurship for every

U.S. woman, whereas the worldwide figure was 1.7 men for every woman. What is even more notable is that the gender gap in the US and world activity seems to have widened from 2002 when the ratio of men to women in the U.S. was 1.6, and the world average was 1.5 (Minniti & Bygrave, 2003).

Size

Despite the fact that women-owned firms were 26 percent of all firms, they only represented 4 percent of all revenues for U.S. businesses. Equally owned firms (17 percent) added another 5 percent in revenues, but the fact remains that firms with a significant women ownership only represent 9 percent of U.S. revenues. Men-owned businesses are also a smaller share of the total firm revenues than their sheer number would lead us to expect. Men-owned, privately held firms, constituting 55 percent of the number of firms overall, produce 36 percent of all revenues. In the U.S. economy, 55 percent of revenues are produced by 2 percent of the publicly held and or foreign owned firms, or nonprofits. The impact of this difference can be seen when we compare average receipts of women and men-owned firms.

In 1997, women-owned firms had average revenues of \$151,130, while equally owned firms averaged \$259,236 and men-owned firms \$582,450. The average for all firms was \$891,040. The average revenues for women-owned firms with employees was \$847,419---significantly larger than the \$22,080 of revenues for women-owned firms without employees. However, men-owned firms with employees averaged \$1,985,950 (without

employees \$45,161), while all firms with employees averaged \$3,382,047. Interestingly the average of equally-owned firms with employees was \$805, 043, smaller than that of women-owned firms with employees. For the 268,000 publicly traded or foreign-owned firms and nonprofits in the U.S., the average revenues were \$37,701,708.

The differences in size between men and women-owned firms may be a result of the unique difficulties women face in starting and growing their firms. Brush (1997) delineated some of the obstacles that women entrepreneurs face: lack of education and training, limited access to growth and expansion capital, not being taken seriously, and responsibilities of child and dependent care. In addition other researchers have identified the different composition and use of social networks (Renzulli, Aldrich & Moody, 2000), women owners' choice of industry (Spilling & Berg, 2000), growth aspirations (Cliff, 1998) and motivations (Carter, Gartner, Shaver & Gatewood, 2003).

Although numerous differences may exist for men and women entrepreneurs and the businesses they own, many of these differences may be inconsequential to performance. Therefore we will review the literature to identify the differences between men and women entrepreneurs and to determine whether those differences have a significant impact on women entrepreneurs' ability to start and grow their businesses.

Human Capital

A recurring theme in the entrepreneurship literature is the importance of human capital for entrepreneurial success. Human capital takes many different forms: education, experience derived from paid employment or managerial responsibilities, industry

experience related to the venture, prior self employment or startup experience.

Comparative studies of the differences in education and experience for men and women entrepreneurs have concluded that women and men come to business ownership from different human capital backgrounds and some of those differences may impact the success of their ventures (Brush, 1992).

Education. Boden and Nucci (2000) found that women business owners were less likely to have four or more years of college than their male counterparts, while other researchers found that women entrepreneurs were generally as well educated or better educated (Birley, Moss & Sanders, 1987; Cowling & Taylor, 2001); for example, they were more likely to have completed high school and university than men entrepreneurs (Stevenson, 1974). Fischer, Reuber and Dyke (1993) found few differences in educational levels in a large sample of women and men owners. The only significant difference was that men owners had more production-related business education.

Experience. Research has also identified the differences in experiences that men and women can bring to their ventures. Women have less paid employee experience (Boden & Nucci, 2000), and women's work experience may be in areas less helpful to the success of their organizations, for example in teaching, retail sales, office administration, or secretarial areas (Hisrich & Brush, 1983; Scott, 1986; Neider, 1987) than in executive management, scientific or technical areas (Watkins & Watkins, 1983). Women also have less managerial experience (Watkins & Watkins, 1983; Fischer, Reuber & Dyke, 1993; Boden & Nucci, 2000); less previous experience in self-employment (Kalleberg & Leicht, 1990) or from starting or owning prior businesses (Cromie & Birley, 1991; Fischer, Reuber

& Dyke, 1993), and less prior experience in the industry of their startups or in similar firms (Fischer, Reuber & Dyke, 1993; Carter, Williams & Reynolds, 1997).

Does Human Capital Matter?

Education. A strong belief exists that education and experience are important to performance of ventures (Vesper, 1990; Shefczyk & Gerpott (2001). At least in the U.S., additional years of schooling increased the likelihood of self-employment (Blanchflower & Meyer, 1992), and a number of studies report a positive relationship between education and survival (Bates, 1990; Bruderl, Preisendorfer, & Zeigler, 1992). Boden and Nucci (2000), for example, found that survival rates are higher for male and female businesses with owners with at least four years of college. Some studies have shown a link between educational attainment and growth, while others have not. Begley and Boyd (1985) found that education attainment of entrepreneurs is related to growth of the venture. In a study of high growth entrepreneurs versus their slower growing counterparts, high growth women business owners were found to have greater educational attainment than their slower growing women contemporaries (The National Foundation of Women Business Owners, 2001). However, Fischer, Reuber and Dyke (1993) found no relationship between education and size of the business as measured by sales for men or women owners.

Experience. Experience may also influence whether individuals decide to pursue an entrepreneurial career, the success of the startup process, and the performance of the business in subsequent years, but it appears that the impact of experience may be tied to specific types of experience. For example, it has been shown that prior paid employment increased the likelihood of someone entering self employment (Lin, Picot & Compton,

2000), and survival rates for businesses with owners (male or female) that had at least 10 years prior paid employee experience were higher than for those with less experience (Boden & Nucci, 2000). However, Boden and Nucci found that the impact was not a direct one of experience but an indirect one related to startup capital. Years of paid employment is positively correlated with the amount of capital owners used to start or acquire their businesses; and survival rates are higher for businesses that were started or acquired with \$5000 or more in capital.

Although it has been believed that managerial success was important to entrepreneurial success (Jovanovic, 1980), prior management experience had no significant impact on survival rates (Bates, 1990; Boden & Nucci, 2000). Fischer, Reuber and Dyke (1993) found that although men had more experience managing people, experience was negatively related to sales growth.

Most research has found a positive relationship between entrepreneurs' prior experience in the industry and the success of the firm (Van de Ven, Hudson & Schroeder, 1984; Carter, Stearns, Reynolds, & Miller, 1994). Industry experience of the entrepreneur appears to differentiate higher growing firms from slower ones (Brush & Hisrich, 1991). According to Brush and Hisrich (1991) women with experience in the field of the venture were more likely to survive and be successful growing their businesses than women without that direct experience in the industry, however, Gundry and Welsch (2001) found that high growth women owners had fewer years of industry experience and overall business experience than lower growth women owners. Fischer, Reuber and Dyke (1993) found that experience in similar firms did contribute to the differential sales growth of men-owned businesses over women-owned ones.

The importance of prior entrepreneurial experience to performance is mixed. Prior self employment increased the likelihood of someone entering self employment (Lin, Picot & Compton, 2000), but the lack of prior start-up experience did not appear to impact the survival of women-owned businesses (Carter, Williams & Reynolds, 1997).

Although men and women may differ on particular types of education and experience, the impact on performance for women-owned businesses is not clear cut. Research has not demonstrated a clear difference in educational levels of men and women entrepreneurs, nor a clear tie to performance. Although better educated women may be more likely to start businesses and survive, there is no clear demonstration of a relationship between education and growth for women-owned businesses.

The story on experience is also a mixed one. Men and women differ on prior employment experience, and prior employment experience contributes to a greater chance of starting and surviving, however it does not appear to have a direct impact on growth. Years of managerial experience, which also favors men, was found to have no impact on survival and a negative impact on growth in sales. Previous entrepreneurial experience was related to a choice of self-employment and growth but not to survival. Finally, some researchers found a tie to prior industry experience or experience in similar firms for survival and sales growth, but others found it was not related to growth in sales. Fischer, Reuber and Dyke (1993) concluded that educational and experience differences in men and women account for a negligible amount of the variance in performance between men and women-owned firms.

Social Capital

In the women's entrepreneurship literature, researchers (for example, Aldrich, 1989) have questioned whether women participated fully in the appropriate networks, spending sufficient time and effort in building diverse networks and using them appropriately. However empirical studies have shown that men and women entrepreneurs have more similarities than differences in building social capital. Reese (1997, in Renzulli, Aldrich & Moody, 2000) found that women and men were equally aggressive in searching for and obtaining advice and assistance through their networks. Renzulli, Aldrich and Moody (2000) found that men and women nascent entrepreneurs had equally sized (the vast majority of men and women mentioned five people that they used for business discussions) and diverse networks (the probability that each contact in the network will have a different relationship with the nascent than other contacts in the network).

Although there are many similarities in the networks of men and women, there are some key differences. Women, in general, have a higher proportion of kin in their networks (Marsden, 1987), and women entrepreneurs are similar in this regard to their non-entrepreneurial sisters. Renzulli, Aldrich and Moody (2000) reported a higher proportion of kin in the networks of women nascent and women business owners.

What is also interesting is that men entrepreneurs (nascent and owners) report that they predominantly have men in their network, while women nascent and owners report they have more gender balanced networks (Aldrich, Reese, Dubini, & Woodward, 1989; Renzulli, Aldrich & Moody, 2000).

Other research investigated differences in the way men and women entrepreneurs used their networks: male entrepreneurs relied heavily on a male colleague as their primary

contact. Women also primarily relied on a male colleague as their prime contact but then used other women as sources of information (Cromie & Birley, 1992), while men relied almost exclusively on members of their own sex for advice.

Does Social Capital Matter?

Social capital is believed useful for entrepreneurship in the same way that financial capital is (Lin, 1999) for initiating, creating and building a business. The instrumental nature of social capital is accessed through the entrepreneur's personal ties to others who may provide access to other forms of capital, for example, financial, human, and physical capital (Coleman, 1988). Social capital is important in the pre-startup phase as it can be significant source of information about opportunities and provide social support that affect entrepreneurial career path choices (Cambell, Marsden & Hurlbert, 1986; Cambell, 1988; Denison, Swaminathan, & Rothbard, 1994; Renzulli, Aldrich & Moody, 2000). Although Renzulli, Aldrich and Moody (2000) showed that being female or having females in networks did not affect startup outcomes; network heterogeneity significantly increased the odds of starting a business, while high proportions of kin in the network decreased the odds. Kin ties are less likely than non-kin ties to be useful in accessing information and resources---key components in successful venture creation (Fischer & Oliker, 1983; Moore, 1990; Renzulli, Aldrich & Moody, 2000).

Although Reese and Aldrich (1995) found that the time spent building and maintaining business contacts was not essential to survival or economic performance for business owners, other researchers have pointed to the importance of social and business contacts as key to accessing capital from investors and others. Sargent and Young (1991)

found that social and business relationships of the entrepreneur provided information and resources that shaped the entrepreneur's and investor's definitions and expectations for the new venture and venture financing.

The impact of social capital is important not only at the earliest stages of the venturing but also through the growth stages, especially for high potential businesses. Businesses with less diverse networks may grow more slowly (Zhao & Aram, 1995). In particular, networks facilitate efficient access to financial capital and prove effective for tapping into professional direction and support offered by venture capital firms (Aldrich, 1989). Entrepreneurs with little or no track records must build credibility through their alliance partners. Third parties faced with great uncertainty related to new firms rely on the prominence of the affiliates of those new firms to make decisions about their quality (Stuart, Hoang & Hybels, 1999). In addition, the prominence of strategic partners can impact the performance of ventures. For example, Stuart, Hoang, and Hybels (1999) showed that biotech companies with prominent alliance partners were able to go public quicker and with a higher market valuation, while Chang (2004) found that the speed with which internet firms went to IPO was influenced by the reputation of venture capital firms funding them, the reputation of their strategic alliance partners, and the number of alliances they developed.

In light of the finding that men reported having predominately men in their instrumental networks, women entrepreneurs may lack sufficient connections (either in number or prominence) to gain access to the equity community, which is small and predominantly male (Bygrave, 1992). If women entrepreneurs' social and professional networks do not intersect with those in the venture capital community, the women will

have limited access to equity capital (Aldrich, 1989). The historically male composition of the equity capital community suggests that the existence of network gaps may present serious access challenges for women trying to grow their businesses with equity capital.

Although women may believe they have men in their network, if men (who predominantly report they have men in their networks) don't recognize the ties, the connections will be weak at best. In addition, the fact that women report more relatives and kin in their networks may mean that the male contacts women have may not be the ones most valuable to growing their businesses.

In summary, men and women entrepreneurs differ on the proportion of kin in their networks and network diversity. A higher proportion of kin in the network decreases the probability of a successful start. The greater the diversity of the network increases the probability of startup success and growth. This may be especially important as it related to the entrepreneur's ability to raise equity capital to fuel growth.

Financial Capital

The size differential between men and women-owned businesses may be a function of the resources available at the startup and through the growth phases of the businesses.

Women use less capital in starting or acquiring their businesses than men (Brush, 1992; Carter, Williams & Renolds, 1997; Carter & Rosa, 1998; Verheul & Thurik, 2001).

Because the majority of businesses are started with personal savings of the founders (Bhide, 1992), normally accumulated over time, women may be handicapped because of the differential in pay structures between men and women. They are less likely to have high

incomes and more likely to have very low incomes than men (Minniti & Bygrave, 2003).

Women are not only more likely to start their businesses on a shoestring but also more likely to operate on a shoestring. Some research shows that men and women use different financing strategies that may affect women entrepreneurs' ability to grow their businesses. Chaganti, DeCarolis and Deeds (1996) found that women preferred internal versus external sources of equity for their businesses--- a strategy that may place greater limits on the amount of capital available for expansion.

Although Verheul and Thurik (2001) found that the gender of Dutch business owners did not affect the proportion of equity versus debt in their businesses, others have reported that women were less likely to use debt capital in running their businesses (Scherr, Sugrue, & Ward, 1993; Carter & Rosa, 1998). And even when using debt financing, it appears that women and men entrepreneurs use different strategies. Haynes and Haynes (1999) reported that women-owned businesses were more likely to borrow from family and friends and to have a higher proportion of their total debt from friends and family than men-owned businesses---again a strategy that may limit their ability to grow their companies.

There are some contradictory findings about the whether men and women are as likely to use lending institutions for financing their businesses. Carter, Williams, and Reynolds (1997) found that men and women were just as likely to use formal lending institutions for starting their businesses, while Cole and Wolkin (1995) found that women were less likely to use banks as a source of capital. Coleman and Carsky (1996) found that women were less likely to have bank loans but that the finding was more a function of size and age of the businesses than gender of the owner. There also is some evidence that

women use less trade credit (Cole & Wolken, 1995; Carter & Rosa, 1998) and fewer non-depository financial services (Cole & Wolken, 1995) than their male counterparts.

Does Financial Capital Matter?

Financial resources are important for starting and growing businesses. Personal financial resources and the ability to access the resources of others may make the difference between successful starting and growing a business. Lack of capital at initial stages can delay or preclude startup and may have a long term impact on the firm. And it has been shown that less capital at startup influences the ability of the entrepreneur to raise bank financing (Storey, 1994). Carter and Allen (1992) show that undercapitalization at firm founding has a long term negative effect on the performance of women owned firms. Carter and Rosa (1998) found that the size of initial capital was positively related to future capital assets, sales, total number of employees and core full-time employees.

Entrepreneurial firms frequently experience a funding gap when financing growth (Wetzel, 1987), and minorities are especially hard hit (Hughes, 1997). Hisrich and Brush(1987) found that financing challenges decreased in importance as firms developed a track record, however, higher growth firms, owned by men or women, have a greater need for capital than lower growth firms. If business owners can't find sources for funding growth, the performance of those businesses will be affected. Carter and Allen (1997) found that access to capital had a greater impact on the size of the business than intentions to grow the business (1977). Carter and Williams (2003) found that access to formal sources of financing significantly affected sales growth; while for example, type of strategies adopted by firms did not.

Although no correlation has been shown for the amount of debt a business carries and its financial success (Haynes & Haynes, 1999), there is likely effect because of the potential impact on profitability. Without bank financing women owners may have to resort to other more costly forms of financing. Even the type of funding may have a differential effect, for example, use of bank funding at startup for men and women had a significant and positive effect on future sales levels in one study (Haynes & Helms, 2000). And as one might imagine, soliciting funds from family and friends can be fraught with problems (Haynes & Haynes, 1999).

According to the National Foundation of Women Business Owners (2001) high growth business owners use a wider array of financial sources than lower growth owners. Gundry and Welsch (2001) also found that high growth women used a wider array of financing options: family, friends, and relatives, personal savings, and leasing to start businesses and SBA loans for expansion than their lower growth women counterparts.

We conclude that women start and operate their firms with less capital and use less sources of financing for their firms; and this may impact the future performance of their firms.

Cognitions

Much of the early research in the field of women's entrepreneurship described the motivations for women's entrepreneurial career choices (Schwartz, 1976; Scott, 1986; Neider, 1987; Hisrich & Brush, 1985), and particularly attention was paid to women's attempts to use entrepreneurial careers to balance work and family needs. Researchers have

also addressed risk taking preferences for men and women.

Motivations. Carter, Gartner, Shaver and Gatewood (2003) explored the reasons that nascent entrepreneurs offered for their work and career choices and compared these responses to the reasons given by a group of non-entrepreneurs. Building off research by Schienberg and MacMillan (1988), Shane, Kolvereid and Westhead (1991), and Birley and Westhead (1994), Carter et al found six separate factors related to career choice: independence, financial success, self-realization, recognition, innovation, and roles. The researchers found a small but significant difference between men and women (nascent entrepreneurs and non-nascent) for financial success and innovation. Male nascent scored financial success and innovation higher than female nascent.

Family and Work Balance. DeMartin and Barbato (2003), in a study of entrepreneurs with MBAs found that women entrepreneurs preferred a career that gave them flexibility and allowed them to balance their career and family obligations, while men preferred careers that would allow them to build wealth. Women tend to deal with career issues and family simultaneously (Helgeson, 1990). Women seem to be involved in and to value competence in several simultaneous activities, to plan a multi-phased life path, and to worry about the interconnectedness of family and occupation (Paludi & Fankell-Hauser, 1986).

Although Chell and Baines (1998) found that women business owners were just as likely to want to keep family and business separate as to integrate the two, other researchers have found that women choose entrepreneurship because of the flexibility it provides them for balancing work and family demands. In fact, Caputo and Kolinsky

(1998); found that the presence of children in women entrepreneur's households significantly increased the likelihood of women being self employed.

Risk Preferences. Some sex differences in attitudes toward risk and risk related behaviors have been found for men and women, in general, (Hudgens & Fatkin, 1985), although there have been some contradictory findings (Kogan & Wallach, 1964). Some researchers have felt that the inconsistent findings were a result of contextual factors; however, Powell and Ansic (1997) found that men and women have different risk seeking behavior regardless of familiarity or framing, costs or ambiguity. Differences and preferences could be tied to motivation (Schneider & Lopes, 1986). Men may demonstrate a greater preference for risk because of a greater preference for economic return.

Some researchers found women entrepreneurs were more risk adverse (Collerette & Aubry, 1990); others (Bellu, 1993) found women entrepreneurs more willing to accept risk than their male counterparts, while others found no gender differences in risk propensity (Masters & Meier, 1988). Sexton & Bowman-Upton (1990) found that female entrepreneurs scored significantly lower than male entrepreneurs on risk-taking, but female entrepreneur scores were still high relative to published norms for the general population. Although the risk taking scales they were using were designed to measure four facets of risk (monetary, physical, social, ethical), they correlate most highly with monetary risk. It may be that women entrepreneurs are less interested in accepting risk purely for monetary gain.

Do Cognitions Matter?

Cognitive differences between men and women may have differential impacts on the performances of their businesses. Gatewood, Shaver and Gartner (1995) found that nascent women entrepreneurs who offered internal (I want to be independent) rather than external (I saw a market need) motivations for wanting to start a business were more successful in actually achieving a successful start in the year following. However motivations for being successful in starting the business may differ from those that will be useful to survival and growth. (Brush & Hisrich, 1991) found a positive relationship between market opportunity motivation and survival of the business for women entrepreneurs. They found a negative relationship between independence motivation and growth of women owned business.

Some strategies that women may adopt to handle the challenges of work and family can also impact the performance of the business. One common strategy is part-time self employment (Longstreth, Stafford & Mauldin, 1987). Devine (1994) found that approximately 55 % of self-employed women work less than a full week. Obviously this will impact the performance (both size and profits) of their businesses. Women owners of larger businesses work more hours and put greater emphasis on the financial performance of their businesses (Carter & Allen, 1997).

If women have lower risk preference when it comes to economic gains, this could have an impact on the size and growth of their businesses. Cliff (1998) proposed that women prefer to control the growth of their businesses and this strategy may result in greater survival rates than for business owners who adopt riskier, high-growth strategies.

Although size and growth in sales are important measures for any business, they are an incomplete picture if not considering the underlying risks involved in the business (Watson & Robinson, 2003). Risk can be measured as both probability of survival and variability of profits. One accepted measure of risk is the reward-to variability ratio (Sharpe, 1975). Although this measure was first developed to assess performance in security portfolios, it may be a good measure for accessing the performance of small businesses (Watson & Robinson, 2003). Female business owners may be willing to forgo gains in sales and profits that might threaten the business survival through variability in those measures (Powell & Ansic, 1997). Watson and Robinson (2003) found that there were no significant differences between men and women-owned businesses for the ratio of rewards-to-variability (profits to variability of profits), but as expected men owned businesses achieved on average higher profits. They concluded that women may take a different approach to business. They may be more cautious in growing their businesses, but if risk (variability in profits) is controlled they do not under perform in relationship to men.

It would appear that women entrepreneurs in general are not as motivated by financial rewards as the ability to be independent and balance family and work needs. We could only find one research study that demonstrated that women had a higher financial motivation (Fischer, Reuber & Dyke, 1993), although the authors concluded this difference (along with differences in education and experience) accounted for a negligible variance in performance between men and women. Women whose primary motivation for entrepreneurship is the desire for independence are more likely to successfully start their businesses, but that motivation may have a negative affect on survival and growth, most likely because they have not been attuned to market related issues. And if women, to

balance family and work needs, devote fewer hours to their businesses, it will have a direct effect on the size of the businesses.

Strategic Choice

Many of the strategic choices that women make affect the viability and performance of their ventures: the choice of industry, choices related to business strategy, and the choice to grow the business or not.

Industry choices. A number of researchers have pointed out that women owned businesses are over represented in the service sector and under represented in the manufacturing sector (Hisrich & Brush, 1983; Cuba, Decenzo & Anish, 1983; Neider, 1987; Anna, Chandler, Jansen, & Mero, 2000; DuReitz & Henrekson, 2000; Spilling & Berg, 2000). In 1997, 55 percent of women-owned businesses were in the services, 17 percent were retail trade, 9 percent in finance, insurance, and real estate, 3 percent in construction, while only 2 percent are in manufacturing. This compares respectively for all businesses to 34 percent services, 14 percent retail trade, 9 percent finance, insurance, and real estate, 11 percent construction and 3 percent manufacturing (U.S. Census Bureau, 2001). However, women owned firms continue to diversify across industries. The fastest growth rates are in “non-traditional” industries: construction (57 percent growth), agricultural services (44 percent), transportation, communications and public utilities (38 percent) (Center for Women’s Business Research, 2004).

A number of explanations have been offered for women entrepreneurs’ industry choices. It may be that women select these industries because they are easier to enter. Their lack of resources may actually necessitate starting certain types of businesses that don’t

require equity financing or extensive business experience but also don't hold high financial potential (Ehlers & Main, 1998). Women may find it particularly challenging to raise money for their businesses, may have to pay higher interest rates, or pledge more collateral. Hisrich and O'Brien (1982) proposed that limited access to financial resources may be more a function of the types of businesses that women own than their educational levels and experience.

Alternatively the choice of these industries may be because women "see" these industries as appropriate or they have previous experience in these industries. Women may want to draw on their past experience but if that experience was gained in a "feminine" industry that may limit their growth potential because many "female" industries are highly competitive with lower sales growth and earnings potential.

Business strategy choices. One can argue that one of the most important choices an entrepreneur makes is the appropriate entry strategy for the new venture. Some have argued for a specialist strategy that has a business seeking a niche in the marketplace to avoid direct competition with larger, more resource rich, established firms. Firms with a specialist approach are advised to offer specially designed, high quality products or services (Broom & Longenecker, 1971). Other researchers have advised firms to choose broader strategies because they lead to better chances of survival. These researchers suggest that ventures must compete head-to-head against market leaders, including competing on price (Cooper, Williard & Woo, 1986; MacMillan & Day, 1987).

Kalleberg and Leicht (1991) found that men owned businesses offered a larger number of products and services (a generalism strategy) than women owned businesses, while women owners put more emphasis on quality. Chaganti and Parasuraman (1996)

also found that women owners emphasized product quality to a great degree than men but found no gender differences on customization or cost efficiency. However, in a more recent study, men owned businesses were no more likely to use a broad strategy emphasizing quality of products and services relative to price and no less likely to use a strategy that emphasized quality and distinctiveness than women; however as the percentage of women on the founding team increased the business was more likely to use a narrow strategy of niche or price (Carter & Williams, 2003).

Innovation. Another strategic choice that has been posited as a difference between men and women is that women were thought to engage in innovative behavior less frequently (Kalleberg & Leicht, 1991). In a sample of 468 women business owners, Hisrich and Brush (1991) reported that few of the owners reported that their businesses were based on a product innovation or entering new markets with distinctively new inventions, however Hisrich and Brush also reported that the businesses ranged from very innovative to traditionally “female” businesses. Kalleberg and Leicht (1991) found that women were as likely to report business innovations as men were, and Sexton and Bowman-Upton (1990) reported that women scored higher on value placed on change.

Growth choice. It has been proposed that women didn’t want to grow their businesses or they deliberately choose to keep their businesses small or had conservative expansion plans (Kaplan, 1988; Lee-Gosselin & Grise, 1990; Chaganti, 1986), however, Kolvereid (1992) found few differences between men and women in their growth intentions, but he did find that entrepreneurs’ growth intentions were related to industry choice. Cliff’s (1998) found that women entrepreneurs were just as likely as men to report a desire to grow their businesses, although more likely to prefer a controlled growth

strategy and to set a maximum size limit, but Davidsson (1989) found that most entrepreneurs (men and women) favored business control over growth in sales or employment.

Do Strategic Choices Matter?

Industry choice can have an impact on performance. Companies in the service and trade industries generally have lower growth rates and lower profitability (Kalleberg & Leicht, 1991) because of the amount of competition in their product markets (Humphreys & McClung, 1981). We know that competition decreases the survival rate for women (Kalleberg & Leicht, 1991). In research addressing the differences in performance between men and women controlled firms, Watson and Robinson (2003) found that industry was the only explanatory variable.

Research has established a relationship between strategy and new venture performance and survival (Sandberg & Hofer, 1987; McDougall & Robinson, 1990; Stearns, Carter, Williams Reynolds, 1995). Some researchers have argued that new ventures should specialize and target narrow market segments through specially designed high quality products and services (Broom & Longenecker, 1971; Cohen & Linberg, 1974) but others have argued that broad strategies lead to better performance (Cooper, Willard & Woo, 1986; MacMillan & Day, 1987). A number of researchers have proposed that women entrepreneurs should adopt narrow strategies to improve performance because they are more likely to have fewer resources than their male colleagues (Carter & Williams, 2003). Kalleberg and Leicht (1991) found that a “generalism” strategy and an emphasis on quality increased the survival rate for women, but Carter and Williams (2003) found that

the choice of narrow or more aggressive entry strategies had little economic significance.

Although innovation is usually seen as essential to small business growth (Wilkens, 1987), innovation was unrelated to survival for women's businesses and unrelated to earnings growth for women and men owned businesses (Kalleberg & Leicht, 1991).

The effect of growth motivations on subsequent growth finds support for a positive relationship (Miner, Smith & Bracker, 1994; Bellu & Sherman, 1995). Owner's willingness to grow the firm is one differentiator between firms that grow and those that grow slowly or not at all (Kim & Mauborgne, 1997; Gundry & Welsch, 2001). DuReitz and Henrekson (2000) found that women-owned firms underperformed men-owned firms only if the growth intentions of women were inferior to those of men, but Cliff (1998) found that women entrepreneurs were just as likely as men to report a desire to grow their businesses.

In summary, industry choice seems to both differentiate men and women entrepreneurs and have a significant impact on future performance. The impact of industry seems to be a more important explanation of size differences between men and women businesses than business strategy, innovation, or growth intentions.

Institutional and Cultural Barriers

Although Brophy (1989) wrote that women face significant difficulties in financing their businesses because of the attitudes held by male-dominated institutions, many

researchers have concluded that there is little overt discrimination for women owners (Buttner & Rosen; 1992; Fabowale, Orser & Riding, 1995). Carter, Williams, and Reynolds (1997) reported that women were no less likely than men to have access to credit from banks and suppliers; and women did not have to meet higher standards to obtain credit (Haines, Orser & Riding; 1999). Haynes (1995) found that women did not appear to pay higher loan process fees or have more stringent collateral requirements. Fabowale, Orser and Riding (1995) also found no differences in loan approval or terms but did find women were less satisfied than men with their banking relationship.

Other researchers have noted some differences in credit terms for men and women. For example, McKechnie, Ennew and Read (1998) and Coleman (2000) found women were charged higher interest, and Riding and Swift (1990) found women were required to pledge larger collateral amounts. Coleman (2000) found no difference in collateral requirements in general, however women-owned service firms (the largest percentage by industry of women-owned firms) were more likely to have pledged collateral than men-owned service firms.

There are a number of studies that show that the gender of the borrower may not be as important as characteristics of the business. Storey (1993) found that the availability of debt capital was more related to the use of personal savings and legal status of the business than to personal characteristics of the entrepreneur (sex, education, or experience).

Coleman's (1998; 2000) data reveals that banks do not discriminate on the basis of gender but on the basis of size of the company. Gender was not related to loan size, collateral requirements or interest rate after controlling for size, age and sector of the firm (Haines, Orser & Riding (1999). However, since women-owned businesses are typically smaller,

younger, and in industries that are less promising, they indirectly face challenges when it comes to bank lending.

If women do pay higher interest rates and higher collateral requirements, it would indicate that lenders see women as more risky investment option. However Haines et al. found that men borrowers were rated significantly more risky by loan officers than women borrowers. They concluded that loan officers do not view women borrowers differently. One might argue that the riskier assessments for men borrowers might indicate that women owners with similar risk profiles were turned down or never bothered to apply because of anticipation they would be turned away.

Buttner and Rosen (1989) noted that although there was no appearance of overt discrimination by banks, women complained of discrimination. The banking relationship for women may be less satisfying because women owners may feel patronized in their interactions with lending officers. Buttner and Rosen found that bank managers may associate entrepreneurial characteristics more closely with men than women.

There also appears to be structural barriers for women entrepreneurs in equity markets. Bygrave (1992) described the venture capital industry as a closed network that is geographically concentrated, and tightly interconnected. It is probable that VCs associate entrepreneurial characteristics with men. Historically few women have raised venture capital (Greene, Brush, Hart & Saporito, 2001). A number of reasons have been offered for the disparity between the number of women-owned businesses and the amount of venture capital that flows to their firms. Most of the reasons offered for the differential in equity capital are the same ones offered for why women businesses are smaller than their male counterparts (Brush, Carter, Gatewood, Greene & Hart, 2003). In addition, another reason

has been offered for the equity capital gap: the lack of women in the VC industry. In 1995 and 2000, less than 10 percent of decision makers in the VC industry were female, and they were twice as likely to leave the industry between 1995 and 2000 as their male colleagues. Without women decision makers in the VC industry, it is unlikely that women will have the important connections to shepherd them to the bargaining table for an equity investment.

Equally important as barriers in the financial markets are the subtle and not so subtle cultural barriers women face in their careers. Although cultural barriers may have a negative impact on some women's choice to become entrepreneurs (Birley, 1989), a higher number of women may decide to pursue entrepreneurship because of the barriers they encounter in paid employment (Brush, 1992). For many women the decision to pursue entrepreneurship results from experiencing the "glass ceiling" effect (Davidsson & Cooper, 1992): lack of promotion or lack of salary increases. Entrepreneurship may also be a coping mechanism for women whose careers have been interrupted by child bearing (Vinnicombe, 1987) or when they desire more flexibility in their childbearing years (Mathews & Moser, 1996). Women frequently cite limited career prospects and the need to combine family and career demands as influences in their pursuit of entrepreneurship, and they associate their career frustrations to a greater extent with their gender than do men (Marlow, 1997).

Although women may choose entrepreneurship to avoid the "glass ceiling" effect in paid employment, they may run into the same cultural constraints as entrepreneurs. The traditional male-centered business model is assumed to be the "normal" model for entrepreneurship (Baker, Aldrich & Liou, 1997). This often leads to stereotypes and expectations about how men and women should act, what roles they should assume, and

how they should perform. Many women perceive the start-up environment as more hostile and difficult than men (Kolvereid, Shane, and Westhead 1993). A male-centered model may not allow room a female entrepreneur to operate as comfortably as her male colleagues, and may not provide the women entrepreneur with the legitimacy she deserves. Many women believe that they have credibility problems because of their gender (Moser, 1997).

Do Financial and Cultural Barriers Matter?

Cultural constraints in paid employment may favorably impact the decision to start a business, but those same cultural constraints may make it difficult for women to be taken seriously in their efforts to grow their businesses. This may be especially challenging when it come to raising financing for growth.

High Growth Women Business Owners

The number of women-owned firms with 1 million or more in revenue grew by 32% from 1997-2000, exceeding the growth in number of all women owned-firms (14%) or of all firms (19%) with revenues exceeding \$1 million (Center for Women's Business Research, 2001a). It is estimated that in 2002, there were almost 113,000 women owned firms with more than a million dollars in sales (Center for Women's Business Research (2001b). The growth rate for the largest category of women-owned firms was even more impressive. The number of women with sales exceeding \$10 million grew by 37%, exceeding the growth in the number of all women-owned firms (14%) or all firms with

greater than \$10 million in sales (13%). It was estimated that in 2002, there were almost 8500 women owned firms with more than 100 employees with average revenues of \$66 million (Center for Women's Business Research, 2001a). The number of women-owned firms employing 500+ employees grew by a staggering 124%---- nine times the rate for women-owned firms in general and nearly triple (46%) for all firms in this employment category.

What are some of the differences between these larger women-owned firms and their smaller contemporaries? One difference is that younger women head these firms. In fact 44 percent of women owners of high growth firms were under 45 years of age compared to only 26 percent of non-high growth women owners. Women owned firms started or acquired in the last 10 years have reached the same revenue and employment distributions as women who have been owners of their firms more than 10 years, in fact, more than 20 years. These younger women owners have taken less than 10 years to accomplish the size distribution that their older counterparts needed many more years to reach (Center for Women's Business Research, 2001c)

This new generation of women business-owners is very different than the older generation of women owners. These younger generation women owners are more highly educated and have gained more managerial experience than their older counterparts. They are more likely to start firms in wholesale trade, transportation, communications, and utilities. Some 250,000 women-owned firms are now in these sectors. The younger women owners are also more likely to express a wish to grow their firms into large enterprises, have a broader range of markets, and use different strategies for expansion.

The point is the majority of the 8 million women-owned (and men-owned)

businesses will remain small and tightly controlled. But the fact remains that there is wide variation in size, industry sector and performance of all entrepreneurial businesses, whether owned by men or women.

Implications for the Classroom

There are several important implications for the classroom – beginning with the instructor's view of what entrepreneurship is and where it can be found. Equally important are the choice of classroom teaching materials, classroom speakers, field study or consulting project assignments, and open discussion of what gender-based differences currently exist and what can be done about them.

Most entrepreneurship and starting new ventures courses put heavy emphasis on high-growth, high potential businesses. Though not denying the much wider range of choices, the focus on scalable (technology-driven) businesses that are venture capital funded reinforces a very male model of entrepreneurial success. (Less than 5% of all such businesses have been led by women over the past 40 years. Brush et al 2004). At the same time, there is a predominant emphasis on economic goals and rational planning processes instead of recognizing that some entrepreneurs may be equally motivated by social and personal goals, and that the process for achieving success is not purely planned. Such a focus projects historical biases into the future and has negative effects on women and minorities who do not see people like themselves as players in the tournament.

The adoption of a broader perspective on what comprises interesting and legitimate entrepreneurial activity will lead to development of a broader selection of cases, projects, and classroom speakers. The concepts of opportunity recognition and evaluation, concept

development and business planning can be drawn from variety of industries, business niches, and strategic choices in businesses and not-for profits led by a more diverse and inclusive set of entrepreneurial protagonists. The same holds true for developing and teaching modules on resource assembly, organization building, strategic management, growth, succession and liquidity.

Classroom speakers provide another opportunity to expand students' view of what successful entrepreneurs look like, what strategic choices they make, and how they execute their business concepts. A variety of guests who are diverse in terms of sex, race, ethnicity, age, marital and parental status is appropriate. In selecting speakers, it's important to include role models for a variety of successful ventures, not just high technology, fast growth enterprises. Further, bringing in speakers who are female role models in other areas that support entrepreneurial ventures is also important (e.g. venture capital, patent law, consulting, banking).

Just as classroom materials and guests can be expanded to cover the full range of entrepreneurial choices and actors, so should field study and consulting project assignments. The opportunity to work with women and men who are running businesses in a wide range of businesses and industries will provide firsthand experience in how women and men realize their entrepreneurial dreams.

We also need to address gender-based differences. There is substantial evidence that women and men generally make very different decisions about industry, financing, and growth. Some of these choices are pre-conditioned by differences in educational preparation and business experience. Others are a function of motivations and ambitions for their enterprises. Still others may be related to social and cultural expectations

reinforced by structural barriers. Although our focus should not be solely on economic returns, we do need to help women understand the relationships of personal choice, industry, market, and performance tradeoffs.

In addition, it is important to let students explore the extent to which they think gender differences are real or perceived. Personal self-reflection, cases that involve stereotyping, and role plays are effective tools for achieving this.

It is very important to acknowledge the status quo with regard to gender-based differences in opportunities available and opportunities taken and to discuss what it would take to change that status quo. It is also appropriate to examine external challenges whether in the business community or in the broader social context and to challenge their relevance to the entrepreneurial experience. The history of women and work, occupational segregation, credit laws and other legal/political factors as well as organizational policies and changes over time with regard to child care, mentoring, and promotion.

Recognizing the importance of industry experience to success at starting and growing businesses, we need to more explicitly encourage students to see entrepreneurship as part of career planning. Our present ranking systems put an emphasis on the number of student who start businesses soon after graduation, but according to Mathews & Moser (1996) interest in small business ownership five years out of school may be waning for women, while interest at a later point in their lives may be increasing. Courses that include entrepreneurial career planning and programs that allow our graduates to reconnect with us later in their careers when entrepreneurial choice may be more salient may be more beneficial to our students.

Changing or broadening the focus of our business plan competitions would also be useful. Putting too much emphasis on scalable (technology-driven) business models for venture capital funding ignores the reality for the majority of our students, who are unlikely to be able to finance or implement these plans. Consider broadening the range of funding providers and hosts from the usual equity investors to include banks, grantors, foundations and even suppliers or customers who also might provide funding to start-ups. Coaching our students to develop plans using a wider variety of financing strategies, including bootstrapping techniques, will capture a broader section of our student body, the majority who are unlikely to see themselves as players in the world of high-finance.

If women have less diverse networks and diverse networks are linked to entrepreneurial success, we need to assist our female students and alums to broaden their networks to aid them in the startup process. For those women students and alums who are interested in high growth business models, we need to help them build financial contacts (especially equity contacts) to provide the capital they will need to fuel their business growth. This can be achieved through speaker series, luncheon events or other conferences, for example, the Women's Leadership Forum at Boston University and the WISE conference at Syracuse University.

If we recognize that women students may have different career goals and we redesign our courses appropriately, we may attract more business women students to our courses. (Few of our colleagues tell us they have the same percentage of women in their entrepreneurship courses as the business student body). We can also increase enrollments of women students by recruiting women from other disciplines across our campuses. We can show other college women why this may be a viable career option.

Though we are all committed to teaching the fundamentals of entrepreneurship with the help of texts, cases, classroom speakers, and field experiences, we have a responsibility to provide inspiration to all of our students through our choices of exemplars. We also have a responsibility to be realistic in our presentation of what is, what barriers exist for all entrepreneurs and which may be greater for particular subsets of entrepreneurs. We have an opportunity to go the next step and propose creative alternatives to the status quo and provide tools for achieving change – for making success on his or her own terms a possibility for all our students.

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