



SUCCESSFUL GRADUATE FEMALE ENTREPRENEURS – THE SCOTTISH EXPERIENCE.

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Abstract

Prior to the 1990's there was a great deal of research interest in the Scotland in female entrepreneurship. However, in the early/mid 1990's interest waned, probably because policymakers became less interested and were unwilling to fund continuing research in this area. Nonetheless, in the past three years interest has been revived and a number of researchers are focusing their efforts in this area. Still though, there is not a great deal of evidence within the Scottish context of research that is specifically focused upon the factors that support or militate against the successful establishment of new venture by graduate females.

Earlier research tended to focus on those issues that have created barriers to female entrepreneurship and support mechanisms that have attempted to alleviate such problems for the putative female entrepreneur. These issues are addressed in this paper. The paper reports on the initial findings of preliminary studies in Scotland on these issues. The debate on the importance of Higher Education on the success of the entrepreneur has never been resolved and more recently some Scottish research has refuted the suggestion that there is a causal link between higher education and entrepreneurial success. This paper endeavours to explore whether Scottish, female graduates' success has been based, solely, on exposure to Higher Education. In Scotland, there remains, too, a traditional antipathy in society towards the successful entrepreneur – the Global Entrepreneurship Monitor studies on Scotland conducted by the Hunter Centre for Entrepreneurship at the University of Strathclyde study indicates a continuing perception that entrepreneurs are solely exploitative, greedy and manipulative members of society. It was in this context that the authors in early 2002 decided that it would be appropriate to investigate the incidence of and success of those female entrepreneurs who have graduated from university and at some point in their careers have opted for establishing their own business ventures in Scotland.

Consequently, this paper reports on the initial findings of that work, which was based on a series of intensive and in-depth interviews with a number of Scottish graduate female entrepreneurs. Through these interviews interesting revelations have emerged which contribute to the better understanding of the success factors, such as gender-related motivation for business start-ups and the importance of gender networking to the graduate female entrepreneur. The research addresses the importance to these graduate, female entrepreneurs of their higher education and



entrepreneurship education (if any) and their impact upon their ability to become successful entrepreneurs. Although the teaching of entrepreneurship is now being introduced widely throughout all levels of school college and university education in Scotland there are few successful female graduate entrepreneurs that have been exposed to such education. This research contains, for comparative purposes, the experiences of a small sample of female, graduate entrepreneurs that have had such exposure. This complements the research findings from a larger group of existing, female graduate entrepreneurs that received no specific entrepreneurship education during their higher education studies. Further, the long-standing problem of those issues that militate against female entrepreneurs in general is also addressed in order to ascertain whether they do, indeed, continue to act as barriers to success.

This paper concludes with recommendations that might serve to ensure that graduate female talent is retained within the Scottish economy and does not “escape” from Scotland to pursue careers elsewhere. Policymakers, economic development agencies and universities perceive that Scotland must retain its graduate talent in order that continuing economic revival can be sustained. The paper’s conclusions and recommendations indicate how those aspirations/objectives may be achieved whilst addressing areas for continuing research.



INTRODUCTION

During the late 1980's, early 1990's there was active research into female entrepreneurship in Scotland national, regional and local levels by academics. Policymakers had identified that there was a need for positive discrimination in encouraging females to investigate establishing businesses.

Research had indicated that females were discriminated against in their quest to establish businesses and there was a need to find methods of easing the path business start-up. Academic institutions found mechanisms to assist them by providing –female-centred training to assist women to overcome the perceived barriers to entrepreneurship. Such programmes were offered over a period of 6-7 years in Scotland sponsored by quasi-government institutions. They achieved good success, although most of those businesses started by women were in “soft areas” such as catering, business services and crèches/nurseries. Most became “lifestyle” business, one-person short-life operations. The programmes addressed issues of confidence–building, assertiveness training, dealing with funders antipathetic to females’ needs (unwilling to fund female-managed businesses) and traditional, institutionalised, male-oriented views of what might constitute an entrepreneur.

However, changes in government policy caused changes of emphasis on what aspects of entrepreneurship interested policymakers. In Scotland, in 1993/4 the re-organization of business support mechanisms created different objectives. Consequently, female entrepreneurship was relegated to a lower position in the policymakers’ research portfolio and activity declined. Only recently has research into female entrepreneurship been rekindled. Other initiatives have taken place in the interim period that has affected young, female graduates. Scottish Enterprise National, Scotland’s nationwide, regional development organisation established its Business Birth Rate Strategy in 1993 in which it set the objective of 25,000 new businesses in Scotland by the year 2000. Although this initiative was not focused specifically on either females or graduates, both were included in the target groups that could receive financial and advice/mentoring support.

The shift towards information-led industry potentially offered more opportunities for women. However, it may be that women continue to be discouraged from believing that they can run a business. It is suggested that women don’t pursue a business idea until they are sure that they can fulfil 80% of the duties involved, whilst their males “go for it” if they consider that they can complete 50% (Business Insider, March 2002). If so, clearly little had changed in the period between Scottish female entrepreneurship research being curtailed in 1993 and 2003. It was the researchers’ wish to identify whether little had changed in issue that affected potential, young, graduate female entrepreneur the early 1990's. Has anything changed? Do things that previously militated against female entrepreneurship still exist?

FACTORS AFFECTING FEMALE ENTREPRENEURS

Education and Small Business Management

Studies concerning the importance of higher education among small business owners have failed to reach agreement (Carter; 2001; Muzyka et al; Curran & Burrows, 1988; Meager, 1991; Keeble et al, 1992; Brooksbank, 1997). Evidence as to the success rates of businesses run by higher



educated people is contradictory. Some writers overcome this difficulty by stating that the direct impact of education on business-owners is unknown and for women, they may be more interested in the control their destiny and the ability to better manage their family and business life and less interested in expanding the business and losing overall control.

One study deduced that women require further training in such basic business skills as financing growth, hiring, training and motivating for growth, coping with the pitfalls of growth, making decisions based on cash-flow, increasing firm value, coping in a changing world, successful selling and successful management (Gundry, L.K., Ben-Yoseph, M., 2001).

Being a Woman

The societal status of women has evolved and changed significantly. Female entrepreneurship has undergone global expansion and female entrepreneurship has increased (123%) faster than male entrepreneurship (46%) since 1979 (Mukhtar, 1998). In UK, self-employed females have increased from 24% in 1990 to 26% in 1999. Being an entrepreneur is a multi-faceted experience, but Schwartz found that being a female entrepreneur brings additional implications, making it more challenging. As early as 1976 he found the major barriers for female entrepreneurs were, obtaining lines of credit, weak collateral position, lack of business training, lack of management skills and family/domestic issues. Similar to most other GEM countries, Scotland's female entrepreneur rate is around half of that for males. The Scottish GEM (Levie and Galloway, 2002) noted that a third of the women are confident that they possess the skills to start a business and more women than men are daunted by fear of failure in business. Further, women tend to take longer to actualise their entrepreneurial potential because women take time off for family (Galloway et al 2002) and women take longer to accumulate start-up capital owing to comparatively low incomes (Low Pay Unit, 2001).

Female entrepreneurship might be the answer to women who want control over their career and to counter the "glass ceiling" (Dafoe, 2001). NFWBO (1988), the National Foundation for Women Business Owners (1998) ascertains that in U.S., 44% of women business owners left former position of employment because of the "glass ceiling", (Gundry and Ben-Yoseph, 2001). Research by Langowitz (2002) with 200 women-led companies in Massachusetts reported that 53% of the business owners felt that the "glass ceiling" was "barely or not at all important" as a motivator to start a business.

Management /Business Performance

Early studies on gender and entrepreneurship suggested that women aren't profit oriented and more likely to value intrinsic goals (Rosa et al, 1993). Buttner and Moore (1997) found that women executives believed that self-fulfilment was the most important measure of success, followed by goal achievement whilst economic factors, profits and growth, were ranked third and fourth in measures of business performance. Second to last was balancing family and work and making a social contribution was least important. It was consensus that women-owned businesses performed less favourably than male-owned businesses - one reason being, though disputed, was that female owned firms were, initially, under-resourced.

Family and Female Entrepreneurs

Galloway et al (2002) reported that in Scotland 77% of female entrepreneurs were married whilst 50% had at least one child under 18. Birley (1989) commented that parenthood, rather than marriage, seemed to be of greater consequence to female entrepreneurs. Self-employment offered



flexibility for time off work to look after children, and more entrepreneurial women tend to be mothers rather than female executives. Self-employment was seen as a “coping strategy” to combine domestic and employment responsibilities. Although self-employment offers flexible working conditions (paid employment does not), Carter (1998) found that family responsibilities were a distraction. In Gundry and Ben-Yoseph’s (2001) study, no women admitted to work being more important than spending time with family.

Business Start-up

One barrier for young, female graduates could be that more women than men are deterred from business start-up owing to fear of failure (Galloway and Levie, 2001). Some prefer to gain relevant industrial experiences before starting a business that are useful for network building and gaining access to finance in future (Carter, 1998). Rosa and Hamilton (1994) found that women are more likely to have established businesses from scratch and are more likely to be sole proprietors. Studies concluded that the start-up processes used by women were slower, the incubation period longer. Female-specific motivations can be categorized into “push” and “pull” factors. In the latter, the issue of balance between family and work largely comes into play.

A lack of general business knowledge hampered start-up and survival, as expressed by Nelson (1987) Women want more information than men owing to causal factors: females’ limited business background knowledge; limited managerial experience. Hisrich and Brush (1986) reported that half of their respondents faced difficulties in countering societal perceptions that women are not “serious” in business. According to the NFWBO 1994 study, “not being taken seriously” by business stakeholders was the major barrier for female entrepreneurs. Brush (1997) showed that women enter self-employment with less financial assets, experience in management and human and social capital.

Finance for Female Entrepreneurs

Carter et al (2001) reported that women start business with one-third of capital used by men, irrespective of sector/location - women used “personal savings, credit cards, home equity loans and family loans” to finance businesses. Close relationships between low start-up capital and subsequent poor performance existed and women encounter difficulties and credibility problems when seeking finance.

Hisrich and Brush (1986) argued that if a woman entrepreneur lacks experience in executive management, has limited financial responsibilities, and proposes a non-proprietary product, persuading a banker to lend start-up capital is difficult. Consequently, some women need husbands/partners to co-sign a note, seek a co-owner, or use personal assets. Studies were conducted to identify if banks practice discriminatory lending to women. No conclusive evidence was found. Possible solutions for women entrepreneurs included alternative lending institutions (credit unions and small business grants/government loans offered through small business centres) (Dafoe, 2001). Women entrepreneurs may have been preferred clients as they undertake lower risk businesses and thus more likely to repay the loans.

Networking

Women used networks to do business more efficiently, test ideas, distribute information, and ease their business start-up (Muzyka, D, Guegan, N., D’Esposito, G., Turner, P., Rossell, G.). Effective networks could be critical to successful new businesses. Aldrich et al (1996) identified three types of network, ‘Strong ties’, ‘Weak ties’ and ‘Contacts’. “Strong tie” people were



considered as her 'advisors'. These made frequent contact providing feelings of trust, reliability and emotional links. 'Weak ties' were typified by less frequent contact, greater ambiguity, less reliability, shorter duration and communication made only when needed. 'Contacts' were those people previously unknown to the entrepreneur, used when required. There were little/no emotional ties between these people; relationships did not last. Aldrich found that women were outside informal, strong tie networks. Brush (1992), saw women entrepreneurs as 'co-operative networks of relationships', suggesting they prefer access to "strong ties" for conducting business. Aldrich, found that women utilised weaker-tie networks that are easier to access to achieve the benefits enjoyed by those within close-knit networks (not disadvantaged by being outwith the 'old boys club).

Formal female business organisations, encompassing weaker-tie networks, have formed worldwide, existing as organised networks supporting female entrepreneurs. Aldrich's study explained why women needed, finding that women approached other women for advice. Social and institutional factors were causes for this; a voluntary reaction by women resulting from roles as home-keepers and mothers. Jalbert (2000) saw three levels of support, Access, Organisation and Advocacy. In terms of Access, they function like networks in providing members with contacts, gaining credit, training, and mentoring. As Organisation, this covers the ability to promote female entrepreneurship. As Advocacy they impact on political issues.

Many studies reflected the importance of networking to the survival/success success of businesses. Carter et al (2001) reported that distinct gender differences occur in both the establishment and management of networks (process of networking) and the contents of social networks (what networks are used for). Brush (1992) commented that women are better at forming formal entrepreneurial networks, men have informal networks. Women use these relationships to "increase their access to technology, increase familiarity with business cultures in foreign markets and accessing these markets effectively." Martin's (2001) study of women entrepreneurs suggested that female entrepreneurs gain competitive advantage through female networks. Omar and Tan-Wong (1997) indicated that women might not join networks if they are overloaded with business and that such isolation limits the ability to tap sources of peer finance and advice as well as the networks they need for survival.

Mentors

Allen. D.W. (2000) indicated women were more influenced by successful female friends whilst several female entrepreneurs highlighted how they benefited from the involvement of another. Mentoring helps one to discover one's intuition. Mentors provide links to networks, both social and formal, one-to-one support, business experience in relevant industries, and business incubators. While women, traditionally, only access formal networks, they do so very effectively, building businesses through utilizing networks.

RESEARCH FINDINGS

The authors' approach was phenomenological/qualitative by conducting in-depth interviews with female entrepreneurs who had established businesses in the past ten years in Scotland. The qualitative approach gained in-depth insights – the experiences and feelings of the interviewees being more important than statistics. Some 10 female, graduate entrepreneurs were interviewed with businesses in a range of sectors, though mainly in the service sector.



Education

The entrepreneurs held a degree from a Scottish higher education institution and some had continued their education into their careers, achieving professional qualifications and business diplomas. Most interviewees had taken no formal business or entrepreneurship training, but their university education had influenced their career paths adopted.

However, the small sample of entrepreneurs with entrepreneurship education exposure were quite clear that such exposure had helped them to decide that they could explore their own business ideas – that being a female need not be problematic.

Awareness of Entrepreneurship

Work experience was the main forum for business ideas. Successful, close business friends and relatives influenced a significant number. However, running their businesses was the only route they could take to remain in chosen professions/geographical area of choice. In some cases, such as creative arts, it was difficult to remain in Scotland and utilise their talents – this “pushed” women into starting a business.

Most women were more interested in gaining a position with a large firm at the outset whilst others felt they lacked confidence to run a business, and others believed their role would be as working mothers and home keepers, with little time for managing a company. In all cases, except one, they had over 2 years’ work experience in relevant industries before establishing their businesses. Most had insider knowledge of specific industry operations and identified niches that other companies failed to satisfy.

One interviewee ran a business after only 6 months’ work experience. Her education was directly related to the industry she entered and she knew how it operated. She attended a two-week basic, business skills course prior to starting and though initial, two years were difficult in business practice terms, she got advice from accountants and lawyers. All of those who had no business training were interested in taking future training. All had asked others for advice - accountants and bankers. However, one interviewee noted that asking fellow entrepreneurs with experience worked better.

Being A Woman

There were similarities and differences amongst the entrepreneurs with earlier research findings. The authors wished to discover the impact of the “glass ceiling” on the interviewees and if it was a motivator to set up businesses in “retaliation”. Two entrepreneurs experienced the “glass ceiling” effect in previous employment. One claimed that the “glass ceiling” was owing to sexual preference rather than gender. For instance, this female entrepreneur indicated that there is a need for social/sexual preference in order to do well in her industry. Perhaps, the “glass ceiling” effect is becoming less important as more women enter self-employment and societal status improves.

They were split 50/50 on the issue of “not being taken seriously”. Several had been in uncomfortable situations owing to their gender, but were not bitter about it. One interviewee claimed this bias as her biggest fear and that she faced it from men **AND** women whilst another had to resort to sending a man to negotiate deals, “particularly with money issues and particularly in Scotland”.



Six entrepreneurs interviewed believed that it is advantageous being a woman. Reasons for such views included women-owned businesses are “novelties”, men being more willing to invest in them “for a change”. Women entrepreneurs are “more memorable” in male-dominated industries since they are few in number. Some mentioned a tendency for men to underestimate females’ business acumen, divulging details that would not otherwise be revealed. Bank managers were the most-mentioned as being guilty of not taking females seriously, though personal prejudice was more the likely problem, not institutionalised, bank behaviour.

Some interviewees found it demanding to balance work and family commitments like childcare/home keeping. Family responsibilities also make socializing and networking difficult for married women with children. One interviewee cited sexism as a difficulty and others mentioned lack of confidence as disabling their ability to set-up and grow businesses.

Networks

Everyone thought building a network was important and most were members of formally organised networks, either of entrepreneurs generally or specific to their industry. All agreed that some need access to female-only networks. One suggested that a benefit of such networks was the ability to speak to other women about female issues like childcare. More women were members of mixed-gender networks; do not attend single-sex network events. Half of the interviewees felt strongly against female-only networks, not wishing to be labelled as “female”; there is no need for gender separation. Others found single-gender networks restrictive, non-industrially related and not in their best interests.

Management/Business Performance

The entrepreneurs likened their management styles as fair but not tough enough, “hard on the outside, soft on the inside”, encouraging, honest, decisive, laid-back, multifunctional, respectful, community spirit and cooperation. One woman expected high levels of honesty, integrity, and commitment from employees, but that it is mutual. Another gained satisfaction from creating opportunities for staff to develop on personal and career levels. She was also financially driven, for the firm’s success. Conversely, one interviewee started out focusing on cooperation, empowerment, letting employees learn from mistakes, but her high standards and repeated disappointments had reduced her tolerance for mistakes and decreased opportunities for others. Some found their empathy with employees to be disadvantageous whilst several felt that they could be too hard on employees. One interviewee dealt with this by “acting like a man” in the managerial role; disinclined to consider the feelings of employees. Another claimed, “behaving like a man is the last thing to do”.

Two females were “risk-takers”, two others admitted to being “risk averse”. The remainder claimed to be “calculated risk-takers”. The interviewees wanted more female entrepreneurs, especially in Scotland, seeing the need for role models to step forward, hoping that publicity and support would encourage women into starting businesses. Ironically, they failed to see themselves as role models. Family and children should not be seen as hindrances to entrepreneurial instinct; they felt that there is no difference between males and females in entrepreneurship; being a woman is an advantage –confidence is key to overcoming barriers.

Business Start-Up Motivation

Each had different motivations for starting-up, distinct and personal. Some believed that starting a business was the only way to achieve full potential. Others felt that ownership provided them



with autonomy and flexibility; some had businesses through economic necessity whilst others had to prove that they could be successful entrepreneurs.

Some interviewees enjoyed having opportunities for personal development at their own pace, whilst three had no intention of being entrepreneurs describing the experience as: “became an entrepreneur by force”, “fell into it”, “it just happened”. There were a few “serial entrepreneurs” whose motivations stated for forming new companies being, “excitement” and “chaos” during the start-up, making enormous efforts to succeed. Building something from scratch was addictive, exhilarating and irreplaceable, allowing them to gain broader experience in running a business and acquiring skills, not possible when working for others. Interviewees exhibited “push” factors - restrictions of achievements whilst employed, disagreement with existing business model utilised and dissatisfaction with working conditions and prospects. “Pull” factors mentioned were, having the ability to control one’s destiny, being proud of achievements and filling a market gap.

Half of the entrepreneurs had not experienced significant barriers during their business start-ups. They had enough finance from previous employment, entrepreneurial venture, or bank overdrafts; one had support from her spouse. It should be noted these women were mainly involved in service industries, consultancy and retail activities with low set-up costs.

Finance for business

Finance quoted as being problematic as when banks required a husband to be the guarantor for his wife’s debts. One young female had difficulty raising capital; she was a fresh graduate with outstanding student loans. Access to funds, though difficult, was obtained as loans/ industry bursaries, through persistence and luck.

The entrepreneurs felt that being a woman was a barrier to business growth. Some believed that business growth would be easier to achieve if they could spend more time with their businesses, as family commitments, especially childcare responsibilities, make this difficult. One female who wanting to cut down business costs and enjoy “flexible working” from home had to lease premises as she found it impossible to separate work and home life. Office space gave a more balanced work and home regime and portrayed a more professional image. All interviewees confirmed that it was **NOT** more difficult for a woman to start a business than a man.

Starting a business had not occurred to most of them on leaving university each agreeing that lack of confidence was a barrier to starting. Confidence was bolstered by encouragement from family and friends, and feeling confident in their knowledge of an industry prior to starting-up was important. Confidence further increased, as they became aware of networks/contacts they could use. They identified a gap in the market that their employers and others were not filling or they did not agree with company operations, deciding to make a difference by themselves. They were strongly against positive discrimination measures for women.

They considered external investment a future possibility to allow for growth, but were reluctant to relinquish company control to access finance. However, one female entrepreneur had, in fact, sold out her first business for a substantial sum and had started another. For them, access to finance was dependent on the qualities of the entrepreneur and the business plan, although many had not had to raise funds. They felt that who could not attract finance and who are unsuccessful blamed this on prejudicial attitudes towards their management abilities. Several interviewees believed that business plans must be ‘investment ready’ before presenting to potential financiers. Women must ensure that they come across as competent businesspeople, indicated by smart



clothes and confident attitude. They agreed that young business-owners find it difficult to get investment funding and thus female graduates need training for making presentations and drawing up realistic business plans. Most women were adamant that the wife/mother role should not hinder their ability to manage a business even if it is difficult to get the family/business balance right.

Networking/Mentoring

Several interviewees noted the importance of all-women networks as they act as forums for voicing difficulties and learning from others how they can be overcome. External business advice was sought by most of the entrepreneurs interviewed and they said that one should take all the free advice available as this avoids paying for advice that is of little benefit. Advice was accepted from a variety of sources including; bank managers, accountants and fellow entrepreneurs; a small proportion had paid for consultancy help whilst several had received assistance from public/private support agencies.

Several women felt that support agencies could do little for them personally, one arguing that public sector agencies should be rationalised and updated to meet current business needs. Another interviewee confirmed this, stating that though agency help was useful, it took too long to obtain and of debatable quality. Only a couple of interviewees had had one-on-one mentoring, but most agreed that mentors are really useful during/after start-up. Others were happy to have gone through trial and error in their businesses and to have “done it themselves”. However, another entrepreneur remarked that talking to experienced mentors could save someone 2 years work. Another observed that mentors should be people experienced in “**YOUR**” field to be most helpful. Several interviewees had provided mentoring for other entrepreneurs, while others were willing to be future mentors.

Most of the interviewees derived support and advice from their networks - an important source of business. Business contacts were both formal and social, and most interviewees placed importance on maintaining/developing these networks. All interviewees were happy with their networks and all but one were in formal networks taking membership seriously. Some engaged in social networks, which provide a pleasant networking forum for building up contacts. Few of interviewees were members or regular participants of all-female networks. For some, this significantly reduced the number of business people from whom to derive information, experience and contacts, though many stressed the need to network with men and not further segregate themselves.



CONCLUSIONS /IMPLICATIONS FOR POLICYMAKERS

The research finds that it was not the issue of education that hastened these women into entrepreneurship. However, it is clear that it was their education that got them into a particular career path and that other issues motivated their entrepreneurial zeal. But, Higher Education was the starting point of their entrepreneurship explorations. This preliminary research indicates that background is not a problem these days. Indeed, these entrepreneurs believe that women have many advantages. Perhaps, in Scotland attitudes are changing and that the younger generations of Scots are less “anti-entrepreneurship” than their grandparents. The interviewees, though not all very recent graduates, had started their businesses within the past ten years, a period in which the economic and political environments have become increasingly supportive in broad terms. There has been a continuing process of “active neutrality” in Scotland, so barriers to starting a business for women are disappearing.

The research, though exploratory, will be continued as policymakers again wish to investigate issues of female entrepreneurship. However, “relative youth” may still be disadvantageous for the female graduate entrepreneur, as there remains, still, some residual resistance to funding/supporting young people of limited business experience and lacking credibility. These findings seem to support approaches of “active neutrality” and to conflict with earlier research findings of the 1980’s and early 1990’s about the barriers for females starting businesses.

One clear finding is the importance of networking to female entrepreneurs. Though there are many female-only networks there continues to be a need for mixed gender, networking institutions in which women are active. There is scope for policymakers to identify ways in which this can be addressed - networks must be open to anyone. The more open attitude in Scotland by younger people towards entrepreneurship will ensure that this occurs. Networks with a focus on younger individuals may be part of such developments. There is scope for the formation of young entrepreneurs’ networks without gender bias.

Policymakers should also identify a pool of female role models that can provide mentoring to young, graduate, female entrepreneurs. University entrepreneurship centres should encourage this. For policymakers the research also indicates a continuing need, in Scotland to remove any stigma associated with first-time business failure. Proposed attempts to modify the bankruptcy laws may assist the process. Ways must be found to ease student loans/debts when they seek access to business start-up funding. The issue of foreign students who study in Scotland, wish to stay post-graduation and to start a business should be tackled. It is important that such individuals are not disadvantaged if they seek to start a business.

It is anticipated that this research will build into longitudinal studies of first-time female graduate entrepreneurs, tracking their progress over the coming years. It is a weakness in research when entrepreneurs asked to remember their own business start-up. Post-hoc rationalization is a perennially, likely problem. New research needs to capture the opinions of female entrepreneurs when they are currently experiencing the process.



BIBLIOGRAPHY/REFERENCES

Aldrich, H.E., Brickman Elam, A. and Reese, P.R. (Birley, S. MacMillan, I.C. (eds)) Entrepreneurship in a Global Context ‘Strong Ties, Weak Ties, and Strangers: Do women owners differ from men in their use of networking to obtain assistance?’ *Routledge Studies in International Business and the World Economy*

Allen, D.W. (2000) Social networks and self-employment. *The Journal of Socio-Economics*, Sept 2000 v29 i5 p487

Birley, S. (1989) Female Entrepreneurs: Are They Really Any Different? *Journal of Small Business Management*. 27 (1), 32-38.

Blisson, D. and Rana, B. (2001) The Role of Entrepreneurial Networks: The Influence of Gender and Ethnicity in British SMEs.

Brockhaus, R.H., Hills, G.E., Klandt, H. and Welsch, H.P. (eds) (2001) Entrepreneurship Education – A Global View. *Ashgate Publishing, 2001*

Brooksbank, D. (1997) The Self-Employed in the UK: Who are they? Who knows what about them? Where do we go from here? *Paper presented to Workshop on Small Business and Entrepreneurship in the 21st Century, Pontypridd, University of Glamorgan, 1997; as quoted in Carter, S. Entrepreneurship Education: Alumni Perceptions of the Role of Higher Education Institutions*

Brown, W. and Galloway, L. Ambition v. Action: Do males and females exhibit conflicting perspectives of entrepreneurial potential and growth. A study among entrepreneurship students and entrepreneurial graduates before and after start-up. *Paper presented at the 25th ISBA National Small Firms Policy and Research Conference – Competing Perspectives of Small Business and Entrepreneurship.*

Brush, C. (1992) Research on Women Business Owners: Past Trends, a New Perspective and Future Directions. *Entrepreneurship Theory and Practice*, v16 n4 p5(26).

Brush, C. (1997) Women-Owned Businesses: Obstacles and Opportunities. *Journal of Developmental Entrepreneurship*. 2(1):1-24. (As Quoted from Gundry and Ben-Yoseph’s “Women Entrepreneurs in the New Millennium”).

Buttner, E. and Moore, D. (1997) Women’s Organizational Exodus to Entrepreneurship: Self-reported Motivations and Correlates with Success. *Journal of Small Business Management*. vol. 35, issue 1, pp.34-46.

Cannon, Prof T., Harvey, K. and Rosa, Dr P. (1988) The Impact of an Enterprise Initiative on the Career Aspirations of Graduates in Scotland’s Central Institutions. *University of Stirling, Report Series No. 27/88*



Carter, S. (1998) Entrepreneurship Education: Alumni Perceptions of the Role of Higher Education Institutions. Paper presented at *Internationalizing Entrepreneurship Education and Training, 8th Annual Conference, 1998*.

Carter, S., and Anderson, S. (2001) On the Move: Women and Men Business Owners in the United Kingdom. In Collaboration with: The National Foundation for Women Business Owners. February 2001.

Carter, S., Anderson, S. and Shaw, E. (2001) Women's Business Ownership: A Review of the Academic, Popular and Internet. *Report to the Small Business Service*. August 2001.

Carter, S., Shaw, E. and Brierton, J. (2001) Unequal Entrepreneurs: Why Female Enterprise is an Uphill Business.

Collier, A. (2000) When women take on the league of gentlemen. *Business a.m.* 16th November 2000

Cromie, S. and Hayes, J. (1988) Towards a typology of female entrepreneurs. *The Sociological Review, February 1988, Vol.36, No.1*

Cromie, S. (1999) Sara Carter and Peter Rosa, 'The Financing of Male-and Female-owned Businesses', *Entrepreneurship and Regional Development, Vol 10, 1998, pp225-241. International Small Business Journal, April-June 1999 v17 i3 p85*

Curran, J. and Burrows, R. (1988) Enterprise in Britain: A national profile of business owners and the self-employed. *Small Business Research Trust, London, 1988; as quoted in Carter, S. Entrepreneurship Education: Alumni Perceptions of the Role of Higher Education Institutions*

Dafoe, S. (2001) The Financial Dilemma of Women Entrepreneurs.

Daily, C., Certo, S., and Dalton, D. (1999) Entrepreneurial Ventures as an Avenue to the Top?: Assessing the Advancement of Female CEOs and Directors in the Inc. 100. *Journal of Developmental Entrepreneurship v4 i1 p19-34. Spring/ Summer 1999. (As Quoted from Gundry and Ben-Yoseph's "Women Entrepreneurs in the New Millennium")*.

Daly, M. The 1980s – A Decade of Growth in Enterprise. Self-Employment Data from the Labour Force Survey. *Employment Gazette, March, pp109-143; as quoted in Carter, S. Entrepreneurship Education: Alumni Perceptions of the Role of Higher Education Institutions*

Dodd, S., Jack, S. and Anderson, A. (2002) Scottish Entrepreneurial Networks in the International Context. *International Small Business Journal v20 i2 p213(6). May 2002*.

Donckels, R. and Lambrecht, J. (1997) The network position of small businesses: an explanatory model. *Journal of Small Business Management, April 1997 v35 n2 p13(13)*

Ducheneaut, B. (1997) Entrepreneurship and higher education: From real-life context to pedagogical challenge. *Paper presented at the Conference Internationalizing Entrepreneurship Education and Training, IntEnt97, Monterey Bay (California/USA), June 25-27, 1997*



Easterby-Smith, M., Thorpe, R., and Lowe, A. (2002) *Management Research*. 2nd Edition. London: Sage Publisher.

Ettore, B. (1997) Is there a talent squeeze in corporate America? *Management Review*, March 1997 v86 n3 p47(5)

Fagenson, E.A., Jackson, J.J. (1993) The status of women managers in the United States. *International Studies of Management and organization*, Summer 1993 v23 n2 p93(20)

Fay, M. and Williams, L. (1993) Sex of Applicant and the availability of business loans. *Journal of Business Venturing*, 8(4): 363-376. [As Quoted from Carter et al's "Women's Business Ownership"].

Fayolle, A. (1994) De l'ingenieur a l'entrepreneur: une contribution essentielle et un parcours sous influences multiples. *Actes de la 39e Conference Modiale de l'ICSB, Strasbourg, June 1994*

Galloway, L., Brown, W., and Arenius, P. (2002) Gender-based Differences in Entrepreneurial Behaviour: A Comparative Examination of Scotland and Finland. *The International Journal of Entrepreneurship and Innovation*. May 2002.

Galloway, L. and Levie, J. (2001) Global Entrepreneurship Monitor (GEM) Scotland 2001

Gardiner, M. and Tiggemann, M. (1999) Gender differences in leadership style, job stress and mental health in male- and female-dominated industries. *Journal of Occupational and Organisational Psychology*, Sept 1999 v72 i3 p301(1)

Gartner, W. and Birley, S. (2002) Introduction to the Special Issue on Qualitative Methods in Entrepreneurship Research. *Journal of Business Venturing*, v17 n5 p387-395. September 2002.

Glaser, D. and Strauss, A. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York, Aldine.

Greene, P.G., Brush, C.G., Hart, M.M. and Saporito, P. Exploration of the Venture Capital Industry: Is Gender an issue?
http://www.babson.edu/entrep/fer/papers99/IV/IV_A/IVA%20Text.htm

Gundry, L. and Ben-Yoseph, M. (2001) Women Entrepreneurs in the New Millennium: Recent Progress and Future Directions for Research, Entrepreneurship Development and Teaching.

Hannon, P. (2001) Entrepreneurial Learning and Mentoring. *International Small Business Journal*, Jan-March 2001 v19 i2 p100

Hisrich, R. and Brush, C. (1986) Women and Minority Entrepreneurs: A Comparative Analysis. Working paper. The University of Tulsa. [As Quoted from Carter et al's "Women's Business Ownership"].

Hussey, J. and Hussey, R. (1997) *Business Research*. Place?: Macmillan Business Press.



Insider (2002) When Women Take On the League of Gentlemen. *Vol 19, No. 3. March 2002*

Jalbert, S.E. (2000) Women Entrepreneurs in the Global Economy. March 2000,
<http://www.cipe.org/pdf/jalbert.pdf>

Jankowicz, A. (1994) *Business Research Projects for Students*. London: Chapman and Hall.

Kalish, B. (1992) Dismantling the Glass Ceiling. *Management Review*. Vol. 81 No. 3 Pp. 64(1).
March 1992.

Keeble, D., Tyler, P., Broom, G. and Lewis, J. (1992) Business Success in the Countryside: The Performance of Rural Enterprise. *HMSO, London, 1992; as quoted in Carter, S. Entrepreneurship Education: Alumni Perceptions of the Role of Higher Education Institutions*

Kolvereid, L., Shane, S. and Westhead, P. (1993) Is it equally difficult for female entrepreneurs to start businesses in all countries? *Journal of Small Business Management, Oct 1993 v31 n4 p42(10)*

Langan-Fox, J. and Roth, S. (1995) Achievement motivation and female entrepreneurs. *Journal of Occupational and Organizational Psychology, Sept 1995 v68 n3 p209(10)*

Langowitz, N. (2002) The Top Woman-Led Businesses in Massachusetts. *The Center for Women's Leadership at Babson College and The Commonwealth Institute*.

Levie, Dr J. and Galloway, Dr. L. (2001) Global Entrepreneurship Monitor – Scotland 2001. *GEM2001 Scotland*

McSween, D. (1995) Vision and Task: Women owned businesses. *Management Review, Sept 1995 v84 n9 p7(1)*

Marhoot, P. (1997) Funding for Women Entrepreneurs: A Real, though disputed, Problem. *Proceedings of the OECD Conference on Women Entrepreneurs in Small and Medium Enterprise: A Major Force in Innovation and Job Creation, Paris, April, pp 217-226. [As Quoted from Carter et al's "Women's Business Ownership"]*.

Martin, F. (1997) Business Incubators and Enterprise Development: Neither Tried or Tested? *Small Business and Enterprise Development, Vol.4, No.1 March 1997 pp3-13*.

Meager, N. (1991) Self Employment in the United Kingdom. *IMS Report 205, Institute of Manpower Studies, Brighton, 1991; as quoted in Carter, S. Entrepreneurship Education: Alumni Perceptions of the Role of Higher Education Institutions*

Moore, D.P. Transitions – Milestones on the Route to Success.
<http://www.usasbe.org/conferences/2000/00%20Papers/MoorePlen/pdf>

Moran, G. The Mentor Advantage – How a mentor can help your career or business.
<http://www.bluesuitmom.com/career/management/mentoring.com>



Morrison, A., White, R., Velsor, E., and the Center for Creative Leadership (1987). *Breaking the Glass Ceiling: Can women reach the top of America's largest corporations?* Reading, MA: Addison-Wesley.

Muzyka, D., Guégan, N., D'esposito, G., Turner, P. and Rossell, G. (1999) The Climate for Growth Entrepreneurship in Europe.

Mukhtar, S. (1998) Business Characteristics of Male and Female Small and Medium Enterprises in the UK: Implications for Gender-based Entrepreneurialism and Business Competence Development. *British Journal of Management*. V9, 41-51 (1998)

Nelson, G. (1987) Information Needs of Female Entrepreneurs. *Journal of Small Business Management*. Vol. 25. p38(7).

Ogorelc, Dr A. (1998) Higher Education and Entrepreneurial Employment Aspirations: A case of Tourism business in Slovenia. *Paper presented at IntEnt98, Internationalising Entrepreneurship Education and Training, 8th annual conference, 26-28 July 1998, European Business School, Schloss Reichartshausen, Oestrich-Winkel, Germany*

Orhan, M. and Scott, D. (2001) Why women enter into entrepreneurship: An Explanatory Model. *Women in Management Review*. V16 n5 pp232-243.

Quince, Dr T. (2001) Passion and Performance – the emotional side of entrepreneurship. *Top Floor, Autumn 2001, p4. Centre for Business Research, University of Cambridge*

Reynolds, P., Camp, S., Bygrace, W., Autio, E. and Hay, M. (2001) Global Entrepreneurship Monitor (GEM) 2001 Executive Report.

Robb, A. and Wolken, J. Firm, Owner, and Financing Characteristics: Differences between Female- and Male-owned small businesses.

Romano, C. (1994) It looks like men are from Mars, women are from Venus: Differences between male, female entrepreneurs. *Management Review, Oct 1994 v83 n10 p7(1)*

Rosa, P. (1989) Career Orientation towards Enterprise in British Graduates. *Conference Paper series No. 57/89 (revised), Scottish Enterprise Foundation (SEF), University of Stirling.*

Rosa, P., Hamilton, D., Carter, S., and Burns, H. (1993) The Impact of Gender on Small Business Management: Preliminary Findings of a British Study. *International Small Business Journal* 12,3.

Rosa, P. and Hamilton, D. (1994) Gender and Ownership in UK Small Firms. *Entrepreneurship: Theory and Practice*. Vol. 18 No. 3. pp. 11(17).

Stoner, C.R., Hartman, R.I., and Arora, R. (1990) Work-home role conflict in female owners of small businesses: an exploratory study. *Journal of Small Business Management, Jan 1990 v28 n1 p30(9)*



Sofaer, S. (1999) Qualitative Methods: What are they and Why Use Them? *Health Services Research*, v34 i5 p1101. December 1999.

Southon, M. and West, C. (2002) *The Beermat Entrepreneur*. 2002, *Pearson Education Limited, Prentice Hall Business*

Tjosvold, D. and Weicker, D. (1993) Cooperative and Competitive networking by entrepreneurs: a critical incident study. *Journal of Small Business Management*, Jan 1993 v31 n1 p11(11)

Watson, J (2002) Comparing the performance of male- and female-controlled businesses: relating outputs to inputs. *Entrepreneurship: Theory and Practice*, Spring 2002 v26 i3 p91(10)

Wilson, L. Women Entrepreneurs: Individualism Versus Collectivism.
<http://www.laurentian.ca/commerce/SBRG/98-5b.htm>