

Title: 'Dotcom' Women Entrepreneurs in the UK

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Abstract

Drawing on two areas of academic interest, i.e. female entrepreneurship and the Internet sector, this paper provides an overview of female entrepreneurship in the web-based business sector in the UK. Based on a field study of 20 web-based small Internet-based companies owned by women, the paper explores why women start up 'DotCom' businesses and presents a typology of 'DotCom' women entrepreneurs. Although the sample size of the project is limited, yet the findings provide interesting and indicative insights into patterns of female entrepreneurship in this growth sector.

Key words:

Entrepreneurship
Small Business
Women
Internet
Great Britain

Introduction

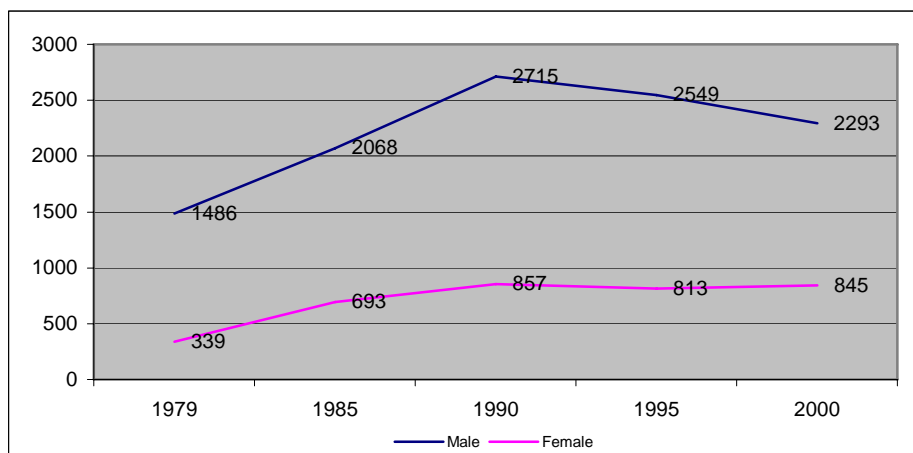
Many scholars of female entrepreneurship (for example, Allen and Truman, 1993; Carter and Cannon, 1992; Curran et al., 1986) have concluded that the cumulative knowledge of female entrepreneurship is inadequate in terms of depth, utility and progress. Moreover, research on women entrepreneurs, except for a few studies of web-based entrepreneurship (for example, Carlassare, 2000), has concentrated on traditional 'brick and mortar' businesses. This papers aims to contribute to this field, exploring the reasons why women choose entrepreneurship in e-business in the UK. The field study, which informs this paper, focuses on companies that are solely web-based.

'Dotcom' women entrepreneurs in the UK

The context specific and complex nature of entrepreneurial activity makes it very difficult to define the concept of 'entrepreneur' (Dale, 1991). In this study the term entrepreneur and self-employed will be used interchangeably, and this will cover both self-employed own account workers as well as self-employed people with employees. The empirical literature and statistical base for the study of women entrepreneurs have been patchy and sparse. However, self-employment and entrepreneurship have long been hailed as offering liberating forms of work for women who would typically face sex discrimination in the labour market (Goffee and Scase, 1985; Cromie and Hayes, 1988).

In Britain the Labour Force Surveys provide the single most significant source of national data on patterns of female entrepreneurship. The last three decades have witnessed unprecedented changes as women entered higher education and paid employment in growing numbers. The overall rise in female economic activity during this time was also reflected in the number of women setting up their own businesses (Figure One).

Figure One: Self-employment by sex in the UK between 1979 and 2000.



Source: Labour Force Survey, 2000 (quoted in Office of National Statistics (2000))

Following the information technology boom in the 1990s, which has enabled self-employment for both men and women, women entrepreneurs have been seizing opportunities made possible by the Internet and setting up online businesses all over the world, especially in the USA (Carlassare, 2000). The UK has also seen a rise in female owned net ventures with companies like Lastminute.com, Ivillage.com, Netimperative.com and Everywoman.com, owned by women, being featured regularly in news stories. Despite the economic problems faced by high technology companies in the last year, Fortune Magazine (2001) reported that "No matter what happens to the economy, nearly everyone expects the Internet to keep growing - traffic is still doubling every 100 days or so". The Internet is therefore likely to remain an important area for developing new businesses.

The reasons for the rise in women's self-employment are manifold. It is argued that certain structural and environmental shifts in the economy have created opportunities for self-employment that did not previously exist (Staber and Bögenhold, 1991). Changes in the business cycle lead to recessions and cause larger firms to withdraw from non-core business activities, creating market opportunities for smaller firms (Bannock, 1981). Cyclical changes also lead to unemployment and therefore a more conscientious effort on the part of workers to create their own jobs (Staber and Bögenhold, 1991). This is even more acute in economies with a strong public sector. In Britain, for example, the 'enterprise culture' has been fostered by government policies and measures aimed at increasing self-employment and small business creation through education and economic development policies, and initiatives such as Enterprise Insight and New Deal. However, the transient nature of business cycles makes it difficult to attribute the continual increase in women's self-employment to cyclical changes alone (Storey, 1994; Meager, 1991 and Hakim, 1998).

The decline in the manufacturing sector of most industrialized countries coupled with the rise in the service sector may account for the increase in women's self-employment, especially since the rise in the service sector is largely accounted for by growth in the personal services sector. However the service sector is not a unified entity and the industries in it are varied in features and the possibilities they offer. For example, the technology sector is in many ways a male dominated service sector where there are not as many opportunities for women (Grundy, 1996) and yet the Internet, as a sub-division of this technology sector, seems to attract women. The role of technological changes in the increased incidence of self-employment has been discussed by Goffee and Scase (1985), and Kovalainen (1995) who view small businesses as important innovators, especially in the service sector - leading to new forms of work such as sub-contracting and home-working. For women embarking on entrepreneurship in web-based ventures therefore, changes in technology have a profound impact on their businesses and influence their decisions in an important way. The perception of computing as a masculine area is one of the factors that dissuade women from going into computing (Webster, 1996). As technological changes in computing results in the Internet being seen as less scientific and access to computers increases, more women are beginning to 'surf the net' although they are still in the minority (Pohl, 1997). This has created a market for women's needs on the Internet which female entrepreneurs are exploiting (Harrington, 2001; Carlassare, 2000). It has also been argued that the Internet has a

relatively 'feminine' image in comparison to other areas in computing and it has therefore created a niche in the market where women can flourish (Fitzpatrick, 2000). From the foregoing discussion no single factor stands out as explaining the increase in self-employment, particularly women's self-employment. However, as Kovalainen (1995) has said, immeasurable factors such as shifts in cultural attitudes, attitudes towards autonomy, flexibility in working hours and a willingness to take economic risks, must not be discounted when considering the setting in which women's entrepreneurship occurs.

It has been argued that one of the main reasons why women go into self-employment is to escape their negative position in the labour market (Goffee and Scase, 1985). This negative position is portrayed through occupational segregation and labour market segmentation. Occupational sex segregation deals with the type of work that women do, and can be subdivided into three categories: horizontal, vertical and firm segregation. Horizontal segregation refers to the concentration of women and men in different types of occupations: some 88 per cent of jobs taken by women are in the service industries and the number of women in this sector has increased by 1.2 million since 1990 (Equal Opportunities Review, 2001). Public administration, education and health account for a third (34 per cent) of all women's jobs in the service category. Over the past three years, however, growth in female employment has been concentrated in the managerial and professional and technical occupations but women still remain a minority (Ibid.). Only one in ten jobs taken by women are in the manufacturing and technology sectors.

The Women's Unit (2000) reported that this occupational segregation is reflected in self-employment and entrepreneurship of women as well, with female-owned businesses concentrated in the retail and service sectors. Throughout the world, women are most likely to be found in the areas of food production, nutrition, health, childcare and hospitality (Allen and Truman, 1993). These sectors are usually low paying and have a high incidence of part-time workers. The Spring 2000 UK Labour Force Survey, confirming this finding, shows that in Britain women's self-employment and small business ownership occurs mainly in the service sector, e.g. hotels and restaurants, education, and health and social work 85 per cent of self-employed women in 2000 were in the service industry with 21 per cent of them in distribution, hotels and catering.

It could be argued that this is because people go into self-employment in areas in which they already have experience, thereby explaining the reason why women are concentrated in the same sectors whether they are employees or employers. However, Watkins and Watkins (1986 and 1984) found that only five per cent of the men in their study embarked on a venture without relevant experience whereas 50 per cent of the women in the survey did so - a finding that contradicts the above assertion. Why then do a majority of women embark on ventures in the same sectors in which they are employed? Perhaps women in self-employment face the same barriers that exist in employment thereby the areas in which they can operate are restricted in both forms of work.

Explanations for this phenomenon have been offered at three levels. Neoclassical theorists blame market forces from two perspectives. There is the argument that women lack 'human capital' or the development of skills either because they have not invested in them or because others have prevented them from doing so (Becker, 1991). As a result they are unable to compete effectively in the labour market place and are relegated to the 'secondary sectors' of the labour market. Another viewpoint, the 'overcrowding' perspective, explains women's position as the effect of a combination of both oversupply of and a lack of demand for, women's labour. The second argument centres around male conspiracies or the 'patriarchy' (exacerbated by capitalism) argument. In the main, this line of reasoning maintains that men desire to hold on to their positions of power and privilege within the society and therefore they devise biased hiring policies that discriminate against women (Hartman, 1979). This male power at work is enforced through the home when men refuse to participate in domestic activities making it more difficult for women to engage in the labour marketplace on equal terms (Delphy, 1984).

A third argument relates to women's psychology. Women are believed to be more caring and more psychologically dependent in relationships (Gilligan, 1982). As such they have less bargaining power in the domestic setting. This leads to women exchanging non-domestic goals for harmony in the home (Miller, 1976). Biologically programmed to accommodate others women are afraid to compete with men at work and socially their dependent nature causes them to neglect to invest in themselves. This leads to the conclusion that women themselves have colluded in their relegation to the lower echelons of the labour market (Hakim, 1996). Hakim's analysis was criticised for a lack of understanding of structural factors that shape women's life and career opportunities (Ginn et al. 1996).

None of these theories in isolation tells the whole story and they tend to be simplistic. An explanation may be found in linking these theories together. Their structure and stability are found in the way they interlock with each other. Suffice to say that women's choice of certain industries, either as employees or employers, cannot be pinned down to one single factor.

It is now accepted that there is no single reason why women go into self-employment. Men and women, superficially at least, cite the same reasons for becoming self-employed - mainly, independence and the challenge of business ownership. As entrepreneurship is a mid-life choice for many women (Carter and Cannon, 1992) desire for economic independence has been both one of the most important motives for women starting a business (Carter and Cannon, 1992; Goffee and Scase, 1985) and an objective to which many other non-economic symbols are attached. This is confirmed by data collected by the UK Labour Force Survey 2000 (Office of National Statistics, 2000). Others have identified other factors such as desire for job satisfaction and achievement (Goffee and Scase, 1985; Hisrich and Brush, 1983).

Hakim (1989) reports that for women flexibility to choose their own hours was more important than the economic necessity. Approximately 38 per cent of the participants in Cromie and Hayes' (1988) study

wanted to spend more time with their families and identified this as a pull factor. A similar finding was made by National Westminster Bank in a survey of 2000 women (Reeves, 1989 cited in Rees 1992) reflecting the profile of women employees who have a high workforce attachment but have to manipulate this around their domestic responsibilities (Main, 1988, cited in Rees, 1992).

Table One Reasons given for becoming self-employed, by gender in the UK in 2000
Per cent

	All	Men	Women
To be independent	31	33	25
Wanted more money	13	15	7
For better conditions of work	5	6	3
Family commitments	7	2	21
Capital, space, equipment opportunities	12	12	11
Saw demand	8	9	8
Joined the family business	6	6	7
Nature of occupation	22	21	23
No jobs available locally	3	3	2
Made redundant	9	11	3
Other reasons	15	14	18
No reason given	3	4	3

Source: Labour Market Trends, 2000 (quoted in Office of National Statistics (2000))

*Columns do not add up to 100 per cent because respondents can give up to four reasons

Another pull factor for some women has been the need for independence from traditional authority figures and the confines of the rigid hierarchical structures of the corporate world. For these women controlling where, how and when they work in addition to economic independence from men motivated them into self-employment (Goffee and Scase, 1985). Goffee and Scase's 'radicals' fell into this category of women.

For others, for example immigrants, Simpanen (1987, cited in Kovalainen, 1995) found that independence for that group was tied in with the desire to avoid unemployment, but this is more of an option for some immigrant women than others (Marlow, 1990). In a study of 400 businesses Marlow found that very few of them were owned by Afro-Caribbean entrepreneurs, a situation which she attributed to start up obstacles such as obtaining finance and a lack of a market outside their own communities. Asian men and women are more likely to be self-employed than their 'European' counterparts who are more likely to be self-employed than Afro-Caribbeans (Brown, 1984).

Morrison's (1987) 'glass ceiling' has been identified as one of the major motivating factors for female entrepreneurs to start-up their own businesses, especially in the United States. It is well worth noting here that men also cite frustrations with career prospects in the previous jobs, as motivation for self-employment. However it is clear from the patterns of occupational segregation discussed above, that women more than men are likely to experience frustrations with their jobs. The Hansard Society Commission on Women at the Top (1996) revealed how desperately few women there are on British

boards. It is no wonder that National Westminster Bank found that career blockage was a major motivating factor. As Cromie and Hayes suggest:

“One key advantage of business proprietorship as a female occupation is the absence of organisational selectors. A woman contemplating entrepreneurship does not need to meet organisational selection criteria based on age, gender, experience, etc. If the business product or service is well produced and marketed then the fact that a woman runs the business is unimportant” (1988, p.93)

This view, however, seems to overlook the selection processes women have to go through during the start-up and growing phase of their businesses, in order to raise finance, etc. The meaning of independence varies depending on the sex of the respondent and also on the group in question (Carter and Cannon, 1988). Independence for many women is linked in with dissatisfaction with their present situation (Carter and Cannon, 1992). This includes independence from the confines of the labour market (discrimination based on gender, race, class, etc.), a rejection of traditional authority figures, a desire for autonomy, frustration with the glass ceiling effect, the flexibility to have both family and career, and independence from men. Undoubtedly then, a direct comparison, firstly of men and women's motives for entering business and secondly of women together as a homogenous group, as shown in Table Two, can leave out a number of crucial determining factors including the internal division of work within the family, and the varied experiences of different groups of women. In Britain researchers have tried to establish linkages between motivations for female-self-employment and their overall position in the labour market, devising taxonomies that portray women's heterogeneity.

Early studies on female business owners concentrated on their psychological traits, in an attempt to connect different kinds of psychological traits and motivational factors in the entrepreneur's personality with her success in the endeavours she was undertaking. In psychodynamic models connections were made between early childhood experiences and entrepreneurial behaviour (see Chell, 1986). Other models were based on motives (McClelland, 1987; Timmons, 1978) and in these models the propensity to risk-taking, independence, ambitiousness and innovation (male attributes) are seen as being exceptionally closely connected to the entrepreneur's personality. Tests taken by women based on this model have recorded lower scores than men in respect of the categories of 'motivation' and risk-taking' (Kovalinen, 1995). However, the value of psychologically oriented research is questionable because the theory on which it is founded is untenable and this is biased along the lines of gender. As Benhabib (1987, p.80) puts it succinctly, they are based on the "experiences of a specific group of subjects as the paradigmatic case of the human race as such. These subjects are invariably white male adults."

The diversity and inconsistency of different personality traits has led to the construction of several different entrepreneurial typologies. In a study by Goffee and Scase (1985) - based on a rather small sample - they identified four types of female entrepreneurs - 'conventional' entrepreneurs who were highly committed to both entrepreneurial ideals and conventional gender roles; 'innovative' entrepreneurs, who held a strong commitment to entrepreneurial ideals but had a low attachment to

conventional gender roles; 'domestics' were the opposite of the conventional entrepreneurs while 'radicals' had a low attachment to both entrepreneurial ideals and conventional gender roles.

The work of Goffee and Scase has come under criticism from Allen and Truman (1993) based on the fact that the reality of women's lives means that they have very little choice over how attached they can be to entrepreneurial ideals. Further, women have different experiences in terms of their subordination by men depending on their social class, ethnic origin, marital status and other structural and personal factors. Allen and Truman therefore argue that Goffee and Scase assume a homogeneity among women that is false.

Carter and Cannon (1988), on the other hand, acknowledge that the Goffee and Scase typology shows the heterogeneity among women but are of the view that typologies of this nature are static and deny the fact that businesses are dynamic - they are started, grow, change and/or fail and each stage requires different behaviours from the entrepreneurs. In their own study, therefore, Carter and Cannon (1988, 1992) identified five ideal types of behavioural classifications, namely accidentalists, aspirants, high achievers, re-entrants and traditionalists. It was possible for women to move from one type to another over time. They envisaged that it was the achievement-orientated groups, the aspirants and the high achievers, who made up a majority of proprietors within new sectors like technology-based industries.

These studies tend to ignore the life cycle factors of women and their businesses. As a result, Kovalainen (1995) redefined the previous typologies and added two different categories not previously identified. These are 'unemployed' women whose driving force is economic necessity and who have a high dependence on the traditional role models and role ideals of each gender. A second group were 'takeovers' - women who have earlier worked as waged workers in the same business and for whom entrepreneurship acted as a career continuum for waged work. She also identified three other groups radicals, home-based (those who have a need to survive but lack waged-work) and returner (older women who are returning to the work force from a career break) entrepreneurs.

Demonstrating that women entrepreneurs are widely heterogeneous Carter and Cannon stressed that their businesses can be highly dynamic. Both the experience of running a business and changes in life cycle can facilitate women's movement from one category to another. Domestic commitments are clearly crucial for many women in determining where and how they organise their businesses. As Allen and Truman (1993) argue, whether motivating factors are push or pull ones, they have to be understood in terms of women's position in the formal labour market and how this relates to unpaid domestic labour.

In particular, the computer or technology industry is one that women have traditionally shunned (Hill, 1992). There have been many studies and an ample body of discourse exists on the lack of women embarking on careers in computing and information technology (for example, Lander and Adam, 1997;

Hill, 1992; Lovegrove and Segal, 1989; Morris, 1989). Various reasons have been put forward for the scant number of women in this industry - sex stereotyping of subject choices at school (Siann, 1997; Hill, 1992), the perception of computing as a masculine occupation (Wright, 1996), a lack of role models for women (Siann, 1997), a lack of confidence and experience with computers (Siann, 1997) and the perception of computers as lacking social involvement (Siann, 1997), an attribute which is seen as feminine.

On the other hand, there seems to be an increase in the number of women using computers and getting involved in information technology professions as a result of the rapid development of the Internet. Some academics view the Internet as a 'feminine' technology (Pohl, 1997). Pohl disagrees and argues that the Internet is not as yet gendered although she accepts that the Internet is a multi-faceted technology and that in some areas of the Internet gender differences can be observed. With regard to women's self-employment in computing and information technology Morris (1981) found only a few women in self-employment in this area although recently, Fitzpatrick (2000) determines that women are among the first wave of pioneers building online businesses. Fitzpatrick (2000) cites C.V. Harquail, (2000) as saying that increasingly women are entering e-business because they handle networking structures particularly well. Women also have been trained in effective ways in dealing with E-consumers, according to Harquail. "Just as women traditionally have been trained and rewarded for creating networks instead of hierarchies, they also have been trained and rewarded for creating relationships rather than power pyramids," she says. "On-line business identity is much less about power structure and much more about relationships. On-line entrepreneurs therefore must balance their Web site's transaction capacity — selling things — with its connection capacity — creating community", Harquail concludes.

In summary, businesses owned by women tend to reflect the traditional female employment in the labour market, mainly in the service sectors, with the Internet fast becoming a traditionally male sector that is being 'invaded' by women. This is more likely a reflection of the traditional restrictions that have for centuries restricted women's participation in the economy to certain areas rather than the women's free choice. As Watkins and Watkins (1986) emphasised:

"...the choice of business can be seen in terms of high motivation to immediate independence tempered by economic rationality, rather than a conscious desire to operate 'female-type' businesses (p.230)

The picture that emerges from the literature is that of a gendered sector where self-employed women's segregation replicate the occupational segregation facing them in the wider labour market. Further, self-employed women, many of whom have established businesses to fulfil personal goals and needs, face distinctive as well as general challenges in self-employment such as credibility, raising finance, lack of training and advice networks. The extent to which these are either caused or exacerbated by gender is difficult to quantify.

Methodology

An examination of the current literature reveals a reliance on generalised characteristics for describing vastly diverse experiences and realities of women entrepreneurs. In order to develop a clearer understanding of the motives of female Internet entrepreneurs in choosing this sector, this study is a product of the phenomenological paradigm, calling for exploratory methods to develop an understanding of human experience in a specific context. A phenomenological approach to research permits a focus on the meanings that research subjects attach to social phenomena, in an attempt to understand what is happening and why it is happening. Its drawbacks, time consuming data collection, the difficulty in analysing the data, and the possibility that clear patterns may not emerge, were outweighed by its ability to facilitate an understanding of social processes involved in this research and its very nature determined the data collection and other processes involved.

The lack of an appropriate source of coherent and aggregate data sets on female entrepreneurs made sampling difficult. Participants were purposefully selected through two methods, "snowball" or "chain sampling" (Patton, 1990) and convenience sampling (Saunders et al, 1997). The snowball approach was used to identify people who would be willing to participate, cases of interest and cases that are information-rich, that is, good examples for study, good interview subjects (Patton, 1990, p. 182). With snowballing there are problems of representativeness as respondents. However, these were partly offset by the use of different formal and informal sources to identify and locate respondents. For example, most of the respondents were located through "hightech-women.com". Other sources contacted were the British Association of Women Entrepreneurs, Women's National Commission and, Busygirl.com, a network for technology driven women's businesses. News sources, magazines and other literature on the subject of Internet businesses were also used to locate some of the participants.

Potential participants identified through the sampling strategy were contacted via electronic mail and telephone for further discussion of the research questions, methods, and procedures. The co-operation of the participants was crucial to the success of the fieldwork. To encourage their co-operation, the nature and importance of the research were explained in full. Participants were given the option to remain anonymous and all participants chose to retain anonymity. As a result, names and other potential identifying factors have been disguised using codes to replace names.

Surveys were sent to Web-based firms that met three criteria. First, the firms had to be those who offer content, services or goods over the web as opposed to 'brick and mortar' businesses that have web components. This was done to ensure that the companies selected satisfied the condition of being pure play Internet companies. Second, the businesses had to be companies that had high market opportunities, who were experiencing growth in revenue, traffic and customers, making them companies that were unlikely to close down as a result of the downturn of the technology industry. Finally, the companies had to have a woman at the helm, even if her co-founder was a man. Using

these criteria, 33 companies located throughout the U.K., were identified, competing in four sectors of the Internet.

Because the questionnaire was central to the construction of the research, much time and effort went into its development. The eventual product was the result of a process of trial and error. The process began with a look at the research questions, study objectives and questionnaires used in prior research and these formed the basis for the initial draft questionnaire. The next phase was the piloting of the questionnaire on a group of female entrepreneurs. The final questionnaire contained both open-ended and list questions.

Questionnaires were electronically mailed to the participating women. Two mailings, followed up by telephone reminders yielded 20 responses in total. After receipt of the responses to the questionnaires, telephone interviews were conducted to clarify points and gain more insight into the participants' responses. Further, secondary data such as news sources, magazines and other literature on the subject of Internet businesses and the women themselves as a third data collection device were used.

In this approach, questions must be asked in an open-ended fashion in order to minimize the imposition of predetermined responses when gathering data (Patton, 1990, p. 295). Questions focused on background variables such as respondents' age, education, family and situation. Other aspects looked into were, previous job experience, motivations and spurs, support, positive and negative experiences, personal hindrances, personal attitudes to work and self-employment, and future prospects. Due to the short life span of a majority of these companies, most of them started up during 1998-1999, it was not possible for the study to collect any realistic data on the growth and change of the businesses.

Two major problems emerged from the use of qualitative data. Firstly, there is the inherent problem of relying on verbal reports and the accuracy of retrospective recall to investigate gender related issues. Clearly, the social and political biases of the participants have an impact on their perception of gender discrimination, if any. Further the possibility that the focus of the research itself raised the awareness of the participants existed at all times. To minimise this problem, with the exception of one question, the questions posed did not in any way refer to gender.

Interview questions regarding these issues, on the other hand, were not developed prior to the follow up interviews, making it possible to remain free to devise questions spontaneously and to establish a conversation style contributory to the nature of the study while still maintaining focus on the topics under discussion. In the course of each interview, new questions emerged, requesting either elaboration or further exploration of events, feelings, or perspectives. A conversational style was implemented in order to present the new questions while maintaining the flow of the interview. Follow-up interviews were requested upon review of the interview transcripts as needed for further elaboration or information confirmation.

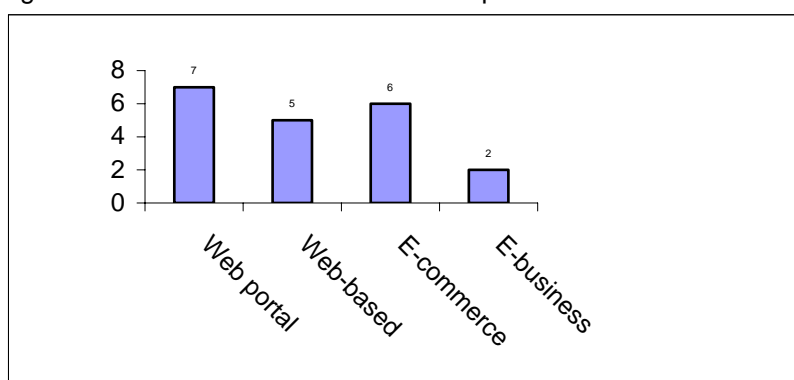
The process of qualitative analysis involved the development of data categories, allocating units of original data to appropriate categories, recognising relationships within and between categories of data, and developing and testing hypotheses to produce well-grounded conclusions (Saunders et al, 1997). A deductive analytical strategy was used in this study to explore the data to determine which themes and issues emerged while at the same time comparing them to the theoretical framework elaborated earlier.

Results

As Figure Two indicates, six of the 20 businesses involved in this project were e-commerce ventures retailing a variety of products on the Web, from organic food to equine products. Five web-based services provide mainly Internet business services to Net-based ventures while seven of the companies are Web portal, content and community services. Only two of the participants run Web technology businesses. Indeed they were the only two of the initial 33 firms targeted. Four of the companies are business-to-business (B-2-B), 14 are business-to-consumer (B-2-C) and two straddle both groups.

The Women's Unit's (2000) findings suggested that 65 per cent of the women, who operated in traditional female sectors even in self-employment, had chosen retail and community based ventures for their Internet businesses. This was so even when an equal number of them had come from senior management jobs contending with men in the city of London. Although the sample is too small to yield statistically sound results, two of the five web-based companies provided services in the financial sector for web companies and individuals.

Figure Two Research Participants' Internet Businesses by Web Sector



The majority of the women interviewed were highly motivated towards achievement and most of them had come out of successful, albeit for some, unsatisfactory, careers to start their businesses. For example, of the 20 women interviewed, 13 had left senior management positions to set up their own businesses. Although these women emerged from diverse walks of life, they mainly fall into two

categories: young new graduates and seasoned corporate veterans, with a few exceptions. The exceptions include a teacher returning from a career break to have children and a couple of public sector employees. None of the women had been unemployed before start-up.

In studying the profiles of the women interviewed it came to light that seventeen of them were over the age of thirty-five but under the age of fifty, reflecting the fact that entrepreneurship is a mid-life choice for Internet female entrepreneurs in the UK. However unlike the majority of female entrepreneurs in the UK of whom about 23 per cent are unmarried, as many as half of the respondents were unmarried and similarly, only 35 per cent of them had dependent children compared to 49 per cent of self employed women nationally. No doubt this reflects the assertion that many women have to give up child bearing or tend to postpone it in order to be able to make into higher managerial positions.

Using personal and career related experiences to form the initial basis for group classification, five different groups emerged. The first group, *innovators*, were the largest making up 10 of the participants. Like Goffee and Scase's innovators these women had a strong commitment to entrepreneurial ideals and after being under traditional authority figures for a long period desired autonomy in their working lives. As one of the women said, "I have always wanted my own business. I hated working for other people". All of them were highly educated (masters degree level) and had been in senior-level corporate management but wanted to be "agent[s] of change" and "be in control of their own live[s]". Many of them were spurred by their personal philosophies in life, which usually reflected their need to be in charge:

"Creating and being in control of your own opportunities and future. Life is about being in control – control of your work and life balance, control of your self-concept, control of your mind. If life controls you it's harder to forge your own direction" **(P1)**

Others had suffered the frustration of gender-related career blocks, the so-called 'glass ceiling' effect (Morrison, 1987) demonstrated by a lack of recognition and further progression within their companies. One woman describes is as follows:

"I did not get on well with my boss and I felt I could do a better job. I had come against a brick wall and my ideas were not being recognised as mine. I would bring up a good idea and have it implemented but my boss would get all the credit - and I thought, "I can do this on my own!" Also I felt I had reached the highest level in management that I was going to be allowed to get to and if I was going make any difference, I would have to start my own business. The Internet gave me the opportunity." **(C1)**

For them entrepreneurship was the key and these women were the ones who were most willing for their companies to be offered to the public should they become extremely successful. More than half this group were unmarried and had no children and therefore their attachment to entrepreneurial ideals was not limited by domestic constraints (Allen and Truman, 1993). Many of the innovators also cited the challenge of business ownership as a pull factor though this was not exclusive to them.

A further four of them fitted Cromie's (1985) *dualists* category, wanting to fulfil two roles and combine a career with their domestic responsibilities. As Hakim (1989) and others have found these women were not necessarily driven by economic necessity, however they had a strong attachment or commitment to working but needed to manipulate this around their domestic responsibilities. For example, in a typical response to the question as to why she had set up her business one of the women in this group who had set up business after taking a career break to have children said,

"The need to use my brain, adult stimulus and an increasing dissatisfaction with not working...being able to fit the work mostly around the needs of my family by having control over the hours I work" **(D1)**

A third group, *aspirants*, started their businesses to gain freedom from the confines of the formal labour market and saw it as a long term option. All of them had worked for a relatively short period after graduation and had had negative experiences, leading them to leave and set up their own businesses. One of them said she had left her previous firm because:

"I didn't feel my previous company was going anywhere and I was repeatedly asked to work on my own back. I then negotiated freelance work from them, which later led to me working for myself". **(I1)**

Another one expressed her sentiments thus:

"The business was going down due to the age of the proprietor and I had two options – go alone or find a new job. My boss then suddenly announced that he was closing the company down so I had to make a decision quickly and I chose to become self-employed." **(O1)**

Career self-employed, the fourth group, had always been self-employed but did not exactly fit the mould of Carter and Cannon's (1992) 'traditionalists'. Indeed they shared many experiences with the innovators, but did not necessarily come from families with a history of self-employment. Self-employment for these women was born out of a desire to avoid any form of "dependency on others". For these women self-employment was the norm and not the exception. It is envisaged that the young achievers identified may, in the future, move into this group if their dreams of career self-employment are fulfilled.

A fifth group which is identified as *independent* entrepreneurs did not fit in any of the categories in previous research. These participants had worked in corporate management for most of their adult life, had decided to leave the corporate arena for a more relaxed lifestyle and saw self-employment in the Internet sector as a means to achieving a reasonable income to help them through their mature years, enable them work from home and also pay for a more relaxed lifestyle. Whether this dream had been fulfilled or not was questionable, as most of the participating companies had not made a profit yet. They were either childless or had grown-up children - domestic constraints were therefore not an issue for these respondents. These women were not looking to 'break the mould' and be innovators and had only so much attachment to entrepreneurship as they required to meet the above stated goals. They had therefore chosen businesses related to an area of personal interest and were least willing to offer

their businesses to the public if the opportunity arose. They had truly achieved the independence that most of the women in the study sought, because for the women in the other groups, their 'independence' was tempered by either domestic ties or ties to their work.

For all five groups, desire to become independent was a common factor which encouraged participants to start up small 'dotcom' businesses (See Table Two). Other major pull factors shown in Table Two were the challenge of business ownership, capital, space and equipment opportunities, gap in the market and achievement. Like Carter and Cannon's taxonomies, women may move groups as their personal motivations and circumstances change.

Table Two Main reason for self-employment (summary)

Most Important Reason	Numbers
Independence*	12
Saw demand	2
Opportunity	1
Challenge	5
Financial expectations	0
Unemployment	0

*includes answers like to be own boss, career dissatisfaction, autonomy, flexibility, family commitment, economic necessity, escape from pressures of corporate arena, make money for self, not others.

These self-descriptions based on motivational factors as well as attitudes towards entrepreneurship indicate that independence for women entrepreneurs, at least in Internet businesses, needs to be understood in terms of women's position in the formal labour market, life cycle factors and their relation to unpaid domestic labour. Most of the women in the survey saw flexibility and independence in relation to domestic arrangements, autonomy from the confines of the labour market, dissatisfaction with career experiences and the life stage of the women.

Entrepreneurship appears to be a mid life choice for women who run Internet businesses and in spite of being self-employed in mainly male dominated industries, female Internet entrepreneurs are clustered in the traditional female sub-divisions of electronic retail and electronic community ventures. Like majority of women entrepreneurs, women who are self-employed in the Internet sector cite independence, with all its multifaceted dimensions, as the main pull factor for self-employment. This perhaps is an indication of their achievement orientated dispositions resulting from their high level of education and high level careers, contrasting with both the majority of the general female population as well as self-employed women in particular.

This, however, did not exonerate them from experiencing problems starting and running their businesses. This research identified that difficulties with raising finance, operational problems, the burden of family responsibilities and generally not being taken seriously remain to be very real challenges deterring many women from pursuing self-employment in the fast-paced technology-driven Internet sector and other sectors.

Conclusions

The aim of this study has been to describe the reasons why women start businesses in Internet ventures. This study has identified both successes and challenges that women face in their entrepreneurship in Web-based ventures. There are two main issues that emanate from this study: First, like most self-employed women, DotCom women entrepreneurs face start-up and operational problems relating to access to start-up capital, the appropriateness of training courses and business support mechanisms. Second, DotCom women entrepreneurs, using their admirable educational and career histories are better able to overcome many of the obstacles that are traditionally faced by other women entrepreneurs.

Mainstream perspectives on the psychology of the entrepreneur emphasise attributes conventionally associated with 'masculinity' such as 'risk-taking' and 'need for achievement' and thus consider women, from a traditional perspective, as unfit for the role of self-employed. Secondly, these main ideologies that strengthen the idea that certain activities are appropriate for boys and men and certain others for girls and women and also that, by and large, those permitted for one gender are outside the range of activities permitted for the other, such as the notion of computing and technology as a mainly male domain. Thirdly, prominent ideologies about parenthood, marriage and family life have caused women to neglect their 'human capital' and as a result most of them are lower paid and less educated than men, thereby limiting the number of them that can operate Internet-based enterprises.

These structural limitations, and social constructs buried in subconscious behaviour that tend to perpetuate the stereotype might have limited Web-entrepreneurship to a certain group of women, whose profile fits in with the male constructed entrepreneurial profile. Although many of the women recognised that women faced peculiar challenges as entrepreneurs and that entrepreneurship is male oriented, they were prepared to compete on the same terms as men and sought to transcend obstacles with individual effort. Majority of the women interviewed were highly motivated towards achievement and were mainly represented within either the aspirants or innovators groups. They exhibited a need to fulfil very high needs for achievement and control. They placed most of their faith in their ability to overcome the odds – even if they are built into the systems in which they live and work – and to achieve individual success. Although this belief may reflect participants' optimism and initiative, it also may inhibit their dedication to eradicate injustice and discrimination for other women.

Further, the male dominance in entrepreneurship subverts a factor generally supposed to be helpful to women, namely role models. It has been noted earlier that one reason women shun the information technology sector is that there are not enough role models (Siann 1997). However, as some of the women indicated, these highly successful women turn them off because they reinforce the belief that one needs to be 'male' or at least participate in 'male' values to succeed. The very strategy that works for the minority of women reinforces women's belief that their traditional role is an inferior one. Thus role models provide support for this male dominance at the same time, as they appear to be counter examples to it.

What emerges then is a set of conflicting pictures. Developments in women's participation in this sector can enhance the position of DotCom women entrepreneurs, but can also work against their counterparts who are not as well qualified and experienced as they are, by reinforcing the stereotype.

There are, however two main signs for optimism for the future. The first is the increased activity of women themselves. There is evidence, as Carlsarrie (2000) states, that an increasing number of women are setting up web-based ventures and she contends that this is due to a number of factors, namely more capital resources than ever before, women's increased access to these resources, more role models, more female venture capitalists, more support organisations for women in technology, successful Initial Public Offerings by women-led Internet companies, media attention for women entrepreneurs and the increased recognition of the purchasing power of women online. This study reveals that this is only true to a limited extent.

Secondly, there are a few examples of good practice in terms of support given to women entrepreneurs or would-be female entrepreneurs in the UK. For example, the Wellpark Enterprise Centre is the UK's only integrated women's enterprise centre. Established in Glasgow in June 1996, it provides information, advice and business counselling to women in business or considering business. Other examples of good practice include WEETU (Women's Employment, Enterprise and Training Unit) established in 1987 and based in Norwich and which delivers a range of practical services to keep women informed and to enable them to improve their employment prospects, and WIN (Women in the Network) a networking project that aims to facilitate the development of women's enterprise. However, all these initiatives are local and there is no national integrated initiative aimed at women.

In the United Kingdom, a considerable amount of effort has gone into fostering an enterprise culture. However, as well intentioned as these measures have been, they have been highly restricted in their impact on women despite the fact that women have much to gain from setting up their own businesses. The difficulty lies in the two factors. Firstly, the androcentric nature of the policies and the ideology of family life which underpin them and sets assumptions about gender roles within the family undermines the effectiveness of any policies designed to help women in their quest for self-employment. Secondly, these measures adopted seek to address the problems of self-employment at

the superficial level of experiences relating to the start-up and operational problems identified in the study without addressing the underlying ideologies and issues that form its roots.

Fundamental stumbling blocks need to be addressed with a view to widening provision from the narrow client group for which it currently caters. In addition to the Small Business Service in England, which was revamped in April 2001 to help small firms and represent their interests, other forms of government support in the form of subsidies or funding for private female-only networks that the women use and have found useful would help women to achieve their goals as effective women entrepreneurs. This is essential as these networks provide training, advice and support specific to the industry in which the women operate as opposed to business advice agencies that offer general advice but have difficulty in dealing with problems peculiar to specific industries.

In the UK the structure of the educational system reflects the growing importance of qualifications derived from the formal educational system for entry into high-level employment. To exploit the potential of women's entrepreneurship in the Internet sector as an engine for economic growth, women of all ages need to be encouraged to consider running a business as a career and to enter the information technology sector. Education in schools has an important role to play in this. Schools need to redress the perception created by informal processes outside the educational system (computer games for boys and dolls for girls) rather than be a microcosm of the larger society reflecting the attitudes of the wider world.

In order to address these issues systematic information is required on women-owned Internet ventures and their characteristics, including turnover, survival rates, reasons for failing and growth aspirations. However, the literature and statistical base for the study of women entrepreneurs is patchy and sparse. There is no national data base on female self-employment in general and the Internet sector in particular, which limits our knowledge of women in business, more so in the Internet industry. Research of this nature will require longitudinal studies that will portray aspects of their enterprise, which this study was unable to address due to time constraints and the limited access to information.

In support of many studies concerned with women's self-employment, the argument here has been that, at least for women in Internet ventures, self-employment does not always equal liberation from patriarchal relations in paid work or from gendered labour structures. Society's patriarchal structures remain powerful. It is clear from this study that female 'DotCom' entrepreneurs demonstrate a strong determination to succeed irrespective of some of the obstacles they face in setting up and running their businesses. In their own personal lives DotCom women seem to be able to fulfil some part of the concept of independence that is so often attached to self-employment. However, theoretical discussion, backed by the findings of the relatively complicated structures of self-employment in the Internet sector reveal that the patriarchal or gendered relations of society remain powerful, no matter what form of economic activity is in question.

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