

Online Home Based Businesses: Systematic Literature Review and Future Research Agenda

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Abstract

Home based businesses account for a significant proportion of all businesses in both developed and developing economies. They are highly heterogeneous and therefore studies in the domain should focus on distinct types of home based businesses. This study describes a systematic review of the literature that addresses online home based businesses. The review addresses three related topics: the development of an up to date definition, identification of the salient characteristics of online home based business entrepreneurs and their businesses and the proposal of an agenda for future research. This review shows that certain characteristics are more salient in online home based entrepreneurs and their businesses. We describe how the salient characteristics of the businesses are inter-related with those of the entrepreneurs, suggesting these businesses attract different types of individuals and hence broaden access to the social and economic benefits that entrepreneurship can yield.

Keywords: Online home based business, Online home based entrepreneurs, Systematic review.

Introduction

Home based businesses now represent a significant proportion of businesses in many economies. For example, in the US, UK and Australia, home based businesses represent between 50-60% of all businesses (Mason et al, 2011; BIS, 2012). Such businesses are increasingly making significant use of the internet, either to extend the reach of a more traditional form of business, or in order to develop purely online businesses.

Whilst the number of academic studies that considers online home based businesses is modest, we argue this is an important domain, and an apposite time, for a focussed systematic review of existing knowledge for a number of reasons. Firstly, home based businesses are highly heterogeneous. They include businesses providing in-home hospitality and childcare, craft and food production and trades such as carpentry and plumbing (Felstead et al, 2005). They also include both businesses operating at home and those operating from home (Clark and Douglas, 2009-2010), and include self-employed entrepreneurs operating on medium to long term contracts for larger firms, as well as entrepreneurs without such arrangements. It is important to recognise that the challenges facing these different types of entrepreneurs and businesses will be distinct and therefore necessary to undertake relatively homogeneous sector-based studies. As we will show from the findings of our review, the characteristics of online home based entrepreneurs and their businesses are distinct from other home based ventures.

Secondly online home based businesses represent one of the fastest growing sectors within the home based business domain (Mason et al, 2011). As we will show, the growth of this sub-sector of the field is reflected in the rapid growth of academic studies of online home based businesses compared to other sub-domains of home based businesses. Finally, online businesses started in the home offer unique opportunities to undertake innovation and generate wealth creation, compared to other forms of home based business. Whilst they may be extreme examples, a number of the largest firms in the IT and online domain were started in the home. For example, firms as large and successful as Microsoft, HP and Apple grew from modest origins in the garages of their founders. Thus online home based firms may offer both advantages to individuals compared to other types of employment or venture formation, and may also offer significant macro-economic benefits.

We therefore undertake a systematic review (Gough et al, 2012; Briner and Denyer, 2012; Tranfield et al, 2003) of this domain in which we address the following questions:

- How do previous studies define and delimit the field of home based and online home based businesses and how can these be synthesised to reflect the current form of such businesses?

- What are the salient characteristics of online home based business entrepreneurs and their businesses?
- What are the major gaps identified in extant studies that can form the basis for a future research agenda?

These questions are important since defining and scoping are important early stages in the exploration, legitimation and theory development of an academic domain (Busenitz et al, 2003). Identifying distinctions between online and off-line home based entrepreneurs and their businesses will help identify if such businesses offer unique opportunities to entrepreneurs, or if they can offer different types of individuals the opportunity to become entrepreneurs, hence creating new opportunities for employment and economic wealth creation. Identification of a future research agenda that is based on extant knowledge of this domain ensures that future research is most effective.

As will be discussed further, a significant challenge to the study of home based businesses is categorisation and definitions of such businesses (Deschamps et al, 1998; Gelderen et al, 2008). Our first research question provides an opportunity to review extant definitions from the field, which we discuss and synthesise to provide a full definition. However, in commencing our study, particularly in defining the scope of the systematic review, it was necessary for us to adopt a working definition of the domain of interest. We therefore adopted the following working definition of online home based businesses: *self-employed individuals operating a business in their home and using the internet to undertake a significant proportion of their business activities.*

In the following section we describe the methods we adopted to undertake our systematic review. We then present a short bibliographic note on the findings of our systematic review in order to place our study of online home based businesses in the context of the broader domain of home based businesses. We then address our first research question by discussing extant definitions from the publications identified from the review and synthesising these to provide an up to date definition that will be a valuable starting place for others wishing to study this domain. We then present findings that consider the similarities and differences between entrepreneurs that

operate online and off-line home based businesses and other micro-businesses. We then consider the salient characteristics of online home based businesses. Our review seeks not only to scope what is known about online home based businesses, it also seeks to situate this knowledge in the wider context of home based business studies and entrepreneurship. Our review therefore relates the papers reviewed to studies in these wider domains and therefore draws on a wider body of literature than the studies identified in the systematic review process.

We summarise the key findings of our review in a model shown in Figure 3. Finally, we draw on the findings from our systematic review in order to suggest opportunities for future research in the domain of online home based businesses and present the conclusions and limitations of our study.

Systematic Review Method

Our systematic review was guided by the method suggested by Gough et al (2012). Our interpretation and implementation of the review process is shown in Figure 1.

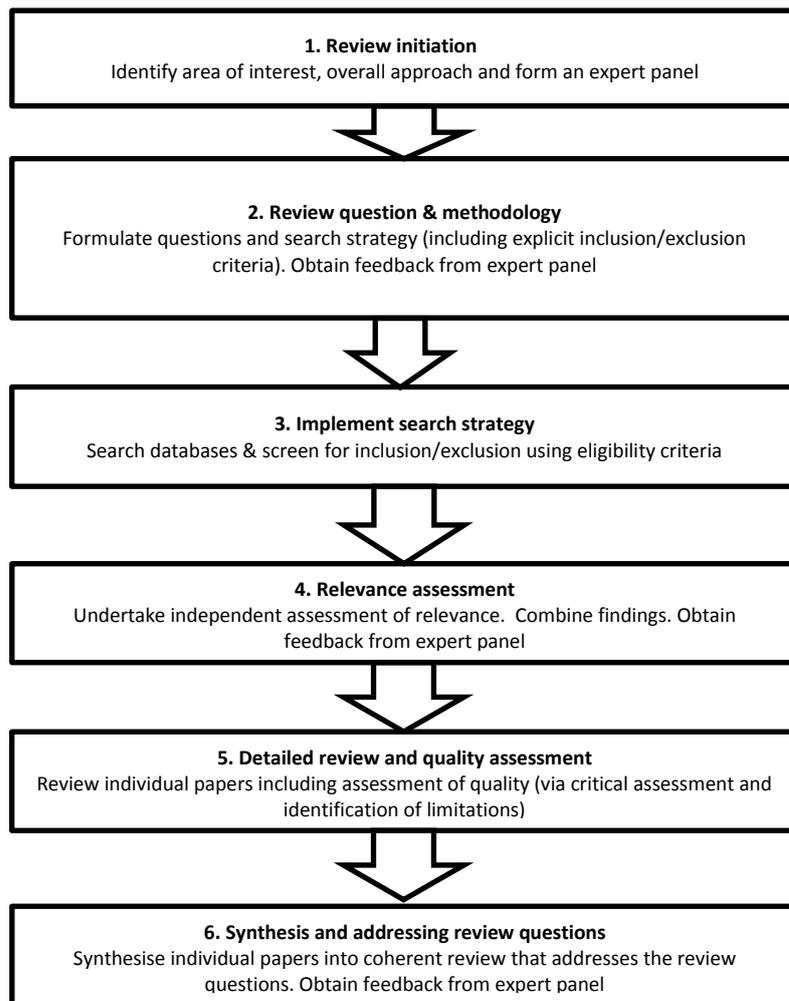


Figure 1. Systematic review stages (after Gough et al., 2012).

Whilst the focus of our study is online home based businesses, we first identified publications relating to the wider field of home based businesses, and then within this, those papers relating to online home based businesses. This approach provides an indication of the proportion of papers from the domain of home based businesses that consider the sub-domain of online businesses, which provides an indication of the relative activity and interest in this sub-domain. Since this is the first systematic review of online home based businesses it is intended to be a relatively broad scoping study of the domain, rather than a more in-depth review of a single aspect of the domain. In order to manage such a scoping study, we constrained our search to academic journal papers. We recognise that this excludes what is termed ‘grey literature’ (Briner and Denyer, 2012) and other forms of academic publication, such as conference papers and theses. We would suggest that these forms of literature

should be included in future reviews of particular facets of the online home based business domain.

An expert panel was formed to guide and review the progress of the systematic review. This comprised four academics from three institutions. Two are experts in the field of entrepreneurship, one is an expert in the field of online business and one is an expert at undertaking systematic reviews.

In the second stage of the review process searches were performed on the following databases as these are the largest databases in the fields of business and management: Business Source Complete, ScienceDirect, Emerald and ABI/INFORM Complete. We also searched Google Scholar in order to reflect the growing use of open access publications that are peer reviewed but may not be included in the four databases listed.

Searches were performed using the following keywords using proximity operators (3 words before or after): Home business, Home employ*, Home enterp*, Home entrep*, Home firm, Home industry, Home office, Home work, Single family office, Small office, Soho (an abbreviation for small office, home office). The wild card (*) operator was included at the end of certain keywords, e.g. Home enterp* in order to include terms such as enterprise and enterprises. After examining various searches it was agreed between the two researchers that these terms would be used to exclude references from searches that were either irrelevant or outside the working definition of the study: tele*, care, nurs*, health, deduction, paye, tax, solar, science, spectr*.

Use of the key words and the exclusion terms resulted in the identification of 1,520 publications. These were imported into a single EndNote database and duplicate references were removed resulting in 1,380 unique publications, and 137 publications were identified as relevant to home based businesses. The titles and abstracts of the 137 papers relating to home based businesses were then reviewed independently by the two researchers for their specific sub-domain within the field of home based business (see Table 1). The sub-domains identified were not predetermined, rather they were inductively generated in order to reflect the publications identified in the systematic review.

Sub-domains within home based business studies	Number of papers (sub-domain is primary focus*)	Number of papers (sub-domain also addressed*)	Total no of papers for sub-domain
Gender	28	16	44
International	29	4	33
Characteristics of home based business entrepreneurs and their businesses	23	4	27
Online (includes digital/online/e-business/e-commerce/IT/ICT)	16	6	22 (20 since 2 later excluded on quality criteria)
Work-life balance	16	1	17
Economic value	12	3	15
Regional Studies	6	1	7
Support networks	4	3	7
Social enterprise	2	1	3
Research methods	1	-	1
Total*	137	n/a	n/a

Table 2. Classification of home based business papers identified.

*Key and secondary topics are shown as some papers are relevant to more than one category e.g. Wynarczyk and Graham's (2013) study considers online businesses run by women.

The 22 papers relating to online home based businesses were all read in detail by both researchers involved in the study. Quality was considered by adopting a critical perspective (Briner and Denyer, 2012). Two papers were excluded on the grounds of quality. In both cases, despite being categorised as peer reviewed journals, these were short magazine articles.

The 20 papers were reviewed and synthesised to address the research questions. It was not possible to undertake a meta-analysis (Greenhalgh, 2010) as there were insufficient quantitative studies that were measuring similar variables. A narrative review (Jesson et al, 2011) appeared most apposite to our research questions and hence was the approach adopted. As noted previously, although the 20 papers identified form the central part of our review, we draw on considerably more studies

than this as we situate our findings in the wider context of home based business studies and entrepreneurship.

A Brief Bibliographic Note

As reflected in our extensive list of keywords, the field of home based business is characterised using of a wide range of terms. For example; home based business, home business, home work, home firm, home anchored work (Christensen, 1987; Laegran, 2008; Mason et al, 2011; Phillips, 2002; Sulaiman et al, 2009; Wynarczyk and Graham, 2013). This wide range of terms resulted in the identification of a significant number of publications (1,380), which on review of the titles and abstracts were not relevant to our study. The relatively small number of publications that were in the domain of interest (137: equivalent approximately 10% of total) demonstrates the value of review studies such as this, which can bring together highly fragmented fields.

Table 1 shows that most publications in the home business domain address the topics (in order of publication numbers): international perspectives, gender, characteristics of home based entrepreneurs and their businesses and online businesses. Figure 2 shows a plot of the growth in each of these sub-domains over time. The trend lines show that publications in the field of online home based businesses commenced after 1984 and show one of the highest rates of growth (after international and gender based studies).

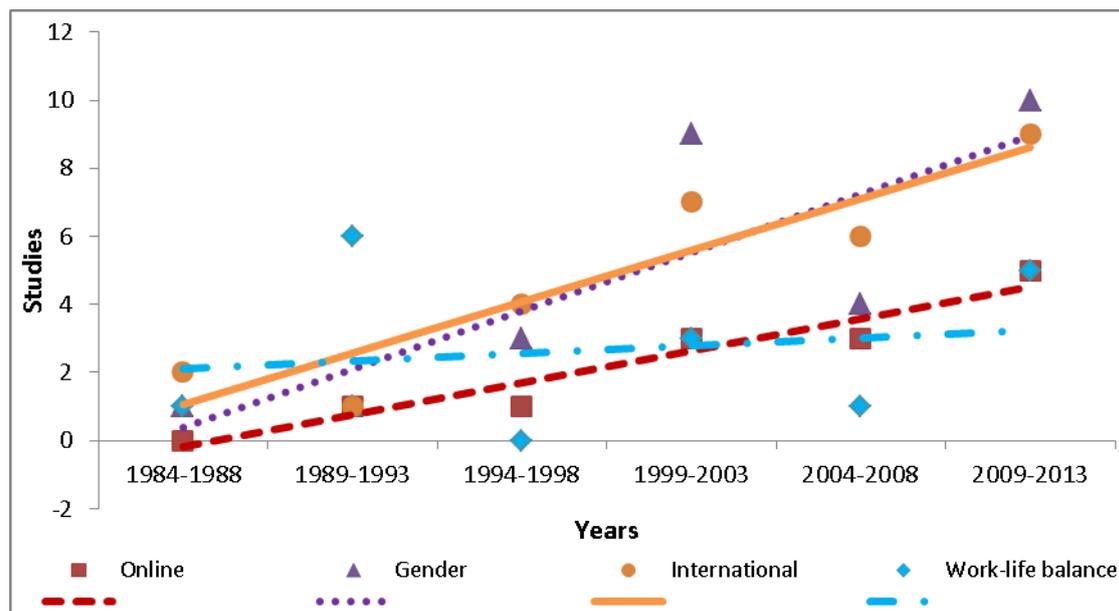


Figure 2. Plot of development of sub-domains of home based business according to year of publication (not all sub-domains shown to aid interpretation)

The Definitional Dilemma

We address our first research question by considering the definitions of both home based businesses and online home based businesses in the studies identified during the systematic review. Deschamps et al (1998) refer to a '*definitional dilemma*' (p.77) relating to home based businesses and observe that the most fundamental problem facing those researching in this domain is that of definition. As they note '*past studies have examined vastly different populations under the rubric of home business operations*' (p.74). These authors continue that part of the confusion is the failure to distinguish '*between home-based business activity and a home-based business*' (p.77). To address this distinction, these authors draw on the work of Clark (1994) who identifies four types of home based business activities:

- Telecommuters who are employed by a corporation but work out of the home;
- Individuals who take work home from the office;
- Moonlighters with part-time, home-based businesses;
- Primary income generators working from the home.

This typology is helpful in differentiating those employed, often by large firms, who work at home and those who are self-employed entrepreneurs. It does however, have a number of limitations. It does not differentiate contractors, that is, individuals that are self-employed but are often in medium or long-term contracts with large firms, which effectively direct their work. Such contractors may combine working at home with working on the premises of their clients and so have been recognised as a distinct group of home based workers (Salazar, 2001). It also appears to denigrate individuals who are running home based businesses on a part-time basis, terming them '*moonlighters*'. The express intention of many home based businesses is to balance work and life issues, and hence many home based businesses are operated on a part-time basis out of choice, rather than as a clandestine activity. Part-time operation also does not preclude primary income generation, or it may generate a secondary income

that is combined with other employment or the income from a partner or spouse (Phillips, 2002; Clark and Douglas, 2009-2010).

Wynarczyk and Graham's (2013) definition of home based businesses focusses on location: *'a business that uses the family residential property as a substitute for commercial premises for the conduct of business'* (p.453). In contrast, Mason et al (2011) include both employment status and location in their definition: *'any business entity engaged in selling products or services into the market operated by a self-employed person, with or without employees, that uses residential property as a base from which the operation is run'* (p.629).

Within the domain of online home based businesses, there is a similar issue of definitions, with studies with different foci adopting different definitions. Sulaiman et al (2009) define a home based cyber business as *'a business in which primary business activities are carried out away from a conventionally defined office and conducted through a computer mediated network and usually based on a virtual structure'* (p.31). The authors describe that primary business activities refer to activities such as sourcing and buying goods and selling and fulfilling orders. They also explain that a virtual structure refers to the use of either third party sub-contractors or the use of online services to provide business functions, such as eBay or PayPal. This definition has strengths in that it recognises the internet could be used for a range of business activities beyond selling, and it also encapsulates the leveraging of other micro-businesses and online services which, as will be discussed, appears highly salient to online home based businesses. However, the description of location does not appear to restrict the businesses considered to being based in the home.

Gelderen et al (2008) adopt the term home based internet business, which they define as *'a business entity operated by a self-employed person working from home selling commodities or services in the market, using the internet as a key mechanism for servicing customers'* (p.164). This definition of home based internet businesses focusses on the use of the internet for selling and servicing customers and excludes businesses that use the internet for the sourcing and buying of goods or services. However, many home based and small businesses have been found to start their

adoption of online business with non-customer facing activities (Sulaiman et al, 2009; Wyncarczyk and Graham, 2013).

Deschamps et al (1998) focus on information based home businesses, which they define as *'a commercial operation, based in the owner's home, that depends for its primary competitive advantage on the creation of information involving the collection, manipulation, presentation, and/or dissemination of data. Examples of businesses in this category include consulting, travel agencies, desktop publishing, accounting services, computer programming, and training'* (p.78). This definition excludes non-information items. Whilst it is most likely that information businesses are online, this is not a prerequisite of the definition. Indeed, one of the questions asked in the survey that the authors conduct is if the business makes use of IT.

We draw together the definitions proposed in the studies identified in our systematic review by proposing the following definition of an online home based business: *a business entity operated by a self-employed person working either at home or from home and who is using the internet to carry out a significant proportion of business activities that may include sourcing, selling, providing services and communicating with stakeholders. The business may be operated full or part-time.* This definition brings earlier definitions up to date, in that it reflects that businesses use the internet for a wide-range of business activities (Clark and Douglas, 2011). It also incorporates key aspects of such businesses that will be discussed in the subsequent sections, for example, many online home based business models are developed in order to operate on a part-time basis (Phillips, 2002; Clark and Douglas, 2009-2010).

Characteristics of Online Home Based Business Entrepreneurs

We address our second research question by considering studies that address our population of interest, online home based entrepreneurs, particularly studies that shed light on how these entrepreneurs compare with other entrepreneurs. As a background: ownership and use of a PC has been found to be associated with increased levels of entrepreneurship (Fairlie, 2006). Also, entrepreneurs who base their business on the internet have been found to be significantly different from other entrepreneurs, leading to the observation *'the results clearly show that the internet does make a*

difference [to entrepreneurial characteristics]' (Colombo and Delmastro, 2001, p.187).

Considering firstly the gender of entrepreneurs, previous studies have suggested that home businesses are predominately owned by women, leading to them being termed as pink collar businesses (Sulaiman et al, 2009). In contrast, other studies have found that more home based businesses are owned by males. For example, Mason et al (2011), based on data from 2005, found that the majority of home based businesses were owned by males (44%) or jointly owned by males and females (38%) than are owned solely by females (14%). Similarly, Kim et al (2002), based on data from 1980 to 1992, found that the majority of home based businesses were owned by males (65.2%) compared to females. In a more recent study, Clark and Douglas (2009-2010) found that the ownership of online home based businesses by males and females is more balanced (54% male and 46% female). This suggests that such businesses have encouraged females to become entrepreneurs. This is consistent with observations made by Wynarczyk and Graham (2013) when they cite Wajcman (2009) '*the internet and cyberspace are increasingly viewed as feminine media*' and is '*potentially liberating for women*' (p.452). However, care needs to be exercised when comparing these studies, since the recent study did not provide the opportunity to indicate that the home based business was jointly owned, which Mason et al (2011) found represented a significant proportion of businesses and neither study differentiates '*at home*' and '*from home*' businesses, the latter of which tend to be mainly male owned (Mason et al, 2011).

Online entrepreneurs in general (i.e. not specifically home based) have been found to be younger than other entrepreneurs (Colombo and Delmastro, 2001; Mason, 2009-2010; Betts and Huzey, 2009). The lack of age differential found by Deschamps et al (1998) between online and offline home based entrepreneurs suggest that online entrepreneurs in the particular context of home based businesses may be older than other online entrepreneurs. It can therefore be inferred that the factors affecting the self-employment decision may operate differently for online home based businesses than for other online businesses. Studies from the broader field of entrepreneurship suggest a number of conflicting factors are associated with the age at which the decision to become self-employed is made. Factors discouraging self-employment,

such as risk aversion and the cost of leaving employment increase with age, whilst factors that encourage self-employment, such as the acquisition of skills, social and relational capital and financial resources to start a business also increase with age (Baines, 2002; Chalmers, 2008; Kim et al, 2002; Sayers, 2009-2010). The inference that online entrepreneurs based in the home are older than other online entrepreneurs suggests that such businesses appeal to more risk averse individuals. Operating a business from home is usually associated with limiting the start-up capital required and hence is consistent with a lower appetite for risk. Whilst the amount of capital required is likely to be lower than for businesses not based in the home, as will be discussed, many home based businesses are funded by the entrepreneurs own funds, since it is difficult to arrange venture capital or debt funding for such businesses, factors that are again consistent with home based online entrepreneurs being older than other online entrepreneurs.

Deschamps et al (1998) found that online home based entrepreneurs were more likely to be single or more likely to be divorced than the traditional home based entrepreneurs. This suggests that, consistent with other studies that find online home based businesses do not necessarily reduce work-family conflict (Christensen, 1987; Baines, 2002; Chalmers, 2008; Laegran, 2008), operating an online home based business may be less conducive to a happy home-life and marriage than other forms of home based business. Consistent with these findings on family status, online home based entrepreneurs were less likely to have children than offline home based entrepreneurs (Deschamps et al, 1998) or non-entrepreneurs (Fairlie, 2006). These findings are consistent with online home based entrepreneurs being less motivated by family factors than offline home based entrepreneurs (Deschamps et al, 1998). In the case of the latter study, the difference in family factors was not due to differences in age, since these authors found no age difference between online and offline home based entrepreneurs in their study.

Online home based entrepreneurs have been found to be significantly better educated than those operating traditional home based businesses, with almost 25% of the former possessing a graduate degree compared to only 5% of the latter group (Deschamps et al, 1998). Combining these findings with previous literature that has identified home based entrepreneurs as better educated than other types of

entrepreneurs (Mason et al, 2011; Kim et al, 2002; Laegran, 2008; Colombo and Delmastro, 2001), suggests that the entrepreneurs that operate online home based businesses are more educated than all other types of entrepreneur, and form an educated elite amongst entrepreneurs. This very high standard of education lends weight to the maxim about homes that make significant use of technology: '*smart homes, smarter people*' (Deschamps et al, 1998, p.87).

Despite their higher levels of education, many online home based entrepreneurs, particularly those that operate ventures in which they operate alone, recognise that the success of the venture relies on their skills and are keen to develop those skills to match the needs of their business (Betts and Huzey, 2009; Sayers, 2009-2010). Gelderen et al (2008) describe their learning:

Constantly learning was important to HBIB [home based internet business] operators....Trial and error was part of the way they thought and operated, and they took this approach to their learning. Learning was self-directed and ad hoc: that is, it occurred when and where it was needed to solve problems and challenges as they presented themselves. (p.169)

It would seem that their learning approach is shaped by characteristics of their online home based businesses (discussed in the following section), particularly the ease of experimentation through 'trial and error' offered by online businesses (Gelderen et al, 2008; Phillips, 2002; Sulaiman et al, 2009). Such trial and error learning may be satisficing in the short to medium term. However, widespread adoption of this way of learning has been associated with a reduction in the quality of skills and professional development and a reduction of skills being passed on to future generations, leading to possible longer term lowering of the national skills base (Baines, 2002).

In addition to offering employment opportunities in less developed countries (Gelderen et al, 2008; Sayers, 2009-2010), home based businesses and particularly online home based businesses offer employment opportunities for immigrants to developed countries. Fairlie (2006) found that in the US, there was a stronger positive association between computer ownership and entrepreneurship for immigrant groups than US residents. Immigrants often struggle to integrate socially and economically,

due to language and other cultural barriers. Low capital business formation, such as that offered by online home based businesses, provides a means for economic self-sufficiency, often enhanced by the opportunity of leveraging their distinct cultural or geographic background (Sayers, 2009-2010).

Characteristics of Online Home Based Businesses

It is important to understand the characteristics of online home based businesses, since these will influence entrepreneurs' choice to form such businesses. Whilst many of the characteristics are similar to other start-up ventures, we argue, that these characteristics are highly salient in online home based businesses. The saliency of certain characteristics, particularly combinations of those characteristics, will attract certain entrepreneurs, and hence our previous discussion of the characteristics of entrepreneurs is inter-related with the characteristics of these businesses.

Gelderen et al (2008) developed the acronym SMILES to describe the characteristics of home based online businesses: Speed, Multiple income, Inexpensive, LEan, and Smart. Considering each characteristic in turn: Speed describes the short time it takes to start an online home based business, as described by the authors '*all it takes to start an internet business is a computer and an idea*' (p.166). It also describes the ease of communicating with colleagues, handling orders and processing payments. This is supported by a response given to Wynczyk and Graham (2013) in their study of female online home based entrepreneurs:

I can have a conference call with colleagues where we can work on screen on documents in real-time. I also have a link to automatic document formatting that produces and sends out letters and quotes direct to customers (p.464)

Many online businesses ask for payment before dispatch of goods, often using instant online payment methods, reducing the time spent waiting for payments and the associated risk of bad debts (Betts and Huzey, 2009). Prompt payment reduces the need for working capital, which is consistent with the findings that such businesses are often established with low levels of investment; usually from the founders own

sources, rather than bank loans or venture capital (Phillips, 2002; Betts and Huzey, 2009).

Multiple income describes how some online home based businesses owners are involved in more than one form of income generation. This might be that they are operating their online business alongside other employment, they are operating more than one business or that they are supported by a spouse or partner or by savings from previous employment. Whilst it could be thought that such multiple income streams mean that the entrepreneurs are not serious about their online ventures, Gelderen et al (2008) considers that these other income sources allow the entrepreneur to pursue their venture '*without the pressures of immediate financial reward*' (p.166), which allows the trial and error learning and experimentation, discussed previously.

Inexpensive to operate describes the low cost to establish and operate such businesses, which is a prevailing rationale for most home based business (Betts and Huzey, 2009). In the case of online businesses, the cost of IT equipment, software and web hosting have continued to decrease, whilst functionality has improved, reducing the costs involved in starting online home based businesses further (Pflugheoft et al, 2003; Yang, 2012). Services that allow use of software on a shared or rental basis, such as online shopping carts, payroll and client management systems reduce those costs further. Some countries also offer tax relief for businesses operating from home, allowing a proportion of the costs of running the home to be classified as a business expense (Christensen, 1987; Wynarczyk and Graham, 2013). As noted above, these low costs to establish and operate, mean that many online home based businesses are often formed with modest investments from the founders own sources, and the business model is designed to reduce the need for working capital, as described by one respondent in the study by Gelderen et al (2008):

We both put a small amount of seed capital in. But a very small amount and for the rest of the business has had to be cash flow positive from day one. And I think you cannot do that with a non-web based business... (p.167).

The authors describe online home based businesses as Lean due to their being small and virtual. Whilst these characteristics in themselves do not endow leanness, the

examples they provide of entrepreneurs working to produce value for customers whilst maintaining low costs do suggest that they are lean. Finally the authors characterise online home based businesses as Smart by finding creative ways of achieving their objectives, often at low cost. They give examples of how firms have developed reciprocal links with other firms in order to undertake promotion, rather than pay for more traditional promotion which they find is less effective. This again accords with Deschamps et al's (1998) previously cited maxim '*smart homes, smarter people*' (p.87) and shows that the notion of smart is not restricted to educational attainment.

In addition to the five SMILES characteristics, our review of the online home based business literature suggests such businesses are also distinct from other home based businesses according to the degree to which: they operate within a distributed network of businesses; offer the opportunity for entrepreneurs to '*leverage their labour*', can lead to feelings of isolation and the challenges of developing trust and credibility with trading partners.

With regard to operating as a network, many online home based businesses outsource key business activities to other firms, often other small or home based businesses (Clark and Douglas, 2011; Mason et al, 2011). Many see this as a mechanism for maintaining control in their business. For example, one entrepreneur described his approach '*...sub-contract everything and pay on results...*' (Gelderen et al, 2008 p.168). Outsourcing also allows them to maintain low start-up and working capital. Networking is particularly well suited to, and supported by the online domain, by practices such as drop-shipping, where goods are shipped directly to the final customer without being handled by the vendor (Chen et al, 2011; Chiang and Feng, 2010).

Extensive use of networking is also consistent with the observation that many online home based entrepreneurs do not wish to take on employees, since they perceive this reduces their own control, flexibility and low operating costs. Growth of such businesses therefore tends to involve increased networking rather than the employment of additional staff and has therefore been termed '*jobless growth*' (Mason et al, 2011). Whilst not generating jobs within the venture, home based

businesses are recognised as making economic contribution to both local and wider economies (Jain, 2011; Sayers, 2009-2010; Newbery and Bosworth, 2010; Rowe et al, 1999).

Online home based businesses have also been characterised as providing an opportunity for entrepreneurs to '*leverage their labour*' so that they could earn a worthwhile income whilst working fewer hours than would be required in other types of business or in traditional employment. This was described by interviewees in the study by (Gelderen et al, 2008).

And the more I became interested in business the more I really wanted to establish a business that could exist without me and so moving into a home based internet business was a conscious decision. (p.171)

The total business takes about two hours a week....It's a beautiful business to run. It just runs itself. (p.171)

Again, whilst the economic aim of the majority of new ventures is to leverage the labour of those involved, online home based businesses provide a singular opportunity. The online aspect of the business allows them to be 'always open' (Nansen et al, 2010; Wynarczyk and Graham, 2013) and hence attracting and servicing customers, without the entrepreneur needing to be present and involved at all times. The home based element allows such ventures to be operated alongside other commitments, allowing the entrepreneur to easily make use of the time that they are not spending on their business. It may be expected that the opportunity to leverage labour would result in lower incidence of time-related stress and work-life or work-family conflict (Roberts, 2007; Michel et al, 2011) for such entrepreneurs. However, Chalmers (2008) found that for home based self-employed knowledge workers who use IT, a group that is similar to our online home based entrepreneurs, a significant proportion (up to 44%) experienced time-related stress. This suggests that, for many, rather than the online business running with minimal intervention, the 'always open' nature of technology means that it is also 'always on', demanding '*instantaneous attention*' (Nansen et al, 2010, p.139) and '*interruption and task non-completion*' (Kaufman-Scarborough, 2006, p.71).

Isolation has been recognised as a challenge of home based businesses in general (Smith and Markham, 1998; Smith and Calasanti, 2005; Golden et al, 2008). Not only are such businesses frequently operated by an entrepreneur working alone, who therefore does not have either the social or professional support of colleagues, they also do not require the entrepreneur to venture outside of their house, removing the variety and stimulation of social and other interactions inherent in travelling to varied locations. Offline home based businesses often have some degree of face to face interactions, for example, selling craft products at markets. Many online businesses do not require any face to face activity. Indeed, the motivation to leverage labour often results in the development of a business model that can be operated without face to face interaction. Hence online home based businesses have been found to be strongly associated with feelings of isolation (Baines, 2002; Christensen, 1987; Mason et al, 2011; Sayers, 2009-2010; Wynarczyk and Graham, 2013). Some entrepreneurs developing strategies to address or ameliorate such feelings, for example participating in face to face networking events, using social media and developing spheres of interest outside of the business (Golden et al, 2008; Michel, 2011).

A final challenging characteristic of online home based businesses is the need to establish credibility and trust with stakeholders (Wynarczyk and Graham, 2013). Many home based businesses have limited visibility causing them to be referred to as '*invisible businesses*' (Mason et al, 2011). This lack of visibility and, in common with other micro-businesses, their limited financial and human resources (Oriaku, 2012; Robinson and Stubberud, 2013), results in caution from customers, suppliers and other stakeholders. Interestingly, given we have described online home based businesses as relying on networks for service provision and growth, Wynarczyk and Graham (2013) ascribe the lack of trust in online home based businesses as due to their lack of presence in trading networks. These observations can be reconciled by recognising that customers and suppliers may participate in distinct networks from those online home based businesses leverage to scale their business.

The salient characteristics of online entrepreneurs and their businesses identified during our review are summarised in Figure 3.

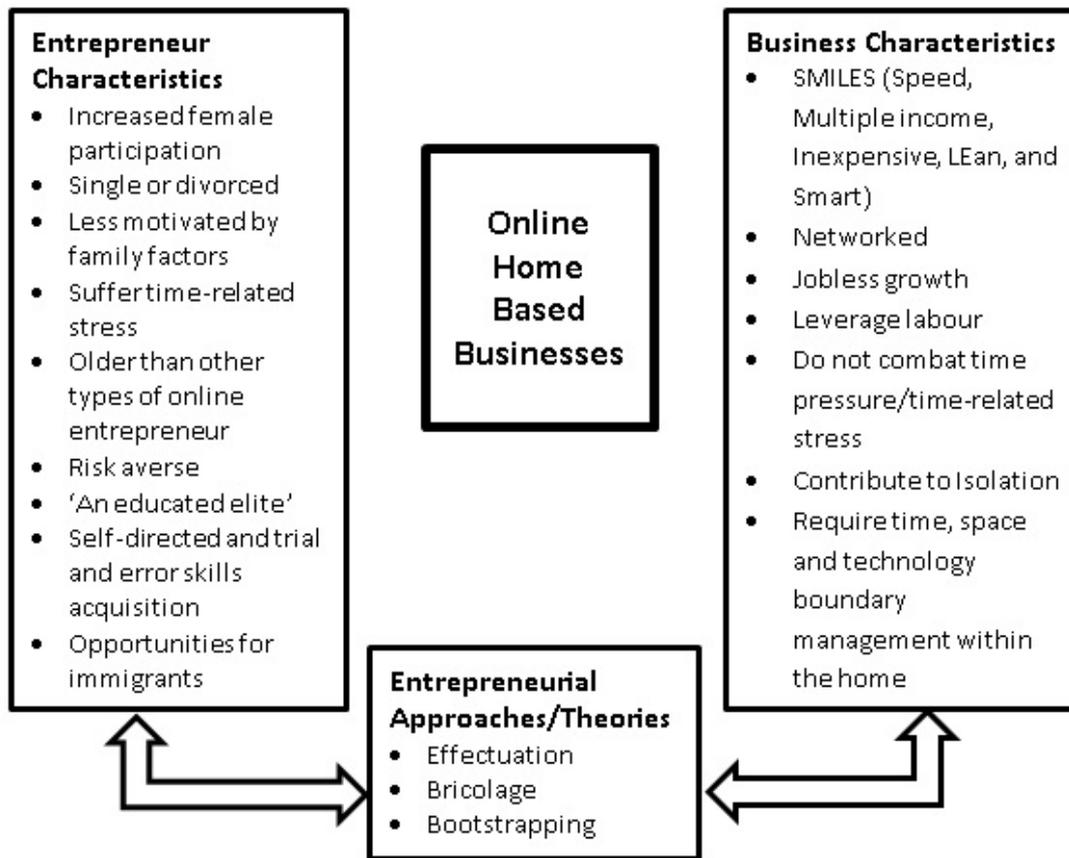


Figure 3. Salient characteristics of online home based entrepreneurs and businesses identified in the review and proposed mediating research area of entrepreneurial approach.

Future Research Agenda

Our review has demonstrated that there is a rich and growing stream of research that addresses the domain of online home based businesses. This review shows that whilst these businesses have elements in common with other home based businesses and other micro-businesses, certain characteristics of those businesses, enabled by the combination of online operation and being based in the low cost and flexible home environment, are more pronounced in online home based businesses. We have suggested that these highly salient characteristics may attract different types of entrepreneurs to set up such ventures, causing the characteristics of the businesses and the entrepreneurs that operate them to be inter-related. The relationship between entrepreneurial characteristics and the ventures they create are mediated by the entrepreneurial approach adopted. We illustrate the mediating role of such entrepreneurial approaches in Figure 3. To date no studies have been undertaken to explore the entrepreneurial approaches adopted by online home based entrepreneurs

in establishing their ventures which we consider as a major omission. Entrepreneurial approaches that appear highly relevant to the limited resources (physical, human and financial) that are often associated with home-based businesses and the experimental learning and contingent outcomes identified in this review include effectuation (Sarasvathy, 2001; Wiltbank et al., 2009; Bhowmick, 2011), bricolage (Baker and Nelson, 2005; Di Domenico et al., 2010), adaptive strategies (Mintzberg, 1978; Chaffee, 1985) and bootstrapping (Winborg and Landstrom, 2001; Ebben, 2009; Salimath and Jones, 2011). Studies should be undertaken to explore if and how entrepreneurs have adopted these approaches, either in isolation or in combination, and what the strengths or weaknesses of these approaches are in the online home based business domain.

To date, the studies of online home based businesses are largely atheoretical and descriptive in nature. We recognise that the descriptive nature of studies is consistent with the early emergence of a domain and can form the basis for future theory development (Weick, 2007; Robey et al, 2008). For example, Hambrick (2007, p.1348) describes how the reporting of descriptive empirical facts is beneficial since *'subsequent researchers can then direct their efforts at understanding why and how those facts came to be.'* However, given our systematic review showed that it is nearly thirty years since the first studies in the domain, the time seems apposite to seek to develop theory relating to online home based businesses. It is recognised that much of the entrepreneurial field, including that of home based businesses, does not have strong distinct theories, rather it is seen as *'highly permeable'* to the application of theories from other fields of management (Busenitz et al, 2003). A pragmatic starting point for the development of theory in the online home based business domain may therefore be the application of relevant theories from other domains. Management theories that appear relevant to characteristics of online businesses identified in our review include: network theory (Aldrich et al, 1989; Laegran, 2008; McGregor and Tweed, 2002) and social and intellectual capital (Nahapiet and Ghoshal, 1998) to explore the role of online home based businesses in networks, particularly the need to participate in multiple networks in order to establish trust and legitimacy. Media richness theory (Workman et al, 2003) could be used to explore how online home based entrepreneurs can utilise social media and other forms of technological mediation to address feelings of isolation.

A number of the studies in our review called for research that can guide policy interventions (Wynarczyk and Graham, 2013; Clark and Douglas, 2009-2010; Gelderen and Sayers, 2008). Such interventions could leverage our identification that online home based businesses and their founders are different from other types of business and founders. They could therefore endeavour to support these differences, for example, providers of business advice could place greater emphasis on some of the entrepreneurial approaches we discuss above that are likely to be compatible with online home business formation. At present the majority of business advice is based on a causative entrepreneurial approach, often characterised by a business plan. Little credit or support is provided for the effectual or bricolage approaches we believe research will show is more relevant to the businesses that form the basis of our review.

Conclusion

We have argued that online home based businesses are worthy focus due to their distinct nature from other types of home based business, the growth in the number of such businesses, their importance in providing an opportunity for innovation and beneficial impact and their ability to provide entrepreneurial opportunity to new groups of entrepreneurs. There is a modest but growing stream of research that addresses the field of online home based businesses supports our interest in this domain.

Our first research question has allowed us to combine extant definitions of home based and online home based businesses, in order to develop a definition that reflects the current embodiments of such businesses. This definition will delimit the field and provide a clear basis for future studies. Our second research question allowed us to identify the characteristics of online home based businesses, and where the previous studies allowed, to compare these with other relevant entrepreneurial groups and to discuss why these differences are manifested. Figure 3 summarises the characteristics of both the entrepreneurs and their businesses that appear most salient. Our final research question allowed us to consider the major gaps in the field and to propose a future research agenda to address these gaps.

It is important for us to recognise the limitations in this review. Whilst the number of publications in our field of interest is growing, we recognise that the number of papers included in our review is modest (20). We have therefore positioned our review as an early scoping review, in order to establish what is known about this distinct type of business and we have placed considerable emphasis on the development and shaping of a future research agenda. We would argue that early review of a field is beneficial to academics, practitioners and policy makers, since it allows these research users to guide future research in directions that are most beneficial.

We are also aware that there are aspects of online home based businesses that we did not investigate in our review, such as, the motivations for forming such businesses and how entrepreneurs view the success of such ventures. The studies we identified in our systematic review did not provide sufficient insight into these aspects or sufficient difference from the occurrence of such aspects in other types of businesses. Our study also focussed on online home based businesses in developed economies. Home based businesses are an important aspect of developing economies as they offer social and economic opportunities to groups that cannot partake in other forms of paid employment (e.g. Tipple, 1993). Online home based businesses could offer additional opportunities to extant home based entrepreneurs in developing countries or to allow others to benefit from such opportunities, although it should be recognised that these may be tempered by additional contextual challenges such as reliable access to power and the internet. Whilst there is a lively and growing stream of studies that consider international perspectives of home based businesses (see Table 2), to date only one study (Törenli, 2010) considers online home based business in a rapidly developing country context. Interestingly she concludes that for much home based production that is based on traditional labour intensive practices, the benefits of IT may lie in *'developing solidaristic structures rather than personal-individual success stories'* (p.62).

Finally, we recognise the limitations of the systematic literature review (Briner and Denyer, 2012), and how we have implemented it. For example our exclusion of grey literature. Such limitations include the reliance on selection via keywords, which is

particularly challenging in a field such as online home based businesses where there is a myriad of terms used.

References

- Aldrich, H., Pat Ray Reese, P. R. and Dubini, P. (1989) *Women on the verge of a breakthrough: networking among entrepreneurs in the United States and Italy*, Entrepreneurship & Regional Development, 1(4) 339-356.
- Baker, T. and Nelson, R. (2005) *Creating something from nothing: Resource construction through entrepreneurial bricolage*, Administrative Science Quarterly, 50(3) 329-366.
- Baines, S. (2002) *New technologies and old ways of working in the home of the self-employed teleworker*, New Technology, Work and Employment, 17(2) 89-101.
- Betts, S. C. and Huzey, D. (2009) *Building a foundation without brick and mortar: business planning for home based and cyber businesses*, International Journal of Business and Public Administration, 6(2) 50-60.
- Bhowmick, S. (2011) *Effectuation and the dialectic of control*, Small Enterprise Research, 18(1) 51-62.
- BIS (UK Government Department for Business, Innovation and Skills). (May 2012) *Make business your business: a report on small business start ups*. Available at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32245/12-827-make-business-your-business-report-on-start-ups.pdf
[Last accessed: 23rd January 2014]
- Briner, R. and Denyer, D. (2012) *Systematic review and evidence synthesis as a practice and scholarship tool*, In Handbook of Evidence-Based Management: Companies, Classrooms, and research. (Ed, Rousseau, D. M.) Oxford University Press.
- Busenitz, L. W., West III, G. P., Shepherd, D., Nelson, T., Chandler, G. N. and Zacharakis, A. (2003) *Entrepreneurship research in emergence: past trends and future directions*, Journal of Management, 29(3) 285–308.
- Chaffee, E. (1985) *Three models of strategy*, Academy of Management Review, 10(1): 89-98.
- Chalmers, L. (2008) *Using IT in work at home: taking a closer look at IT use in home-located production*, New Technology, Work and Employment, 23(1-2) 77-94
- Chen, J., Chen, Y., Parlar, M. and Xiao, Y. (2011) *Optimal inventory and admission policies for drop-shipping retailers serving in-store and online customers*, IIE Transactions, 43(5) 332-347.
- Chiang, W. K. and Feng, Y. (2010) *Retailer or e-tailer? Strategic pricing and economic-lot-size decisions in a competitive supply chain with drop-shipping*, Journal of the Operational Research Society, 61(11) 1645-1653.
- Christensen, K. E. (1987) *Impacts of computer-mediated home-based work on women and their families*, Office: Technology and People, 3(3) 211-230.
- Clark, D. N. and Douglas, H. (2011) *Information and communication technology adoption and diffusion in micro-enterprises: The case of techno-savvy home-based business*, International Journal of Entrepreneurship and Small Business, 14(3) 349-368.

- Clark, D. N. and Douglas, H. (2009-2010) *Micro business: Characteristics of home-based business in New Zealand*, Small Enterprise Research, 17(2) 112-123.
- Clark, T. (1994). Small office - home office: Why is SOHO so hot? Business Marketing, 79(8) 12-18.
- Colombo, M. and Delmastro, M. (2001) *Technology-based entrepreneurs: Does the internet make a difference?* Small Business Economics, 16(3) 177-190.
- Deschamps, M., Dart, J. and Links, G. (1998) *Home-based entrepreneurship in the information age*, Journal of Small Business & Entrepreneurship, 15(1) 74-96.
- Di Domenico, M., Haugh, H. and Tracey, P. (2010) *Social bricolage: theorizing social value creation in social enterprises*, Entrepreneurship theory and practice, 34(4) 681-703.
- Ebben, J. J. (2009) *Bootstrapping and the financial condition of small firms*, International Journal of Entrepreneurial Behavior and Research, 15(4) 346-363.
- Fairlie, R. W. (2006) *The Personal Computer and Entrepreneurship*, Management Science, 52(2) 187-203.
- Felstead, A., Jewson, N. and Walters, S. (2005) *Changing Places of Work*. Palgrave, UK.
- Gelderen, M. V., Sayers, J. and Keen, C. (2008) *Home-Based Internet Businesses as Drivers of Variety*, Journal of Small Business and Enterprise Development, 15(1) 162-177.
- Golden, T. D., Veiga, J. F. and Dino, R. N. (2008) *The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication enhancing technology matter?* Journal of Applied Psychology, 93(6) 1412-1421.
- Gough, D., Oliver, S. and Thomas, J. (2012) *An introduction to Systematic Reviews*, Sage Publication Ltd.
- Greenhalgh, T. (2010) *How to read a paper: the basics of evidence-based medicine*, 4th edition, BMJ Books, Blackwell Publishing.
- Hambrick, D. C. (2007) *The field of management's devotion to theory: too much of a good thing?* Academy of Management Journal, 50(6) 1346-1352.
- Hamilton, E. (2006) *Narratives of enterprise as epic tragedy*, Management Decision, 44(4) 536-550.
- Jain, A. (2011) *Knowledge distribution nodes and home based businesses: Role of local business associations and local council in Casey LGA*, Australasian Journal of Regional Studies, 17(2) 122-145.
- Jesson, J. K., Matheson, L. and Lacey, F. M. (2011) *Doing your literature review: Traditional and systematic techniques*. Sage, London.
- Kaufman-Scarborough, C. (2006) *Time use and the impact of technology: Examining work spaces in the home*, Time & Society, 15(1) 57-80.
- Kim, N., Han, J. K. and Srivastava, R. K. (2002) *A dynamic IT adoption model for the SOHO market: PC generational decisions with technological expectations*, Management Science, 48(2) 222-240.
- Laegran, A. S. (2008) *Domesticating home anchored work: negotiating flexibility when bringing ICT based work home in rural communities*. Geoforum, 39(6) 1991-1999.
- Loscocco, K. and Smith-Hunter, A. (2004) *Women home-based business owners: insights from comparative analyses*, Women in Management Review, 19(3) 164-173.

- Mason, C. (2009-2010) *Home-based businesses: Challenging their Cinderella status*, Small Enterprise Research, 17(2) 104-111.
- Mason, C. M., Carter, S. and Tagg, S. (2011) *Invisible businesses: The characteristics of home-based businesses in the United Kingdom*, Regional Studies, 45(5) 625-639.
- McGregor, J. and Tweed, D. (2002) *Profiling a new generation of female small business owners in New Zealand: Networking, Mentoring and Growth*, Gender, Work and Organization, 9(4) 420-438.
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A. and Baltes, B. B. (2011) Antecedents of work–family conflict: A meta-analytic review, Journal of Organizational Behavior, 32(5) 689-725.
- Mintzberg, H. (1978) *Patterns in strategy formation*, Management Science, 24(9) 934-948.
- Nansen, B., Arnold, M., Gibbs, M., and Davis, H. (2010) *Time, space and technology in the working-home: an unsettled nexus*, New Technology, Work and Employment, 25(2) 136-153.
- Nahapiet, J. and Ghoshal, S. (1998) *Social Capital, Intellectual Capital, and the Organizational Advantage*, Academy of Management Review, 23(2) 242-266.
- Newbery, R. and Bosworth, G. (2010) *Home-based business sectors in the rural economy*, Society and Business Review, 5(2) 183-197.
- Oriaku, N. (2012) *Current challenges facing small businesses: case of Brazil and United States*, International Journal of Finance and Policy Analysis, 4(5) 16-25.
- Pflugheoft, K. A., Ramamurthy, K., Soofi, E. S., Yasai-Ardekani, M. and Zahedi, F. (2003) *Multiple Conceptualizations of Small Business Web Use and Benefit*, Decision Sciences, 34(3), 467-512.
- Phillips, B. D. (2002) *Home-based firms, e-commerce, and high-technology small firms: are they related?* Economic Development Quarterly, 16(39) 39-48.
- Roberts, K. (2007) Work-life balance – the sources of the contemporary problem and the probable outcomes: a review and interpretation of the evidence, Employee Relations, 29(4) 334-351.
- Robey, D., Im, G. and Wareham, J. D. (2008) *Theoretical Foundations of Empirical Research on Interorganizational Systems: Assessing Past Contributions and Guiding Future Directions*, Journal of the Association for Information Systems, 9(9) 497-518.
- Robinson, S. and Stubberud, H. A. (2013) *Partnerships for innovation among European small businesses*, Journal of International Business Research, 12(2) 97-108.
- Rowe, B. R., Haynes, G. W. and Stafford, K. (1999) *The contribution of home-based business income to rural and urban economies*, Economic Development Quarterly, 13(1) 66-77.
- Salazar, C. (2001). *Building Boundaries and Negotiating Work at Home*. Communications of ACM, 3(1), 162-169.
- Salimath, M. and Jones III, R. (2011) *Scientific entrepreneurial management: Bricolage, bootstrapping, and the quest for efficiencies*, Journal of Business and Management, 17(1) 85-103.
- Sarasvathy, S. D. (2001) *Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency*, Academy of Management Review, 26(2) 243-263.

- Sayers, J. G. (2009-2010) *Home-based businesses in the city*, Small Enterprise Research, 17(2) 165-176.
- Smith, J. W. and Calasanti, T. (2005) *The influences of gender, race and ethnicity on workplace experiences of institutional and social isolation: An exploratory study of University faculty*, Sociological Spectrum, 25 307-334.
- Smith, J. W. and Markham, E. (1998) *Dual construct of isolation: Institutional and social forms*, Strategic and Organizational Leadership Journal, 2(2) 51-66.
- Sulaiman, R., Shariff, S. S. M. and Ahmad, M. S. (2009) *The e-business potential for home-based businesses in Malaysia: a qualitative study*, International Journal of Cyber Society and Education, 2(1) 21-36.
- Tipple, A. G. (1993) *Shelter as workplace: A review of home-based enterprise in developing countries*, International Labour Review, 132(4) 521-539
- Törenli, N. (2010) *The potential of ICT to generate 'solidaristic' practices among women home-based workers in Turkey*, New Technology, Work and Employment, 25(1) 49-62.
- Tranfield, D., Denyer, D. and Smart, P. (2003) *Towards a methodology for developing evidence-informed management knowledge by means of systematic review*, British Journal of Management, 14(3) 207-222.
- Wajcman, J. (2009) *Feminist theories of technology*, Cambridge Journal of Economics, 8(1) 35-52.
- Walker, E. and Webster, B. (2004) *Gender issues in home-based businesses*, Women in Management Review, 19(8) 404-412.
- Weick, K. E. (2007) *The generative properties of richness*, Academy of Management Journal, 50(1) 14-19.
- Wiltbank, R., Read, S., Dew, N. and Sarasvathy, S. D. (2009) *Prediction and control under uncertainty: Outcomes in angel investing*, Journal of Business Venturing, 24(2) 116- 133.
- Winborg, J. and Landstrom, H. (2001) *Financial bootstrapping in small businesses: examining small business managers' resource acquisition behaviors*, Journal of Business Venturing, 16(3) 235-254.
- Workman, M., Kahnweiler, W. and Bommer, W. (2003) *The effects of cognitive style and media richness on commitment to telework and virtual teams*, Journal of Vocational Behaviour, 63(3) 199-219.
- Wynarczyk, P. and Graham, J. (2013) *The impact of connectivity technology on home-based business venturing: The case of women in the North East of England*, Local Economy, 28(5) 451-470.
- Yang, N. (2012) *Small businesses and international entrepreneurship in the economic hard time: a global strategic perspective*, International Journal of Entrepreneurship, 16(2012) 113-131.
- Zhang, J and Liu, Y. (2011) *Antecedents of Work-family conflict: Review and prospect*, International Journal of Business and Management, 6(1) 89-97.