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**Distinguishing micro-businesses from SMEs: A systematic review of growth constraints**

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# Distinguishing micro-businesses from SMEs: A systematic review of growth constraints

## Abstract

**Purpose** – Micro-businesses account for a large majority of Small and Medium Enterprises (SMEs). However, they remain comparatively under-researched. This paper seeks to take stock of the extant literature on growth challenges, and to distinguish the growth constraints facing micro-business as a specific subset of SMEs from those facing larger SMEs.

**Design/methodology/approach** – The study consists of a systematic review of 59 peer-reviewed articles on SME growth.

**Findings** – Micro-businesses distinguish themselves from larger SMEs by being owner-manager entrepreneur (OME) centric and are constrained by a tendency to be growth-averse, underdeveloped capabilities in key business areas, underdeveloped OME capabilities, and often inadequate business support provision.

**Research limitations/implications** – The use of keywords, search strings, and specific databases may have limited the number of papers identified as relevant by the review. However, the findings are valuable for understanding micro-businesses as a subset of SMEs, providing directions for future research and generating implications for policy to support the scaling up of micro-businesses.

**Originality/value** – The review provides a renewed foundation for academic analysis of micro-business growth, highlighting how micro-businesses are distinct from larger SMEs. At present, no systematic literature review on this topic has previously been published and the study develops a number of theoretical and policy implications.

**Keywords** Micro-business, Small and medium enterprises, Growth constraints, Systematic literature review, Policy

**Paper** Literature review

## Introduction

The role of SMEs as engines of economic growth is widely acknowledged, having been a focus of academic research and policy making for decades (Curran, 2000; Blackburn and Kovalainen, 2009; Fuller-Love, 2006; Yu, 2001). Yet the literature on SME growth remains

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3 fragmented, with little consensus around the phenomenon (Wiklund et al., 2009). Moreover,  
4 despite micro-businesses accounting for around 95.8% of all UK businesses (ONS, 2015),  
5 and for 70-95% of all firms in OECD economies (OECD, 2013), much less is known about  
6 the growth challenges facing this significant sub-set of businesses with fewer than 10  
7 employees. Micro-businesses are regarded as engines of growth, but as Perren (1999) asserts  
8 there is very little research on the drivers and barriers to micro-business growth or 'scaling-  
9 up' beyond those associated with SMEs. However, the term SME is too homogenous and  
10 fails to sufficiently identify the specific growth challenges that micro-businesses face.

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13 This systematic literature review was conducted to examine the growth constraints  
14 affecting micro-businesses (i.e. businesses with less than 10 employees) and how they are  
15 distinct from larger SMEs (i.e. businesses with 10-249 employees). The aim is to distil how  
16 the experiences of micro-businesses differ from those of larger SMEs. Therefore the paper  
17 contributes to the micro-business literature and advances the understanding in relation to  
18 growth challenges. An important clarification must be made: the paper does not assert that  
19 all micro-businesses should grow, or that it is desirable for all micro-businesses to grow, or  
20 that it is the natural tendency of all businesses to grow. Rather the paper aims to provide an  
21 understanding of the factors that enable and constrain micro-business growth. It goes beyond  
22 providing a simple synthesis of the literature by developing critical insights to identify new  
23 directions for research and implications for policy.

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26 Furthermore, a distinction must be made between different types of growth. Gibb (2000)  
27 notes the difficulty of defining the notion of business growth and identifies nine types of  
28 growth, including historical growth, businesses with potential, businesses wishing or having  
29 the ambition to grow, and businesses actively seeking assistance. To these can be added  
30 turnover, employment, and profitability types of growth which are investigated in the papers  
31 reviewed. The paper is organised as follows: section two presents the methodology, section  
32 three discusses the findings of the review, and section four outlines the conclusions with a  
33 view to further research and considerations for policy.

## 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 **Method**

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52 The review was limited to published academic journal articles (peer reviewed). ABI Proquest,  
53 Emerald, Science Direct and Scopus were selected as appropriate databases. The search was  
54 conducted in 2015 and was limited to studies published after 1980, as the 1980s mark the  
55 time when academic interest in entrepreneurship and SME research started to grow  
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3 substantially (Gibb, 2000). The systematic literature review adopts the principles summarised  
4 by Thorpe et al. (2005) and, as outlined by Tranfield et al. (2003), comprises three stages (see  
5 Figure 1): planning the review, conducting the review, and reporting and dissemination.  
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11 [Insert Figure 1 here]  
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### 17 *Systematic review strategy and process*

18 The four databases were enquired using the keywords and search strings (Appendix 1)  
19 comprised in the review protocol. If a search generated more than 500 citations, the search  
20 strings were amended and the search was restricted to within articles' title only, which was  
21 necessary in the majority of the cases. If the search still retrieved more than 500 citations, the  
22 search was limited to higher quality journals (e.g. Journal of Business Venturing,  
23 International Business Review, Journal of Banking and Finance). When the search generated  
24 less than 160 citations, individual articles were briefly reviewed and relevant studies were  
25 selected. This iterative process and its results are summarised in Figure 1.  
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31 The studies were selected based on inclusion and exclusion criteria (Appendix 2).  
32 However, due to the difficulties with assessing the quality of studies within management  
33 research (Tranfield et al., 2003) another factor taken into consideration was the quality of the  
34 journal. The ABS Academic Journal Quality Guide (2015) was used to ascertain the quality  
35 of the journals, maintaining a certain degree of flexibility. For example, even though a study  
36 may have been published in a journal that ranked lower on the ABS list, the study was still  
37 included as relevant if its findings were directly relevant to the aim of the review.  
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### 46 *Analysis of systematic search results*

47 Of the 114 articles identified as relevant, 50 addressed the review's objectives directly and  
48 were selected as a final sample. Nine additional studies, identified through an additional  
49 search of databases of top journals in entrepreneurship and business management (e.g.  
50 Journal of Business Venturing, Small Business Economics, Journal of Small Business and  
51 Enterprise Development, Entrepreneurship and Regional Development, International Small  
52 Business Journal), were included, being considered seminal papers not identified through  
53 database search. The total of 59 studies were then analysed descriptively and thematically.  
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3 The main themes were identified by coding the titles and issues investigated, adopting an  
4 inductive approach. The coding was conducted independently by the authors, with  
5 overarching thematic categories identified to develop a coding scheme based on key themes  
6 so that intra-coder reliability could be consistent. The results of it were then compared to  
7 ensure inter-coder reliability by identifying any discrepancies between the coders so that they  
8 could be revisited and agreed.  
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13 Four themes emerged from the thematic analysis process: 1) Growth and business  
14 capabilities and practices; 2) Growth and OME's characteristics; 3) Growth and OME's  
15 ambition; and 4) Growth and the business environment. Considering that 21 articles cover at  
16 least two themes, reflecting the fragmented nature of the literature, 21 studies examine  
17 business capabilities and practices, 25 investigate the influence of OMEs' characteristics on  
18 growth, 17 examine growth ambition, and 22 studies cover various aspects of the business  
19 environment.  
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### 27 *Methodological challenges*

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29 One limitation of the systematic review is the use of keywords and search strings, this having  
30 a direct influence on both the type and the number of articles retrieved by the database  
31 (Pittaway and Cope, 2007). The search strings also need to be adapted to each database,  
32 depending on the type of available search functions and number of citations retrieved.  
33 Moreover, some of the databases used may exclude publications from specific journals,  
34 especially grey literature, making it difficult to capture all the relevant papers (Pittaway and  
35 Cope, 2007). For these reasons, the keywords used in this review were inclusive, limiting the  
36 exclusion of relevant articles from the start, and four databases were selected for enquiry.  
37 While this approach resulted in a high number of duplicates, it ensured that the systematic  
38 review captured the main themes of SME growth. One final challenge arises from selecting  
39 studies based on searches within the title of the articles which, while focusing the search, may  
40 have restricted the number of articles found. However, such an approach is considered  
41 efficient when the body of knowledge is vast (Thorpe et al., 2005), which is the case of the  
42 SME growth literature.  
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### 55 **Findings and discussion**

56 *Clarifying terms: SME and owner-manager entrepreneur*  
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3 The studies reviewed used various definitions of micro-businesses, which varied with the  
4 country in which the research was conducted and with the existing legal framework. This  
5 paper uses the OECD (2005) definitions: businesses with 0-9 employees are micro-  
6 businesses, those with 10-49 employees are small businesses, and those employing between  
7 50 and 249 people are medium-sized businesses. Therefore the review distinguishes micro-  
8 businesses in the evidence reported in the studies according to the above definitions.  
9 Similarly, multiple terms are used to refer to an individual who starts and runs a business,  
10 including owner, owner-manager, entrepreneur, nascent or aspirant entrepreneur, and  
11 founder. To ensure consistency and clarity, this paper uses one term as a proxy for the broad  
12 range of definitions namely owner-manager entrepreneur (OME).  
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### 22 *Studies of SME growth: Distinguishing micro-businesses*

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24 The literature on SME growth is fragmented. The studies reviewed examine disparate aspects  
25 of business growth, most focusing on larger SMEs as opposed to micro-businesses. A  
26 significant number centre on OMEs (i.e. on their characteristics and growth ambition), while  
27 another significant proportion focus on key business capabilities and practices. However, in  
28 micro-businesses' case, where the OME is often responsible for all the tasks involved in  
29 running and managing the business (O'Dwyer and Ryan, 2000), the level of business  
30 capabilities and practices will depend on and will reflect OME's capabilities. This  
31 distinguishes micro-businesses as an important subset of SMEs, and highlights the  
32 importance of understanding their particular characteristics in order to support their growth.  
33 The literature also accounts for the business environment, the influence of which is outside  
34 OMEs' control. Table 1 provides a summary of the main findings of the systematic review  
35 analysis based on the 59 studies reviewed through a theme-based comparison between micro-  
36 businesses and larger SMEs. The Journal of Small Business and Enterprise Development is  
37 among the most popular journals in the SME growth literature, being in the top three journals  
38 based on the number of studies included in review, along with Small Business Economics  
39 and Journal of Business Venturing (Appendix 3).  
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### 53 *Growth and business capabilities and practices*

54 The reviewed studies examine networking, marketing, business planning, human resources,  
55 and the use of IT. Micro-businesses distinguish themselves from larger SMEs through a  
56 deficiency of such capabilities and practices, identified as growth drivers in growth-oriented  
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3 and growing micro-businesses and in larger SMEs. For example, micro-business OMEs do  
4 not actively engage in networking (Greenbank, 2000a). Networking with weak ties is  
5 associated with increased business performance and positive growth attitudes in active micro-  
6 business networkers, yet only a minority engage in extensive or moderate networking (Baines  
7 and Wheelock, 1998; Chell and Baines, 2000). In larger SMEs, networking is positively  
8 associated with both employment and turnover growth, especially where networks extend  
9 outside a firm's region, nationally and internationally (Donckels and Lambrecht, 1995;  
10 Huggins and Johnston, 2009; Robson and Bennett, 2000), and facilitates innovation (Huggins  
11 and Johnston, 2009; Roper, 1997), high-growth SMEs showing a higher propensity to be  
12 more innovative and introduce new products and technology (Foreman-Peck et al., 2006;  
13 Smallbone et al., 1995). Networking also improves organisational learning and increases  
14 competence, enhancing flexibility, proactiveness, and the responsiveness to market changes  
15 (Chaston, 2000). Therefore networking - particularly with weak ties which can provide new  
16 information, advice, and fresh perspectives - has the potential to stimulate growth in micro-  
17 businesses. It is unclear whether networking in micro-businesses is constrained by a  
18 perceived lack of value or whether it is simply unviable, as OMEs generally lack time for  
19 such activities (Chell and Baines 2000).  
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31 Moreover, micro-business OMEs do not generally engage in formal marketing practices  
32 (Greenbank, 2000a) which may not be suitable to micro-businesses at all times and stages of  
33 development (Greenbank, 2000a; Hogarth-Scott et al., 1996). If limited in scope and  
34 complexity in micro-businesses, marketing practices facilitate growth in larger SMEs (Brush  
35 et al., 2009) interacting positively with other activities such as networking (Chaston, 2000).  
36 Marketing plans and a greater competitive advantage awareness support strategic thinking  
37 and customer orientation, enhancing opportunity recognition and response in high-growth  
38 SMEs (Foreman-Peck et al., 2006; Smallbone et al., 1995).  
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49 However, micro-businesses do not engage in marketing practices to the same extent or in the  
50 same type of practices as larger SMEs. For example, OMEs consider formal types of  
51 advertising ineffective, relying on word-of-mouth communications, lacking time and  
52 resources to engage in formal marketing practices in the fast-paced day-to-day management  
53 of the firm (Hogarth-Schott et al., 1996). Even if less advanced and more informal, marketing  
54 practices can drive growth in micro-businesses by building business capabilities. A greater  
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3 market awareness, the gathering of trade intelligence, and market research prior to start-up  
4 lead to better performance in micro-businesses, the capabilities derived from these practices  
5 facilitating strategic thinking and opportunity recognition, and therefore an understanding of  
6 key marketing principles and techniques can support micro-business growth from an early  
7 stage (Hogarth-Scott et al., 1996; Smith, 1999).

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11 Another underdeveloped capability and almost absent practice in micro-businesses is  
12 business planning (Greenbank, 2000a), despite it being a useful strategic tool supporting  
13 strategy development, objective setting and performance measurement. While some see  
14 business planning as helpful in setting objectives and providing strategic direction, others  
15 refer to it as a “cosmetic document used to obtain finance” (O’Dwyer and Ryan, 2000,  
16 p.350). Nevertheless, as shown in growing micro-businesses (Greenbank, 2000a; LeBrasseur  
17 et al., 2003), and supported by evidence from larger SMEs (Morrison et al., 2003; Richbell et  
18 al., 2006), business planning is an important tool for planning and achieving growth.

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22 A recurrent issue in micro-businesses concerns human resources (HR), a key business  
23 capability and major focus of growth entrepreneurs (Mueller et al., 2012). HR plays an  
24 important role in rapid-growth SMEs, employee training programmes and employee  
25 development, being critical to maintaining growth (Barringer et al., 2005). Thus the absence  
26 of HR capabilities in micro-businesses, which are often unprepared or unwilling to recruit  
27 extra employees and expand due to time, skills, and resource constraints, limits their growth  
28 potential (Fielden et al., 2000; Hogarth-Scott et al., 1996). Although recruitment and skill  
29 shortages also constrain high-growth SMEs (Lee, 2014), these are likely to affect micro-  
30 businesses to a greater extent, a significant proportion of them preferring to stay small due to  
31 recruitment challenges (Fielden et al., 2000).

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35 Finally, the use of IT resources is associated with micro-business growth. For example, the  
36 use of computerised accounts is strongly associated with high growth (Foreman-Peck et al.,  
37 2006). The use of Web 2.0 by micro-businesses improves internal operational efficiency,  
38 increases operational capabilities, and results in better external communications (Barnes et  
39 al., 2012). It is therefore unsurprising that the use of IT in young micro-businesses is strongly  
40 and positively associated with firm performance (Smith, 1999).

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44 Thus micro-businesses are often constrained by underdeveloped capabilities in various  
45 business areas. Considering they are OME centric, this is highly likely to be reflected in  
46 underdeveloped OME capabilities, as in most micro-businesses “the owner-manager is the  
47 company” (Lean, 1998, p.233). Moreover, considering the fast-paced, time-constrained  
48 nature of OMEs’ role, it is unsurprising that growth constraints will arise in certain business  
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3 areas. Consequently OMEs must avoid becoming “immersed in day-to-day operating issues”  
4 and shift their efforts towards managing the business (LeBrasseur et al., 2003, p.325). The  
5 benefits are reflected in larger SMEs with more developed organisational structures where  
6 OMEs can delegate the day-to-day running of the business and focus on managing of the  
7 firm, capitalising on the benefits of networking, marketing, HR, and business planning as  
8 growth drivers.  
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### 13 14 15 *Growth and OME's characteristics* 16

17 The characteristics examined include experience, human capital, expertise in managing  
18 growth, business skills, age, and the level of financial wealth. The multitude of factors that  
19 shape decision-making and subsequent business performance, and the disproportionate  
20 reliance on the OME, highlight why it is challenging for the majority of micro-businesses to  
21 achieve growth. The accumulation of experience, human capital, skills and expertise by one  
22 person (i.e. the OME), requires time, training and support, and may lead to initial business  
23 failure before experiencing success (Deakins and Freel, 1998). For example, entrepreneurial  
24 and managerial experience gained through multiple ownerships and directorships is a distinct  
25 characteristic of new high-growth firms and high-growth OMEs (Rosa and Scott, 1999a;  
26 1999b). In larger SMEs, prior related industry experience, prior work experience, and  
27 previous job experience in a related field are associated with growth, being top characteristics  
28 of OMEs of high-growth firms (Barringer et al., 2005; Cooper et al., 1989; Richbell et al.,  
29 2006), managerial experience being positively associated with starting larger businesses and  
30 with the aim to increase future sales and firm size (Cassar, 2006; Cooper et al., 1989).  
31 Continually accumulated through knowledge, experience, communication, and judgement  
32 (Carson and Gilmore, 2000), experiential learning and knowledge are essential in identifying  
33 growth opportunities (Hulbert et al., 2013), high growth-oriented OMEs adopting a ‘learning-  
34 by-doing’ philosophy (Moran, 1998). Therefore it is essential for OMEs to develop the ability  
35 to learn from experience, “one of the key abilities in entrepreneurship” (Deakins and Freel,  
36 1998, p.151).  
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50 OMEs’ human capital is another characteristic that influences the level of growth achieved.  
51 Although a couple of studies question the influence of education (Cassar, 2006; Coad et al.,  
52 2013), better educated OMEs start larger businesses (Cooper et al., 1989), and OME’s human  
53 capital and a minimum of apprenticeship experience have a positive effect on micro-business  
54 survival and growth (Johnson et al., 1999; Watson et al., 1998). The positive impact of  
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3 OME's human capital emerges in larger SMEs. For example, OMEs with University/college  
4 education prefer high-barrier (i.e. high-risk) industries with larger expected financial gains  
5 (Lofstrom, 2014), and higher professional and educational qualifications are positively  
6 associated with growth (Bryson et al., 1997; Richbell et al., 2006), education being a top  
7 characteristic of OMEs of rapid-growth firms (Barringer et al., 2005). However, a distinction  
8 must be made between business and technical knowledge. In micro-businesses' case,  
9 technical knowledge might be sufficient to start a business but it is business knowledge and  
10 skills that propel the business further on a growth path, which leads the discussion to the next  
11 characteristic, namely expertise in managing growth.

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13 To avoid becoming "immersed in day-to-day operating issues" and focus on business  
14 management (LeBrasseur et al., 2003, p.325), OMEs must accumulate expertise in managing  
15 growth. Indeed, growth-driven micro-business OMEs acknowledge the importance of  
16 managerial skills, seeking training and advice on leadership, motivation, staff training and  
17 recruitment (Watson et al., 1998). In Perren's (1999; 2000) framework, expertise in managing  
18 growth is one of the four main growth drivers, as without it the growth process can lose focus  
19 and direction. Evidence from larger SMEs confirms that expertise in managing growth is  
20 built by accumulating business skills such as managerial, marketing, sales, financial, HR, and  
21 leadership (Brush et al., 2009; Moran, 1998). For example, marketing and financial  
22 capabilities facilitate high growth by enabling market expansion and innovation (Barbero et  
23 al., 2011), the lack of managerial, marketing and sales skills being reported as top growth  
24 constraints (Bryson et al., 1997). Therefore, as growth represents a transition from the  
25 involvement in day-to-day business operations towards managing growth and the  
26 organisation (Mueller et al., 2012), it is essential that growth-oriented micro-business OMEs  
27 acquire a range of business skills from an early stage. A proactive behaviour comes in  
28 support of OMEs, being essential in diminishing potential adverse effects of the crises  
29 preceding growth stages (Scott and Bruce, 1987).

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31 Furthermore, OME's age is negatively related to growth intentions (Gray, 2002; Foreman-  
32 Peck et al., 2006), suggesting that younger OMEs are likely to be more growth-oriented, yet  
33 mature OMEs are more likely to run businesses with greater longevity (Cressy, 1996). On the  
34 other hand, pre-start-up income and wealth are positively associated with growth intentions  
35 and start-up growth rate (Cassar, 2006; Cressy, 1996), the pre-start-up worth of an individual  
36 influencing their ability to enter high-barrier industries (Lofstrom, 2014). Thus higher levels  
37 of wealth can mitigate the risks associated with the need to take on debt.

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3 Therefore substantial research effort has been devoted to understanding the influence of  
4 experience on growth as well as the importance of OME's human capital and expertise on  
5 managing growth, with particular emphasis on managerial and business skills. While the  
6 evidence related to micro-businesses is limited, the studies focusing on larger SMEs highlight  
7 key potential growth constraints which generate implications for micro-businesses and  
8 provide future research avenues as well as policy implications.  
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### 13 14 15 *Growth and OME's ambition*

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17 The most conspicuous theme that emerged from the review is OME's growth ambition,  
18 examined from different perspectives: motivation, intentions, desire to succeed, expected  
19 outcomes, ability, need, opportunity, and reasons for starting a business. Perren (1999, p.369)  
20 finds that the desire to succeed, where success equates firm growth and is financially  
21 oriented, influenced growth motivation to a great extent, concluding that in micro-businesses  
22 OME's growth motivation is "vital in such small firms, being an essential growth driver".  
23 However, Poutziouris (2003), Fielden et al. (2000), Davidsson (1989), Wiklund et al. (2003),  
24 Walker and Brown (2004), Greenbank (2001), Gray (2002), Baines and Wheelock (1998),  
25 and Reijonen and Komppula (2007) identified the lack of growth ambition as a constraint, as  
26 the majority of OMEs place more value on non-economic aspects of business ownership  
27 rather than being driven by financial gain and a willingness to succeed.  
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35 This is particularly the case of micro-businesses - 22% - 25% were identified as growth-  
36 oriented with just a small fraction intending to actually increase in size (Baines and  
37 Wheelock, 1998; Chell and Baines, 2000; Poutziouris, 2003) - where the lack of growth  
38 ambition acts as a greater constraint due to OMEs' dominant role (Perren, 1999). Non-  
39 economic objectives of micro-business OMEs include being one's boss, increased  
40 independence and flexibility, job satisfaction, product or service quality, and customer and  
41 work satisfaction (Fielden et al., 2000; Perren, 1999; Reijonen and Komppula, 2007). Growth  
42 intentions are limited to a desired income level which is often restricted to earning a  
43 satisfactory income or making a living rather than actively pursuing growth, and therefore  
44 "there is no drive to improve the business in terms of growth, sales and profitability"  
45 (Greenbank, 2001, p.108; Reijonen and Komppula, 2007). The studies highlight that the  
46 majority of micro-businesses tend to be lifestyle businesses, very few OMEs having the  
47 ambition to grow the business beyond a personal target income level.  
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3 Nevertheless, financial incentives can act as growth drivers for growth-oriented OMEs. For  
4 example, for high risk-return and growth-oriented OMEs, financial success is a top reason for  
5 venture creation and is positively associated with all measures of growth intention and  
6 preference (Cassar, 2007; Douglas, 2013). Risk aversion is identified in a number of studies  
7 as limiting the growth ambition of micro-business OMEs, growth being indeed associated  
8 with higher risk-propensity (Poutziouris, 2003).  
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13 Growth motivation is also influenced by expected outcomes, namely positive expectations  
14 about growth outcomes result in positive attitudes towards growth and vice-versa (Wiklund et  
15 al., 2003). OMEs of micro and small businesses are more concerned about the loss of  
16 independence, managerial control, employee well-being, crises survival, potential loss of  
17 control, and bankruptcy risk, which generate negative attitudes towards growth (Davidsson,  
18 1989; Greenbank, 2001; Wiklund et al., 2003), confirming a tendency of micro-business  
19 OMEs to be growth-averse. An interesting finding of Davidsson's (1989) study is that growth  
20 motivation diminishes as the business grows, deterring many micro-businesses to become  
21 small businesses. This may be explained either by a culture for very small business, a lack of  
22 growth ambition and/or expertise in managing growth, or may be a product of unfavourable  
23 institutional arrangements. While some do not aspire to grow their business at all or adopt an  
24 incremental approach (Walker and Brown, 2004; Hogarth-Scott et al., 1996), Gray (2002)  
25 unveils that micro-businesses generally tend to be growth averse or prefer the status quo, high  
26 change adopters being more likely to have growth intentions and increase sales performance.  
27 As growth is characterised by radical changes (Wiklund et al., 2009), dynamic micro-  
28 businesses are more likely to be growth-oriented, and therefore changes such as introducing  
29 formal management structures can support ambition by shifting the focus towards managing  
30 the business.  
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43 Larger SMEs exhibit a mix of economic and non-economic objectives. However, although  
44 increased profitability is an objective for most small businesses, similar to micro-businesses,  
45 just a small fraction actually intends to grow in size (Poutziouris, 2003). Independence  
46 remains the main motivational factor and non-economic objectives such as maintaining  
47 independence, increased leisure time, better standard of living, personal and job satisfaction,  
48 employee well-being, pride, family objectives, and a flexible lifestyle remain prevalent  
49 (Douglas, 2013; Gray, 2002; Poutziouris, 2003; Walker and Brown, 2004). Distinguishing  
50 between objective and subjective factors, Davidsson (1991) explains that subjective factors,  
51 (i.e. perceptions of ability, need and opportunity) mediate the influence of objective factors  
52 on growth motivation, and that small firms stop growing due to what the author calls  
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3 'satiation' (i.e. no need to grow). Moreover, Morrison et al. (2003) show that growth-oriented  
4 businesses attain a balance between OMEs' intention, business abilities and the opportunity  
5 environment, arguing that the three factors are inherently interdependent. Therefore, the lack  
6 of growth ambition can also be explained by aspects that emerged in other themes, such as  
7 OMEs' characteristics and the business environment, or the institutional environment.  
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11 Thus the lack of growth ambition, fuelled by fear of failure, risk aversion, negative growth  
12 expectations, and a focus on non-economic objectives, represents an important constraint for  
13 the OME centric micro-businesses but also a challenge for policy makers. Ambition is not  
14 something that can be influenced directly as it is the result of the influence of both an  
15 individual's characteristics and the business environment. It can rather be stimulated by  
16 creating the conditions that enable growth-oriented OMEs to pursue their ambitions and by  
17 supporting micro-business to build capabilities at both individual and firm level.  
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#### 24 25 *Growth and the business environment*

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27 The business environment encloses the activity of businesses, influencing the extent to which  
28 OMEs can pursue their ambitions, and can therefore create an additional layer of constraints  
29 through elements external to the business. Business growth requires both a supportive  
30 business environment and OMEs to perceive the business environment positively (Morrison  
31 et al., 2003). However, factors such as the state of the economy, dynamism, hostility,  
32 competition, and demand, which are outside OMEs' control, can constrain growth regardless  
33 of the level of ambition and capabilities and can even suppress growth ambition (Lee, 2014;  
34 Perren, 1999; 2000; Wiklund et al., 2009), often influencing whether micro-businesses  
35 remain very small or grow significantly (Johnson et al., 1999). As a business grows, the  
36 business environment becomes increasingly important as shown by Scott and Bruce's (1987)  
37 small business growth model where each growth stage is preceded by a crisis, most likely of  
38 external nature (e.g. competition, information needs, complexity of moving into new markets,  
39 external focus need).  
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49 Furthermore, the institutional environment can constrain business growth if it fails to  
50 create the conditions that enable growth-oriented OMEs to pursue their ambitions. Some of  
51 the most problematic issues are access to resources - particularly finance - and business  
52 support (Fielden et al, 2000; Greenbank, 2000a; Lee, 2014; Perren, 1999). Resources can  
53 increase survival chances and subsequent growth (Coad et al., 2013) and therefore access to  
54 adequate resources is vital for micro-businesses. While high-growth oriented SMEs are more  
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likely to use multiple sources of finance (Vos et al., 2007), the number of accessible finance sources used by micro-businesses does not predict their performance (Smith, 1999). The issue for micro-businesses is rather the adequacy of available finance options. For example, micro-businesses face inaccessible, inadequate or inflexible grants, criticising the reluctance of financial institutions to provide adequate capital (Fielden et al., 2000), other barriers including the lack of capital, fears of increased financial risk (Robertson et al., 2003), fear of being unable to obtain finance, and perceptions of finance being inaccessible (Williams and Williams, 2011). Due to limited access to adequate external finance some businesses resort to pursuing organic growth, but this limits their growth potential (Brush et al., 2009). Nevertheless, resource availability does not directly imply growth, the relationship being mediated by other factors such as entrepreneurial orientation which unveils that, regardless of the type or level of resources available, growth is contingent on OME's entrepreneurial behaviour, namely their ability and intention to use them for growth (Wiklund et al., 2009). This reinforces the importance of issues highlighted in previous themes, such as skills and ambition, highlighting the OMEs' central role. Access to finance is also problematic for larger SMEs and, although these are less likely to perceive potential government barriers as barriers to growth (Lee, 2014), this does not imply that institutional arrangements do not affect micro-businesses to a greater extent, as micro-businesses do not benefit from the same capacity as larger, high-growth SMEs to comply efficiently with legal requirements.

Moreover, the creation of a supportive business environment is facilitated by the provision of adequate business support. However, a recurrent issue reported by the literature is the inadequacy of business support available for micro-businesses. Micro-businesses do not seek external advice and, even when received, it is perceived as either unhelpful or as "useful, but too general in nature" (Greenbank, 2000a; Fielden et al., 2000, p.302), and small business advisers tend to offer advice for survival rather than suggesting riskier growth strategies, incongruent with government's growth policies (Mole, 2000). Fielden et al. (2000) argue that rather than a lack of growth motivation, it is the lack of adequate support that impedes micro-business growth. This argument is supported by a series of studies which identify government-backed support provisions as inefficient (Robson and Bennett, 2000). Confirmed by Matlay's (2004) size-related effect, a major issue is the lack of fit between available training and development programmes and the needs of micro-business OMEs, support providers assuming that micro-businesses are similar to larger SMEs (Lean, 1998; O'Dwyer and Ryan, 2000; Greenbank, 2000b). Start-up and pre-start-up governmental support provision fails to address some key development needs, especially for growth-oriented micro-

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3 businesses (Lean, 1998), available training and development programmes being considered  
4 more appropriate for larger businesses (O'Dwyer and Ryan, 2000). Devins et al. (2005),  
5 Greenbank (2000b), Matlay (2004), Perren (1999) and O'Dwyer and Ryan (2000)  
6 acknowledge the uniqueness of micro-businesses and argue for the need of programmes that  
7 are flexible, timely and tailored to the needs of micro-businesses.  
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11 Therefore it is not the factors that are different but the way in which those factors affect  
12 micro-businesses differently. Given the importance of business support for OMEs'  
13 development, the gap reported by these studies is not only an important micro-business  
14 growth constraint but also a challenge for growth-oriented government policy which has so  
15 far not been translated into suitable business support. Therefore, although not the focus of the  
16 paper, the business environment itself can be growth-constraining and create additional  
17 challenges for micro-businesses.  
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## 24 25 **Conclusions**

26  
27 This systematic literature review identifies the specific characteristics of micro-businesses, as  
28 distinct from other SMEs, and emphasises the importance of focusing policy development for  
29 micro-businesses on the basis of these specific characteristics. The analysis reveals that  
30 research on SME growth focuses on four main areas: business capabilities and practices,  
31 OME's characteristics, OME's growth ambition, and the business environment. However,  
32 micro-businesses distinguish themselves from larger SMEs in all four areas.  
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37 More specifically, micro-businesses are OME centric, as growth often depends entirely on  
38 OME's efforts, ambition, human capital and skills. The review highlights a lack of growth  
39 ambition and OMEs' tendency to be growth-averse, placing greater value on non-economic  
40 objectives. They are also constrained by underdeveloped capabilities in key business areas  
41 such as networking, marketing, business planning, and HR, which limits their ability to build  
42 more advanced capabilities which could stimulate and support growth. Time constraints  
43 impede OMEs to engage more actively in these key business areas, hence why growth  
44 requires the transition from day-to-day business operations towards business management.  
45 Nevertheless, these issues also echo absent or underdeveloped OME capabilities. Managerial  
46 and business skills, along with better education, facilitate the engagement in more advanced  
47 growth-driving business practices, emphasising management's role in driving growth.  
48 Moreover, besides the influence of various external factors, the institutional environment can  
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3 constrain growth by failing to create conditions supportive of growth-oriented businesses, a  
4 major issue being the adequacy of business support provision.  
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6 Therefore, in the case of micro-businesses, growth can be stimulated by supporting the  
7 development of key capabilities and the implementation of key practices, which may  
8 highlight growth opportunities and stimulate ambition, whereas in larger SMEs it is an issue  
9 of growth opportunities and scale up. In the case of OMEs with more experience, it is likely  
10 that experience has shaped their characteristics differently, influencing how they perceive and  
11 interpret growth challenges and opportunities. Finally, regarding the business environment,  
12 the issue is not about the factors that are different, rather about the way in which those factors  
13 affect micro-businesses differently. These key differences highlight the complexity involved  
14 in understanding micro-business growth.  
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#### 24 *Future research*

25 Highlighting how micro-businesses are distinct from larger SMEs, the paper provides  
26 directions for future research. The heterogeneous nature of micro-businesses makes it  
27 difficult to generalise broad SME findings to micro-businesses, and therefore more research  
28 on micro-businesses is needed. Future research may focus, for example, on the factors  
29 shaping motivation and ambition. In keeping with Shepherd's (2015) call for exploring  
30 entrepreneurial cognition, this could be extended to incorporate a focus on micro-business  
31 growth. Such an approach will provide a more in-depth understanding of what determines  
32 growth orientation and ambition. In addition, there is a need to understand the role of  
33 business expertise and skills in supporting micro-business growth, particularly the impact of  
34 managerial skills on facilitating the growth process. There is very limited evidence on the  
35 influence of managerial, marketing, financial, sales and HR skills, and of business expertise  
36 accumulated through experience or education, in micro-businesses. Therefore, future research  
37 may explore how these capabilities are accumulated in micro-businesses as well as their  
38 impact on OMEs' growth ambition and subsequent business performance.  
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49 Further research may also investigate the level and appropriateness of certain business  
50 practices in micro-businesses. The reliance on OMEs to perform the majority of business  
51 functions restricts their ability to engage in time-consuming or unnecessarily advanced  
52 business practices. However, a lack of business expertise and skills is equally constraining.  
53 Thus future research may examine whether OMEs' level of business expertise and skills  
54 influences the engagement in key business practices or whether it is unviable for micro-  
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3 businesses to engage in advanced business practices, thereby addressing barriers to scaling up  
4 micro-businesses.  
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9 *Policy implications*

10 The systematic literature review also generates a number of questions for policy in how best  
11 to respond to growth challenges faced by micro-businesses. There is an argument to be made  
12 that policy needs to consider micro-businesses as distinct from larger SMEs. There is a need  
13 for flexible and tailored business support programmes to assist micro-business OMEs in  
14 developing core business skills. This in turn will enable them to build business capabilities  
15 and engage in growth-driving business practices, thereby increasing micro-businesses'  
16 productivity and competitiveness. Such programmes should target the development of  
17 managerial and business skills essential in accumulating expertise in managing growth.  
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24 Programmes that seek to encourage networking and knowledge sharing between larger  
25 SMEs and micro-businesses are also key to promoting growth through business-to-business  
26 collaboration. One way in which micro-business growth can be stimulated is through supply  
27 chain-led entrepreneurial growth programmes whereby micro-businesses are linked with  
28 larger SMEs to create strong supply chain networks. The knowledge and support available  
29 through such networks and the growth of larger SMEs in the network would ultimately  
30 prompt the growth of micro-businesses.  
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35 To overcome perceived financial barriers, there is a need to stimulate micro-business  
36 financing and provide finance options tailored to the needs of micro-businesses and  
37 accessible when growth opportunities arise. Simplifying employment regulation to overcome  
38 the perceived difficulties of recruiting employees and improving incentives to up-skill staff  
39 through adequate training programmes will overcome skills mismatches and shortages,  
40 thereby improving the competitiveness of micro-businesses. Therefore, a focus on micro-  
41 business growth and scale up may generate a broader positive impact on the economy  
42 through the creation of a stronger business base.  
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49 Seeking to understand micro-businesses as a distinct category of SMEs and to stimulate  
50 further questions for research, this systematic review has provided a foundation for further  
51 empirical and conceptual academic enquiry into micro-business growth. In doing so, it  
52 highlighted future research avenues and generated a number policy implications regarding  
53 how best to support the scale up of micro-businesses.  
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Journal of Small Business and Enterprise Development

## Appendix 1 – Keywords and search strings

Keywords	Search strings
barrier	micro business OR micro enterprise AND grow*
growth	micro business OR micro enterprise AND barrier*
micro business	micro business OR micro enterprise AND owner AND manager*
entrepreneurship	“business support” OR “business development”
enterprise	small business OR SME OR small and medium enterprise AND grow*
owner	small business OR SME OR small and medium enterprise AND barrier*
manager	entrepren* AND grow*
business support	entrepren* AND barrier*
business development	
small and medium enterprise	
small business	
SME	



## Appendix 2 – Inclusion and exclusion criteria

### Inclusion criteria

No.	Criteria	Reasons for inclusion
1	Published journal papers (peer-reviewed)	Focus on high quality published work.
2	All sectors and industries	Capture evidence across all sectors and industries.
3	Empirical and conceptual articles	Include seminal papers that develop entrepreneurship research both empirically and conceptually.
4	Qualitative and quantitative empirical studies	Capture empirical evidence collected through different methodological approaches.
5	All SMEs	Enable a comparison of growth constraints between SMEs of different sizes.

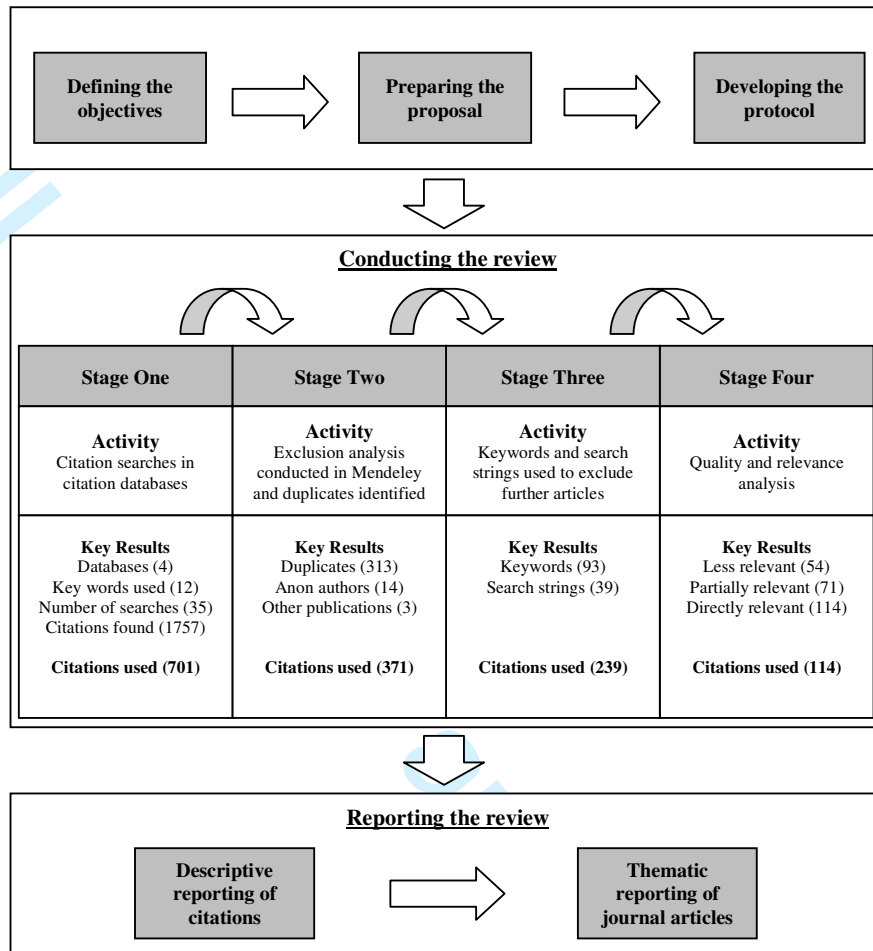
### Exclusion criteria

No.	Criteria	Reasons for exclusion
1	Pre-1980	Research into entrepreneurship and SMEs attracted academic interest and grew substantially from the 1980s onwards.
2	Gender related studies	The investigation does not consider gender either a growth driver or constraint.
3	Foreign language	Exclude articles not written in English.

### Appendix 3 - Journal titles for acronyms in Table 1

Acronym	Journal title	Number of articles in review
Bus Horiz	Business Horizons	1
Env Plan C	Environment and Planning C: Government and Policy	1
ERD	Entrepreneurship & Regional Development: An International Journal	3
ET	Education + Training	2
ET&P	Entrepreneurship Theory & Practice	2
Growth Change	Growth and Change	1
IBR	International Business Review	2
IJEBR	International Journal of Entrepreneurial Behaviour & Research	4
ISBJ	International Small Business Journal	6
JBF	Journal of Business and Finance	1
JBV	Journal of Business Venturing	8
JEIT	Journal of European Industrial Training	3
JRME	Journal of Research in Marketing and Entrepreneurship	1
JSBED	Journal of Small Business and Enterprise Development	8
JSBM	Journal of Small Business Management	1
LE	Local Economy	1
LRP	Long Range Planning	1
MIP	Marketing Intelligence & Planning	2
Reg Stud	Regional Studies	1
SBE	Small Business Economics	9
TLO	The Learning Organization	1

Figure 1. Summary of the systematic review process and results



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Enterprise Development

**Table 1.** Articles included in the review and key findings

Year	Author(s)	Journal <sup>d</sup>	Approach	Focus <sup>c</sup>	Key findings	Themes covered <sup>b</sup>
1987	Scott and Bruce	LRP	Conceptual	SB	Each growth stage (i.e. inception survival, growth, expansion, maturity) is preceded by a crisis of internal or external cause. A proactive behaviour diminishes any potential adverse effects of the crises.	2, 4
1989	Cooper, Woo and Dunkelberg	JBV	Empirical	MSE	Better education, managerial experience and previous job experience in a similar field are positively associated with starting larger businesses.	2
1989	Davidsson	JBV	Empirical	MSE	OMEs are more concerned about the loss of independence, managerial control, and employee well-being, which generate negative attitudes towards growth. Growth motivation diminishes as the business grows, growth deterrents becoming stronger than incentives once the business reaches 5-9 employees.	3
1991	Davidsson	JBV	Empirical	MSE	Subjective factors (i.e. perceptions of ability, need and opportunity) mediate the influence of objective factors on growth motivation. The need to grow has the most significant influence among both objective and subjective factors. Small firms stop growing due to 'satiation'.	3
1995	Donckels and Lambrecht	SBE	Empirical	MSME	The positive relationship between networking and growth is stronger where networks extend outside a firm's region, nationally and internationally.	1
1995	Smallbone, Leigh and North	IJEER	Empirical	MSME	High-growth SMEs show a higher propensity to be more innovative and to introduce new technology and have a greater awareness of their competitive advantage, being better able to recognise and react to market opportunities, their investment strategies and production management being customer-driven.	1
1996	Cressy	SBE	Empirical	MB (SU)	Pre-start-up income is positively associated with the start-up growth rate. Mature OMEs are more likely to run businesses that survive for longer.	2
1996	Hogarth-Scott, Watson and Wilson	MIP	Empirical	MB	Micro-businesses OMEs see formal advertising as ineffective, relying on word-of-mouth communications. Due to the perceived risks associated with growth, they tend to adopt an incremental approach. There is often insufficient work available for an extra employee, which limits the growth potential of micro-businesses.	1, 3
1997	Bryson, Keeble and Wood	SBE	Empirical	MSME	Higher professional and educational qualifications play a key role in the establishment and growth of small business service firms. OMEs rate the lack of managerial, marketing and sales skills as top growth constraints.	2
1997	Roper	SBE	Empirical	SME	Networking is used extensively by UK and Irish small businesses to drive and accelerate product innovation, which is positively related to both productivity and employment growth.	1

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5	1998	Baines and Wheelock	ISBJ	Empirical	MB	Networking with weak ties is associated with a positive growth attitude. Only a minority of the micro-businesses engage in	1, 3	
6						extensive /moderate networking, with a sparse use of formal and institutional networks. Only 25% of micro-business OMEs		
7						were identified as growth-oriented.		
8	1998	Deakins and Freel	TLO	Empirical	SME	It is essential for OMEs to develop the ability to learn from experience, "one of the key abilities in entrepreneurship"	2	
9						(p.151).		
10	1998	Lean	JEIT	Empirical	MB	There is a mismatch between the governmental support provision and OMEs' needs both at start-up and post-start-up,	4	
11						support failing to address key development needs such as the training and development of existing staff and the personal		
12						development OMEs.		
13	1998	Moran	ISBJ	Empirical	MSE	Strong leadership and the ability to thrive under pressure are distinguishing skills of high growth-oriented OMEs who also	2	
14						adopt a 'learning-by-doing' philosophy.		
15	1998	Watson, Hogarth-Scott and Wilson	IJEER	Empirical	MB	OMEs of successful micro-businesses rate managerial skills as more important compared to OMEs of failing businesses,	2	
16						and require more support in leadership, motivation, and staff training and recruitment. OMEs with a minimum of		
17						apprenticeship experience are more likely to keep their businesses alive.		
18	1999	Johnson, Conway and Kattuman	SBE	Empirical	MSE	Demand shocks can generate short-run constraints which determine whether micro-businesses remain very small or grow	2, 4	
19						significantly, some being better off downsizing. OME's human capital (i.e. education), coupled with that of the staff, can		
20						support the growth process by overcoming short-run constraints.		
21	1999	Perren	JSBED	Empirical	MB	Growth motivation, expertise in managing growth, resource access and demand are the four main growth drivers that	2, 3, 4	
22						mediate the influence of numerous other independent factors on micro-business growth. The desire to succeed is not always		
23						congruent with business growth.		
24	1999	Rosa and Scott (a)	ERD	Empirical	MSME	A significant proportion of high-growth OMEs and directors have founded or held directorships in more than one business.	2	
25	1999	Rosa and Scott (b)	Env Plan C	Empirical	MSE	OMEs of new high-growth firms have started more than one business. High-growth firms grow in 'embryonic business	2	
26						clusters'.		
27	1999	Smith	SBE	Empirical	MB	A greater awareness of the business environment, achieved through a strengths, weaknesses, opportunities and threats	1, 4	
28						analysis, and the gathering of trade intelligence lead to better performance in young micro-firms. The use of IT is strongly		
29						and positively associated with firm performance. The number of accessible finance sources does not predict performance.		
30	2000	Carson and Gilmore	IBR	Empirical	SME	In growth SMEs experiential learning accumulates through knowledge, experience, communication, and judgement.	2	
31	2000	Chaston	JRME	Empirical	SB	Networking improves organisational learning, enhancing flexibility, proactiveness, responsiveness to market changes, and	1	
32						increasing competence. Entrepreneurial/network oriented firms which market their products through networks outperform		
33						other firms.		
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5	2000	Chell and Baines	ERD	Empirical	MB	Micro-businesses OMEs actively engaging in networking with weak ties (i.e. people outside one's close social circle) experience increased business performance, non-active networkers experiencing business plateauing and decline. Only 22% of micro-business OMEs were identified as growth-oriented.	1, 3
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9	2000	Fielden, Davidson and Makin	JSBED	Empirical	MSE	Micro-business OMEs enjoy non-economic aspects such as being one's boss, increased independence and flexibility, and job satisfaction. Financial barriers are the greatest both at pre-start-up and start-up stages, criticism being directed towards the government, for providing inaccessible, inadequate or inflexible grants, and towards financial institutions for being inflexible and reluctant to provide adequate capital.  Taking on employees is seen as undesirable by micro-businesses due to perceived difficulties of recruitment and training, namely finding suitable candidates and the time and resources required to train them individually or through costly external training providers. Forty-one percent of micro-businesses prefer not to expand due to employee recruitment difficulties.  External advice is seen as "useful, but too general in nature", gaps being reported in more focused accounting and tax advice, and practical advice (p.302).	1, 3, 4
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19	2000	Greenbank (a)	MIP	Empirical	MB	OMEs of UK micro-businesses do not actively engage in networking and formal marketing, relying mainly on "informally absorbed information" and on knowledge accumulated from previous experience (p.210). Formal marketing practices may not be suitable to micro-businesses at all times and stages of development.  The majority of OMEs see no need to plan, only 20% preparing a business plan at start-up, mainly to fulfil the requirements of banks and support agencies. Continued planning was found in only 30% of the micro-businesses that planned at start-up but these were managing above average sized micro-businesses in terms of number of employees and turnover.  Micro-businesses do not seek external advice at pre-start-up or start-up and, even when received, it is not considered useful.	1, 4
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28	2000	Greenbank (b)	JEIT	Empirical	MB	There is a lack of fit between available training and development programmes and the needs of micro-business OMEs, rooted in support providers' assumption that micro-businesses are similar to larger SMEs. There is a need for programmes that are flexible and tailored to the needs of micro-businesses.	4
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31	2000	Mole	JSBED	Empirical	MSME	Small business advisers tend to offer advice for survival rather than suggesting riskier growth strategies. Most businesses only seek advice when they face difficulties, and therefore survival advice may be the more viable solution.	4
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34	2000	O'Dwyer and Ryan	JEIT	Empirical	MB	Just over a half of OMEs had a business plan at start-up, attitudes towards business planning varying considerably. Survey respondents mentioned benefits such as objective setting and strategic direction while focus group respondents referred to it as a "cosmetic document used to obtain finance" (p.350). Available training and development programmes are considered more appropriate for larger businesses; mentors are not considered appropriate support and are not consulted due to perceived risks (e.g. breaches of confidentiality).	1, 4
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5	2000	Perren	JSBED	Empirical	MB	Growth motivation, expertise in managing growth, resource access and demand are the four main growth drivers that mediate the influence of numerous other independent factors on micro-business growth.	2, 4
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8	2000	Robson and Bennett	SBE	Empirical	MSME	Collaborations with suppliers at national and international levels are positively associated with both employment and turnover growth. There is no relationship between support from government-backed agencies and firm performance. Valuable support comes from private sector sources.	1, 4
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11	2001	Greenbank	IJEER	Empirical	MB	OMEs with growth intentions are aiming for revenue rather than employment growth, which is limited by their desired income level. Growth is often perceived negatively due to potential loss of control and bankruptcy risk.	3
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14	2002	Gray	JSBED	Empirical	MSME	Unveils a size-related effect: smaller firms, particularly micro-businesses, tend to be growth averse or prefer the status quo whereas larger firms are more growth-oriented, high change adopters being more likely to have growth intentions and to increase their sales performance. Independence is the main motivational factor, firm objectives often being linked to family objectives and lifestyle preferences, which are associated with growth aversion. OME's age is negatively related to growth intentions.	2, 3
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20	2003	LeBrasseur, Zanibbi and Zinger	ISBJ	Empirical	MB (SU)	Business planning was present in 84% of the firms and there is a positive relationship between such pre-start-up activities and OME's growth intentions and actual expansion achieved. OMEs must avoid becoming "immersed in day-to-day operating issues" and shift their efforts towards managing the business (p.325).	1, 2
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23	2003	Morrison, Breen and Ali	JSBM	Empirical	MSE	Growth-oriented businesses attain a balance between OMEs' intention, business abilities and the opportunity environment, the three factors being inherently interdependent. Growth requires OMEs to perceive the business environment positively.	1, 3, 4
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26	2003	Poutziouris	IJEER	Empirical	MSME	Although the great majority of micro and small business OMEs aimed to increased profitability only 25% were growth-oriented, just over three percent actually wanting to increase the size of their business. Non-economic objectives (e.g. maintaining independence, increased leisure time, better standard of living) remain prevalent. Growth is associated with higher risk-propensity.	3
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30	2003	Robertson, Collins, Medeira and Slater	ET	Empirical	AE	Financial barriers are the top barrier to start-up, including the lack of capital and fears of increased financial risk.	4
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33	2003	Wiklund, Davisson and Delmar	ET&P	Empirical	MSE	OMEs are more concerned about employee well-being, independence, control, and concerns about crises survival than growth.	3
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35	2004	Matlay	JSBED	Empirical	MSME	Confirms a size-related effect: OMEs' awareness of, interest in, and use of these programmes is positively associated with firm size, some business support programmes excluding micro-businesses as a target group completely. Available training and support programmes do suit the specific needs of micro-businesses.	4
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39	2004	Walker and Brown	ISBJ	Empirical	MSE	Non-economic objectives such as personal satisfaction, pride, and a flexible lifestyle are prevalent.	3
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5	2005	Barringer, Jones and Neubaum	JBV	Empirical	SME	Education and prior related industry experience are top characteristics of OMEs of high-growth firms. Employee training programmes and employee development being critical to maintaining growth.	2
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7	2005	Devins, Gold, Johnson and Holden	ET	Conceptual	MB	Argue for the need of programmes that are flexible and tailored to the needs of micro-businesses.	4
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10	2006	Cassar	JBV	Empirical	NE	Managerial experience is positively associated with the aim to increase future sales and firm size. Better educated OMEs expect lower financial gains. A high household income positively influences intentions of firm growth.	2
11							
12	2006	Foreman-Peck, Makepeace and Morgan	Reg Stud	Empirical	SME	Marketing plans are associated with both growth and profitability. The belief that innovation is important is in itself a growth driver. The use of computerised accounts is strongly associated with high growth. OME's age is negatively related to growth intentions.	1, 2
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16	2006	Richbell, Watts and Wardle	ISBJ	Empirical	MSE	Around half of small business OMEs with had a business plan, and business plan possession and OMEs' growth orientation are positively associated. Prior work experience and a higher level of education (i.e. beyond the minimum school leaving age) are associated with business planning.	1, 2
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20	2007	Cassar	ERD	Empirical	NE	Independence is the most important career reason but it is negatively associated with both higher growth intention and preference. Financial success is among the top venture creation reasons, being more important for high risk-return OMEs, and is positively associated with all measures of growth intention and preference (i.e. sales, employment and venture size).	3
21							
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23	2007	Reijonen and Komppula	JSBED	Empirical	MB	Success is regarded in non-financial terms such as product or service quality and customer and work satisfaction, the aim being to make a living rather than actively pursuing growth.	3
24							
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26	2007	Vos, Yeh, Carter and Tagg	JBF	Empirical	MSME	High-growth oriented SMEs are more likely to use multiple sources of finance.	4
27	2009	Brush, Ceru and Blackburn	Bus Horiz	Empirical	MSME	Management, marketing, and finance play a key role in the growth process. Due to limited access to adequate external finance, SMEs often resort to pursuing organic growth.	1, 2, 4
28							
29	2009	Huggins and Johnston	Growth Change	Empirical	SME	The positive relationship between networking and growth is stronger where networks extend outside a firm's region, nationally and internationally. Networking facilitates innovation, influencing the extent of innovation activities.	1
30							
31							
32	2009	Wiklund, Patzelt and Shepherd	SBE	Empirical	SME	The impact of resource availability on growth is mediated by entrepreneurial orientation. Dynamism, hostility, and demand can constrain growth.	3, 4
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34	2011	Barbero, Casillas and Feldman	ISBJ	Empirical	MSME	Marketing and financial capabilities facilitate high growth by enabling market expansion and innovation.	2
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37	2011	Williams and Williams	LE	Empirical	AE	Prospective entrepreneurs fear that they will be unable to obtain finance and perceive finance as inaccessible, perceptions having a more significant influence on start-up decisions and growth ambitions.	4
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5	2012	Barnes, Clear, Dyerson, Harindranath, Harris and Rae	JSBED	Empirical	MB	The use of Web 2.0 improves internal operational efficiency, increases operational capabilities, and results in better external communications.	1
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7							
8	2012	Mueller, Volery and Siemens	ET&P	Empirical	MSME	HR and employee relations are a major focus of growth entrepreneurs. Growth requires a transition from the involvement in the day-to-day business operations to managing growth and the organisation.	1, 2
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11	2013	Coad, Frankish, Roberts and Storey	JBV	Empirical	SU	Education has a limited role in explaining start-up growth. Resources increase survival chances and subsequent growth, growth itself being associated with higher survival chances. Growth is not a 'random walk'.	2, 4
12							
13	2013	Douglas	JBV	Empirical	AE	A venture's subsequent growth is shaped by initial start-up intentions. Independence-orientated intentions are negatively associated with risk tolerance and entrepreneurial self-efficacy but positively associated with attitude to work enjoyment and autonomy. Growth-oriented intentions are positively associated with entrepreneurial self-efficacy, the author alluding to the importance of financial success.	3
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18	2013	Hulbert, Gilmore and Carson	IBR	Empirical	SME	The accumulated experiential knowledge is essential in identifying growth opportunities.	2
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20	2014	Lee	SBE	Empirical	SME	Recruitment and skill shortages are reported as barriers to growth by high-growth SMEs. The state of the economy and competition are reported as constraints by potential high-growth SMEs. Both high-growth and potential high-growth SMEs face significant difficulties with obtaining finance and have cash flow problems but are less likely to perceive regulation and taxation as barriers.	1, 4
21							
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24	2014	Lofstrom, Bates and Parker	JBV	Empirical	AE	Higher pre-start-up levels of wealth and advanced education (e.g. college education) are associated with entry in high-barrier industries (i.e. higher risk industries with demanding entry requirements such as high fixed capital and technical knowledge).	2
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<sup>a</sup> Full journal titles for acronyms are provided in Appendix 3.

<sup>b</sup> 1 = Growth and business capabilities and practices; 2 = Growth and OME's characteristics; 3 = Growth and OME's ambition; 4 = Growth and the business environment.

<sup>c</sup> MB = Micro-businesses; MSE = Micro and Small Enterprises; SB = Small businesses; SME = Small and Medium Enterprises; MSME = Micro, Small and Medium Enterprises; SU = Start-Up; NA = Nascent Entrepreneurs; AE = Aspirant Entrepreneurs