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Calibrating Growth in the Ambitious SME: Growth Mapping as a New Direction in Business Model Visualisation

Dr Pat Daly, & Dr James S Walsh

Abstract

Research relating to management assumptions has largely being confined to mature industries where they are readily recognisable as influential business variables in finance, economics, organisational and business development. These studies have primarily considered senior managerial assumptions as part of the cognitive architecture of the firm, driving many developmental and growth processes of the organisation. This perspective of assumptions acting as intellectual assets of the organisation supporting the firm and its development is however largely absent from entrepreneurial and small business research. This is somewhat surprising given that research on the small firm suggests that entrepreneurs tend to operate on a high assumption to knowledge ratio. This paper, which introduces assumptive-led ‘growth maps’ attempts to address this apparent deficiency and considers how entrepreneurial assumptions impact upon the planning and development of ambitious, owner-managed, indigenous, Irish small and medium enterprises (SMEs).

Keywords: Assumptions, Growth-Maps, Business Models, SMEs, Owner-Managers

Introduction

In many other countries the need to grow and support the creation of dynamic, ambitious, and high-performance indigenous firms is a constant feature of industrial development (Bridge, O’Neill and Cromie, 2003). Assisting their growth is regarded as crucial to economic regeneration and creates a compelling case for supporting these firms - which is why enterprise agencies are tasked to ensure a constant supply of such firms for the ‘enterprise’ market, especially in Ireland (O’Gorman and Cooney, 2007; GEM 2011). To enable the supply of effective and robust new firms, the ability to validate and appraise the entrepreneurial idea or proposal becomes a critical business episode for the entrepreneur and the enterprise advisor/investor. This validation has traditionally revolved around the business plan process (Delmar and Shane, 2003) and in this way the business plan has acted as a proxy for entrepreneurial thinking. Recent research has begun to consider the entrepreneurial business model as acting as a proxy for the business plan (Brown and Proudlove, 2009; Osterwalder & Pigneur, et al, 2009).

However, the fact that entrepreneurial thinking tends to operate on a high ‘assumption to knowledge’ ratio (MacGrath and McMillan, 2009) has not migrated to small business planning and validation research. This paper argues for this migration. It presents this case

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1 Senior management assumptions can be understood as managerial beliefs, principles, and values in the entrepreneurial and business process. In this paper the senior management assumption takes its definition from common usage as defined in the Oxford English Dictionary. Assumption: “A thing that is accepted as true or as certain to happen without proof” OED, 1998:102)
by introducing the concept of ‘Growth Maps’ - a new mapping/visualisation technology based on assumptions and the extension/integration of Drucker’s Theory of the Business (1994) and Osterwalder’s Business Model Canvas (2009). The paper proceeds to present an overview of assumptions in business/management and enterprise planning literatures, it reintroduces Drucker’s ‘Theory of the Business’, and continues to outline recent field research which demonstrates how assumptive-based ‘Growth Maps’ successfully challenged entrepreneurial thinking leading to enriched organisation practices and outcomes. Finally, implications for the incorporation of growth maps in the business advisory, planning and investment contexts are outlined and discussed.

**Business and Management Assumptions**

The most common treatment of assumptions in business management is found in the study of the behavioural and cognitive factors that influence management and is especially evident in motivation studies (McGregor, 1960) interpersonal dynamics/teamwork (Arygris and Schon, 1978; Tuckman, 1984), organisational culture (Schein, 1990; Pettigrew 1979), organisation learning/learning organisations (Senge, 1990; Egan et al, 2004; Murray and Donegan, 2003), change management (Cooperrider, et al, 2008), commitment (Kegan & Lehay 2001), strategy (Omahe, 1982; Kaplan and Norton 2000), and business development (Magretta, 2002) creating a psychological dynamic for assumptions. This dynamic has tended to focus on the individual and collective mindset as part of the firm’s ‘memory bank’ and the impact that this has upon the organisation’s development and its management practices. This is clearly evident across cultural, change management, organisational learning, and strategy studies. Organisational culture research considered assumptions as part of the organisation architecture (Pettigrew, 1979; Deal and Kennedy, 1982; Schein, 1990; Wilson, 2000) embedded so deeply with the framework of the firm that they were central to growth and development.

These studies also acknowledged assumptions as drivers of shared feelings, beliefs, and values that gave rise to symbolism and aspects of group behaviour. Schein (1996), and others suggested in order to drive the organisation forward we must dig below the organisation’s surface, beyond the “visible artefacts” and uncover the basic underlying assumptions at the core of an organisation’s culture. Only then can the organisation truly engage with itself and challenge its performance. Change management research engaged cultural assumptions in the change process (Fernandez & Rainey, 2006) and a core finding of the literature was that organisation change began with cognitive change that lead to behavioural change (Well, 2000). In order to accomplish this, the identification and influencing of the individual/organisation assumptions had to be managed and enabled effectively. Thus, surfacing and addressing the assumptive/cultural dynamic was a necessary and vital step in the change management process (Beer and Nohria, 2000; Tsoukas and Chia, 2002; Cooperrider and Whitney, 2005).

These studies argued change had to be influenced and supported by instruction which lead researchers to consider how organisations learned. Subsequent studies have expanded the change research into organisation development as organisation learning/learning organisations (Arygris & Schon 1978; Senge et al 1999; Jensen, 2005), learning culture (Egan et al, 2004; Murray and Donegan, 2003), and systems thinking (Mitroff, 1988). The potential of assumptions to influence the cognitive and behaviour changes evident in the change literature
also became a feature of organisational learning/learning organisation studies (Senge, 1990; Sinkula, 1994). The key to the learning organisation was the assumptive-based visioning and mental modelling in the process which supported the organisation system’s ability to learn and change. Organisation learning, which suggested a systemic role for assumptions, was a theme embraced by business planners and strategists who seemed to appreciate the possibilities suggested by the learning and organisation development studies.

Industrial planners such as Wack (1985), Mason and Mitroff, (1981), Mitroff (1988), Gilad (1994) and strategists such as Ohmae (1982), Whittington, (1993), Johnson and Scholes, (1993), Christensen (1997) Kaplan and Norton, (2004) all acknowledged and built upon assumptions in their work. Hammer and Champy (1993) used assumptions in this way to drive their hypothesis of business re-engineering and discontinuous thinking that became a change management model of choice for so many organisations and managers in the early nineties. Re-engineering championed ‘discontinuous thinking’ a theme recurring in management literature as ‘abandonment’ (Drucker 1994), and ‘creative destruction’ (Abrahamson 2004) that called for the questioning of all business processes beginning with assumptions in order to drive development and competition. Hamel and Prahalad (1994) used this concept of abandonment and the challenge of assumptions to reconfigure the paradigm of competition at the heart of the organisation.

These studies regarded assumptions as ‘genetic codes’ of the organisation and the key to unlocking mindsets. The authors contended that assumptions, biases and presuppositions set the managerial frame for the individual and corporation alike and these ‘frames’ gave the context to what the organisation did, how it acted, and how it developed. In doing this, they, like Drucker (2004), set assumptions at the heart of their management challenge.

**Drucker’s Theory of the Business**

Drucker (1994) contended that “Every organisation, whether a business or not, has a theory of the business” (1994:96) that is built upon an assumptive framework which guides and nurtures the organisation’s activities and that can be a powerful catalyst for business sustainability and growth. This concept of the ‘theory of the business’ was based on the architecture of the organisation’s primary business assumptions regarding its market choice/position, its stated mission, and its competency framework that created valid and invalid propositions for the organisation depending on the reality or otherwise of the assumptions. It is clear Drucker sees the ‘Theory of the Business’ as the source of the firm’s primary intellectual capital.

The assumptions about the environment define what an organisation is paid for. The assumptions about core competences define where an organisation must excel, while assumptions about the specific mission define what an organisation considers to be meaningful results; in other words they point to how it visions itself making a difference in the economy and society at large. Drucker made clear that when these base organisation assumptions were acting in harmony with one another they created ‘valid’ theories of business. “Indeed, a valid theory that is clear, consistent, and focused is extraordinarily powerful.”(1994:96). Drucker detailed the specifications of a valid ‘Theory of the Business’: The assumptions about environment, mission, and core competencies must fit reality; they have to fit one another; they must be known and understood throughout the organisation; and the ‘Theory of the Business’ has to be tested constantly.
Valid ‘Theories of the Business’ cannot be taken for granted by the organisation and Drucker warned that a valid ‘Theory of the Business’ lasting for many years can just as easily lead the firm to collapse, thus requiring constant reflection. “Eventually every theory of the business becomes obsolete and then invalid” (Drucker 1994:101). Drucker indicated that ‘Theories of the Business’ that were no longer valid could be identified in four ways: when the organisational goals were met; when rapid growth was experienced; when unexpected success or failure was experienced; and when a competitor experienced unexpected success or failure. Once these conditions emerged Drucker argued the firm’s ‘Theory of the Business’ had become obsolete and management had to take corrective action. The deeper these assumptive combinations acted on the organisation, the more comprehensive the management action needed to be to restore the organisation’s ‘Theory of the Business’.

The most common reaction to an obsolete ‘Theory of the Business’ was organisational defence that eventually led to ‘patching’, or superficial treatment of the real deep rooted problems in the enterprise. Drucker argued that the ultimate protection for the organisation against assumptive obsolescence was preventive care built around systematic monitoring of the ‘Theory of the Business’. This care system had to ‘design-in’ a process of ‘purposeful abandonment’ to force the organisation to continually stress test its working assumptions as a planning and screening programme. It is too late to do this in a crisis. The other preventive cure Drucker talked about was to understand what was going on with the organisation’s ‘non customers’- as it is in this area that fundamental signs of change take place, not normally with the organisation’s current customers. Observing and analysing non customers was as important as researching one’s own customers as they normally represented the greater share of the market and more importantly where future customers/trends would likely emerge from. The organisation therefore had to consider balancing existing customer and ‘non customer’ needs at the same time. The outcomes of conducting diagnosis and preventive care around the firm’s ‘Theory of the Business’ is to ensure that it remains fit for purpose and that recalibration is an easier proposition than a major overhaul.

Once testing and care was built in to the system, redefining the firm’s ‘Theory of the Business’ would happen systematically, naturally and frequently as part of the organisation’s defence and growth routines. Drucker (1994) argued that traditional growth planning alone was not enough. Growth needs to be nested in a clear sense of mission and, in Drucker’s terms, a viable and compelling “theory” (an explanatory framework) of the firm based on its assumptions. When viewed from this ‘new’ perspective the ‘Theory of the Business’ allows any organisation to recognise and engage with the assumptions that underpin the business. The ability to do this, while also managing the existing enterprise and the existing assumptions lies at the heart of Drucker’s model and theory. However, despite the arguments put forward by Drucker (1994) and others regarding the major impact assumptions can make across the organisation they appear not to have made a corresponding breakthrough into small business development research. However, recent research regarding entrepreneurial business modelling is breaking new ground.
Entrepreneurial Business Planning and Modelling

To enable the supply of effective and robust new firms and to grow the existing stock the ability to validate and appraise the entrepreneurial idea or growth proposal becomes a critical business exercise for the entrepreneur and enterprise advisor. This validation has traditionally revolved around the business plan process (Woods and Joyce, 2003; Delmar and Shane, 2003), given that the business plan has been identified as a factor in business success (Kuratko and Hodgetts, 2004; Burns & Dewhurst, 1996) as beneficial to better performance (Woods and Joyce 2003), as an aid to secure funding (Mason & Stark, 2004) as required by development agencies (Stutely, 2002) and as a strategy planning document to guide the business (Deakins and Freale, 2003). In this way the business plan has acted as a proxy for entrepreneurial thinking. However, despite the perceived and positive impact business planning has on firm performance, the level of planning in small businesses continues to be poor and practically non-existent (Woods and Joyce, 2003), which is strange considering the emphasis placed on it (Gruber, 2007; Delmar and Shane, 2003). Related studies argued the lack of formal planning does not represent a planning deficit but stresses an unstructured yet analytical approach to planning that may be optimal for the uncertain environments that SMEs often operate in (Aram and Cowes 1990; Olson and Bokor, 1995).

This suggests entrepreneurs and owner-managers did plan, but not along traditional lines and not through business plans (Gibbon and O’Connor, 2005; Yusuf and Nyomor 2002). In 1959, Edith Penrose put this ‘entrepreneurial image’ at the heart of her theory of the growth of the firm, in which the assumptions made about productive opportunity are seen as the key features in the growth of the firm. The firm in Penrose’s view is a collection of potentially productive resources (human and non-human) under administrative co-ordination for the production of goods and services for sale in the market for a profit (1959: 14). Administrative co-ordination and ‘authoritative communication’ define the boundaries of the ‘Penrosian firm’ (Pitelis, 2002:23).

Recent research has begun to consider this perspective specifically related to the entrepreneurial business model acting as a proxy for the business plan (Brown and Proudlove: 2009). Brown and Proudlove (2009) argue that it is impossible to divorce the business model from the entrepreneur’s mindset and called this condition the entrepreneur’s business model mindset. Related research by Munive-Hernandez et al, (2004) and Zahra, Korri and Jifeng (2005) also associate the entrepreneur’s mindset with the business model. They argue the business model is the entrepreneur’s expression of his/her cognition of the firm’s opportunity. Amit and Zott (2006) refer to this as the ‘overall gestalt’ of the business which is generated from business model thinking.

Zott and Amit (2006) and Ireland et al (2001) argue that the mental model of the entrepreneurs as expressed through the business model is a critical organisation or entrepreneurial episode. Magretta (2002) argues that every viable organisation is built on a sound business model that itself is built on assumptions even if the owners/founders or its managers do not conceive of what they do in those terms. “A business model is a set of assumptions about how an organisation will perform by creating value for all the players on whom it depends, not just its customers.” (Magretta, 2002:44). Tennent and Friend (2005) suggest the business model
helps managers understand complexity and relationship in business because the model can expose the assumptions underpinning this complexity. “The success of any business modelling project depends on getting the various assumptions and relationships (or at least the important ones) as accurate as possible.” (Tennant & Friend, 2005:1).

This notion that the business model is an assumptive-design is appealing given that it is suggested that entrepreneurs/owner-managers operate on a high ratio of assumption to knowledge and that assumptions drive much entrepreneurial thought and action (McGrath and MacMillan, 2009). Although these models acknowledge assumptions they do not explicitly plan them into their designs or frameworks which provided the impetus for the research.

Research Methodology – Integrating the Theory of the Business and the Business Model Canvas

More recently Osterwalder and Pignuer (2004) and Osterwalder/Pignuer et al (2009) presented the business model as a ‘canvas’ of nine key activity blocks that were deemed essential to business success. The canvas also possesses a more intrinsic value as the design of the canvas reflected Drucker’s (1994) more abstract theory of the business and became the basis of our research programme (Daly & Walsh, 2010). The canvas is aligned across internal and external axis that reflects the value proposition, key competencies and customer-facing activities that are remarkably similar to Drucker’s mission, core competencies and environmental (market) assumptions of the ‘Theory of the Business’ (1994) as depicted in Figure 1.
The business model canvas framework is designed around the value proposition of the firm as the model's foundation, around which are built; customer-facing activities (customer relationships, customer segments and channels) that generate revenue streams. These are delivered by the internal processes (key activities, key resources, and key partners) that are managed through the firm's cost structure. In Osterwalder's canvas, the value proposition sits in the middle of the model and rests upon the cost structure and revenue stream supporting the internal processes and external, market facing activities. The Canvas lacked the assumption footprint in common with many models (BSC, Strategy Maps, Business plans) which was the opportunity for the study. What was required was to find a way to incorporate the owner-manager’s growth assumptions. This was done by incorporating assumptions onto the canvas as a 'Diagnostic Map' that would evolve into a growth map once the connections were made between the organisation’s growth practices and the assumptions. Having registered to use the Canvas it was modified to include assumptions as outlined in Figure 2. The Diagnostic & Growth Map Template.
Having integrated the Business Model Canvas and the Theory of the Business into a single diagnostic map, the data collection process took place as an organisation case study and proceeded in four stages. Stage one was dedicated to discussing and mapping the growth intentions/thinking of the entrepreneur/owner-manager in order to identify the current key practices and more importantly the assumptions that underpinned the practices. Stage two tested this map for ‘fit’ against the growth intentions held by the owner-manager. The third stage of the process was the challenging by the participating owner-managers of the mapping in order to arrive at a new and more robust business propositions leading to stage four, the rollout of the firm’s new growth map. The first three stages generated firm specific diagnostic maps which lead to the fourth stage, the growth map.

Eight ambitious, indigenous, Irish, owner-managed SMEs were pre-qualified for the study according to national Enterprise Ireland policy guidelines. The firms participating in the study were all in receipt of, or about to receive financial/other supports to assist in the growth of the organisations. The participating firms represented a cross-section of established, mainly-exporting indigenous SME firms in the media, mobile-technology, software, engineering, food and services sectors. Each firm had been in existence for a least five years and employment ranged in the firms from ten to two hundred employees. The research took place over the summer 2010.
Research Outcomes

The key findings from the research suggest that the entrepreneurs who participated in this study did consider their assumptions when planning the growth of their firms and did operate on a high level of assumption to knowledge which is in line with the extant research (McGrath and Macmillan, 1995). However, it was also clear that the assumptions considered by the participants remained largely implicit and invisible in the growth planning process of the firm. Being largely invisible these assumptions therefore were not available for self-analysis/diagnosis as a critical phase in the development of the organisation (Dewar, 2002). The study also reveals that the owner-managers tended to produce plans mainly to satisfy external advisors or financiers rather than themselves as a development tool (Wickham 2001; Mason and Stark, 2004).

Every participant owner-manager in the study changed at least 40% of their proposed growth plans upwards once the assumption/practice axis was identified and introduced. We concluded that the identification, visualisation, and reflection of the assumptions during a growth planning episode are powerful and enlightening in terms of the entrepreneur’s thinking. This change in thinking is captured in the evolution of the organisation’s diagnostic/growth-maps that demonstrates the powerful effect that the explicit treatment of the growth assumptions as novel variables had on the entrepreneur when imported directly into the process.

This outcome also suggests that gaining a better “fit” between the assumptions and the practices could ensure a better link between the entrepreneur’s/owner-manager’s growth aspiration and business outcomes, thereby helping to support a stronger assumption-knowledge-practice linkage.

Managerial Implications and Discussion

Senior management assumptions have played a dynamic role in business development and their application can be traced across various cognate domains including motivation, culture, organisational change, organisation learning/learning organisations, strategy, and business development studies. Within these business and management domains, assumptions have been employed as constructs in many seminal management models, processes, and techniques by a number of key management theorists and practitioners.

Essentially these studies have recognised senior management assumptions as variables in the day to day practice and development of organisations. However, this perspective is largely absent from the small business research literature where apart from a small number of studies they have remained largely under-researched. This is somewhat surprising given the value placed upon them in the general business and management literatures and their centrality in recent key management frameworks in the organisation development literature as it applies to the mature business.

The fact that small firms and particularly ambitious, owner-managed small firms are so critical to the development of a dynamic market economy and that the owner-manager is considered to operate on a high assumption to knowledge ratio should have ensured assumptions received adequate attention in the small business and entrepreneurship literature, yet this does not appear to be the case.

The capture of the assumptions and especially growth assumptions is most likely to be found within significant growth episodes of the firm and can be expressed by the business plan or
business model. However, according to this paper and the extant research this appears not to be the case which is perplexing given the critical nature of the growth moment.

Among the implications that this finding suggests is the extent to which current business planning practices do not support the firm’s growth intentions. In other words, current business planning practices may not be ‘fit for purpose’ without the active consideration of the assumptions underpinning them. The growth mapping process reported on in this paper enabled the owner-managers to readily identify, test, and engage with their growth assumptions in a novel manner that was having a profound effect on the growth planning practices of the study sample.

This integrated process for the first time allows entrepreneur (or advisor/investor) to challenge their growth plans and businesses using assumptions. The incorporation of the assumptive-led diagnosis and growth maps could be a new step in the validation, evaluation, and assessment of the SME’s business plan. This novel step extends that part of the literature which is focussed on the need to build flexibility and visibility into the business plan process (Osterwalder and Pigneur, 2009).

**Recommendations and Concluding Remarks**

Further opportunities open to extending the study outlined in this paper in the SME context include the inclusion of tourism sector firms, family-run business, high potential start-ups (HPSUs), ethnic small firms and social entrepreneurs. Opportunities also exist to extend the study into mature indigenous firms, multinational subsidiaries, charities, non-profit organisations, government bodies, non-governmental organisations, commercial and semi-state organisations.

Isolating some or all of the eight organisations in the study sample for an in-depth longitudinal study would allow the tracking of the assumptions over time in more detail and consideration of how the assumption-practice axis develops. The research topic would benefit from opportunities to revisit the eight case studies contained in this study at the end of their current growth cycle whereby comparisons and contrast of the actual outcomes against the growth maps contained in the current study could be undertaken.

This study looked at individually-held owner-manager assumptions but team-based assumptions could be considered for further study and a natural extension of this study would be to consider partnership assumptions in professional-service based organisations, including board level assumptions and senior management team assumptions. Drucker’s (1994) ‘Theory of the Business’ framework was not specifically examined in this study and could be considered for further research as a fully developed assumptive-based framework and theoretical model that remains empirically untested.

The possibility that senior managers/owner-managers may have specific assumptive-orientations e.g. financial, engineering, technical, marketing, service design, etc., would be a further extension of the current study. Likewise further research could be conducted into the classification/re-classification of assumptions by role, background, responsibility, function, etc.; an issue which arises within this study was not among the research questions examined here. Finally, given that this study concentrated on owner-managers, a focus on entrepreneurs and nascent entrepreneurs would be a further natural extension of this study.
The applied implication of the research outlined in this paper is that owner-managers may now avail of a method developed directly in their company to ‘road-test’ their assumptions in advance of using them for business development or their incorporation into business plans as applications to government agencies, banks, venture capital firms, private investors, etc. The diagnosis/growth map technology developed in this study presents an integrated process that allows an owner-manager, small business manager or entrepreneur to identify, challenge and change their assumptions before they become ‘taken for granted’, remain intangible or hidden.

The study also suggests that the incorporation of the diagnosis and growth maps could be a new step in the validation, evaluation, and assessment of the SME’s business plan. Whereas most business development frameworks move directly from idea to plan, the ‘growth map’ could be used independently or in conjunction with the business plan to provide a different and more holistic perspective on the proposed growth trajectory.

This novel step extends that part of the literature which is focussed on the need to build flexibility and visibility into the business plan process (Osterwalder and Pigneur, 2009). With continued refinement the diagnosis/growth maps presented in this paper should find new application in the relevant business and management advisory and research communities. It is hoped that the dynamic capabilities of entrepreneurial growth assumptions, may as a result of this study find a new significance in the SME sector, a sector that is so critical to our future economic development and growth.
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