Managerial Learning and Management Development in New Zealand SMEs

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Abstract

Objectives
Managerial capability in New Zealand SMEs has been perceived by policy makers as a factor that has constrained SME growth and development (MED, 2008). The New Zealand Centre for SME Research (NZSMERC) has undertaken a programme of research on managerial capability in New Zealand SMEs. This paper reports findings from the Centre's 2009 annual survey of 1500 SMEs, the BusinessSMEasure. The survey builds on a previous qualitative study and is part of a programme of research which had the following objectives: (1) to understand how SME owner-managers assess their development needs and how they meet these needs; (2) to assess the extent of participation in management development; and (3) to assess the perceived impact of management development on their business.

Prior Work
Previous literature and research evidence with SME owner managers suggests a low take up of formal managerial development programmes and a reliance on incidental and informal managerial learning processes (Massey et al, 2005). NZSMERC's previous qualitative study with 25 SME owner-managers (Battisti, et al, 2009), enabled the development of a conceptual framework and typology to explain orientation to learning and management development. Further, it allowed the identification of variables that affected attitudes to managerial learning and participation in management development. The survey has enabled the testing of some of the propositions from the qualitative stage, such as the importance of sources of managerial learning and the importance of variables that influence owner manager participation in management development.

Approach
The 2009 BusinessSMEasure survey involved 4,165 firms (including 694 firms who responded in the 2007 and 743 firms who responded in 2008 survey). There were 1447 usable responses after excluding 297 ineligible and unreachable firms, which gave an overall response rate of 35%. Building on the previous qualitative study and utilising the adapted theoretical framework, we have applied non-parametric analysis to examine the significance of SME profile characteristics affecting against typologies of learning and management development. Exploratory factor analysis has been undertaken on the range of variables affecting managerial learning and development to reveal clusters of variables driving managerial learning and development. Hypotheses generated by literature and theory have been tested and regression modelling completed.

Results
Survey findings suggest incidental and informal managerial learning processes were predominant modes of owner-manager learning. These types of learning were associated with practice-based and proximal sources of learning, as opposed to more distal sources. Significant variables that affected the type and sources of SME managerial learning were gender, age, learning orientation and a belief of self improvement. There was a strong link between innovation and engagement in management development. Firms with at least one type of innovation activity reported to be more engaged in management development across all three types of learning i.e. incidental, informal and formal. Theoretical developments in the literature are used to provide the basis for testing hypotheses associated with learning orientation and belief in self improvement.

Implications
The research undertaken by the Centre was driven by a policy imperative: to investigate the causes of an underlying trend in New Zealand SMEs which suggested that there was a lack of managerial capability in SMEs and a failure of SMEs to engage with formal management development initiatives. Having revealed the
drivers of managerial development and sources of learning we develop implications for supply side management development programmes and policy interventions.

Value

It is arguable that we are still developing our understanding of the drivers of managerial learning and development in SMEs, which is still recognised as a research gap (Kitching and Blackburn, 2002). The contribution of the paper is threefold: we provide empirical evidence on the drivers of managerial development in SMEs; develop an appropriate framework for understanding participation in management development activities and develop a multivariate regression model to explain the nature of learning orientation and participation in management development and related activities by owner-managers in New Zealand SMEs.

Introduction

This paper examines the nature of management development and the sources of managerial learning in the context of SMEs in New Zealand. We discuss the effects of owner-manager learning orientation and improvability beliefs on their engagement with three categories of learning sources: practice-based, proximal and distal sources. It is arguable that we are still developing our understanding of the drivers of managerial learning and development in SMEs, which is still recognised as a research gap (Kitching and Blackburn, 2002). The contribution of the paper is threefold: (1) we provide empirical evidence on intrinsic drivers of managerial development in SMEs; (2) develop a framework for understanding participation in management development activities and (3) develop a multivariate regression model to explain the nature of learning orientation and participation in management development and related activities by owner-managers in New Zealand SMEs. In New Zealand, there has been a policy imperative to understand the drivers of management development in SMEs. SME management capabilities have been seen by policy makers as weakness of the SME sector and, hence, as a factor that has constrained SME growth and development (MED, 2008). The New Zealand Centre for SME Research (NZSMERC) has undertaken a programme of qualitative and quantitative research on managerial capability in New Zealand SMEs. This paper reports findings from the Centre’s 2009 annual survey of 1500 SMEs, the BusinessSMEasure. The survey builds on a previous qualitative study and is part of a programme of research which has the following research objectives:

R1: to understand how SME owner-managers assess their development needs and how they meet these needs;

R2: to assess the extent of participation in management development;

R3: to assess the perceived impact of management development on their business.

This paper is structured as follows. First, the paper provides contextual background on New Zealand SMEs and their importance for New Zealand’s economy. This is followed by a literature review and development of our research propositions. Next we have included a section outlining the research design and sample profile. The survey results are then presented and this is followed by a discussion of the findings. The paper ends with a concluding section that includes a discussion of the implications of the findings for policy and the limitations of the study.

Features of New Zealand’s Economy and SMEs

Part of the perceived concerns about management development in New Zealand SMEs is caused by an economic conundrum in that New Zealand has features of a high performing developed economy such as: a high rate of entrepreneurial activity, especially when measured by nascent entrepreneurship (Frederick 2005); it is one of the most deregulated economies in the Western World (Treeby & Burtenshaw 2003) and the World Bank’s Doing Business Report for 2009, ranks New Zealand 2nd in the World for ease of doing business (World Bank, 2009) and it has, proportionately, a high business population per capita with over 457,000 registered businesses (MED, 2009). Yet the economy suffers from a relatively low proportion of high performing growth firms (MED, 2009). A perception is that the relative remoteness of New Zealand, coupled
with the lack of competition from ‘world class’ large firms, produces low productivity rates in New Zealand firms and hence under-performing SMEs (New Zealand Treasury, 2008). A recent report for the MED on the managerial practices in medium-sized manufacturing firms in New Zealand pointed to a ‘long tail’ of firms with relatively low levels of managerial competences by global standards (MED, 2010). Crucially, in the manufacturing sector, New Zealand has a firm distribution heavily skewed toward small firms, including an unusually large share of manufacturing firms with fewer than 20 employees (Simmons 2004: 128).

In New Zealand, SMEs (when defined as < 50 employees) account for 99% of the 471,101 firms registered in 2009 (MED 2009). They provide more than 30% of total employment and account for 41% of the economy’s total output (MED 2009). However, with 98 percent of firms employing fewer than 50 employees, 89 percent employing 5 or fewer and 68 percent having no employees, the number of small firms in New Zealand is broadly comparable internationally. Unlike other developed nations, there is no officially accepted definition of SMEs for New Zealand. In this paper, the research has been undertaken with SMEs based on the Centre’s definition of employee size as follows: micro, 0 to 5; small, 6 to 49 and medium, 50 to 99 employees.

Management Development Literature and SMEs

Two broad themes are apparent in the literature on management development in SMEs. First, the nature of learning in SMEs by owner-managers who are perceived to have a strong preference for informal learning processes that address current business problems or issues. Most owner-manager learning is incidental, through learning embedded in everyday management practice. Second, a theme that examines SME owner-managers barriers to participation in structured, off-site learning and development events. There has been an underlying assumption in much of the previous research that higher levels of SME participation in external, structured and formal sources of learning are desirable, hence the bulk of research has examined the latter theme. This paper seeks to examine the nature of the owner-manager’s learning orientation and improvability beliefs and how this affects their engagement with different sources of learning.

Nature of management development and sources of learning in SMEs

Management skills are hailed as critical components of the firm’s resource base that are essential for long-term productivity and organisational success (MED, 2010). The literature suggests that improving the management knowledge and skills of SME owner-managers contributes to their survival and growth (Fuller-Love 2006). As discussed in our context section, New Zealand commentators contend that there is considerable scope for further improvement in management knowledge and skills, especially in the SME sector (MED, 2010; Jayne 2007; Massey et al., 2005).

Although there is no consensus in the definition of management development (MD) in the extant literature, it is commonly viewed as a learning process, (Mumford, 1987), management education (Thomson et al 1997); development of managerial resources (Molander 1986), and a dynamic capability for learning (Espedal 2005). The common theme amongst the definitions is the involvement of a manager in some form of a learning approach designed to improve managerial effectiveness to meet organisational needs. Mumford (1993) classified these approaches into three groups; informal managerial accidental processes (occur within a manager’s natural working environment); integrated managerial opportunistic processes (well-defined, goal-driven, and well-planned approach within the manager’s working environment); and formalised development planned processes (well-planned, goal-driven, and structured learning programs often away from normal work environment). A more common classification is that of the formal and informal approaches to MD (Gray & Mabey 2005).

MD for SMEs is an issue of high importance in many developed and developing countries. Poor managerial competence is linked to small business failure (Walker et al 2007). A general finding in many studies in Australia/New Zealand, Europe and North America on MD in the context of SMEs is the low level of engagement in MD activities by the owner/managers relative to managers in large firms (Battisti et al 2010; Hoque & Bacon 2008; Gray 2004; Morrison 2003; Kitching & Blackburn, 2002). Despite the established link between participation in training programs and improved productivity, small firms have been shown to have
low participation in skills development and training activities (Admiraal & Lockhorst 2009; Walker et al 2007; Battisti et al 2010).

Gibb’s (1997) ‘stakeholder model’ of the nature of learning in SMEs provides a theoretical basis for propositions associated with the sources of management learning. This model suggests that SME owner-managers with an external orientation to sources of learning and engagement with external stakeholders will be more likely to engage in activities that will increase management development and capacity. A recent paper by Dragoni, et al., (2009) gives support to theoretical basis that the degree of learning orientation of managers contributes to the extent of access to external sources of learning and to the prediction of managerial competencies (or capacity).

Barriers to SMEs engagement in management development

The low-uptake of structured management development activities (e.g. formal training) in SMEs has triggered numerous studies to investigate the underlying reasons that prevent or hinder participation in such activities. Previous studies have developed different classifications of these barriers to learning and participation in management development (MD) activities. Temporal & Boydell’s (1981) work identified three major blocks to MD and learning, namely perceptual blocks (i.e. not seeing the need to learn), intellectual blocks (i.e. inadequacy of the previous learning engagement); and environmental (i.e. unsupportive organisational climate for learning). Stuart (1984) proposed that barriers to MD may be classified as intrinsic such as individual attitudes, perceptions and previous experience extrinsic barriers such as the larger conditions of the organisation, the industry and other extraneous variables within and outside an organisation. Mumford’s (1988) work emphasized the emotional and motivational blocks such as the lack of motivation to participate in MD as well as cognitive blocks which arise from negative reactions to previous engagement in a MD activity. These studies suggest that barriers to MD can be generally classified into two: those factors that are intrinsic to an individual as such attitudes, values, capability, and motivation to learn; and those that are extrinsic to an individual such as the nature of MD activities as well as the resources required to engage in such activities.

Constraints in resources are the commonly identified factors that prevent an owner-manager of a small firm to engage in MD activities. The financial cost of participating in MD or training programs is one of these constraints (Mitchell 2007; Walker et al 2007; Fuller-love 2006). MD is not necessarily a regular feature of the operating budget of small firms. Hence allocating resources to MD activities may be conceived as a financial burden which has no immediate financial returns and can severely impact on the small firm’s operating cash flows. Time is another resource which not many owner-managers of small firms have or are able or willing to spend on participating in MD activities (Admiraal & Lockhorst 2009; Mitchell 2007, Webster et al 2004, Walker et al 2007). The often at times hands-on involvement of owner-managers in their businesses makes engagement in formal MD activities an added burden – one that consumes precious time that could have been spent into the business.

Another set of barriers refers to the nature, the relevance and quality of MD programmes that are being promoted or marketed to small firms. Owner-managers of small firms may perceive the MD or training programmes as irrelevant to their business or individual needs (McGuire et al 2007; Mitchell 2007; Walker et al 2007). They may even think that they could not find an MD or training programme that suits their specific needs (Hoque & Bacon, 2006). Others may consider the delivery of an MD or training programme to be inconvenient as it may require significant disruption to their business operations (Walker et al 2007). Likewise, issues associated with the credibility and expertise of the provider or agent are also viewed as barriers to participation in MD (Fuller-Love 2006). The failure of the MD or training provider to demonstrate their potential to address the specific needs of participants will influence the perceptions of owner-managers of small firms to engage in MD in the future.

Other studies have focused their attention on the innate characteristics of owner-managers that may make them highly resistant to engage in MD. Owner-managers of small firms may lack the necessary management skill or aptitude to recognise the importance of MD, hence the lack of perceived need to engage in MD (McGuire et al 2007; Webster et al 2004). Closely associated to that is the lack of formal education which
creates the tendency to undervalue or to inherently dislike MD or training programs especially those that take the form of formal educational programs (Fuller-Love 2006). Others are simply unaware of the MD activities that are available for them (Fuller-Love 2006). Furthermore, heavy engagement in the operational side of the business may diminish an owner-manager’s focus on strategic-level initiatives such as engagement in MD (Walker et al 2007; Webster et al 2004).

Some studies have examined organisational factors that hinder owner-managers to engage in MD. The slow technological uptake of small firms may also explain why their owner-managers tend to delay engagement in MD to develop their skills required to exploit technological innovations within the firm (Webster et al 2004). Likewise, small firms tend to have a shorter life span relative to larger firms. As a result, owner-managers of these small firms tend to focus on activities that have short-term benefits, if not immediate impact on the business (Storey and Westhead 1997; Storey 2004). They may not be able to appreciate the long-term benefits of MD, hence the inherent dislike to engage in such activities.

Similarly, it is also argued that training which is on offer tends to be supply-driven and does not take into account the needs of SMEs. Several commentators contend that market failure is the major barrier to SMEs engaging in development. This argument is summed up in the figure below.

**Figure 1: Market Failure in the Provision of Management Development Programmes for SMEs**

![Market Failure Diagram](source)

SME owner-managers tend to adopt a short-term, reactive approach to human resource development, as opposed to a strategic approach (Kitching & Blackburn, 2002). This means that the owners/managers respond to training requirements as these come up. Therefore their approach tends to be reactive.

These previous studies on the barriers to engagement in MD highlighted those factors that are extrinsic to an individual such as the owner-manager of small firms. There remains a paucity of empirical studies that examine those factors that are ‘internal’ to the owner-manager of small firms.

**Intrinsic Barriers to Management Development**

The importance of understanding intrinsic barriers to MD engagement stems from the view that MD in the SME context is driven not only by organisational and external environmental forces but by the individual needs, disposition and unique characteristics of the owner-managers (Cullen & Turnbull 2005; Mabey 2008). Bishop (2008) suggests that an individual’s participation in MD activities is not a simple and objective matter of weighing up economic costs against economic returns of an MD programme. When making participation decisions, individuals seem to draw upon a range of attitudes, dispositions and orientations. An individual’s attitudes towards participation in training and more broadly, on learning, are wedded to a sense of identity and...
self-concept which ultimately determine their perceptions of their needs with respect to the nature and extent of participation in learning activities (Bishop 2008).

This is especially true in small firms like SMEs where the owner-manager takes the leading role in facilitating learning for the entire firm (Coetzer 2006). Devins et al (2005) argue that success of any MD engagement depends on the strong fit between the supply side of MD interventions and that of the innate characteristics of owner-managers of small firms. Previous studies have noted the potential impact on MD engagement of intrinsic barriers such as managerial attitudes (e.g. negative or positive) (Admiraal & Lockhorst 2009; Antonacopoulou 2000; Lawless et al 2000); lack of self-esteem, insecurity and lack of confidence (Fuller-Love 2006); self-efficacy (i.e. one’s confidence on ability to cope with challenging situations) (Brown & McCracken 2009); and personal values (McGuire et al 2008). McCracken’s exploratory and qualitative study on intrinsic barriers to training participation identified the barriers as perceptual (i.e. perceived value of training), emotional (i.e. feelings of insecurity and fear of failure), motivational (i.e. desire to participate in a training program), and cognitive (i.e. thoughts of likelihood to pursue future training activities based on previous experiences).

Owner-manager attitudes towards learning and development were also seen as a common intrinsic barrier to engagement in capability development (Battisti, et al, 2010). Some managers have developed negative attitudes towards management development because of past management development experiences. Other managers hold the view that they learn incidentally through engagement in everyday work activities and that this informal work-based learning is sufficient. Some commentators argue that many SME owners/managers do not perceive themselves as managers (Fuller-Love, 2006). Consequently, the demand from SME managers for management development is not active and there is a need to stimulate demand.

Figure 2: A Typology of Management Development
Source: Adapted from Mumford and Gold (2004, p. 117)

**Characterising Management Development in SMEs**

The combined programme of qualitative and quantitative research employed a theoretical framework which was used to underpin the approach to management learning and development activities. This built upon the Mumford and Gold’s (2004) typology of management development activities illustrated in Figure 2.

Mumford and Gold’s typology is based upon a two-fold characterisation of manager approaches to learning and task orientation. Desirable orientation which produces high participation in management development activities is considered to be characterised by Type 2, because it involves integrating learning and work; that is, using real managerial activities as vehicle for learning through critical reflection on activities. Undesirable orientation, by contrast, would be characterised by Type X, high concern for tasks and a low concern or concern for learning, which would result in managers that have low participation in management development activities. According to Mumford and Gold (2004), not all managers benefit from engagement in structured MD activities. In fact it is possible for both learning and task performance to be affected negatively by bad experiences. They refer to such experiences, which may put managers off structured MD and that can potentially result in ‘low concern for learning and low concern for task’, as Type X MD. For example,
managers sometimes attend management training courses but on their return to work find it difficult to introduce the new ideas acquired during training. In such situations these managers may conclude that there is no value in learning or even in trying to work more effectively. Thus they begin to lose confidence in engaging in further MD.

To clarify terminology used in the rest of the paper, there is a distinction to be made between categories of management development activities and the nature of sources of learning. These are explained before moving to our research propositions.

**Categories of Management Development**

Engagement with management development activities can be seen to lie with one of three categories:

Formal: where programmes are provided in an arranged format, such as structured activity, which often requires time to be devoted away from the business premises. Example being a structured management development programme.

Learning associated with this category is termed *formal learning*

Informal: this is a category of management development activity which occurs often off premises but is not arranged. For example, participation in peer group networks maybe classified as informal management development activity. It may also occur through specific on site activities such as staff meetings.

Learning associated with this category is termed *informal learning*

Incidental: this is a category of management development activity that occurs from day to day management activities and arises from solving problems from day to day within the business and is a by-product of such activity.

Learning associated with this category is termed *incidental learning*

**Sources of Learning**

In this paper we also refer to sources of learning for owner-managers; there are three sources of learning:

Practice-based, this source includes learning from incidental forms of management development and therefore from day to day activities. However, it may also include informal learning arising from processes and practice within the business.

Proximal: this source refers to untapped and latent potential from existing development activities to solve managerial problems, as there will be within any firm latent potential development from problem solving using previous experience and that of trusted advisers, peers and mentors (Vygotsky, 1978).

Distal learning: refers to learning that is external to the firm, this may be both informal through membership of peer groups and formal through structured and arranged programmes.

**Research propositions**

Despite the attention of policy to management development in SMEs, there has been a lack of research that examines the impact of beliefs in self-improvement and learning orientations of owner-managers of SMEs on their extent of participation in a wide range of MD activities. The current study aims to fill this gap in the literature. Hence our research propositions focus on the learning orientations and improvability beliefs of owner-managers. The discussion of these two areas leads to a number of hypotheses that are associated with each of these propositions.

**P1 Learning orientation.** Consistent with Bishop’s (2008) view on the role of attitudes and orientation on uptake of learning activities, this study argues that the overall stance of owner-managers towards learning and
development (i.e. learning orientation) partly determines whether they seek out learning opportunities by engaging in various types of MD activities. Given a wide array of choices of MD activities available to owner-managers, their propensity to learn exerts significant influence on the extent and nature of learning activities in which they are able and willing to participate. In effect:

**H1:** The stronger the owner-manager’s learning orientation the greater will be their engagement with sources of learning.

And more specifically:

**H2:** Owner-managers with stronger learning orientation are more likely to engage with proximal and distal sources of learning.

Several studies have noted the positive impact of learning orientation on managerial skill development and overall productivity of firms (Van Gils & Zwart 2004; Krauss et al 2005). Coetzer & Perry (2008) suggest that an individual’s learning orientation manifested by one’s interest, motivation, and proactive search for learning opportunities is a key factor influencing engagement in learning. Moreover, Porter & Tansky (1999) suggest that development and delivery of training programs need to be tailored fit to the learning orientation of participants to maximise learning benefits. Small business owners can maximise opportunities for skill development if there is a match between the opportunities and the owner-managers’ learning styles and behaviour (van Gelderen et al 2005).

**H3:** That engagement with management development will be higher where there is a match between owner-managers learning orientation and learning opportunities.

**P2: Belief on self-improvement.** The significance of one’s belief that he/she is capable of improving is well-entrenched in the industrial psychology literature (Dweck 2000). This belief specifically stems from an individual’s self-theory or implicit theory which refers to the belief about whether the personal attributes can be changed or improved. This theory suggests that high levels of belief on-self improvement is associated with decisions to engage in continuous learning and development (Garofano & Salas 2005). Belief on self-improvement affords an individual with awareness of his development needs which makes him more open and receptive to developmental opportunities. Hence, it is hypothesised in this study that:

**H4** – Managers with higher levels of belief on self-improvement are more likely to have higher levels of engagement with sources of learning.

Finally we can add that higher propensity in learning orientation and a belief in self-improvement will produce greater search activity and participation in external networks as a means of gathering information, a source of learning and engagement with distal sources of learning. Gibb’s (1997) ‘stakeholder model’ of SME engagement with external stakeholders and the associated view of the SME as a ‘learning organisation’ provides a theoretical framework for underpinning the following hypothesis.

**H5**-Managers with higher levels of learning orientation and improvability beliefs are more likely to engage with distal sources of learning including external networks and management development programmes.

**Research Methodology**

The analysis in the subsequent sections of this paper is based on the Centre’s 2009 annual survey, the *BusinessSMEasure*, which is mail survey of over 4,000 SMEs, but targeted at small and micro firms. The first *BusinessSMEasure* survey was conducted in 2007 following eight separate studies which required visits and interviews with over 400 SMEs that indicated they would be willing to be involved in an annual survey on topical issues. The specific objective of the annual survey is to gather data over time that relates both to the characteristics of firms and their performance, and to the owner-managers. The annual survey has potential to gather data on an issue of current concern – using the approach typical of an ‘omnibus survey’, thus allowing the researchers to gather data on highly topical subjects (Battisti et al 2009).
The 2009 survey involved 4,165 firms (including 694 firms who responded in the 2007 and 743 firms who responded in 2008 survey) using a database of firms provided by APN Infomedia, a commercial provider of business-to-business information in New Zealand. There were 1,447 usable responses after excluding 297 ineligible and unreachable firms. The overall response rate was 35%, which is well above an acceptable rate for this type of mail survey (Bartholomew & Smith 2006).

The study followed Dillman’s (2000) Total Design Method (TDM) in choosing the sample, designing and pilot testing the questionnaire. BusinessSMEasure is a postal survey. The mail survey was carried out between 9 October and 18 December 2009 using a four stage approach at an interval of two weeks. The first mail-out contained an information letter and the survey questionnaire. Step two in the mail-out process entailed a postcard reminder. This was followed up by another reminder letter with survey questionnaire and the final step was another postcard reminder. The survey form was addressed to the Owner, Owner-manager or Managing Director.

In order to check for non-response bias, a comparison on the demographic profile (gender, ethnicity, legal form of firm and family firm) was made between respondents who replied to both 2008 and 2009 surveys and those who replied in 2008 but did not reply in 2009, following Armstrong and Overton’s (1977) approach. The insignificant differences between the two groups of respondents suggested that non response bias was non-existent or too small for detection.

To account for common method bias, given that the study used a single instrument to measure all the variables of the study, Harman’s single-factor test was performed on selected items (Podsakoff et al. 2003). The un-rotated factor solution reported seven underlying factors with eigenvalues greater than 1. These seven factors accounted for variances ranging from 3.89% to 24.39% and no factor accounted for more than 50% of the total variance. The results offered some evidence that the common method bias per se, could not explain the variations in the responses to the questions.

Although there are a number of limitations with survey methodology; such methodology is valid to test hypotheses arising from prior qualitative work (Bryam & Bell, 2003). First, the use of quantitative survey method in this study is designed to generate empirical data from a relatively larger sample size to complement the qualitative study conducted by the Centre (Battisti, et al. 2009). The qualitative study involved a programme of 25 interviews intended to allow owner-managers to surface issues in developing managerial capacity and participation in management development activities. The results from the qualitative phase informed the development of the survey questions and provided the basis for determining key issues to be investigated. Combining the survey method following the qualitative analysis provided advantages for determining the research questions. This allowed the survey to focus on questions that focused on owner-managers learning orientation and on their belief in self improvement. For example, items were included on the extent to which owner-managers agreed with statements on self-improvement and the degree of importance of learning orientation by including questions on the perceived importance of management development activities and sources of learning. More detail is provided through the discussion of the development of variables later in the paper.

Second, the study aims to develop a measurement model of motivation to engage in MD activities in the context of small and micro firms. The survey method is an effective approach to achieve this aim by allowing for a systematic determination of estimates of the population parameters through sampling that will allow the generation of rigorous, valid, reliable, and replicable results (Czaja & Blair 2005; Zikmund 2003). Third, the survey method generates a relatively large number of sample firms that allows for the empirical testing of the hypotheses that are posited in this study (Czaja & Blair 2005; Cavana et al 2001).

However, it is recognised that survey method such a methodology has disadvantages of remoteness, some superficiality in terms of depth of material, potential for bias and a reliance on the willingness of hard-pressed owner-managers to devote time to answering relatively complex questions. The Centre has undertaken an annual survey since 2007, thus the 2009 survey represented the third annual survey and, over this time, the
Centre has developed a well tried mail out system that has produced the relatively good response rate for a mailed survey.

To undertake analysis several steps were undertaken, firstly descriptive data was compiled on SME profiles and business demographics. Secondly, from a range of items covered in the survey, the importance of different ‘groups’ of management development activities and sources of learning were compiled using exploratory discriminatory analysis. This technique was used to examine the importance of different types of learning. Thirdly we use these variables to test the significance of our hypotheses.

Discussion of Findings

Tables 1 to 6 (appendix 1) provide selected profile data and business demographic data. The data reported in these tables reflect the nature and target SME groups of the BusinessSMEasure survey. Several profile features points are worth highlighting.

Size and sector: The survey was targeted at micro and small firms and aimed at achieving representation of the manufacturing sector in line with national data on businesses for New Zealand. The data on location indicates that the survey was nationwide and covered urban and rural areas. The data on age of the firm and the owners indicates that firms were well established and that owners’ median age reflected that most owner-managers had well established business experience.

Data is provided on innovative activity, on the levels of different innovative activities (as per OECD definitions). It can be expected that there will be a strong correlation between SMEs that demonstrate a high levels of participation in management development activities and with innovative activities. Each of the four innovation types were summarized into one dichotomous innovation variable i.e. firms with no innovation activity and firms with at least one type of innovation activity. As suggested by theory, results showed that there was a strong link between innovation and management development. Firms with at least one type of innovation activity reported to be more engaged in management development across all three types of learning i.e. incidental, informal and formal.

Types of Learning

A range of items were included in the survey questionnaire Exploratory factor analysis was conducted to reduce the number of survey items to a smaller set of summary variables. Three factors emerged:

- Incidental learning

  This factor covered activities that describe a form of informal learning that is usually a by-product of some other activity, such as carrying out everyday managerial work. As such it is not planned or intentional, but delimited by the nature of the task that influenced its creation, and unexamined and embedded in the individual’s closely held belief system. Incidental learning requires self-reflection to take place for it to be successful (Watkins & Marsick 2004).

- Formal learning:

  This factor covered items that were considered to be an organised learning event or package that is sometimes institutionally sponsored, structured and which may be undertaken with the aim of achieving a recognised qualification. The learning content is typically chosen by an educator, trainer, mentor or consultant and presented to the learner.

- Informal learning through social interaction with trusted advisors

  This factor covered items that described a form of learning that is typically based on learning from experience. It is embedded in the organisational context, has a focus on action, is governed by non-routine conditions.

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1 Exploratory factor analysis was conducted using principal axis factoring and the reliability was tested for each of the factors.
Table 7 shows that incidental learning was by far the most frequently reported form of management development (57 percent), followed by informal learning through social interaction with trusted advisors (22 percent). Formal learning is reported by only 6 percent of respondents. Engagement in any of the three types of management development overlapped with the perceived importance for developing managerial capability.

Table 7: Descriptive analysis of factors underlying management development activities (Per cent)

<table>
<thead>
<tr>
<th>Activities associated with types of learning</th>
<th>Very large or large extent</th>
<th>Small extent or not at all</th>
<th>Importance for developing managerial capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidental learning</td>
<td>57%</td>
<td>43%</td>
<td>95%</td>
</tr>
<tr>
<td>Informal learning</td>
<td>22%</td>
<td>78%</td>
<td>72%</td>
</tr>
<tr>
<td>Formal learning</td>
<td>6%</td>
<td>94%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Belief of Self-Improvement and Learning Orientation

In the survey questionnaire we have included five items to measure owner-managers belief of self-improvement (Maurer et al. 2003). Improvability belief is a psychological construct that measures if people believe that it is possible to develop, change or improve specific types of knowledge and skills. Individual differences in this belief might explain why some owner-managers are more capable of managing regulation than others. From a theoretical perspective it can be argued that improvability beliefs result in more favourable attitudes towards learning and development which in turn might result in a higher engagement in developmental activities.

Results have confirmed this view by showing that respondents with a positive belief in self-improvement were more likely to engage with practice-based, proximal and distal sources of learning.

Similar to the construct of self-improvement we have included six items on learning orientation (VandeWalle 1997) in the questionnaire. Learning orientation refers to an individual’s attitude towards engaging in learning. Results showed that respondents with positive orientation towards learning are more likely to engage in any type of management development activities i.e. incidental, informal as well as formal learning.

Development of Variables

In this section we discuss the development and derivation of variables that have been used to develop our regression model of SME owner-manager engagement in management development activities.

Dependent variable, Motivation to engage in MD activities measures the likelihood of owner-managers to engage in various sources of MD activities in the next 12 months. Respondents were asked on a scale of 1 to 5 to indicate whether it is very unlikely to very likely that they will undertake the 15 sources of MD activities. The identification and classification of the MD activities were guided by the literature and content-validated by academics specialising in MD as well as by government and industry experts.

The exploratory factor analysis using maximum likelihood technique with varimax rotation showed three factors. Consequently, the 12 sources of MD activities were classified according to these three factors. The three factors were consistent with the typologies of MD developed by Mumford (1993) and Gray & Mabey (2005). Hence, this study identified the three factors or sources of learning which have been defined earlier:

1. Practice-based sources
2. Proximate sources (including family, advisors and mentors).
3. Distal sources.
The variable, *learning opportunities* measures the extent of availability of various MD activities which owner-managers have used in the previous 12 months. Respondents were asked on a scale of 1 to 5 to indicate whether they *have not used* or have used to *a very large extent* the 15 listed sources of MD activities. Through exploratory factor analysis, the 12 sources were classified as practice-based, distal and proximate learning opportunities.

**Independent variables.** Six items were used to measure learning orientation (e.g. In my current role, I often read materials related to my work to improve my ability). These items were adopted from VandeWalle (1997). Five items were used to measure belief on self-improvement (e.g. I my current role, I believe that I possess the skills and abilities needed to develop, grow and learn). These items were adopted from Maurer et al (2003). Responses to the items were in a 5 point Likert scale (1 strongly disagree to 5 - strongly agree).

**Control variables.** The gender, age and educational qualifications of owner-managers were taken into consideration when testing the relevant hypotheses. These variables have the potential to impact the independent and dependent variables in this study.
Table 8: Summary of the constructs used in the study

<table>
<thead>
<tr>
<th>Summary of Constructs</th>
<th>Cronbach α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation to engage in MD activities:</td>
<td></td>
</tr>
<tr>
<td>a. Practice-based sources of MD – 3 items</td>
<td>0.84</td>
</tr>
<tr>
<td>b. Distal sources of MD – 8 items</td>
<td>0.85</td>
</tr>
<tr>
<td>c. Proximate sources of MD – 4 items</td>
<td>0.73</td>
</tr>
<tr>
<td>Learning Opportunities</td>
<td></td>
</tr>
<tr>
<td>a. Practice-based MD opportunities – 3 items</td>
<td>0.76</td>
</tr>
<tr>
<td>b. Distal MD opportunities – 8 items</td>
<td>0.84</td>
</tr>
<tr>
<td>c. Proximate MD opportunities – 4 items</td>
<td>0.75</td>
</tr>
<tr>
<td>Learning Orientation – 6 items</td>
<td>0.86</td>
</tr>
<tr>
<td>Belief on self-improvement – 5 items</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Descriptive Statistics and Bivariate Correlations

Table 9 in the Appendix gives the descriptive statistical analysis and correlation data results between learning orientation and management development activity variables. It can be seen from this table that learning orientation is positively and significantly associated with engagement with sources of management development activities; distal, practice and proximate as sources of learning with correlation coefficients of 0.43, 0.32 and 0.36 respectively significant at the 1 percent level. Correlation coefficients are lower for belief in self improvement but still significant at the 1 percent level. However, the results also indicate that higher levels of educational qualifications are negatively associated with uptake of practice-based and proximate MD opportunities. Age on the other hand is negatively associated with uptake of the three types of MD opportunities.

Multiple Regression

In order to test the hypotheses of the study, multiple linear regression using ordinary least squares method was performed. As shown in Table 10 in Appendix 3, a series of regression models were tested to investigate the influence of the two main independent variables – learning orientation and belief on self-improvement – on the three categories of learning opportunities as well as on the owner-manager’s motivation to engage in the three types of MD activities.

The results of the regression indicated that learning orientation explained 37%, 46% and 37% of the variances in the motivation to engage in practice-based, distal and proximate MD activities respectively. The results show that learning orientation is significantly and positively associated with higher levels of motivation to engage in three types of MD activities. These results support H1. However, the negative beta coefficients between age and motivation to engage in three types of MD activities suggest that younger owner-managers tend to have lower levels of motivation to engage in MD activities relative to older owner-managers. This may by explained by lower levels of managerial experience and perhaps by less maturity and recognition of value.
from such activities. Those with higher educational qualifications also tend to have lower motivation to engage in proximate MD activities.

The results also partly support H2 such that learning orientation explains a larger proportion (46%) of the variance in motivation to engage in distal MD activities relative to practice-based and proximate MD activities. However, learning orientation explains similar proportions (37%) of the variances in motivation to engage in practice-based and proximate MD activities with beta coefficients that are about the same (0.28 and 0.30). The empirical data also indicate the significant and positive relationships between higher levels of learning orientation and three types of MD opportunities. The results suggest that owner-managers with higher levels of learning orientation tend to take advantage of distal MD opportunities relative to other types of MD opportunities. These results support H3.

Belief on self-improvement is significantly and positively associated with higher levels of uptake of proximate MD opportunities. This result partly supports H4. With respect to H5, only learning orientation is positively associated with uptake of distal MD opportunities. Hence, this H5 is only partly supported by empirical the data.

Conclusions

As discussed in this paper, it has been well established in the literature that there is a lack of engagement of owner-managers in SMEs with formal sources of management development and learning. Indeed as indicated by previous writers such as Storey and Westhead (1997) it can be argued that there is mismatch between market provision and demand from SMEs. Other writers have pointed to the importance of informal and practice-based types of learning for owner-managers in SMEs. Despite this well known position, there has been little work that has examined the motivation and key drivers of owner-managers’ participation in different types of learning, nor has there been work to examine the factors that influence participation. In this paper we have undertaken a staged statistical and quantitative analysis to build a model that helps to explain the links between two proposed constructs that may explain participation in different types of learning and management development. The two constructs are firstly, owner-manager learning orientation and, secondly, their belief in self-improvement. We have developed hypotheses associated with these constructs which is supported by data analysis. We also have a robust statistical model which suggests that learning orientation and belief in self-improvement can explain a significant part of owner-manager engagement in different types of learning and MD activities, although the extent varies according to whether this is practice-based, proximate or distal.

Much of the previous research on management development has examined external barriers (Kitching & Blackburn, 2002). Our study and this paper’s contribution is focused on internal barriers connected with owner-manager attitudes to learning and owner-manager belief in self improvement. In this paper we have built on previous qualitative research undertaken by the Centre to test hypotheses associated with learning orientation and belief in self improvement, our regression models suggest that learning orientation of owner-managers is critical in determining participation in different managerial development activities, whether these are practice-based, proximate or distal. Previous research has focused on SME firm characteristics, such as a lack of resources, firm size and network engagement as explanations of the known low take-up of formal provision of management development programmes and capacity building initiatives (Fuller-Love, 2006). These studies have assumed that participation is driven by the demographic and profile characteristics of SMEs, such as size and sector. Our contribution is point to the importance of owner-managers’ beliefs and orientation, factors which have tended to be ignored in previous studies.

Of course there is a high and significant correlation between learning orientation and belief in self improvement; that is, a high degree of learning orientation will be associated with a high belief in self improvement and these will explain owner-manager behaviour that is proactive and likely to seek out engagement with the full range of management development opportunities and types of learning. We believe, however, we have indicated where further work can be done to examine particular motivations for engagement in distal sources of learning such as social networks. This is one of the implications from our paper, there are a number of others that are currently outside the scope of this present paper. For example,
our model(s) could be used for further refinement and work and policy implications could be developed that examine how SME owner-managers' learning orientation and beliefs in self improvement could be influenced and enhanced, this would provide fertile ground for further research and pilot programmes. An important policy implication is that new policy initiatives on management development can be developed in isolation on assumption that they will be taken up, even if designed to appeal by being more flexibly suited to the needs of SMEs than perhaps previous provision. Agencies need to work directly with owner-managers, perhaps with mentors, perhaps with initial benchmarking programmes. These should take account of owner-managers’ learning orientation and self belief. Following this as a next step carefully targeted programmes can then be developed that builds upon local benchmarking programmes

References


### Appendix 1: Profile Data and Selected Business Demographics

#### Tables 1 & 2: Firm Size (by employees) and Sector

<table>
<thead>
<tr>
<th>Size</th>
<th>Number</th>
<th>Percent</th>
<th>Sector</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>768</td>
<td>58%</td>
<td>Services</td>
<td>496</td>
<td>39%</td>
</tr>
<tr>
<td>Small</td>
<td>534</td>
<td>40%</td>
<td>Manuf</td>
<td>263</td>
<td>20%</td>
</tr>
<tr>
<td>Medium</td>
<td>26</td>
<td>2.0%</td>
<td>Others</td>
<td>527</td>
<td>41%</td>
</tr>
<tr>
<td>Totals</td>
<td>1328</td>
<td>100%</td>
<td>Totals</td>
<td>1286</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### Tables 3 & 4: Age of the Firm (yrs) and Age of the Owner (yrs)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Number</th>
<th>Percent</th>
<th>Owner</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or less</td>
<td>48</td>
<td>4%</td>
<td>30 &amp; younger</td>
<td>5</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>6-10</td>
<td>162</td>
<td>13%</td>
<td>31-40</td>
<td>90</td>
<td>7%</td>
</tr>
<tr>
<td>11-20</td>
<td>420</td>
<td>34%</td>
<td>41-50</td>
<td>360</td>
<td>26%</td>
</tr>
<tr>
<td>21 plus</td>
<td>604</td>
<td>49%</td>
<td>51-60</td>
<td>553</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>61 &amp; older</td>
<td>376</td>
<td>27%</td>
</tr>
<tr>
<td>Totals</td>
<td>1234</td>
<td>100%</td>
<td></td>
<td>1384</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### Tables 5 & 6: Location & Innovation

<table>
<thead>
<tr>
<th>Location</th>
<th>Number</th>
<th>Percent</th>
<th>Innovation in:</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main urban</td>
<td>977</td>
<td>69.7%</td>
<td>New products &amp; services</td>
<td>405</td>
<td>30%</td>
</tr>
<tr>
<td>Satellite urban</td>
<td>61</td>
<td>4.4%</td>
<td>Operational processes</td>
<td>378</td>
<td>28%</td>
</tr>
<tr>
<td>Independent urban</td>
<td>302</td>
<td>21.6%</td>
<td>Organisational processes</td>
<td>447</td>
<td>33%</td>
</tr>
<tr>
<td>Rural</td>
<td>61</td>
<td>4.4%</td>
<td>Sales of marketing</td>
<td>578</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>1401</td>
<td>100%</td>
<td>At least one innovative activity</td>
<td>846</td>
<td>61%</td>
</tr>
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### Appendix 2: Table 9: Descriptive statistics and correlation of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>mean</th>
<th>SD</th>
<th>DMDO</th>
<th>PMDO</th>
<th>ProxMD</th>
<th>MPMD</th>
<th>Mprox</th>
<th>MDMD</th>
<th>LO</th>
<th>BSI</th>
<th>AGE</th>
<th>EDU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distal MD Opportunities (DMDO)</td>
<td>3.07</td>
<td>.72</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice-based MD Opportunities (PMDO)</td>
<td>3.70</td>
<td>.82</td>
<td>.57**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximate MD Opportunities (ProxMD)</td>
<td>4.54</td>
<td>.87</td>
<td>.35**</td>
<td>.40**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation - Practice-based MD (MPMD)</td>
<td>4.11</td>
<td>.91</td>
<td>.22**</td>
<td>.28**</td>
<td>.52**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation - Proximate MD (MProx)</td>
<td>3.27</td>
<td>.82</td>
<td>.39**</td>
<td>.69**</td>
<td>.33**</td>
<td>.48**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Motivation - Distal MD (MDMD)</td>
<td>2.69</td>
<td>.76</td>
<td>.75**</td>
<td>.42**</td>
<td>.29**</td>
<td>.40**</td>
<td>.59**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Orientation (LO)</td>
<td>3.87</td>
<td>.63</td>
<td>.43**</td>
<td>.32**</td>
<td>.36**</td>
<td>.32**</td>
<td>.31**</td>
<td>.44**</td>
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<td></td>
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</tr>
<tr>
<td>Belief on Self Improvement (BSI)</td>
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<td>.53</td>
<td>.25**</td>
<td>.21**</td>
<td>.32**</td>
<td>.31**</td>
<td>.22**</td>
<td>.26**</td>
<td>.57**</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>Age of owner-managers (AGE)</td>
<td>54.60</td>
<td>9.25</td>
<td>-.05</td>
<td>-.11**</td>
<td>-.09**</td>
<td>-.19**</td>
<td>-.19**</td>
<td>-.12**</td>
<td>-.06*</td>
<td>-.15**</td>
<td>1</td>
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<tr>
<td>Highest Educational Qualifications (EDU)</td>
<td>3.89</td>
<td>1.69</td>
<td>.07**</td>
<td>-.08**</td>
<td>-.01</td>
<td>.06*</td>
<td>-.08**</td>
<td>.06*</td>
<td>.14**</td>
<td>.14**</td>
<td>.01</td>
<td>1</td>
</tr>
</tbody>
</table>

*significant at .05   **significant at .01
### Appendix 3: Table 10: Multiple Regression

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Practice-based MD opportunities</th>
<th>Distal MD opportunities</th>
<th>Proximate MD opportunities</th>
<th>Motivation to engage - Practice-based MD</th>
<th>Motivation to engage - Distal MD</th>
<th>Motivation to engage - Proximate MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>$\beta$ (se)</td>
<td>$\beta$ (se)</td>
<td>$\beta$ (se)</td>
<td>$\beta$ (se)</td>
<td>$\beta$ (se)</td>
<td>$\beta$ (se)</td>
</tr>
<tr>
<td></td>
<td>2.71** (.24)</td>
<td>1.38** (.20)</td>
<td>2.54** (.25)</td>
<td>3.58** (.56)</td>
<td>.94** (.18)</td>
<td>2.83** (.21)</td>
</tr>
<tr>
<td>Learning Orientation</td>
<td>.29** (.04)</td>
<td>.46** (.04)</td>
<td>.30** (.05)</td>
<td>.28** (.10)</td>
<td>.44** (.03)</td>
<td>.30** (.04)</td>
</tr>
<tr>
<td>Belief on Self-improvement</td>
<td>.03 (.05)</td>
<td>-.04 (.04)</td>
<td>.13** (.06)</td>
<td>.19** (.05)</td>
<td>.04 (.03)</td>
<td>.05 (.03)</td>
</tr>
<tr>
<td>Control variables:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.07 (.01)</td>
<td>-.01 (.01)</td>
<td>-.05 (.01)</td>
<td>-.21** (.01)</td>
<td>-.08** (.01)</td>
<td>-.17** (.01)</td>
</tr>
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<td>Educational Qualifications</td>
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<td>.01 (.01)</td>
<td>-.07** (.01)</td>
<td>.03 (.03)</td>
<td>-.02 (.01)</td>
<td>-.13** (.01)</td>
</tr>
<tr>
<td>Gender</td>
<td>-.06* (.06)</td>
<td>-.05* (.05)</td>
<td>-.06* (.06)</td>
<td>-.04 (.16)</td>
<td>-.05 (.05)</td>
<td>-.03 (.06)</td>
</tr>
<tr>
<td>$r^2$</td>
<td>.35</td>
<td>.44</td>
<td>.40</td>
<td>.37</td>
<td>.46</td>
<td>.37</td>
</tr>
</tbody>
</table>

*significant at .05  **significant at .01  $\beta$ = standardised beta coefficients  (se) = standard error