BEYOND FORMAL LEARNING NETWORK STRUCTURES: AN EXPLORATION OF EVOLVING LEARNING COMMUNITIES IN THE MICRO-FIRM ENVIRONMENT

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COMPETITIVE PAPER

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INTRODUCTION

In rapidly changing and increasingly competitive business environments, micro-business owner/managers seeking business survival are encouraged to seek out potential learning and development opportunities through membership of collaborative learning communities (NCEO, 2006; EC, 2006). Micro-firm cooperative learning relationships are the subject of increased academic interest (Brown and Duguid, 1991; Florén and Tell, 2004; Morrison et al., 2004; Toiviainen, 2007; Bottrup, 2005; Kelliher et al., 2009), while international studies acknowledge the value of cooperative learning in the network environment (Devins et al., 2005; Down, 1999; Gibb, 1997; Hannon et al., 2000; Taylor and Thorpe, 2004). Finally, the literature provides evidence that *learning structures* and *key learning relationships* in formal learning networks create opportunities for higher levels of learning (Florén and Tell, 2004; Reinl, 2008; Morrison and Bergin-Seers, 2001; Wing Yan Man, 2007).

Little is known about the formation, maintenance or success of these types of learning relationships after formal structures and supports reach a conclusion (Bessant and Francis, 1999). What is known is that Evolving Learning Communities (ELCs) are devoid of formal structures, consequently autonomy in their structural and relational reasoning is required. The effective management and maintenance of such learning structures and relationships requires a level of learning competence, much like that described by Wing Yan Man (2007). Where a competence shortfall arises, there is a need to reach outside the boundaries of the core learning community to providers of specialist knowledge. This paper seeks to explore these

challenges, and commences with a comprehensive review of relevant literature prior to establishing a model of ELC learning which draws from the social learning perspective, in particular Lave and Wenger's (1991) theory of learning.

The ELC model maps micro-firm owner/manager learning development, from the micro-firm setting to the formal learning network environment and on to the ELC learning arena illustrating the evolution of the learning community. As such, the various stages of community evolution will be reviewed in the natural succession in which they occur. Future research will inform and validate the model through an interpretivist approach that will enable the researcher to 'induct theory' (Eisenhardt, 2007) through the completion of a number of longitudinal cases. This study addresses calls for research to be completed in the micro-firm learning network context (for example: Devins et al., 2005; Kelliher et al., 2009), and is the first of its kind to the best of the author's knowledge.

LITERATURE REVIEW

The micro-firm[1] is unique in the learning context. Internally, micro-firms are intrinsically different in terms of their simple structure (Simpson, 2001; Morrison and Teixeira, 2004), management processes and rapid response to issues that impact the business (Aragon-Sanchez and Sanches-Marn, 2005). This environment presents opportunities for greater flexibility and the rapid application of applied learning and development in the business (Van der Wiele and

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[1] The term micro-firm relates to a business that employs less than ten people (Stanworth and Gray, 1991; Storey, 1994) for the purposes of this study. When academic literature refers to 'small business' and equates to this micro-firm definition, it can be assumed to relate to micro-firm despite the different label of such a business. This definition is consistent with the definition provided by the European Union (EU, 2009), relevant Irish government agencies and European researchers.
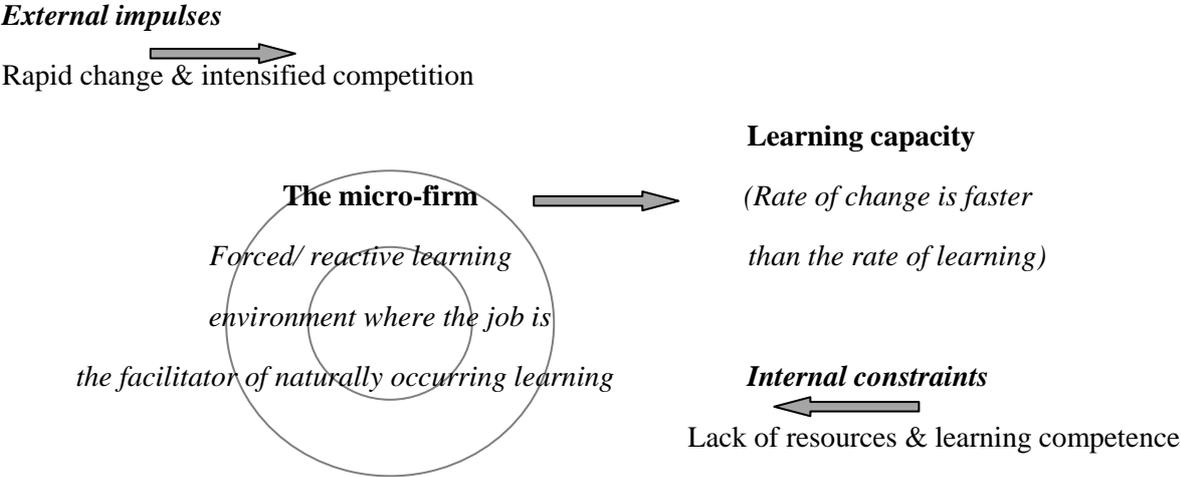
Brown, 1998). The micro-firm owner is generally the sole decision maker within the firm (Lean, 1998; Reijonen and Komppula, 2007) and relies on intuition to guide decisions (Rice and Hamilton, 1979). An absence of planning may be a misnomer, as there may still be clear mental frameworks of future plans regardless of whether they are formally written down (Kuratko et al., 1999; Wyer, 1997; McCarthy and Leavy, 2000, Garavan et al., 2004). Gibb and Scott (2001) argue that this informal planning approach may not be a reflection of the capability of the business, to the contrary the development process can be very dynamic and is characterised by the owner/manager's preference for 'learning by doing'.

Micro-firms are characterised by a lack of resources that fundamentally impact the learning process (Devins et al., 2005). This offers partial explanation for the reported lack of managerial capability that is typical of many micro-firms (O'Dwyer and Ryan, 2000; Garavan et al., 2004) and that may ultimately inhibit growth (FÁS, 2006). Extreme resource poverty can also result in a training culture which gravitates towards short-term issues (Schaper et al., 2005) and this fire-fighting approach, though understandable, may foster a culture that is not open to learning development (Devins et al., 2005). An injection of resources acquired through education and experience can combat this issue, and micro-firm managers can foster learning and knowledge sharing, creating a dynamic learning culture with an emphasis on human resource development [HRD] (McCartan-Quinn and Carson, 2003). Empirical research suggests that HRD (as it is traditionally conceived of) is non recognisable in micro-firms (Hill, 2004; Garavan et al., 2004). Specifically, the micro-firm HRD orientation is characterised as inadequate, unplanned, accompanied by informal training, and led by a non-HRD expert. This results in an inability to make informed and effective decisions in relation

to training and development, thereby restricting potential learning opportunities (Sadler-Smith and Lean, 2004; Sambrook, 2004).

Finally, the external environment is a mixed arena of threat and opportunity for the micro-firm owner, wherein limited influence in the marketplace renders them over-sensitive to changes in the business environment. Public policy has been found to have a negative effect on micro-firms and their lack of any real influence at government level is well reported (Cook and Barry, 1995; Kuratko et al., 1999; Thomas and Thomas, 2006). An external impulse brought about by a new industry standard or regulation, or by dominant customer and supplier demands may challenge the organisation's learning environment (Lundberg and Tell, 1998), at least in the short term. The external environment also presents opportunities to enhance micro-firm learning and development. Learning communities offer the potential to overcome learning barriers and potentially permit the owner/manager to leverage relational capital, thereby enhancing learning and development opportunities through social interaction (Reinl, 2008; Kelliher et al, 2009; Williams, 2007). The literature above permits the following conceptualisation of the micro-firm learning environment (Figure 1).

Figure 1: **A conceptualisation of the micro-firm learning environment**

External impulses
Rapid change & intensified competition

Learning capacity

The micro-firm
Forced/ reactive learning
environment where the job is
the facilitator of naturally occurring learning

(Rate of change is faster
than the rate of learning)

Internal constraints
Lack of resources & learning competence

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From the above discussion and resultant conceptualisation of the micro-firm learning environment it is fair to say, that while a significant pool of knowledge may already be present in the micro-firm, external impulses are sometimes required to trigger off internal development (Lundberg and Tell, 1998) and stimulate a learning dynamic within the firm. Where these learning challenges can be addressed through a HRD focused management structure and learning culture, these external impulses can potentially result in the emergence of a more competitive micro-business in the longer-term, but only when incorporated into the learning ethos of the organisation.

LEARNING IN THE MICRO-FIRM SETTING

Considering the overall objective of this research is to explore the elements and relationships that influence learning in ELCs, the learning orientation most pertinent is the social learning perspective. Lave and Wenger's (1991) social theory of learning is of particular relevance to this study, and as such it forms the basis for the ensuing review of learning literature.

In the micro-firm setting there is little separation of ownership and power and as such the owner/manager is central to the learning process. This literature review is constructed reflecting that unit of analysis. As Kekale and Vitala (2003: 245) remark: *'Learning is fundamentally an individual activity, but learning can happen to many individuals simultaneously for the benefit of all of them.'* It can equally be assumed that learning by individuals for the benefit of the collective is the foundation for successful learning in an ELC setting. The importance of the social context through which learning occurs has been highlighted throughout the literature on learning (Brown and Duiguid, 1991; Lave and

Wenger, 1991; Johannisson, 2000) particularly from a micro-firm perspective (Hannon et al., 2000; Devins et al., 2005; Kelliher and Henderson, 2006; Kelliher et al., 2009).

Encapsulating the view that learning is something more than individual learning by doing (experiential learning), Lave and Wenger's (1991) situated model of learning places individual learning within social relationships. This perspective entails that learning involves a deepening process of participation within a 'community of practice' (CoP) wherein learning occurs through the shared pursuit of an activity/knowledge that encompasses an '*evolving and continuously renewed set of relations*' (Wenger; 1998: 50) that are incumbent in that learning process. Newcomers join the community gaining access to '*arenas of mature practice',* initially learning at the borders of the community and as they become more involved and more competent at carrying out their role, they gain legitimacy in the community. At this stage, the learner's status is termed '*legitimate peripheral participation*'. Lave and Wenger (1991) emphasise that learning to perform new tasks and master new understandings are merely partial representations of learning as legitimate peripheral participation, the authors explain that these tasks and understandings are part of systems of relations that the individual (learner) defines and is defined by. Learning is therefore an evolving form of social participation within a community of practice wherein learners move (in centripetal direction) from legitimate peripheral participation in a field of mature practice to full participation as learning identities are engaged and develop over time (Lave and Wenger, 1991: 64). As mentioned previously, learning communities offer the owner/manager opportunities to overcome micro-firm learning barriers. Prior to discussing the formal learning network as one such learning community, it is first necessary to define a '*micro-firm learning network*' based on a review of the literature (Table 1).

Table 1: Micro-firm Learning Network Criteria

Criteria	Micro-firm context	Authors
Function	Learning networks specifically seek to encourage learning enhancement & business development through processes that can be mapped onto the learning cycle, ultimately contributing to improved business performance.	Ahmad, 2005; Hannon et al., 2000; Schaper et al., 2005; Taylor & Thorpe, 2004; Wing Yan Man, 2007.
Social construction	The network is a socially constructed set of relationships, while learning may also be socially constructed, reinforcing the views of social learning theorists.	Johannisson, 2000; Lave & Wenger, 1991; Brown & Duguid, 1991.
Collective resources	Networks provide a means for participants to leverage information & resources that would otherwise be unavailable to them.	Fuller-Love & Thomas, 2004; NCOE, 2006; Tinsley & Lynch, 2007; Witt, 2004.
Network support structures	The micro-firm owner requires learning structures, supports & strategies that encourage autonomy in order to leverage cooperative resources & embed learning in the micro-firm environment.	Brown & Duguid, 1991; Gregory, 1994; Kelliher et al., 2009; Tinsley & Lynch, 2007.
Participation benefits	The successful development of network relationships should ultimately stimulate both learner autonomy & a sense of community among participants.	Fuller-Love & Thomas, 2004; Lave & Wenger, 1991; Morrison & Teixeria, 2004.

Table 1 affords the following definition of a '*micro-firm learning network*': a socially constructed and socially supported learning community which enables the development of network learning relationships and enhances individual learning through cooperative learning strategies disseminated through the structures, supports and ethos of the network (Reinl and Kelliher, forthcoming). It is clear from this definition that cooperative learning strategies form an important part of the individual learning process (Wing Yan Man, 2007), wherein interacting with like-minded individuals in a learning network can '*help foster an environment in which knowledge can be created and shared and, most importantly, used to improve effectiveness, efficiency, and innovation*' (Lesser and Everest, 2001: 46). However membership does not automatically guarantee that effective learning will occur; success is dependent on a number of influencing factors, including the micro-firm owner's characteristics and the firm's incumbent resource criteria. Despite this caveat, micro-firm learning cooperatives provide a dynamic, resource rich learning environment for owner/managers, where business development can '*mirror the dynamics of learning*' (Dobbs and Hamilton, 2007: 299), providing otherwise unavailable information and resources (Witt, 2004). The success of this learning community is achieved through the development of learning relationships and learning strategies that assist community members to leverage relational capital in pursuit of learner autonomy and learning competency development. These learning relationships and strategies are discussed next.

The development of network learning relationships

The role of formal learning networks is to promote learner autonomy (Cope and Watts, 2000) and encourage reflection (Kolb, 1984; Florén and Tell, 2004; Reinl, 2008). Their goal is to provide relevant, applicable knowledge '*while encouraging the reflective examination of*

experience that is necessary to refine old theories and build new ones,' (Kolb 1976: 25) thereby enhancing individual learning capability (Sullivan, 2000). In formal learning network settings, learning relationships are nurtured through a variety of learning interventions that are usually managed by an academic/management support hub (Kelliher et al., 2009; Iles and Yolles, 2004; Florén and Tell, 2004; Haugen Gausdal, 2008; Halme, 2001; Morrison et al., 2004). Key learning stakeholders situated within the support hub play a central role in nurturing learning relationships. They do this by establishing ground rules for emerging learning (Morris et al., 2006), enhancing a sense of membership and identity among participants (Morris et al, 2006; Tell and Hallia, 2001) and implementing a range of networking and learning strategies, including formal learning events that typically cover a number of key business development areas as advised by participant learning requirements (Florén and Tell, 2004; Bessant and Francis, 1999; Kelliher et al., 2009). These learning events have a strong social ethos and learners are encouraged to build trust facilitating a process of knowledge and experience sharing whilst learning stakeholders ensure that a learning emphasis and the action/reflection balance is maintained. A range of learning network resources and symbols (for example interactive website, newsletters and participant presentations) are also evident features of such learning communities (Tell, 2000; Haugen-Gausdal, 2008; Kelliher et al., 2009) and these resources and symbols assist with building shared meaning and a sense of community among learners.

Learning sets also contribute to learning in this environment (Tell, 2000; Devins et al., 2005; Lynch and Morrison, 2007; Kelliher et al., 2009). Paired with experienced facilitators, small groups of participants are encouraged to share their learning expectations, knowledge and experience with their peers (Florén and Tell, 2004; Bessant and Francis, 1999; Morris et al,

2006), building the foundations for trustful learning relationships. Un-facilitated, the value of this peer learning relationship is questionable and is dependant on the appropriateness of the knowledge being shared and the individual's willingness to reflect on that information (Greenbank, 2000). Previous studies have shown that the facilitator is instumental in developing self-efficacy[2] amongst participants, often providing a valuable 'outside in' perspective of business problems and supporting learners to identify learning opportunities to overcome those problems (Larsen and Lewis, 2006; Devins and Gold, 2004; Bessant and Francis, 1999). Another feature of learning networks is the involvement of external agencies and individuals that provide additional mentoring, learning support and information transfer (Morris et al., 2006; Halme, 2001; Kelliher et al., 2009). It is clear from the above discussion that the formal network setting offers the micro-firm owner/manager access to a myriad of beneficial learning relationships.

Over time network involvement boosts the confidence of participants and learners begin to think more strategically about their learning needs (as anticipated by: Devins et al., 2005; Hannon et al., 2000; Morrison and Teixeria, 2004). Although the network setting provides a unique learning environment, where individuals can leverage learning through relationships with key learning stakeholders, individual learners still require specific supports at key stages in the learning process to ensure the development of reflective practice, learning competency development and appropriateness of learning content (Greenbank, 2000; Wyer et al., 2000). Experience sharing, reflection and analytical capabilities in relation to what is learned, are not elements of the learning process that occur easily for the micro-firm owner/manager. It is evident from the discussion above that key network learning stakeholders can enable and

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[2] belief in ones own skills and abilities

enhance individual learning (Gregory, 1994) through the social structures and relationships of a learning community. This is achieved through a range of cooperative learning strategies and these will be discussed next.

Supported cooperative learning strategies

Despite being a primary motivation for formal network participation, the affect of working closely with peers is often not realised or reported (Rosenfeld, 1996). While peer learning is valued, it is very hard to leverage as a learning resource (Reinl, 2008). While this difficulty can be addressed through discourse and exchange with other micro-firms that have different knowledge contexts and resources (Tell, 2000; Kelliher and Reinl, forthcoming) success depends on the quality and appropriateness of this experience and the owner/manager's willingness to reflect upon and analyse the information being absorbed (Greenbank, 2000). The micro-firm owner/managers' preference for action over reflection necessitates facilitated learning support in this regard.

Learning networks can assist in the development of the reflexive practitioner role, enhancing learning and learning transfer (Sullivan, 2000; Reinl, 2008). This is achieved through peer reflection techniques (Jõgi and Karu, 2004; Down, 1999; Lave and Wenger, 1991; Morrison and Teixeria, 2004) at learning events, while individual reflection is often achieved through the completion of personal and business learning and development plans and through mentoring (Sullivan, 2000; Morris et al., 2006; Kelliher et al., 2009). Here, the individual is encouraged and supported to reflect on learning and how it can be applied back in the business. Participant presentations permit business challenges and successes to be relayed to

the broader community and key learning stakeholder analysis provides an 'outside in' perspective in this context (Morrison and Bergin Seers, 2001; Haugen Gausdal, 2008). Reflecting on the above discussion it can be argued that the effective learning in the formal network setting transpires where practical learning occurs, where reflection is encouraged and supported, and where learning can be applied (in concept at least) back to the business environment. This is exemplary of the HRD role assumed by key learning stakeholders situated in the learning network. Perhaps the micro-firm owner/manager's reported failure to relate to attempts at adopting a more formalised approach to HRD (Down, 1999; Hill and Stewart, 1999) could be rectified in the formal learning network setting. In the network, key learning stakeholders (academic team, support team and facilitators/mentors) fulfil the role of *'learning broker'*, enhancing individual learning through learning relationships and strategies, and guiding pro-active behaviours that assist participants to identify opportunities to leverage learning (Morrison and Bergin-Seers, 2001). This learning relationship entails expectations on the part of the individual learner and other key learning stakeholders. These expecations equate to a psychological contract[3] of sorts, where the participant expects a learning environment where resources can be leveraged to assist micro-firm learning and development, and providers of such learning networks/programmes expect that participants will contribute to the wider social learning process and demonstrate a degree of learning and business development. Ideally, there is increased cooperative learning and interaction over time as network involvement boosts the confidence of participants and learners begin to think more strategically about their learning needs (as anticipated by: Devins et al., 2005; Hannon et al., 2000; Morrison and Teixeria, 2004; Reinl and Kelliher, forthcoming). Having discussed the micro-firm learning environment, and the influence of learning network participation on

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[3] In its simplest terms a psychological contract refers to the time, resources and effort put in to a task and what is expected in return (Reagans and McEvily, 2003). It is a two way process of expectation in the formal learning network environment.

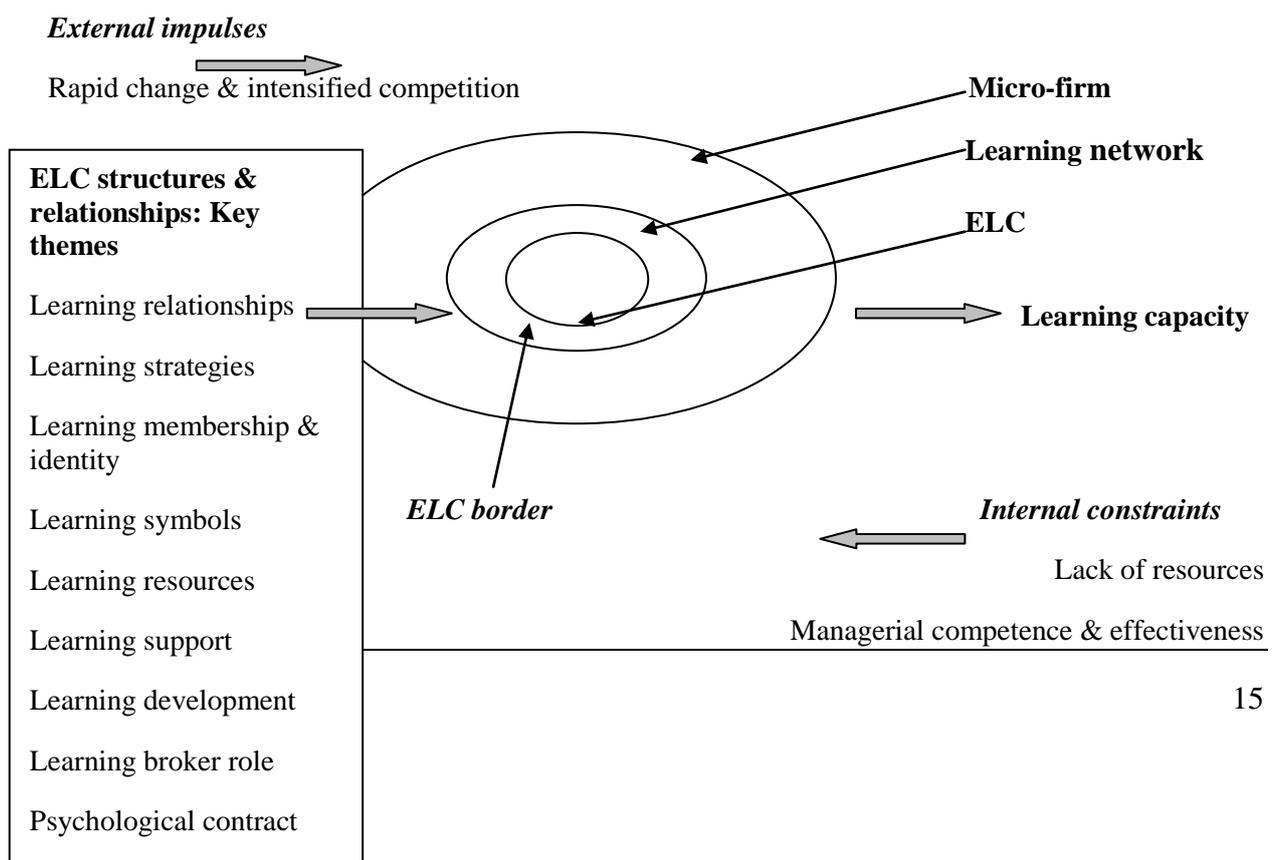micro-firm owner/manager learning, key themes (Table 2) can be incorporated into the proposed ELC model.

Table 2: Key themes from the literature on micro-firms and learning networks

Key themes	Micro-firm	Learning network
Learning relationships	Predominantly informal relationships Unreliable knowledge base	Relational capital is leveraged through collaborative learning relationships
Learning strategies	Immediately applicable learning is valued & there is little support for formal HRD & low identification or analysis of learning needs	Address reflective balance through facilitated peer-led interaction
Learning membership & identity	Little sense of learning identity	Enhanced sense of community disseminated through the ethos & structures of the network Learning identity develops over time
Learning symbols	Learning is an unconscious process & there are few learning symbols	Learning identities & symbols emerge : network logo, website, learning development plans, rules & agendas
Learning resources	Financial resource constraints equate to little investment in training & development	Learning resources are leveraged through the network & key learning stakeholders
Learning support	Some external support available through subsidised training & development initiatives	Learning environment & materials. Learning emphasis maintained & learning accredited
Learning development	Resource limitations equate to limited development options	Action based competency development; reflective practice embedded
Learning broker role	The job is the facilitator of naturally occurring learning	Key learning stakeholders enhance learning relationships & facilitate individual & collective learning & business development
Psychological contract	Paternalistic management where owner perceives he/she is the only one that can make business decisions	Expectations between the individual learner & key learning stakeholders

PROPOSED EVOLVING LEARNING COMMUNITY MODEL

The review of literature on ELCs outlined in this section draws from the CoP perspective (Lave and Wenger, 1991) whilst also taking cognisance of the literature previously discussed in relation to formal learning networks and their function as a catalyst for micro-firm learning. Collectively these elements can be incorporated into the Evolving Learning Community Model (Figure 2). As an introductory working definition, an ELC refers to: *a community that groups together for the purpose of learning and business development after formal learning network support ends, thereby taking control of their own learning development. Through membership of the learning community learning identities and symbols emerge as learning develops over time.* The exploration of ELCs will therefore commence with a discussion of the learning structure before moving on to, the dynamics of voluntary relationships and the evolution of shared practice.

Figure 2: Evolving learning community model

External impulses

Rapid change & intensified competition

Micro-firm

Learning network

ELC

ELC structures & relationships: Key themes

Learning relationships

Learning strategies

Learning membership & identity

Learning symbols

Learning resources

Learning support

Learning development

Learning broker role

Psychological contract

ELC border

Learning capacity

Internal constraints

Lack of resources

Managerial competence & effectiveness

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The learning structure

Much of the previous literature in relation to management learning has situated learning within a formal hierarchical structure of one kind or another (for example in; business networks, CoPs, formal learning networks and other formal training provisions). These studies relate to evolution within the confines and supports of the formal boundaries of a learning network. Here, key learning network stakeholders assist with the maintenance and management of such learning structures, guiding pro-active behaviour and assisting participants to identify opportunities to leverage learning (Morrison and Bergin-Seers, 2001; Sullivan, 2000, Wing Yan Man, 2007). In contrast to this, ELCs being devoid of formal learning structures must self-organise, designing and managing their own learning structure and strategy.

Bessant and Francis (1999) suggest that in the absence of an external impulse to enter the learning cycle, learning communities will fade over time and the literature demonstrates that learning communities require a learning structure of some kind to function at a competent level (Gibb, 1997; Johannisson, 2000). As ELCs will not have automatic access to formal learning network resources members must construct and manage their own learning structures and relationships. Furthermore, where a competence shortfall arises within the ELC there is a need to reach outside the boundaries of the core learning community to providers of specialist knowledge. It is apparent that the effective management and maintenance of learning structures and relationships requires a level of learning competence, much like that described by Wing Yan Man (2007[4]), such learning competencies need time to develop (Halme, 2001;

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[4] Wing Yan Man (2007) contends that learning competence is measurable and observable through learning skills, attributes and behaviours that demonstrate effectiveness in the learning role. As the learner acts on

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113). Previous research suggests that emergent CoPs are influenced by their previous structures, practice and activities and that '*structural emergent properties may be the result of seeding structures left over from previous activities*', (Archer, 1995, cited in Thompson, 2005). It is reasonable to assume that the ELC environment is influenced by previous learning network membership, however to the best of the author's knowledge these influences and the learning competencies required to manage such communities have never been tested in terms of their sustainability and evolution once formal supports end. Specifically, the learners' ability to create a learning agenda and facilitate learning development in the ELC are issues that require consideration from a learning perspective, these issues will be discussed next.

Creating a learning agenda

Morris et al. (2006) suggest that the success and longevity (of learning networks) is dependent on the establishment and assessment of targets emphasising the importance of managing learning strategies in such settings. Therefore reviewing goals and readjusting future learning requirements are an important factor in the effectiveness and sustainability of learning networks (Bessant and Tsekouras, 2001; Kekale and Vitalia, 2003). Notably, Noel and Latham (2006) suggest that goals commonly set in business planning may not be as effective as setting learning goals; this is potentially problematic in the micro-firm context where action bias equates to limited buy-in for longer-term learning goals. Maintaining a learning emphasis and reviewing learning goals are essential elements of effective learning community

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experience accumulated in prior learning situations (for example learning competency development from learning network participation) and turns it in to a desirable outcome (the formation and maintenance of an ELC), the learner creates the context that provides the opportunity to facilitate learning behaviours that develop or make use of learning competencies.

management. These tasks are carried out by the learning broker in learning network settings; it seems likely that this role is vacant at the very early stages of ELC formation.

Filling the vacancy for 'learning broker'

The role of learning broker encompasses the facilitation of learning and the management of conflicting interests. Role legitimacy is a concern, as the rest of the community may not recognise or value the contribution of the learning broker (Wenger, 1998). Handley et al. (2006) argue that identities (such as learning broker) are not always solely situated within a CoP and suggest that the identity title of 'old expert' (bestowed by Wenger (1998) to community members that achieve full participation), need not be earned through full participation in the community, to the contrary participation can be voluntary marginal and members can straddle the boundaries of a number of CoPs. These boundaries issues are discussed in more detail in the subsequent section on the dynamics of learning relationships.

Learning development

Over the evolution of the CoP the repertoire (stories, rules, routines and ways of doing things) of the community becomes a resource to negotiate meaning. The shared repertoire does not merely represent shared beliefs, to the contrary differences in interpretation become opportunities for negotiation that produce new meanings, much like the learning process described previously in the network setting although the process is likely to be unstructured and un-facilitated in the ELC setting. This negotiation equates to a learning curriculum that creates opportunities for the development of new practice within the community. Lave and Wenger (1991: 100) affirm that *'learning occurs through the centripetal participation in the learning curriculum of the ambient community'*. Wenger (1998) contends that at various times

the community will demonstrate different levels of learning, evident through the extent of reflection, with informal discussions over coffee breaks often providing the opportunity to engage in reflection and discuss learning needs. It can be argued that in the absence of support for the learning process, the danger is that action focused short-term goals like that described by Noel and Latham (2006) overtake learning goals and push the learning agenda to the side. This is precisely why learning is dependent on other learning community members and why the learning broker is so important in the ELC setting.

To conclude, studies of collaborative learning environments stress the underlying importance of formal learning structures that provide support and commitment to sustain learning in the network (Human and Provan, 2000). Success can be attributed, in part to what has been described as the 'natural hub' that monitors and evaluates learning and development (Noel and Latham, 2006). Where this support hub is absent, HRD becomes the responsibility of the community members. The action/reflection balance reinforced through formal network participation permits the opportunity for higher level learning but without the structures that support and encourage this, how is the learning emphasis and balance maintained and what impact does this have on the learning process in these ELCs? Having discussed the importance of these structures, the next section considers the dynamics of these learning relationships.

Dynamics of voluntary learning relationships

Recognised dynamics of voluntary learning relationships include trust, the creation of shared meaning, asset exchange and boundary issues.

Trust: It takes time to build trust in networks and research has contributed little to the issue of inter-organisational trust in an SME context (Sharif et al., 2005), reinforcing the requirement for longitudinal research in this context. An established trustful learning relationship facilitates and nurtures mutual understanding (Lynch and Morrison, 2007). However commitment is not always present and perceived inequities in effort and commitment have an impact on trust and learning within the community (Florén and Tell, 2004; Tell, 2000).

Creating shared meaning: The ELC environment offers the freedom of expression and choice to creating shared meaning (Ahlström-Söderling, 2003). However participants of the community bring with them histories of practice (Wenger, 1998: 55), these histories contain seeding structures that influence the learning process. Interestingly some examples of learning network evolution reveal that learning symbols such as the communities' mission statement (Stuart et al., 1998: 89) help with and contribute to the process of creating shared meaning over time.

Asset exchange: It has been proven that formal network participation provides the skills and competencies to build social capital (Taylor et al., 2004; Putnam, 2000), once the elements of trust and reciprocity have been embedded. Notably, the competence of experts is shared with newcomers creating cycles of evolution within the formal network much like the findings of Lave and Wenger (1991). It is important here to distinguish between the role of expert and newcomer as it relates to the ELC environment and differs from the CoP perspective. ELC members (experts and newcomers alike) are adept at their own business practice, some will have learning competencies brought with them from formal network participation and as such

are more expert in learning competency terms. Newcomers to the 'practice of learning' within the ELC offer different perspectives and experiences that can potentially enrich the learning process, once mature community members can recognise the value of that experience and leverage it as a learning resource.

Membership boundaries: ELCs form and maintain boundary relationships with the external environment and as such they cannot be considered in isolation. Although the external environment is, broadly speaking, outside the remit of this research, a number of issues that arise in the literature from an external context do require exploration from a learning perspective. These include, inclusion/exclusion through membership, learning symbols and resources that cross boundaries, the learning broker, seeding structures that transfer from one community of learning to another and finally new membership regeneration (Wenger, 1998).

CONCLUSION AND RECOMMENDATIONS

The ELC model seeks to illustrate the evolution of the learning community through an exploration of key themes emerging from the literature in relation to the learning structures and relationships and their resultant impact on micro-firm owner/manager learning in such settings. While previous research incorporates the notion of 'close others' and their impact on micro-business owner/manager learning (for example Devins et al., 2005) the authors note that the development of these relationships over time remain elusive and require investigation. Other researchers have modified models of learning in response to the growing prevalence of collaborative learning (see Knight and Pye, 2005; Beeby and Booth, 2000) although the

majority of these are based upon collaborations in larger organisational settings. Some researchers have extended the CoP framework acknowledging the limitations of the CoP perspective in exploring management learning in networks (Juriado and Gustafsson, 2007; Haugen-Gausdal, 2008). To the best of the author's knowledge, none to date have mapped learning development from the micro-firm setting to the formal learning network setting and on to the ELC setting. This is the key contribution of this research.

Future research will inform and validate the model through an interpretivist approach that will enable the researcher to 'induct theory' (Eisenhardt, 2007) through the completion of a number of longitudinal cases, a method previously utilised in the context of micro-firm learning model development (Devins et al., 2005; Kelliher, 2006) and SME network studies (Human and Provan, 2000). The cases will be carried out in a number of ELCs; the researcher will observe and record interactions between ELC members at appropriate intervals. Each case will also incorporate a number of interviews with key community 'learning brokers', while focus group sessions and observational data will permit the capture of a range of experiences and preferences.

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