The Small Firm: as a distributed evolving social learning network

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Abstract
The paper views knowledge creation as an emerging process, in which knowledge content and form crucially depends on the social relationships around which work is organised, and the purpose for which knowledge is used. The paper takes a social constructionist approach, by conveying an underlying expectation that knowledge and learning do not run separate to the known world. The paper will put forward the perspective that in order for the small firm to become a distributed evolving knowledge system, the promotion of social interactions amongst its components and agents is required.

Key Words – knowledge, innovation, small firm, social networks, interaction, learning.

Biographical notes: David Higgins is a Lecturer at the University of Huddersfield Business School. His research interest is directed towards a social constructionist view of organisational learning, in particular placing focus on the social conceptualisations of organisational learning and the role of artefacts in relation to the development of learning practices in small firms.

Introduction

The literature on the problems of understanding learning and knowledge, in the context of the SME is extensive. Knowledge and the capability to create it through organisational learning is seen by many academics and practitioners alike to be important sources of firm growth and innovation, (Crossan and Guatto, 1996). Organisational learning represents attempts to both theorise methods in which learning practices may be created and also to put forward practical ways to manage these practices. In highly competitive markets with increased globalisation, a desire to maximise a return of labour costs, customer expectations - organisational learning is considered by many as an effective tool and key element of the firm. Research in the context of the small firm and owner/managers, suggests that the characteristics of effective organisational learning could well be the success of the firm (Cope, 2003). However, the field of organisational learning is not without its criticisms. The variety of descriptive work and the lack of proper conceptual consideration of organisational learning constructs is problematic in its own right. King and Anderson (2002, p190) adopt a slightly more sceptical tone: "It is likely that some positive structures do exist, but there is clearly a lack of robust research to support the mass of recent consultancy offerings to enhance organisational learning". They recommend caution when interpreting claims about organisational learning, but do not discount future research offering more hope in this direction. Others (Easterly-Smith, 1997; Huber, 1991) also recognise there is scant evidence for the explicit impact of organisational learning and this is particularly so within SMEs (Gibb, 1997; Sadler-Smith et al, 2001).

The SME firm and its management process are quite contextually specific and are dependent or related to a wider number of related factors making it difficult to specifically and rationally identify those key learning process which would allow and enable for the development of firm learning. The paper attempts to move beyond previous studies in the subject domain, which tend to merely assess or measure learning, as a response to policy based directives, by identifying the corresponding problems. Leading theorists in the subject domain have long differentiated for analytical purposes individual and collective learning. Theoretical accounts of learning as a result usually began from either pole and then reduced the opposing dimension to a casual consequence to either individual learning which is said to constitute the basis for firm learning, the fallacy of reductionism in which firms are believed to analogously learn like agents – the fallacy of reification and anthropomorphization, (Stacey *et al.*, 2002). Neither of these understandings fully develops or captures the essence of the dynamics of learning within the small firm, which reinforces the contention that current literature on organisational learning does not adequately explore the meta-theoretical and micro-level linkages and relationships between knowledge and learning of the individual and collective which maybe obscuring some of the most powerful potential value of organisational learning theory. Numerous scholars have tended to focus on how firm knowledge is acquired, interpreted, processed and stored in a reductionist based perspective. This way of thinking and understanding knowledge has been a dominant paradigm which views firm knowledge and learning as collective dimensions of individual. A strong dialectical approach is adopted in this paper, in which individual knowing and collective knowing stand in an emergent relation, which is represented in the agents ongoing engagement or actions in which learning occurs. Stacey (*et al.*, 2001) holds that learning is the activity associated with interdependent agents. Further studies have suggested how firm learning arose from social practice that were creatively realised by acknowledgeable agents in the firm while being enabled and constrained by those very social structures.

In reviewing the literature on the subject area some important aspects are highlighted in regard to SME learning which is based around the concepts of contextualised action, and the interconnectedness of social networks. The creation of knowledge within the firm must take into account the dynamic relationships between individuals, their networks and the objects of their activities. The dynamics of the knowledge creating process is based on the knowledge held within the agent at particular moment and time; each moment is a compromise as the balance within the process changes constantly. The agents employ their knowledge in a situation which is itself

constantly developing, in responses to this developing situation the agents knowing and behaviour will also inevitably develop, (Blacker, 1993). The process of knowing is at the heart of a new theory which encompasses knowledge but which overcomes its connotations of abstraction and permanency. This requires the re-developing of traditional concepts in the field as the split between individuals and organisations, and the social and the technical is overcome.

Organisational Learning: an overview
To understand knowledge as an stratified phenomenon of social knowing, where knowledge is uniquely created, as a productive force, within a particular social setting is to draw on one's ability to understand how meaning is intrinsically related to the use of mediating language and interaction, (Gherardi, 2000). The definition of knowledge as a capacity for knowing indicates strongly that the material realisation and implementation of knowledge is dependent on, or embedded within the context of specific social and intellectual roots.

Thus the creation of knowledge within the firm must take into account the dynamic relationships between individuals, their communities and the objects of their activities, and provides a clear alternative to approaches that attempt to study such things and the factors which mediate the relationship between them. From this perspective the appropriate units of analysis is the social relationships between the agents within the firm, within this process knowledge does not appear as a separate category, but rather permeates all the different knowledge creating activities within the firm. For example interactionism treats social action and their small face-to-face interactions as the basis of all social life, so that the meaning of any concept or idea can only be located in the experimental consequences which it produces. Polanyi (1962), distinguished knowledge, from "knowledge about" to "knowledge of". The former that which is acquired through text books, is conveyed in abstract general principles which can be learned and memorised, the later, knowledge of practical knowledge which is acquired through experience in everyday life and is established through trial and error and can take an unconscious tacit form. Thus the concept of the knowing agent as a "thinking process" can be viewed as a continuous developing entity, rather than as a fixed element. In this way, individuals can define objects and their context, identify sensible courses of action, imagine the consequences of these choices and select an appropriate course. The prediction of the routine habitual practices of the related parts of the process responding in similar predictable ways enables the social interactions of human beings to take place while avoid conflict. Schutz (1967) argued that it is through the condition of inter-subjectivity that the individual agents are able to understand each other's routines and construct their life world. By sharing time and space, the (individual) action involved in communication could engage in a process of understanding which involved the discovery of what is going on in the other persons mind, (Schutz, 1967). The paper adopts a social constructionist approach which views and understands explanations as materialising from the description. Social constructionism conveys an underlying expectation that knowledge and learning do not run separate to the known world, but are part of the way this world actually is constructed by the way in which we engage with the world. Which is not to suggest that the world is somehow constructed by what we say and do, but rather it draws focus to our tendency to place particular significance on selective aspects of our experience and by doing so giving focus and meaning to what counts as knowledge and learning within boundaries established by such factors as, social traditions, institutions and practices. By recognising that social, historical and cultural aspects have an influence on what we can know and learn is often seen as a lack of rigour and insight. Social constructionists have argued that there is no escape from prejudice and that ignoring prejudice is itself an act of prejudice in its own rights.

In complex situations and conditions many supporters of organisational learning promote Kolb's learning cycle, suggesting that learning is a dialectic and cyclical process consisting of four action and reflection stages. In practice, this cycle of action and reflection does not follow a linear and sequential fashion. But rather, it is far more fluid and dynamic, in which learners move back and fourth among the stages. Learning is the activity of independent agents and can only be understood

in terms of self-organising social interaction, individual agents cannot learn in isolation and organisations can never learn, in totality. In contrast, the traditional approaches to learning makes the assumption that knowledge must be transmitted and received in the form of explicit information, after which learners can apply this new found knowledge to their own purposes. In this case learning is viewed as an external objective process. Firm learning needs to recognise the tameness of agents, to generate knowledge rather than merely absorb passively the results of research. This form of learning, through processes of social interaction is both individual and collective, by providing a flexible and systematic approach to conceptualising and transferring learning from experiences. Knowledge and learning are therefore emergent properties which are difficult to manage. In that learning cannot be separated from work and the learning which takes place as agents engage in everyday social life. It is through the connection among the agents of a social learning practice and their interactions, that new stories, experiences and knowledge are shared and developed. From this perspective the concept of knowledge in the knowledge based small firm must be focused towards both the interactive and co-evolving nature of organisations and their environment in which these firms function the social process of co-emerging knowledge, and relationships through the constant connection interaction between diverse members of the social network, in and across the firm.

Dynamic Learning

Learning is critical to interdependence as it is the key driving force which connects diverse and heterogeneous social agents. The diversity of mindsets maximises the learning process by drawing on the distinctive qualities of individual social agents as a basis of identifying complementarities that can address their common and diverse agendas. In this way learning provides the catalyst for connections to be made between agents in order to address the issue at hand and overcome the knowledge gaps. Moreover, learning shapes the emerging schemas that define the boundaries of action while it also opens up multiple modes of interaction. Through agents interaction with a social group, allows the emerging patterns of thinking and action. This is supported through the social structure of a network, but these social network structures are constantly evolving as social actors become sensitized to new possibilities for learning. As such new learning opportunities or possibilities emerge as a consequence of the through the inherent nature of social network to renew itself. The process of renewal and on-going dynamic interactions between the social agents in the network is made possible because learning, like change, is an integral part of living and working. In this regard learning establishes the necessary dynamics through which agents in a social network self organise, which is an inherent mechanism for reaching internal agreement. The complexity of such processes allows viable connections to be made between diverse sets of agents, which are of emerging dimensions that affect action and interaction with others. How and why agent's behaviour and practice in the manner they do is attributed to the practice which they are exposed too and in turn defines their understanding that subsequently guides their future actions.

The concept of learning in the firm has developed overtime in which numerous areas of interest has been established, which have dominated the debate on learning in the firm, such interest groups attend to either the behavioural aspects (Cyert and March, 1963; Levitt and March, 1988), the *cognitive* issues (Duncan and Weiss, 1979; March and Olsen, 1975), the *socio-cultural* dimensions (Cook and Yanow, 1996; Lave and Wenger, 1991) and more recently the *practice-based* view (Nicolini et al., 2003). As a result there are various ways which one can situate and view current organisational learning theories; there is a tension in the tendency to group different perspectives, creating juxtapositions that place one theoretical perspective against the other. These differing views allow researchers and theorist a degree of freedom to understand different dimensions of the firm learning phenomenon. The paper views learning as a dynamic process, existing organisational learning theories do not fully capture such a view. This helps explain why no specific theory of organisational learning is currently in existence, two board headings can be identified in the literature -individual and social theories of organisational learning. The individual perspective considers learning as embedded in the individual agent, through the learning of the individual agent. Whereas the social view considers that learning is a social phenomenon which is evidenced through social

networks and collective group learning. Elkjaer (2004) drew a distinction between how learning theories build on the metaphor of acquisition and theories of organisational learning build on the metaphor of participation. The acquisition metaphor is used to describe firm learning which focuses on the methods through which individual agents acquire knowledge through learning. While the participation metaphor view of organisational learning recognises its social complex nature and who also seek to understand how engagement in learning through participation supports the interaction among different aspects of learning.

The individual view of organisational learning, explores how individual agents in the firm learn (March and Olsen, 1975; Argyris and Schön, 1978; Shrivastava, 1983; Simon, 1991; Dodgson, 1993). Scholars who hold this view draw focus towards the agent and the methods through which this learning is linked to organizational changes. The assumption of this view is that the individual agent learns and then disseminates this knowledge or (know how) to others. For example Huber (1991) bases his model on the existence of several phases (information acquisition—information dissemination—collective interpretation). This view of learning is linked to theories which embrace psychological learning theories, such as the behaviourist, cognitive, and humanist. In this sense organisational learning is a process of integrating, interpretation and improvement of representations of reality through knowledge. This is consistent with the knowledge management literature which makes the assumption that knowledge and learning can be codified, stored and easily transmitted (Chiva and Alegre, 2005). When knowledge or knowing is transferred into the firm in the form of rules, or routines, one's suggest that organisational knowledge is established (Cohen and Bacdayan, 1994). By conceptualising learning in such a way, knowledge and its relationship to the firm is centred on a positivist epistemology, which fails to understand and appreciate the numerous modes of knowing in the practice of social agents and how they interact, as this interaction is assumed to be linear in nature.

Drawing more focus to these social interactions could not only serve to illustrate different modes of knowing in practice but also the nature of the relationship between learning and knowledge can be fundamentally challenged (Antonacopoulou, 2006b). Through the work of Lave and Wenger (1991) and Brown and Duguid (1991), a social based view of learning has emerged. The social based view seeks to explore organisational learning as a result of social interactions, developed through activity in the workplace context, posing an alternative to the main dominant individual based models which conceives the learning agent as a person who processes information and modifies his or her mental structures. The social perspective suggests that agents in the firm are social actors who as a network, together construct a set of understandings which surrounds them and their learning through and from the social interactions within the network which they function, such as the firm, (Gherardi et al., 1998). According to this view, learning is achieved through the active participation of the agent, which is continuously being modified as the agent's experiences different interactions and context (Blackler, 1993). In this sense the focus is more directed towards adaptive tensions and change, as opposed to the embedded nature of order and rules (Elkjaer, 1999). The social perspective attempts to move beyond looking towards cognitive or conceptual structure of organisational learning, but rather sets outs to embrace and explore the types of social actions / contexts which allow for the emergence of organisational learning, by focusing on the collective and social networks within the firm. Elkjaer (2003) argues that learning is perceived as a dynamic activity which cannot be regulated or controlled, the only possible element which could be controlled is context, thus facilitating organisational learning to a greater or lesser extent. In which learning is conceptualised as a construction of shared beliefs and meanings, in which the social context plays an essential role (Berger and Luckmann, 1967). Through the establishment of learning as situated within a social network, this point suggest that organisational learning emerges out of the possible connections and inter-dependencies explored across multiple levels of analysis. Therefore understanding which are the conditions that make connections across levels of analysis possible and how they form is a key priority.

Networks: as a learning resource

Research on networks is closely linked to issues of social capital and absorptive capacity. However, this group of studies is more focused on the different types of networks that may support small firm learning. Personal networks are identified as significant, but they quickly outlive their usefulness. A study by Greene (1997), for example, shows Ismaili-Pakistani immigrants in the USA provide a network of tight family and culturally derived contacts that can initially provide a supportive framework for business generation. Over time, however, the same network circumscribes access to knowledge and trust-based social relations are said to reach their limit of usefulness. Broader socio-centric networks available through industry ties, it is suggested, become more important (Lechner and Dowling, 2003) and may be particularly important to support activities such as internationalization (Zahra et al., 2000). Even industry networks are argued to have their limit of usefulness, since they primarily provide access only to industry-specific knowledge (Zhao and Aram, 1995; Staber, 2001; Elfring and Hulsink, 2003; Floren and Tell, 2004). Rather, network diversity is reported by Saxenian (1990) to be at the heart of the semi-conductor industry regeneration in Silicon Valley during the 1980s. She directs attention to the variety of network contacts that can include business services, universities, suppliers and venture capitalists, which can all enable a transfer of 'know how' and skills through collaboration. As such, Robson and Bennett (2000) conclude that it is not necessarily the type of network that is important, but that networks provide access to specific and relevant knowledge on business processes and markets. Consequently, Cooke and Wills (1999) study in three European countries is of interest since they note the diversity of networking activity in these locations and classify the types of collaboration around a framework involving three dimensions: network formality (formal and informal), scope (local, national and international), and participation (industry, customers and other SMEs), although their findings do not address which is most useful.

If networking activity is important, it is suggested by many studies that networking activity should be supported to aid knowledge transfer and learning. Amongst these studies a tension is identified between the preference by small firms for learning through informal social and network contacts and by experience (Anderson and Boocock, 2002), against the benefits reported of knowledge transfer through institutional support such as business incubation or training provision (for example, Bell et al., 1992;Weinstein et al., 1992; Jones and Craven, 2001; Pena, 2002; Collinson and Gregson, 2003; Chrisman and McMullan, 2004). Moreover, there are some who argue that the nature of assistance must recognise that some firms are more able to respond to assistance than others. For example, Caniels and Romijn (2003), Cooke and Wills (1999) and Freel (1998) all argue that knowledge transfer is more effective when firms are proactive, and it would be both more sensible and efficient to identify and target institutional support for networking at progressive firms. It appears that networks are important for small firm growth. Access to networks is perceived to provide potential knowledge resources to support small firm growth. While social relationships are recognised to be important at start up, social, industry, professional and institutional links appear to become more important over time. It is worth noting also that in order to get most benefits from knowledge networks, many authors advocate institutional support for networking activity. However, what is not clear is when, which networks and what types of relationship suit a particular firm's business and social context. Networks have been viewed as a mechanism by which these two groups can develop and sustain relationships. These networks are viewed principally in functional terms as the channels through which knowledge is developed, placing huge emphasis on the practical value of the network itself. As a consequence there is very little data gathered in relation to the agents and relationships which are developed within the network and a lack of focus on its dynamics. This area requires further research. Cooke and Wills (1999) network typology may provide a way of analyzing network relationships available, but the different types and depths of relationship that exist within the networks add a layer of complexity to our understanding of how they can contribute to small firm learning.

This view refocuses organisational learning from taking place in the minds of individuals to being part of the access and participation of the firm agents. Learning is viewed as a social practice

through the construction of social networks and membership of those networks, in which the agents become a competent practitioner (Brown & Duguid, 1991). Learning is practical as opposed to a cognitive process and cannot be separated from the creation of identity, by contextualising learning in this way, to encompass identity, expands the idea of learning to include human thinking and development. This also presents a change in the term of what we mean by knowledge, as knowledge in this case is understood as the situational knowledge in a social network and not something simply stored in an explicit format. Rather knowledge is the result of the active development and participant of the firm agent by the emerging patterns in the firms social network. Both the diversity and heterogeneity which can be found within a firms social network, is achieved through the emerging relationships between agents within the network as the compete against one another, both internally and externally. The later point is not fully explored in the social learning perspective, as it is understood that organisational learning results through internal workplace interactions without reference to the environment. Coupled to this the sense of community in the situated view of organisational learning assumes homogeneity and neglects the tensions and conflict inherent in competing views within the social network (Lave and Wenger, 1991). This approach is more likely to provide scope for exploring the mutually adaptive relationship between the organization and the environment.

The Firm as a Social Learning Network
The SME presents several dimensional, structural and procedural characteristics, which separate it from other categories of enterprise. The entrepreneurial spirit, strong interpersonal relations, group cohesion, flexibility and organisational dynamism are basic elements for the knowledge-based enterprise, which can be found traditionally within any small dynamic enterprise. The KSME are both important economically and a source of great interest academically, they operate in highly dynamic environments which require the firm owner/manager to construct new knowledge in order to respond to changes within the operating environment. Within the SME the creation and utilisation of knowledge is of major importance to the success of the firm. In comparison to large scale industries the creation of new knowledge is likely to be more informal in these small firms than in larger firms.

Dealing effectively with such challenges requires a focus away from the firm's knowledge base, which currently occupies much of the traditional discussion on organisational knowledge, and towards a focus which draws attention to organisational knowing as an emerging process from the continuous and situated practices of firm agents as they interact and engage with each other and the dynamic environments in which they function. In the KSME, knowledge is highly personal which includes such acts of integrity, and recognising the existence of both tacit and explicit elements of knowledge. Polanyi (1962) introduced the concept of tacit knowledge drawing importance to the significance to the personal element of knowledge – "into every act of knowing there enters a passionate contribution of the person knowing what is being known, and this co-efficient is no mere imperfection but a vital component of this knowledge". According to Tsoukas and Vladimirou (2001, p979) "knowledge is the individual's ability to draw distinctions within a collective domain of action, based on an appreciation of context or theory, or both". How a firm's knowledge agent draws distinctions is based upon how the agent perceives and process what they experience. Knowledge in this case is dynamically shared, in which agents actively share and integrate it with the firm's existing knowledge base. This is recognised in the need for collective groups of agents to create common frameworks of routine practices and habits, but also to capitalise and encourage difference and variety which could allow for creativity and learning. It is through the interaction and relationships between the firm agents and their exchanges, that stories, experiences, and knowledge, are developed, maintained interpreted and transformed. This position stresses the interactive and co-evolving nature of both the firm and the knowledge agents as well as the process of co-emergence of knowledge through the connection, interaction, relationships between diverse entities in the firm (Allen, 2002). This suggests the complexity of knowledge, in the KSME, and draws attention to the fact that neither the individual knowledge agent nor the system in which collective knowledge exists,

are allowed to prevail but rather that the examination can concentrate on the actions which manifest from the organisational practices displayed in the interactions between both, (Wenger, 2000).

The degree to which knowledge is developed and utilised in the knowledge based small firm results from the interdependent influences of the agents and firm processes, (Schaef and Fassel, 1988; Shapira, 1997 and Turner, 2001), individual limitations, (Kolb, 1984; Baum and Ingram, 1998) and the emergent opportunities that arise through the firm structure. The knowledge based small firm contains both rules, norms and routines but also dynamic elements, social relationships, that routinely influence the degree to which knowledge is created and utilised. A social learning network emerges when relationships among agents in a collective start to be conserved, these relationships are the forms of agent's interactions. Moment to moment interactions among agents happen through conversations shared initiative spaces or structured contexts. If these conversations and context is demonstrated by connectionist models producing stabilising structured social learning networks begins to emerge. We can say in this instance that a social system emerges from the recurrent interactions between agents of the knowledge based small firm which constitute the agents roles and experiences, in which agent interactions produce the emerging social learning network through learning and shared experiences.

Research Gaps and Discussion
The contribution of the firm's social learning network, to the creation of firm knowledge and learning, enables firm agents with access to a range of diverse experiences and knowledge. These firm social learning networks are not restricted by organisational boundaries but rather emerge out of the multi-interactions that the firm agent have or occur. Spender and Grinyer (1996) use empirical evidence to demonstrate how social learning communities influence the way in which firm actors perceive themselves, their actions and others, building on their previous study, (Spender and Grinyer, 1997), which focused on the use of industry recipes which owner/manager's call upon. They identified how managerial pattern judgements reflected wider belief structures,. Wenger (2000) argues that organisation cannot take for granted the strength of these influences, as it is through these communities that firm actors learn. Learning in these networks is achieved through the actor being immersed in the local language and practices of these communities, their legitimate practices and activities, thus gaining the requisite skills by which the actor can become part of the lived experiences of the network and as a result pass and share experience with fellow members in the network. This is achieved by actors telling stories, loose narratives through which typical and atypical stories and experiences are discussed. What emerges from this process is a re-enforcement of habits, their alternation or even their termination, and transformation, should problem solving activates induce new habits of practice. Berends et al., (2003) focused towards that of normative rules through which activities are legitimated; through empirical research these writers illustrated how a blend of both normative and interpretive activity allowed actors a freedom of choice or space for possible considerations. Where the firm actors were able to cross over boundaries, in other words across practicing communities boundaries and so learn from one another. How these actors act in these communities is through pro-social and reciprocal motivations oriented to collective rather than individual conceived interests. According to Yanow (2004) the assumed willingness of firm employees to tell everything they know for the good of the organisation is axiomatically regarded as naïve. The prevailing view of politics and its role as hindering elements to be eliminated or overcome could also be viewed as an exploitative positive disrupting element to break embedded routines. As it seems to privilege the views of managers above anyone else in the firm. The absence of power and politics from this area of theorising provides some critical gaps for SME firms which by their informal nature and structure are inherently both political and power based by nature.

One of the most debated topics in organisational learning research has been the question which surrounds the issue of the unit of analysis which best aids our understanding of firm learning. By recognising the complexity and dynamic nature of learning from a social perspective encourages one to seek a more holistic understanding of the learning practice across multiple networks within the

small firm, Antonacopoulou, 2006). By adopting a more integrative view of social learning enables future researchers to recognise and combine the various levels and units of analysis by acknowledging the inter-relationships between social agents which need to be the key focus of any research into the area of organisational learning. Thus enabling one to better understand how social networks based upon social interactions each form part of the firm as a collective social unit. Making sense of these social interactions and inter-relationships within the firms social network require more than simply just attributing strong or weak ties to the manner in which one can describe the different strengthens of relationships between agents, (Granovetter, 1983). Such inter-relationships seek to account for the conditions which define the possibility for agents to engage and interact, in other words for connectivity to take place. The multiplicity of connections and interdependencies between agents and their social structures are subject to forces such as social identity, meaning, language, power and politics as key conditions which shape how diversity is related and accommodated in the developing schema of the social network. Thus suggesting that organisational learning emerges from the possible connections and inter-dependencies between agents with differing experiences and knowledge. Such diversity and heterogeneity are achieved by the relationships between agents both internal and externally in the firms network. The latter aspect is not emphasised in the current literature on the social perspective, as it is understood that organisational learning results from social interaction in the workplace. In that the sense of community in the situated view of organisational learning assumes homogeneity and fails to recognise the tensions and conflicts which can exist and to a degree are inherent in competing views within a practicing network of firm agents.

Conclusion

Postmodernists have challenged the idea of fundamental truth by suggesting that truth is but a story, ethnomethodologists and symbolic interactionists have queried the value of abstract plans and the notion of social structure and have demonstrated the importance of situated skills and pragmatic knowledge, while sociologists have deep-rooted assumptions towards the status of explicit abstract knowledge by viewing knowledge creation as a cultural process and de-emphasizing distinctions between people and technology, (Latour, 1987). It is increasingly becoming clear that traditional approaches and conceptions of knowledge as been abstract, disembodied, individual, and formal are unrealistic. This views the implications of post-modern thought as a theory for practice. Where practical knowledge is foundation less, practical, constructed and pragmatic, the tensions between these domains arise when knowledge is separated from context and transmitted either as abstract data or as universally applicable approaches to problem solving, learning is not a passive process but one which is active in practice, in which the boundaries of knowledge in complex organisations are fluid and over lapping. The research argues that knowing is situated in action, as the circumstances of action shape tasks, (in which knowledge is a collective element), as practices are distributed socially the through inter-subjective process of social relationships between agents in the firm, rather than being a mere internal manipulation of ideas. These assumptions provide a useful starting point for the development of a unifying theory of organisational knowledge and its creation. Firstly rather than speaking about knowledge, with it's existing Cartesian implications of abstract, progress and mentalisam, it would be more useful to understand the process of knowing, and move towards conceptualising the multi-dimensional processes of knowing and doing as an emerge process of complex interactions.

While learning through and from experience is important to the SME, this is also dependant on the methods used by the owner/manager in managing and understanding the relationships between three key knowledge forms which are connected to the firm, human and social capital, structure and systems network. What current research fails to recognise and reflect in the changing dimension of knowledge research in the broader organisational domain (network), which has shifted focus towards the situated nature (Brown & Duguid, 1991; Lave and Wenger, 1991; Blackler, 1995), as knowing in practice (Orlikowski, 2002). In only a limited number of studies is there attempts to make sense of the manner in which knowledge is configured by wider influences concerning the value, uniqueness, and scope of what is known. Knowledge is as much a relational construction as it is a controlled

entity, suggesting that its analysis, in regards to learning requires that use of additional concepts to those currently being used. The creation of knowledge requires multidirectional interaction, self-organisation among agents with diverse knowledge forms, enabling them to become both sources and recipients of learning. This multidirectional interaction maybe facilitated by the development of a learning environment in which the firm agents participate, as it is not only the transfer of knowledge (explicit) that is involved but also that of tacit knowledge, which can only be acquired through the process of interaction, (Nonaka & Takeuchi, 1995). Interaction among varying agents with differing knowledge forms which are shared and transferred in order to create knowledge have two critical focal points, firstly the willingness of the agents, located in different parts of the firm to share their knowledge and understanding, secondly knowledge agents with different knowledge need to be able to understand each other, in that they require a common language, or a common tacit knowledge of the firm and its environment, (Grant, 1996). Knowledge in the SME is typically developed within a network of agents, specific to a context at a certain moment and time. This entails attributes of a particular approach to the study of organisational knowing and learning which sees them as a from of social expertise, a collective knowing developed and learned in action and interaction in very specific, historical, social and cultural contexts, (Nicolini, Gherardi, and Yanow, 2003).

Local knowledge is contextual knowledge, knowledge that develops in interaction among agents and develops out of experience and much of it is tacitly known – "a kind of non-verbal knowing that evolves from seeing and interacting with an agent over time. The local firm agent is far more knowledgeable about the task at hand than those without such experience, expertise which is embedded in local knowledge in intimate familiarity with and understanding of the particulars of the local situation. As Greenwood and Lewin (1998) note local knowledge is complex, highly differentiated and dynamic. In other words local firm knowledge is situational but this does not mean that the localised knowledge is lacking in expertise or divergences rather it is the character of expertise which is different this local knowledge legitimates the experimental contextual as a type of specialisation equal in value. The demand for new knowledge is frequently mentioned as a major reason for the emergence and recognition of social networks, and how these networks can be used to support activities and knowledge flows in the process of knowledge creation and learning through working practice. This draws focus on knowledge as a social action and networking as an organisational practice. In order to address the challenges of the knowledge economy, the KSME needs to continuously develop new working practice and knowledge which shape and are reshaped by the manner in which firm agents relate to each other both within and across the firms social network.

What agents understand and know, coupled to the way they practice it emerges from the interplay between tacit and explicit knowledge forms, it is inter-subjective and is therefore inherently indeterminate and continually emerging. Further to this knowledge in this context is always historically and culturally specific, that is shared by particular social groups and sustained by social processes. Suggesting that this view of knowledge and how it is developed requires a conceptual shift away from the individual towards the collective and from possessions towards processes, focusing towards methods of learning via interaction and social practice. This perspective emphasises how connections among members of a social learning network can enable learning and knowledge sharing. These connections established among different members of the social learning network allow not only for knowledge transmission among collectives but also open up the possibility of learning and sharing new meanings. If we think in terms of organisational collectives and their working relationships this also means that agents are able to organise themselves and the knowledge they share by relying in their web of connections when they need to search and acquire new knowledge or reorganise their activities. The benefit of this perspective is the conceptualisation of the organisation as a structure that is fluid but sensitive to the needs of the connected elements as well as in connections with its environment in such a way that co-evolution of both the organisation and it environment is possible.

In this perspective what any agent knows about any information depends largely on the meanings and language through that knowing is processed. The author notes that understanding and knowledge begins in the context of the firm, representing a model of social interaction, in which the firm agents experience the firm and its knowledge requirements. Some important issues of this are firstly the firm can be viewed as the vehicle by which firm agents absorb cultural-specific meanings and knowledge. Secondly agents, through gaining knowledge and new meaning, adopt behaviour patterns as they interact with each other agents thus constructing new meaning in order to explain the habitual behaviour patterns. In this context an organisation which has the ability to create and transfer knowledge on an ongoing basis has developed a dynamic and unique capability that potentially underpins continuous organisational learning. In spite of the wider understanding and recognition of the complex dynamics which are found within a SME's knowledge network there is the continued search for understanding these dynamics. If the SME's knowledge is to drive innovation and learning it is important that an understanding of the processes underlying the creation of knowledge and the epistemological domain of knowing, but also the relationships and dynamics within this process. The SME can be regarded as a network of interdependent units in which collective and individual agents are used in working teams as their building blocks. For this reasoning relationships among these interacting agents and differing components of the firm are complex, being characterised by a variant degree of co-operation and competition. Competition amongst the agent is been driven by power and scarce resource of the firm. But simultaneously these firm agents are dependent on each other in order to achieve their required tasks. Because of the degree of interdependence among the agents, how these needs are regulated is a balance between co-operation and depending on one hand and rivalry and autonomy on the other hand. This is recognised in the need for collective groups of agents to create common frameworks of routine practices and habits, but also to capitalise and encourage difference and variety. Which could allow for creativity and learning within the collective and individual? It is through the interaction and relationships between the firm agents and their exchanges, the stories, experiences, and knowledge, are developed, maintained interpreted and transformed. The small-based firm's key resource is both the individual and collective knowledge of the firms' agents which play a central role in the knowledge creating process. The ability for knowledge to be created lies in the social interactions of the firm's knowledge agents through the constant exchanges, such as conversation, and practices, of varies knowledge types which exist in the knowledge based firm. It is through these processes that knowledge is developed in the firm.

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