

**VIRTUAL LEARNING NETWORKS IN SMALL TOURISM BUSINESSES:
A THEORETICAL FRAMEWORK**

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INTRODUCTION

Much of tourism development is predicated on the successful working of organisations and their competitive alignment in the form of partnerships or networks. Specifically, national and international research studies acknowledge the importance of small firm network-centred learning, where an integral part of this learning process is the complete network of relationships of the small firm owner-manager. Despite their importance in the context of small business development, networks, both physical and virtual, have been relatively neglected as an area of academic study, particularly in the tourism context.

This paper focuses on virtual learning networks (VLN) among small tourism businesses, and seeks to establish a conceptual frame within which VLNs can be studied from a small firm perspective. A comprehensive review of the literature on VLNs is presented, drawing from traditional learning theories and their adoption into a virtual standpoint. The review also draws from networking philosophy and relational capital domains. Previous research suggests a number of factors including collaboration, trust, and reciprocity as indicators for the building of social capital in order to increase participation levels among network members. The approach to learning, its theories and behavioural analysis are a predominant focus in the examination of existing literature.

A conceptual framework is presented identifying the elements (trust, commitment and reciprocity) necessary for building social capital as a means for effective collaboration among members within a small firm virtual network. The research goal is to suggest factors for consideration by managers and national support agencies (including Fáilte Ireland in the tourism context) when establishing small business virtual networking operations. Further research includes the operationalisation of this conceptual model in the Irish tourism sector.

LITERATURE REVIEW

In recent years, small firms have been exposed to a constantly shifting environment, which has caused “*variability, ambiguity, uncertainty and complexity in the context of doing business*” (Tell, 2000: 305). The ways economic activities are carried out are changing as a result and this has had considerable effect on how smaller firms’ interact at a competitive and cooperative level (Kelliher, 2007). According to Seung Ho (1996), change in orientation from competition to co-operation in inter-firm relationships has seen many enterprises pooling resources and seeking ways to collaborate in order to remain competitive, and there has been a marked move towards corporate collaboration, different forms of partnering and the emergence of networks on a national and international context (Moller and Svahn, 2006: 987). Networks can be described as a form of collaborative relationship that firms enter into with their competitors in order to gain strategic advantages (De Wit and Meyer, 1998 cited in Love and Thomas, 2004), wherein a set of interconnected and co-ordinated actors (organisations, individuals, groups) whose connections are based on social exchange and collaborative relationship ties, show varying degrees of intensity, diversity and level of formality; across network typologies (a view supported by Weber and Khademian 2008; Braun and Lowe, 2006; O’ Donnell et al., 2001; among others).

The concept of a learning network has been described as ‘*a network formally set up for the primary purpose of increasing knowledge*’ (Bessant and Tsekouras, 2001:88). From a review of networking literature it has been acknowledged that inter-firm networking activity can produce learning outcomes (Morris et al., 2006; Bessant and Tsekouras, 2001), which may occur as a result of individuals interacting in shared spaces (Lave and Wagner, 1991). Theoretical ideas underpinning networked learning have developed from two strands: learning through cooperative or collaborative group activities and learning in communities of practice (Allan and Lewis, 2006). Apostolou et al. (2003) identify various types of learning networks (LN), including industry or sector-based networks, government support networks (Huggins, 2000; Foley et al., 2006) and Virtual learning networks (Piccoli et al., 2001). The focus of this study is virtual learning networks within the tourism sector.

At a sectoral level, it is argued that inter-firm network formation among industries has given way to increased competitive advantage over industries who have not adopted this strategy (Love and Thomas, 2004), thus there are many benefits that can be attributed to small firm networking at an industry level (a view supported by: Jack et al., 2004 and Narula, 2004).

These include, regional development, leveraging resources, competitive advantages, stimulating learning, acquisition of tacit knowledge, and the emergence of knowledge (Ardichivili et al., 2003; Seufert et al., 1999; Tell, 2000; Pyka and Koppers, 2003; Porter, 1990). Therefore, promoting network activity among small tourism firms can stimulate both competitive and learning benefits for individual network participants. Specifically, growing interest is being shown in the role of inter-firm networks can play in supporting learning capabilities (Morris et al., 2006) and the exploration of learning pathways (Daniel et al., 2003), which in turn can enhance development on both regional and national levels (Porter, 1990).

There is no question that the Irish tourism industry can benefit from the networking ethos, considering this industry is primarily made up of businesses that are predominately Irish-owned and tend to be small in size (Small Business Forum, 2006). According to Fáilte Ireland's Human Resource Development strategy (2005-2010: 22) "*small scale business size is compounded by geographical dispersal in a country such as Ireland, where tourism is truly an industry of every parish*". This dispersal has significant repercussions upon the ability of the sector to participate fully in learning, particularly on a collective basis. Specifically, small Irish tourism businesses can struggle to provide an environment in which sustained and developmental learning takes place (Fáilte Ireland, 2005-2010) and several criteria contribute to this reality: geographic dispersal, the size of the firm and availability of resources. Notably, barriers to learning opportunities have been identified as a major cause of deficiencies in management skills and a reason for early business failure in small tourism businesses (Morrison & Teixeira, 2004), and therefore present a clear challenge in the sustained competitiveness of these firms. There is a growing realisation that to survive, small tourism businesses must enter into cooperative bonds with their competition (Brandenburger & Nalebuff, 1997; Tinsley & Lynch, 2007), and greater adoption of new technology offers potential to improve the content, delivery, and quality of the learning experience within tourism (Fáilte Ireland, 2005-2010). Thus, the potential for virtual networks to promote learning has potential in terms of small tourism firm success.

BUILDING A SMALL FIRM VIRTUAL LEARNING NETWORK TYPOLOGY

According to Bessant and Francis (1999), the successful operation of a learning network requires the following:

- The intensive interaction of the people within the network, including facilitators, participants and decision-making authority.
- The interaction of the members to share knowledge and exchange experiences, this multi-faceted interaction results in the generation of rich tacit knowledge that becomes explicit through their interaction.
- The diffusion of captured knowledge within the network to allow all participants to access the learning content in order to benefit the network as a whole

For virtual learning networks to succeed, participants interacting in virtual spaces need to understand how the forum operates, therefore the functionality, navigation and operation of the forum need to be in line with actors' needs and abilities, and benefits should be apparent to the user. Apostolou et al. (2004) indicate five different ways in which learning can be enhanced through the use of ICT – specifically, as a support for decision making through a virtual collaborative platform wherein members can capture as many perspectives as possible in context, while simultaneously facilitating the diffusion of knowledge. Within the resource context (a key challenge in small firms), time is saved in travelling to meet face-to-face. Furthermore, recurring access to information is a major VLN advantage, and reinforcement of that which is learned provides for deeper learning over time. Finally, 'community' is established wherein members (new and existing) are not 'left out in the cold', although this is also dependent on the network's social approach to membership.

When discussing small firm learning networks, the structural dimension refers to the fundamental elements of the network such as types of ties and connections and the social organisations (individuals, organisations, groups)/actors of the networking community. In definition social capital is '*a stock of active connections among people: the trust, mutual understanding, and shared values and behaviours that bind people, the members of human networks and communities and make co-operative action possible*' (Cohan and Prusak, 2001). Thus, the content dimension of social capital within a network includes the types of norms, trusts, and shared understanding as the social glue that holds people together (Daniel et al., 2003; Morosini, 2004). Viewing network structure from a social perspective brings focus to the relationships that may exist among and between network players (Chell and Baines, 2001; Huggins, 2000). Seufert et al. (1999) acknowledges the necessity to study networking constructs from both dimensions in order to fully understand the nature of connections, relationships and networking activity, and the authors' contend that this

approach offers greater insight into network activity among small firm actors, particularly in the virtual environment.

Inter-firm networks in the small firm environment

A vast amount of network literature with relevance to entrepreneurs/owner-managers is based on personal networks (Taylor and Thorpe, 2004; Baron and Markman, 2000), which are naturally and informally created over time through relationship building and business contacts. These informal organically grown networks have been found to have higher participation rates, share more frequently and openly and are based on strong social relationships built up over time, and research suggests that a semi-formal dimension to network theory (MacGregor, 2004; O'Donnell et al., 2001) may be the most appropriate approach to network activity in the small firm milieu. The semi-formal network may be defined as a formalized set of actors who interact in the context of identified aims, normally operating under an umbrella, which allows the network members to formally present issues and areas of concern to umbrella organisations (for example Institutes and State Bodies) and informally interact among participants (Gibson et al., 2005; MacGregor, 2004). Therefore, hub support is a key aspect of the small firm VLN environment (Framework 1).

Notably, networked learning occurs in a cyclical process (Beeby and Booth, 2000): as participants move through the four stages of the learning cycle (Kolb & Fry, 1975), they reflect on information obtained through others experiences whilst also giving conscious attention to inner thoughts and feelings. Learning in a small firm tourism network environment is deemed to be an active process (Foley et al., 2006), which involves constructing knowledge, developing concepts and experimenting with new found knowledge (Bessant and Tsekouras, 2001) – amounting to a socially constructed approach to learning. Here, new information is linked to prior knowledge, thus mental representations exist in the mind of the individual and not independently (Löbler, 2006). This implies that knowledge is generated through social interaction, and through this interaction individuals gradually accumulate advances in their levels of knowing (Framework 1).

Daniel et al. (2003) posit that learning also emerges out of interactions in a virtual capacity and that a social constructivist epistemology underpins the development of social capital in virtual communities. Social capital is a seminal concept in collaborative inter-organisational learning studies (Daniel et al., 2003; Falk and Harrison, 1998; Floren and Tell, 2004; and O'Donnell et al., 2001; among others), and forms the basis of the proposed VLN framework

(Framework 1). Arguments exist within relevant literature as to the strength of ties and which form (strong or weak) is more beneficial in inter-firm collaboration (Jack et al., 2004; Granovetter, 1973, 1983), although a mix of both forms may be beneficial in networking constructs in order to avail of benefits associated with each form. The examination of ties among network actors forces us to explore social capital as a mechanism of understanding social interaction among actors and learning in a networked environment. Specifically, in order for participants of a virtual learning network to construct knowledge they must actively seek interaction, requiring social capital, trust and reciprocity to be evident in the network environment.

Building Social Capital in Virtual Networks

The expansive development of virtual communities as hubs for information exchange and knowledge construction makes the construct of social capital significant to understanding learning in virtual settings (Daniel et al., 2003; Falk and Harrison, 1998; Rowe et al., 2005). There are arguments as to whether social capital can in fact be formed in a virtual setting (Daniel et al., 2002, 2003), and maintained in electronic communication or can it only be a product of traditional (face-to-face) interaction. Daniel et al.'s (2002:1) study analyses whether '*social capital, a stock of capital that resides within relationships of individuals in physical communities, also exists in virtual learning communities?*' These authors find that theories of situated learning and social capital apply to virtual settings, as virtual communities are social entities built around social interaction among people, embedded in their very existence (Stonebreaker et al., 2004; Lea et al., 2006). It is therefore participant interaction not the space in which they interact that forms the network, a view supported by Rowe et al. (2005). While little is known about social capital building in virtual settings, it is clear that all elements of building social capital in physical interactions can apply to virtual interactive spaces (Daniel et al, 2002). According to Daniel et al. (2003) little work has been done in extending the use of social capital as a mechanism for understanding trust, shared understanding, reciprocal relationships, common norms and co-operation in relation to virtual learning networks, and this research seeks to address this literary gap in the small firm tourism context. Through analysis of relevant literature in the areas of trust, commitment and reciprocity (social capital) in temporal network settings, indications into these elements in a virtual setting emerge.

Trust

The subject of individual and interpersonal trust within networks has captured the attention of sociologists and psychologists for many decades; this attention has intensified with the growth of virtual networks and their potential to increase social cohesion (Nolan et al., 2007). This study views online trust from a social paradigm thus concentrating on relational aspects that may cause low trust levels among network members (as supported by: Morris et al., 2006; Floren and Tell, 2007; Nolan, 2007). Kollock and Smith (1996) in Nolan (2007) posit that the root of poor collaboration among members of collaborative relationships is that there is often a tension between individual and collective rationality. Therefore individuals may find it difficult to openly interact with other members out of fear of bearing information and the inability to see long-term benefits (Ardichvili et al, 2003). Many researchers in the area of learning networks posit that trust must be established and maintained (Morris et al., 2006; Floren and Tell, 2007; Nolan, 2007), while some emphasise the role of facilitation in building and maintaining trust, which in turn will lead to forms of reciprocity, commitment and receptive relationships (Floren and Tell, 2004; Nolan, 2007). Floren and Tell (2004) explore the emergent prerequisites to building learning relationships in a networked environment, and highlight the main elements necessary to ensure open, transparent interaction among actors within a network. It must be noted that the building of trust is time dependant and trust must first be developed before actors display; commitment, reciprocal relationships or receptive capacity (Floren and Tell, 2004). Online trust can also be hindered by structural problems as well as social problems (Hsiu-Fen, 2007). Therefore, a correct combination of usability, design and architectural dimensions and relationship between connectivity and trust among members is needed to ensure this requirement is facilitated in the virtual environment.

Commitment

Virtual environments have been beneficial in overcoming barriers of access, isolation, dispersal, and time however questions have been raised as to whether these environment can effectively sustain cohesion among members of a networking community. Hsiu- Fen (2007) explores this phenomenon and concludes that it is necessary for participants to meet in a physical capacity as well as maintain links virtually to ensure participant commitment to the network. He argues that without physical contact it is difficult to build a social repertoire online, a view supported by Koh and Kim (2003) who indicate that offline activity increases solidarity and cohesiveness of a virtual setting. Rowe et al. (2005) also support this idea, and posit that it is necessary to meet in a physical context especially in the initial stages of collaboration in order to build social relationships among participants. While Daniel et al.

(2002, 2003) place emphasis on social cohesiveness being possible in virtual settings, Lombard and Ditton (1997) argue that its existence is low and offline meetings can play a critical role in enhancing this inherent low level of social presence evident in computer mediated collaborations.

Reciprocity

In a virtual learning setting, participants share a common repertoire of resources: experiences, stories, methods and tools for solving problems (Daniel et al., 2002). Members of a VLN often share common interests and values, this aids in the building of social capital on the basis that members can form a shared identity through organised discussions based on areas of interest that matter to the participants involved (Daniel et al., 2002). The basic condition for successful network cooperation over time is that, for each partner, the benefits of continuous network membership exceed its costs (Kautonen and Koch, 2005). The benefits, which vary according to the long-term interests of the partners, essentially depend on the quality of inputs made by the other network members and on the member's willingness to make these inputs. Consequently there is a need for relationships within networked environments to be reciprocal. That is the idea of helping out a network member and being repaid in kind. Reciprocal relationships are two-dimensional: they are built on *trust* among participants and these are relationships of *dependence* within and between network actors.

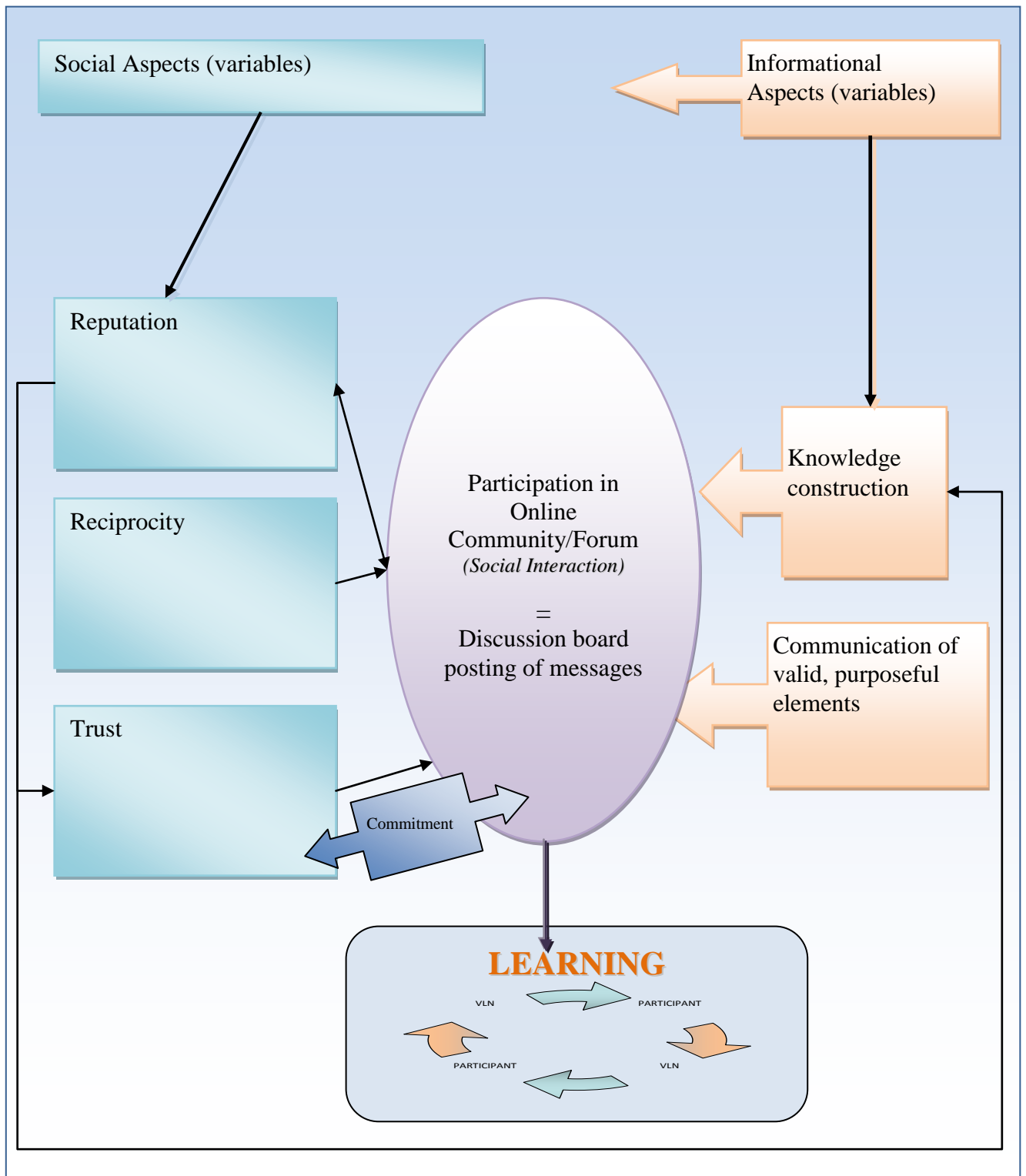
PROPOSING A VLN FOR THE SMALL FIRM

The conceptual framework combines a broad array of literature from social and situational and constructivist learning theories, along with social capital criteria, specifically commitment, trust and reciprocity. It also incorporates relevant network theory in the context of small inter-firm collaboration. The framework proposed below (framework 1) indicates the necessary social and informational aspects for collaboration and effective participation in a small firm VLN. The conceptual framework indicates a safe forum where people are comfortable in sharing challenges and perspectives around a common topic. In this forum actors can effectively translate their ongoing experiences into knowledge and transfer that knowledge across boundaries of time and space, thus providing participants with a social repertoire as indicated by Hsiu- Fen (2007). The framework's justification stems from the need to evaluate variables of social and informational dimensions in a virtual setting. Acknowledgement of these variables has come from research on temporal settings where it

has been indicated that trust, reciprocity, commitment and reputation are all necessary components' of building social capital among participants of a network with a view to constructing knowledge based on valid , purposeful communication (Florén and Tell, 2004, Bessant and Tsekouras, 2001, Daniel et al., 2002., Daniel et al., 2003, Nolan et al., 2007). The ultimate goal of this framework is to achieve learning. Learning is enhanced through the diffusion of captured knowledge in a situated environment (VLN) that all participants can access (Lave and Wegner, 1991) where they can negotiate their own meanings as suggested by Wegner (1998). It is the trust, mutual understanding, shared values that bind actors together in collaborative constructs to enable rich meaningful learning. The goal of this framework is to achieve active participation where these elements can be engineered among actors, so that they may build social capital which results in learning, in the context of a small firm.

The model indicates variables with associated links. The link between reputation and trust represents actors placing trust on one another based on their reputation. Actors will only place their trust on another if they perceive an individual as a reputable person, one who can offer expertise in their field. There is also a link between reputation and knowledge which indicates, an actors' reputation depends on their knowledge of topic and ability to interact (Floren and Tell, 2004). Building reciprocal relationships among actors depends on the participation of others. As aforementioned, reciprocal relationships are two dimensional built on trust and dependence, once trust is established, actors feel free to form discussion; placing thoughts, questions and ideas in an online forum. The actors are then depending on other actors to respond, reciprocate and offer their input. Other actors will respond if they trust that in the future their questions, assumptions or ideas will also be reciprocated (receptive capacity-the willingness of individuals to respond to others). Therefore trust is a necessary prerequisite to participation. Low trust is considered to be the root of poor collaboration (Nolan, 2007). Trust must be developed among participants /actors before they display commitment to interaction. All social aspects are linked to network participation as the fundamental components of facilitating social interaction resulting in knowledge construction (social constructivism) (Löber, 2006). This is on the basis that information communicated within the forum is valid and transparent (Floren and Tell, 2004).Once knowledge is constructed that is meaningful, learning can transpire as a product of social interaction. Therefore the emergence of learning out of interactions in a virtual capacity underpinned by a social constructivist learning theory is evident in this framework.

Framework 1: VIRTUAL LEARNING NETWORK –CONCEPTUAL FRAMEWORK



VIRTUAL INTERACTION AS A SUSTAINABLE NETWORK: KEY CHALLENGES

Considering the reviewed literature, barriers to effective collaboration that can hamper participation levels may include; the heterogeneous nature of actors and the artificial construction of networks (Kautonen and Koch, 2005; Schwier, 2001) and owner-managers attitudes towards sharing knowledge (Rowe et al., 2007). Rowe et al. (2005) argue that while

technology is central to virtual collaboration it is the *willingness to share information* rather than the technology per se that potentially constrains the collaborative capacity. Schwier (2001:12) provides a comprehensive examination of virtual learning communities, and states, simply, that *'virtual learning communities are learning communities based on a shared purpose rather than geography'*. Existing literature places emphasis on the challenges of building social capital among members of cultivated networking constructs (Cousin and Deepwell, 2005; Kautonen and Koch, 2005). The emergence of a network culture is noted to be a long self-organising process (Kautonen and Koch, 2005) that is based on shared understandings, traditions and strategies, which can only emerge if the network actors interact. Artificial constructed networks tend to lack the inherent network culture of that of naturally formed networks that are built up over time (Schwier, 2001), and this can cause concern for intentionally created networks and poses problems for building trust mechanisms, which is essential for the norms of reciprocal relationships as mentioned. Thus, the question remains

Can Virtual interaction alone sustain social cohesion among participants of a networked environment?

Rowe et al. (2005) study is relevant to owner-managers of small businesses and she identifies that in order to adopt collaboration through technological interfaces, a new approach is necessary. This approach incorporates building new relationships, new assumptions, adoption of ICT and the development of appropriate collective cultures engendering trust (this is similar as to what is proposed in the VLN framework). Lawless (2000) also looks at learning from both online and face-to-face approaches for owner-managers and her findings conclude that owner-managers prefer face-to-face meetings. Reasons for this preference may include barriers in the adoption of ICT among owner-managers or personal knowledge and past experiences (Rowe et al., 2007). Results are inconclusive as to whether small firm virtual networks can survive alone, void of physical contact, social events or group sessions. Perhaps this depends on the type and form of network. Within a learning context, physical activities are paramount for building shared language, experiences, self-development and trust (Kilpatrick et al., 1998) necessary prerequisites to active participation (Framework 1) both on and off line. However it has been acknowledged that both online and offline activities play a critical role in networking success. Hsiu-Fen (2007) studies designate that perceived usefulness and ease of use are significant antecedents of a member's sense of belonging to a virtual environment this sense of belonging can be further enhanced by the offline activities.

It has been established that information technology can enhance communication and interaction among networked members (Lea et al., 2006), however to ensure that learning occurs and that virtual forums are not just ‘talk shops’ (Morris et al., 2006) we must first understand how knowledge is constructed in these environments and how learning is sustained. A review of the literature indicates that there is still a lack of articulated explanations of the role of learning in business networks especially from a virtual learning environment perspective (Daniel et al., 2003). We can however draw meaning from Wegner’s (1998) studies on communities of practice (COP) and learning within a community environment. COP and networks are not dissimilar, especially in the area of learning. Wegner’s work has been the basis for many studies conducted on networking activities both temporal and virtual COP (Cousin and Deepwell, 2005; Rheingold, 2000), and these findings alert us to the need for an expanded understanding in the process of learning. Wegner (1998) acknowledges that learners require a setting in which enables them to negotiate their own economies of meaning and ‘communal response’ to the activities within the community, and he argues that adequate space is necessary in order for members of the community to interact.

A virtual setting allows members of a community or network to form this idea of a ‘shared repertoire’ so called by Wegner as a third constituent of his community of practice (Cousin and Deepwell, 2005). Rheingold (2000) a theorist on online communities supports the idea of virtual space (namely online discussion groups) providing elements of support for the constitution of an online-shared repertoire within Wegner’s expanded meaning of the term. This idea of shared repertoire cannot be formed overnight, however providing the correct environment in which participants within a community or network can facilitate shared language, routines of engagement, norms, symbols, gestures and genres can enhance its formation over the existence of the network (Cousin and Deepwell, 2005). Cousin and Deepwell propose that learning cannot be designed it can only be designed for; and a main focus of any learning network is to ensure the construction of a learning architecture which can enable rich forms of learner participation. This architecture needs to enable participants to actively construct their own knowledge, facilitate active imaginations, enable learners to move outside the formal boundaries to ensure their learning has effect and overall allow learners to converge (shared understanding, values, common focus) and coordinate (feedback, plans, problem solution) – showing clear indications of a learning process (Kolb and Fry, 1975) within context. This has clear bearing on formal networked learning

environments, and further indicates that participants need to interact on a social level in order to give meaning to learning contexts.

CONCLUSION

This paper provides a review of existing literature on VLN drawn from traditional theories of learning, networking philosophy and relational capital domains. The paper also establishes a conceptual framework for which future studies on VLN in small firms can be investigated. It is hoped that future research will provide the insights necessary for the operationalisation of the proposed VLN framework. Primary data collection will include a mixed method approach in order to unearth the underlining concepts and behaviours from participant perspectives into the adoption and utilisation of VLN component of TLN initiative. It is anticipated that the emergent themes from primary data collection and analysis (participant perspectives) will effectively facilitate the frameworks adoption in the context of owner-managers in the tourism sector and ultimately help them to compensate and overcome perceived difficulties in providing a secure and supportive virtual environment from which individual members may develop their professional identity and learning careers.

The potential success of new approaches in the operationalisation of virtual learning environments will hopefully provide the necessary support so that VLN are likely to hold relevance in the future in particular for small businesses.

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