

# Cooperative micro-firm strategies

## Leveraging resources through learning networks

Leana Reinl and Felicity Kelliher

**Abstract:** *Learning networks are highlighted in contemporary literature as a means of leveraging resources to create and sustain competitive advantage in micro-firms. Despite their importance in the context of micro-firm development, micro-firm learning, learning processes and networks have previously been neglected as an area of academic study, and there is limited evidence of successful cooperative strategies in this environment. The aim of the research discussed in this paper is to catalogue micro-firm learning criteria in a cooperative network environment and to propose a framework of cooperative learning for that milieu. Adopting an action research methodology, primary research was carried out on a Tourism Learning Network (TLN) initiative. Cooperative network activity and individual learning were observed and documented by the researchers over two years. Based on the research findings, the authors propose a framework of cooperative learning that offers insight into how network structures, support and interrelationships may facilitate learning process completion in the micro-firm environment.*

**Keywords:** *micro-firm; cooperative learning networks; resource-based view*

Leana Reinl is a Research Assistant and Felicity Kelliher is a Senior Lecturer in the School of Business, Waterford Institute of Technology, Cork Road, Waterford, County Waterford, Ireland. E-mail: lreinl@wit.ie; fkelliher@wit.ie.

Micro-firms are defined as companies with no more than 10 full-time employees (European Commission, 2005) for the purposes of this study. Learning networks are highlighted in contemporary literature as a means for leveraging resources to create and sustain competitive advantage in micro-firms (Chell and Baines, 2000; Devins *et al*, 2005; Hannon *et al*, 2000; Witt, 2004). Despite their importance in the context of resource optimization and small business development, micro-firm learning networks have previously been neglected as an area of academic study (for example, Brown and Duguid, 1991; Down, 1999; Devins *et al*, 2005; Sullivan, 2000; Kelliher *et al*, 2009). This paper seeks to address this gap by establishing insights into an environment in which cooperative micro-firm learning strategies

can be nurtured through a formal learning network programme (Ahmad, 2005; Kelliher *et al*, 2009; Mäkinen, 2002).

The aim of this research is to catalogue relevant learning criteria and to propose a framework of cooperative learning in a micro-firm network environment. The paper is structured as follows: the literature review establishes the criteria relating to micro-firm cooperative learning, from which the authors offer a catalogue of influencing factors on micro-firm learning in a cooperative network environment. Adopting an action research methodology, the primary research focuses on a Tourism Learning Network (TLN) initiative, within which cooperative network activity and individual learning were observed and documented by the authors over a

two-year period. Based on the research findings, the authors go on to propose a framework of cooperative learning that offers insight into how network structures, support and interrelationships may facilitate improved learner competence in a micro-firm environment.

### Literature review

From an individual learning perspective, it has been argued that business ownership can be viewed as a learning experiment in and of itself (Cressy and Storey, 1995; Man, 2007), resulting in a tendency towards learning when coupled with the enactment of the learning process (Kolb, 1984; Deakins and Freel, 1998). According to Kolb (1984), true learning takes place when values and norms become modified through a cycle of concrete experience, reflective observation, abstract conceptualization and active experimentation, referred to as the learning process. Ideally, micro-firm owners should experience, reflect, conceptualize and act as a matter of course in their work role. However, resource constraints can hamper the micro-firm learning process (Phillipson *et al*, 2004; Simpson, 2001; Kelliher and Reinl, 2009), as severe resource limitations are likely to result in a focus on urgent operational needs rather than new learning, ultimately constraining the operation, development and growth of the business (Perren, 1999). Furthermore, reflective observation may be seen as a disturbance to the process of action, thus straining already scarce resources (a view supported by: Devins *et al*, 2005; Down, 1999; Welsh and White, 1981). As a result, micro-firm owners can fall into the trap of ‘all action, no reflection’, to the detriment of true learning (Garavan and Ó’Cinnéide, 1994). These resource issues can contribute to the weaker develop-

ment of management skills amongst micro-firm owners in comparison with their larger counterparts (Devins *et al*, 2005; Man, 2007; O’Dwyer and Ryan, 2000) and ultimately affect business success. It is the authors’ contention that resource challenges can be addressed in a cooperative learning environment through information exchange relationships with other micro-firms that have different knowledge contexts and resources, and it is this aspect of collegial learning activity that is the focus of this study.

### The micro-firm cooperative learning network environment

While international studies acknowledge the value of network-centred learning in the micro-firm environment (April, 2008; Devins *et al*, 2005; Down, 1999; Gibb, 1997; Hannon *et al*, 2000; Taylor and Thorpe, 2004), they also acknowledge that micro-firms operate within a learning and business environment that fundamentally differs from that of their larger counterparts. As such, there is benefit in exploring the cooperative learning network ethos in the micro-firm context. Drawing from the extensive literature on networks, learning, the learning process and micro-firms, a number of key features can be identified and incorporated into a micro-firm learning network definition (Table 1).

Table 1 affords the following definition of a ‘micro-firm learning network’: *a socially constructed and socially supported learning environment that enables the development of network relationships, wherein individual learning is enhanced through cooperative learning strategies disseminated through the structures, support and ethos of the network, thereby combining resources and enhancing learning competence and*

**Table 1. Micro-firm learning network criteria.**

Criteria	Micro-firm context	Authors
Function	Learning networks specifically seek to encourage learning enhancement and business development through processes that can be mapped on to the learning cycle, ultimately contributing to improved business performance.	Ahmad, 2005; Hannon <i>et al</i> , 2000; Jack <i>et al</i> , 2004; Schaper <i>et al</i> , 2005; Pikkemaat, 2008; Taylor and Thorpe, 2004; 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.	April, 2008; Johannisson, 2000; Lave and Wenger, 1991; Brown and Duguid, 1991.
Collective resources	Networks provide a means for participants to leverage information and resources that would otherwise be unavailable to them.	Chell and Baines, 2000; Fuller-Love and Thomas, 2004; NCOE, 2006; Tinsley and Lynch, 2007; Witt, 2004; Mäkinen, 2002.
Network support structures	The micro-firm owner requires learning structures, supports and strategies that encourage autonomy in order to leverage cooperative resources and embed learning in the micro-firm environment.	Brown and Duguid, 1991; Gregory, 1994; Kelliher <i>et al</i> , 2009; Kokkonen and Tuohino, 2007; Tinsley and Lynch, 2007.
Participation benefits	The successful development of network relationships should ultimately stimulate both learner autonomy and a sense of community among participants.	Fuller-Love and Thomas, 2004; Lave and Wenger, 1991; Morrison and Teixeira, 2004; Pikkemaat, 2008.

**Table 2. Catalogue of influencing factors on cooperative learning in a micro-firm network.**

Theme	Criteria	Impact on learning
Micro-firm resource criteria	Micro-firm learning strategy must be built on a resource-based framework as internal resource availability places a fundamental limit on a micro-firm's plans.	Immediately applicable learning can be overemphasized, resulting in action/reflection imbalance (Garavan and O'Cinnéide, 1994).
	Human resource limitations – small generalist staff base with limited internal career options (Simpson, 2001).	Low employee autonomy; little impetus or support for formal employee learning activity.
	Financial constraints may restrict learner investments that require a long payback period (Hutton, 1996; Phillipson <i>et al</i> , 2004).	Little investment in learning and training; overriding need to see immediate value added (Kelliher and Reinl, 2009).
Learning network enablers	Evident need for structures that support the learning process at key stages (Table 1).	Promote ownership of the learning process; encourage reflection and anchor learning in the business.
	Facilitated learning activities; information and resource exchange provide support for effective cooperative networks.	Facilitate and enhance individual learning through collective experience (Kokkonen and Tuohino, 2007; Lesser and Everest, 2001; Man, 2007).
	Development of learning network relationships (Table 1).	Leverage relational capital (Mäkinen, 2002); shared experience and knowledge modifies norms.

*business development*. Thus, cooperative learning strategies form an important part of the individual learning process (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, p 46). Network membership does not automatically guarantee that effective learning will occur; indeed, success is dependent on a number of influencing factors including the micro-firm owner's characteristics and the firm's incumbent resource criteria (Mäkinen, 2002). These influencers impact on the network operation, as learning readiness is a key aspect of the success of learning networks. Thus, the level and sophistication of networking, facilitation and learning support affect the quality and application of that learning (Johannisson, 2000; Kokkonen and Tuohino, 2007; Sullivan, 2000). There is a benefit in cataloguing the micro-firm learning criteria in a cooperative network environment (Table 2).

Based on the established literature, facilitated cooperative learning strategies can assist the individual owner in leveraging limited resources in the micro-firm (Mäkinen, 2002), ultimately enhancing the owner's learning competence and business development potential. However, a successful outcome requires input from the network support structures and the businesses involved. Although the network setting is a unique learning environment, in which knowledge is captured through discourse and exchange (Pikkemaat, 2008; Tell, 2000), individual learners still require specific support at key stages in the learning process to ensure the development of reflective practice, learning competency development and appropriateness of learning content (Greenbank, 2000; Kokkonen and Tuohino, 2007; Wyer

*et al*, 2000). Therefore, the greater the ability of network stakeholders and facilitators to enable and enhance individual learning (Gregory, 1994), the greater the effectiveness of the individual and cooperative learning process within that network (Kokkonen and Tuohino, 2007). Having established the learning criteria that impact on the micro-firm owner's learning in a cooperative network environment (Table 2), the authors sought to examine the catalogued criteria in a live environment in order to offer insight into network structures and micro-firm cooperative learning practice.

### Taking an action research approach

Action research is a process that involves problem diagnosis, action planning, action taking, evaluation and reflection (Susman and Evered, 1978). This methodology encompasses active intervention (Gummesson, 1991), whereby researchers reflect on what is practised and then take deliberate action upon observed systems (Riordan, 1995), which is guided by theory and which can be supported or revised through evaluation (Susman and Evered, 1978). This in turn leads to reflection within which resultant learning can be specified. This method has been used by a number of researchers when studying learning (Bartunek *et al*, 1993; Mumford, 2001; Coghlan and Coghlan, 2006; Brannick and Coghlan, 2007), demonstrating its acceptance as an appropriate research method in the learning context.

Acknowledging that micro-firms are not a homogeneous group, particularly in relation to learning (Devins *et al*, 2005; Johnson, 2002), the authors focused on a specific sector's network – that of the Irish Tourism Learning Network (TLN) initiative. This sector is particularly suited to micro-firm research, as out of a total of 16,500 enterprises (Fáilte Ireland, 2004) 90%

are micro-firms. The TLN initiative was established by Fáilte Ireland (the Irish tourism development agency) in 2006 in order to provide tourism-related businesses with a substantial business development programme, and to cluster small tourism business owners in the hope of future cooperative activity and effective learning. This research study focuses on the South/South East TLN, which has been developed by Waterford Institute of Technology (WIT) Business School in conjunction with Fáilte Ireland and has had over 430 participants to date (2008), with business interests ranging from accommodation providers, food and beverage businesses, cultural and heritage attractions and leisure activities. This initiative provides the catalyst for investigating micro-firm learning within a cooperative network environment.

As action researchers, the authors will use the active voice in the research description. In this study, we maintain dual roles – that of TLN research assistant and academic liaison on one hand and researcher on the other. As members of the WIT TLN support team, we fulfil the action research requirement for ‘closeness’ (Brannick and Coghlan, 2007; Grant *et al.*, 2001; Hill and McGowan, 1999), which allows us to understand micro-firm learning in the context that it occurs (Down, 1999; Zuber-Skerritt and Perry, 2002). Early conceptualization (Table 2) and a focus on the modification of learning relationships and structures within the TLN (Susman and Evered, 1978) helped to identify interventions from which action cycles could be observed:

- The initial intervention required each participant to complete an individual learning needs analysis (LNA) document. The LNA’s purpose was to provide a tangible statement of the existing level of capability (across a number of functional areas) in the tourism enterprise and facilitate the process of setting action-oriented objectives, to enhance the key business capabilities of the participant.
- Each participant was then assigned to a learning set (Gibb, 1997) comprising up to 12 entrepreneurs, which met 6–8 times throughout the year of the programme, the purpose of which was to ensure that the recommended cooperative network ethos was embedded in the programme (Ahmad, 2005; De Faoite *et al.*, 2003; Morrison and Teixeira, 2004; Kokkonen and Tuohino, 2007). A trained facilitator was matched to each learning set, which was either geographically allocated or themed by product orientation.
- The learning sets were complemented by two residential ‘networking events’ at which the participants congregated, typically in a member hotel, for two days of interactive workshops facilitated by the

WIT support team. These workshops covered a range of business development issues including marketing, pricing and finance, information technology, tourism enterprise development and the regulatory environment.

- Participants were supported in achieving self-directed learning objectives through a number of complementary cooperative learning interventions and strategies, which ultimately informed individual tourism business development plans (TBDP). Although not a network-wide direct intervention, participants could also raise requests for tourism research, and as such we also observed this aspect of the programme.
- Participants are identified in the findings by a numbering system for the purposes of confidentiality, as bracketed after direct quotations. They are divided by focus group (A and B) and then by participant number (P1...n).

Notably, the design, development and implementation of these interventions were not without challenge as the learning needs of this diverse cohort are highly differentiated (Dutta and Evrard, 1999; Mainemelis *et al.*, 2002), as evidenced in the summary findings (Table 3).

Observing the network over a two-year period, we applied multiple data collection techniques (TLN support office and TLN activity observations, two focus group sessions and internal and public documentation review) in order to capture a range of owner/participant experiences, attitudes, opinions and preferences (Patton, 1990; Devins *et al.*, 2005). The focus group sessions (carried out with sample owner groups towards the end of the TLN formal programme) concentrated on the meaning and value of learning as expressed by participants, enhancing our understanding of the TLN impact on individual and collective learning in this environment. We maintained reflective diaries over the duration of the study (Reason and Bradbury, 2006; Herr and Anderson, 2005) in acknowledgment of our ‘dual role’ complexity. Interestingly, we found that diary entries often provided an additional layer of insight into the participants’ (and our own) learning evolution in the TLN. The action research approach helped to capture and facilitate the contextual and collaborative contribution that TLN participants can make (Grant *et al.*, 2001; Zuber-Skerritt and Perry, 2002) to the development of the network. Thus, theory development was brought about through a cyclical process (Zuber-Skerritt and Perry, 2002), which involved two action research cycles – that of the larger TLN, plus the smaller action research project. Our study maintained this ethos by applying amendments to the TLN based on participant feedback, as discussed in the findings, ultimately pursuing the

research objective: *to catalogue micro-firm learning criteria in a cooperative network environment, and propose a framework of cooperative learning in that milieu*. Through its iterative design and evolutionary ethos, this research contributes to the development of theory through action taking that is guided by theory and supported and revised through evaluation (Susman and Evered, 1978). The underlying goal is for perpetual action-led learning to be enhanced through interaction in the learning sets and the wider TLN, embedding the cooperative learning network ethos in individual mindsets and potentially enabling an autonomous cooperative learning environment in the longer term.

**Key findings**

Feedback varies regarding the effectiveness of the learning relationships built within the network, whether between facilitator and participant or among participants themselves (Table 3).

The findings resulting from the core action research project fall under three key stages in the networks evolution – network impact (through learning structures, support and strategies) on the learning process; the value of the cooperative learning strategies in the development of individual learning competencies; and finally the application of learning in the micro-firm environment.

*Network impact on the micro-firm owner’s learning process*

Kolb’s learning cycle (1984) offers a useful analytical base from which to explore the network impact on the micro-firm owner’s learning process:

*Active experience.* Throughout the learning process,

participants displayed a preference for drawing on previous experience and knowledge (Gibb, 1997; April, 2008); many perceived that business ownership amounted to ‘attending the university of life’ (AP16, 2007), a view much like that described by Cressy and Storey (1995), Sullivan (2000), Man (2007) and Hannon *et al* (2000) in the literature review. We noted undertones of disappointment among some of the participants that this ‘life experience’ was not being tapped into on a more regular basis within the TLN; however, the quality and accuracy of the group’s own information and experience were not always conducive to effective learning and business development (Greenbank, 2000). Hence any changes implemented to foster cooperative learning in the network required consideration to be given to the presence of training and facilitation specialists to ensure the accuracy of learning content and the quality of the knowledge being transferred within the learning environment (consistent with the views of Jack *et al*, 2004; Kokkonen and Tuohino, 2007; Taylor and Thorpe, 2004; and Tinsley and Lynch, 2007 – see Table 2).

*Reflection.* Based on participant feedback, it is evident that formal learning needs analysis, specifically the completion of the LNA documentation, was not initially seen as valuable by the TLN participants in terms of continuous learning or development. This finding supports the notion that entrepreneurial learning is an unconscious and unintentional process (Devins *et al*, 2005; Phillipson *et al*, 2004; Simpson, 2001). While some participants did not have difficulty ‘filling it out’ (AP1, 2007), they questioned the LNA value in relation to their business, while others reported feeling anxious regarding perceived pre-knowledge requirements – an

**Table 3. Primary research – summary findings.**

Intervention	Value (participant feedback)	Cooperative learning value	Learning competence development
Learning-set meetings (6–8 per annum)	‘Queries are always answered’; ‘Information and resources exchanged ... what we share with each other’; ‘... great local information’.	Facilitated learning process provides a forum that challenges, stimulates business ideas.	Changed points of view; behavioural/ analytical development.
Residential networking events	‘Very relevant’; ‘You will always take something (away)’; ‘Meeting like-minded people’; ‘It’s hard to take 2 days away from my business’; ‘[would like] more interaction from the floor’.	Access to industry experts provides relevant learning, which can be related back to the participant business environment through cooperative learning activities.	Facilitates peer/expert interaction and reflection with a business development emphasis.
Specialist training (marketing/ pricing strategies)	Highlight of the whole training event; ‘He made [it] very simple...’; ‘Needs a question and answer session’.	Opportunity to share best practice.	Build competence in leveraging relational capital; learner autonomy.
TLN support	‘Someone that you could ring up and speak to’; ‘We can discuss what works and what doesn’t’; ‘...discuss what action can be pursued to what ends’.	Provides a facilitated hub built on best practice; and offers research facilitation; information support & learning templates.	Ensures relevance of learning content; facilitates collaborative learning activity.

issue that was compounded by the inclusion of specialist terminology in the LNA document. Notably, participants subsequently agreed that the document had forced them to reflect on learning needs in relation to business development and that they would fill the LNA out differently if they had to do it again, findings that suggest progression in their learning process (Kolb, 1984; Mäkinen, 2002). These findings indicate that support at a pre-entry phase could offer learning resource release in a network environment. Furthermore, while findings from the study show that learning expectations were reportedly exceeded during the TLN experience, they were not well developed initially, further supporting the need for facilitated assistance (Gregory, 1994; Kokkonen and Tuohino, 2007) at pre-entry phase.

*Conceptualization.* Findings show that cooperative reflection offers learner support, as peer interaction and reflection seemed to boost the confidence of participants, resulting in open discussions in relation to learning shortcomings, what had been learned on the network and how the group could continue to learn from each other after formal support reached a conclusion (as per Lesser and Everest, 2001; and Man, 2007). As a result of this finding, cooperative learning strategies such as peer discussion and reflection were incorporated into various TLN interventions, and a greater emphasis was placed on group activities that allowed participants to work through the learning content collaboratively, ensuring that focus and support were maintained at the various stages of the learning process.

*Action.* Finally, participants had the opportunity to relate learning to action-focused goals for individual business development while gaining valuable outside-in perspectives from other participants and training and facilitation experts (Mäkinen, 2002; Pikkemaat, 2008). Focus group discussion and reflection on the LNA at completion stage of the TLN programme revealed that participants were surprised at how much had been learned, and reported that they would analyse their learning needs very differently in the future. Notably, reflection did not necessarily equate to action among TLN participants (consistent with Kelliher *et al.*, 2009 and Tinsley and Lynch, 2007), suggesting that some form of additional support is required to assist micro-firm owner learning at network conclusion. This is achieved in part through a review of the completed TBDP and key learning outcomes held between the owner and a member of the TLN support team.

#### *Value of cooperative learning strategies*

Network involvement appeared to boost the confidence of participants and they began to think more strategi-

cally about their learning needs (consistent with Devins *et al.*, 2005; Hannon *et al.*, 2000; Mäkinen, 2002; Morrison and Teixeira, 2004). There was growing evidence of cooperative learning and interaction in the individual learning sets and at the network residential events (Brown and Duguid, 1991; Down, 1999; Fuller-Love and Thomas, 2004; Lave and Wenger, 1991; Pikkemaat, 2008) by the end of the formal TLN programme, and participants actively discussed business issues, shared their experiences and worked through shared solutions (see Table 3).

Notably, the focus group feedback highlights the value placed on peer reflection, analysis and interaction with other owners: 'It definitely brought me back into thinking, [it is] lovely to meet other small business people' (BP3, 2007). Others (AP5 nodding to AP4) believe the TLN 'is a fantastic opportunity for new businesses to learn from mistakes that we've all made over the years'. These findings are consistent with those of Down (1999), Lave and Wenger (1991), Morrison and Teixeira (2004) and Pikkemaat (2008), as these owners appear to leverage relational capital within the network. Group interaction and collaboration were found to be particularly valuable, reinforcing the findings of Witt (2004) and the National Commission on Entrepreneurship (NCOE, 2006) in relation to the positive resource sharing impact on network success. As articulated by participant AP1: 'we have a lot more knowledge to share than we realize'. Participant willingness to assist each other was evident throughout the research and was facilitated through communication strategies that emphasized a common learning ethos. The most successful learning relationships between participants and trainer/presenters appear to be those in which practical learning occurs, reflection is encouraged and supported, and in which that learning can be applied (in concept at least) back to the tourism business environment.

#### *Learning application in the micro-firm*

There are several examples in which changes were introduced to participant businesses with immediate results. One participant (BP3) commented that he had analysed his actions in the business to a greater extent since commencing the TLN programme. Another (AP6) explained that a learning-set pricing tutorial had changed her opinion about the voucher system.<sup>1</sup> Several other changes ensued, including a cooperative marketing and product bundling strategy that was developed in a learning set and brought to fruition through supported learning strategies. These activities exemplify changes in behaviour and views – much like those described in Chell and Baines (2000), Man (2007) and Johannisson's (2000) work. Furthermore, 'stories' of successful

implementation and integration of learning in the workplace, as narrated by participants at network events, appeared to motivate others in the group, reinforcing the findings of Gregory (1994) and Kokkonen and Tuohino (2007) and confirming the value of cooperative approaches to micro-firm owner learning and development. These findings support the views of Schaper *et al* (2005), Hannon *et al* (2000), Man (2007) and Jack *et al* (2004), all of whom found that network interaction resulted in the improvement of owner competencies and ultimately in the improvement of business performance.

### A framework of cooperative learning in a micro-firm network environment

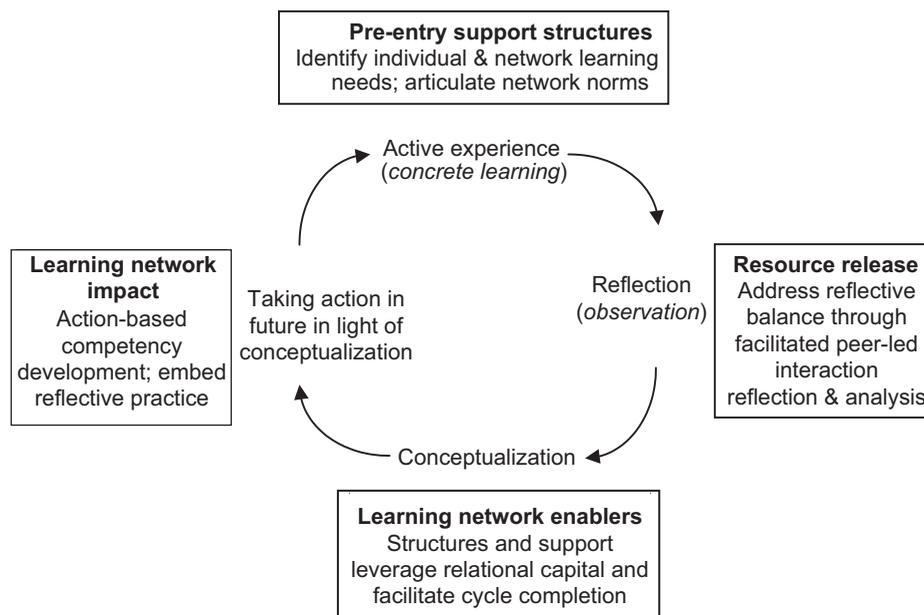
In light of the reviewed literature, the subsequent cataloguing of micro-firm learning criteria in a network environment (Table 2) and the presented findings (Table 3), the proposed framework of cooperative learning in a micro-firm network environment offers a conceptual cooperative learning network structure when applied to the individual learning cycle. It seeks to capture the unique business characteristics and resource challenges faced by the micro-firm owner and to demonstrate how cooperative learning relationships in a network environment influence individual and collaborative learning and capability development in this context (Figure 1).

Kolb’s model offered a useful starting point from which the framework for owner learning could be

developed, as it outlined the individual learning cycle. This model is adapted to show the relationship between individual learning and the impact of cooperative learning strategies on that learning process. The framework is portrayed as the scaffolding around the learning process (Figure 1), which provides for learner support and network momentum at each stage of the individual learning cycle. The framework construction and classification identified micro-firm learning criteria in the context of the network structure, while the findings suggest that the following recommendations may help leverage micro-firm resources through learning network activity and ultimately optimize owner learning and development in a cooperative network context.

#### Pre-entry support structures

The identification and articulation of learning needs are required early on in the learning process to ensure that a level of autonomy can be developed both individually and within the network. Support at this stage of the learning process would be through facilitated learning resource release sessions, as the vast majority of micro-firm owners will not have undertaken any form of formal learning needs analysis prior to TLN participation. This support would bridge the current gap in the micro-firm learning process – in which views and norms of the owner may be unidentified and unarticulated – but only if the LNA is both relevant and comprehensible. Ultimately, pre-entry support could transform learning from a by-product to a process in this context by



**Figure 1.** A framework of cooperative learning in a micro-firm network environment. *Source:* Adapted from Kolb (1984).

establishing learning network norms, which can then be embedded in a continuous learning ethos within each organization.

#### *Resource release*

There is a majority preference for action learning in this environment and participants prefer to draw from their previous experience. Peer reflection, analysis and focus group discussions provided evidence as to the value of facilitated cooperative learning in the development of individual and collective learning competencies. Tools and structures, which facilitate individual and peer reflection, could be built into cooperative learning structures (bearing in mind the severe time constraints identified in this context) to assist deeper levels of learning in this environment. There is also evidence that this type of forum (TLN) results in a more strategic approach to learning, culminating in analytical processes and procedures being developed in individual firms.

#### *Learning network enablers*

The TLN enactment required a balance between the resource-constrained environment in which participants exist and a network support structure that would enable autonomous learning in the longer term. Findings suggest that structured training is of greater benefit when supported with less formal cooperative interventions, such as learning-set meetings, group discussions and subcluster involvement. These interventions allow micro-firm owners to take time out of their businesses and engage in the learning process as a collective. The most successful learning relationships provide practical learning and equip participants with learning tools that provide an opportunity for learning application, thus relevance and reflection are both key criteria for the achievement of deeper levels of individual and collective learning in the micro-firm environment. The micro-firm owner also requires an opportunity to apply learning in his or her own business environment, although limited resources make it unlikely that this will occur unless follow-up support is made available.

#### *Learning network impact on learner autonomy and competency development*

The importance of reflection to the effectiveness of the learning process has been proved. Yet findings also show that reflection does not appear necessarily to link to action in the micro-firm environment. While the research provides evidence that participants are willing to take ownership of the learning process within the TLN, a level of competency and skill is required to achieve this goal successfully. There were indications that certain structures of the network encouraged 'learned helplessness' to the detriment of autonomous learning

objectives. The degree of resource dependency (cited as a variable in the effectiveness of the participant-provider relationship) is amplified in the micro-firm context and, as such, learner autonomy must be encouraged in this environment if long-term collective learning relationships are to be successful. If micro-firm owners are unable to develop individual and collective learning competencies due to the unique resource criteria that impact on the learning process outside of the network environment, they may become reliant on the TLN structures. The risk is that the learning momentum will be lost as soon as the formal network facilitation ends. Responsibility for this risk must be understood equally by both parties (providers and participants) and addressed through the network support structure so that provider learning dependencies do not solidify.

### **Conclusion**

The research has shown that the micro-firm is unique in the learning context, requiring specific types of support and the application of a variety of learning tools at each stage of the learning process to engage successfully in collective learning and to embed that learning back in the business environment. The proposed framework of cooperative learning in a micro-firm network environment provides for a cooperative learning environment that encourages, supports and enhances the development of analytical skills and learning competencies whilst also providing a knowledge-intensive resource for its members. The proposed framework builds on Kolb's (1984) learning model, and encompasses the distinctive characteristics of the micro-firm learning environment. The study itself offers an insight into micro-firm learning networks, along with the adoption of an action research methodology in this context. Notably, certain learning structures act as learning enablers in this environment (Figure 1), while other types of support appear to reinforce behaviour such as learned helplessness, which is counterproductive to individual and collective learning, offering both theoretical and practical insight in this network environment. From a practical perspective, the research provides an in-depth account of a micro-firm learning network environment, which may be applied in other micro-firm network environments in pursuit of best practice. There are certain limitations associated with a single network study, thus there is scope to explore these criteria in greater depth in international tourism sectors as well as in other business environments.

### **Acknowledgments**

An earlier version of this paper is included in the proceedings of the Irish Academy of Management

Conference, Dublin, 2008. The authors would like to acknowledge Fáilte Ireland's support in this research study. Each author contributed equally to the paper.

## Note

<sup>1</sup> The Bed and Breakfast voucher system refers to a system in which bed and breakfast properties are listed with a travel agent. Vouchers can be pre-booked and purchased through the tour operators by visiting tourists. The B&B owner pays a fee to be listed as an approved accommodation provider under the scheme.

## References

- Ahmad, G. (2005), 'Small-firm owner/managers' networks in tourism and hospitality', *International Journal of Business and Society*, Vol 6, No 2, p 37.
- April, W. I. (2008), 'Experiential learning from the Khoi-Khoi (Namibia) and Maori (New Zealand) communities', *International Journal of Entrepreneurship and Innovation*, Vol 9, No 2, pp 103–110.
- Bartunek, J. M., et al (1993), 'Managers and project leaders conducting their own action research interventions', in Golembierski, R. T., ed, *Handbook of Organisational Consultation*, Marcel Dekker, New York.
- Brannick, T., and Coghlan, D. (2007), 'In defence of being native: the case for insider academic research', *Organisational Research Methods*, Vol 10, No 1, pp 59–74.
- Brown, J. S., and Duguid, P. (1991), 'Organisational learning and communities of practice: toward a unified view of working, learning and innovation', *Organisation Science*, Vol 2, No 1, pp 40–57.
- Chell, E., and Baines, S. (2000), 'Networking, entrepreneurship and micro-business behaviour', *Entrepreneurship and Regional Development*, Vol 12, No 3, pp 195–215.
- Coghlan, D., and Coughlan, P. (2006), 'Designing and implementing collaborative improvement in the extended manufacturing enterprise: action learning and action research (ALAR)', *The Learning Organisation*, Vol 13, No 2, pp 152–165.
- Cressy, R. C., and Storey, D. J. (1995), *Small Business Risk: A Firm and Bank Perspective*, Working Paper No 39, Centre for Small and Medium Sized Enterprises (CSME), Warwick Business School, Warwick.
- Deakins, D., and Freel, M. (1998), 'Entrepreneurial learning and the growth process in SMEs', *The Learning Organisation*, Vol 5, No 3, p 144.
- De Faoite, D., et al (2003), 'Education and training for entrepreneurs: a consideration of initiatives in Ireland and The Netherlands', *Education and Training*, Vol 45, No 8/9, pp 430–438.
- Devins, D., et al (2005), 'A conceptual model of management learning in micro businesses – implications for research and policy', *Education and Training*, Vol 47, No 8/9, pp 540–551.
- Down, S. (1999), 'Owner/manager learning in small-firms', *Journal of Small Business and Enterprise Development*, Vol 6, No 3, pp 267–280.
- Dutta, S., and Evrard, P. (1999), 'Information technology and organisation within European small enterprises', *European Management Journal*, Vol 17, No 3, pp 239–251.
- European Commission (2005), 'The new SME definition: user guide and model declaration', Website: [http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm) (accessed June 2008).
- Fáilte Ireland (2004), *Competing Through People: A Human Resource Development Strategy for Irish Tourism (2005–2010)*, Fáilte Ireland, Dublin.
- Fáilte Ireland (2006), *Tourism Product Development Strategy (2007–2013)*, Fáilte Ireland, Dublin.
- Fuller-Love, N., and Thomas, E. (2004) 'Networks in small manufacturing firms', *Journal of Small Business and Enterprise Development*, Vol 11, No 2, pp 244–253.
- Garavan, T. N., and O'Cinnéide, B. (1994), 'Entrepreneurship education and training programmes: a review and evaluation', *Journal of European Industrial Training*, Vol 18, No 11, pp 13–21.
- Gibb, A. A. (1997), 'Small-firms training and competitiveness: building upon the small-firm as a learning organisation', *International Small Business Journal*, Vol 15, No 3, pp 13–29.
- Grant, K., et al (2001), 'Experiential research methodology: an integrated academic–practitioner “team” approach', *Qualitative Market Research: An International Journal*, Vol 4, No 2, pp 66–74.
- Greenbank, P. (2000), 'Training micro business owner/managers: a challenge to current approaches', *Journal of European Industrial Training*, Vol 24, No 7, pp 403–411.
- Gregory, M. (1994), 'Accrediting work based learning: action learning – a model of empowerment', *Journal of Management Development*, Vol 13, No 4, pp 14–52.
- Gummesson, E. (1991), *Qualitative Methods in Management Research*, Sage Publications, London.
- Hannon, P. D., Patton, D., and Marlow, S. (2000), 'Transactional learning relationships: developing management competencies for effective small-firm–stakeholder interactions', *Education and Training*, Vol 42, No 4/5, pp 237–246.
- Herr, K., and Anderson, G. L. (2005), *The Action Research Dissertation: A Guide for Students and Faculty*, Sage, London.
- Hill, J., and McGowan, P. (1999), 'Small business and enterprise development: questions about research methodology', *International Journal of Entrepreneurial Behaviour and Research*, Vol 5, No 1, p 5.
- Hutton, W. (1996), *The State We're In*, Vintage, London.
- Jack, S., Drakopoulou Dodd, S., and Anderson, A. (2004), 'Social structures and entrepreneurial networks: the strength of strong ties', *International Journal of Entrepreneurship and Innovation*, Vol 5, No 2, pp 107–120.
- Johannisson, B. (2000), 'Competitiveness, localized learning and regional development. Specialization and prosperity in small open economies' (Book Review), *Entrepreneurship and Regional Development*, Vol 12, No 3, pp 267–270.
- Johnson, S. (2002), 'Lifelong learning and SMEs: issues for research and policy', *Journal of Small Business and Enterprise Development*, Vol 9, No 3, pp 285–295.
- Kelliher, F., and Reinl, L. (2009), 'A resource based view of micro-firm management practice', *Journal of Small Business and Enterprise Development*, Vol 16, No 3, pp 521–532.
- Kelliher, F., Foley, A., and Frampton, A. M. (2009), 'Facilitating small firm learning networks in the Irish Tourism Sector', *Journal of Tourism and Hospitality Research*, Vol 9, No 1, pp 80–95.
- Kokkonen, P., and Tuohino, A. (2007), 'The challenge of networking: analysis of innovation potential in small and medium-sized tourism enterprises', *International Journal of Entrepreneurship and Innovation*, Vol 8, No 1, pp 44–52.
- Kolb, D. A. (1984), *Experiential Learning: Experience as the Source of Learning and Development*, Prentice-Hall, Englewood Cliffs, NJ.
- Lave, J., and Wenger, E. (1991), *Situated Learning: Legitimate Peripheral Participation*, University of Cambridge Press, Cambridge.
- Lesser, E., and Everest, K. (2001), 'Using communities of practice to manage intellectual capital', *Ivey Business Journal*, Vol 65, No 4, pp 37–41.
- Mainemelis, C., Boyatzis, R. E., and Kolb, D. A. (2002), 'Learning styles and adaptive flexibility: testing experiential learning theory', *Management Learning*, Vol 33, No 1, pp 5–34.
- Mäkinen, H. (2002), 'Intra-firm and inter-firm learning in the context of start-up companies', *International Journal of Entrepreneurship and Innovation*, Vol 3, No 1, pp 35–43.
- Man, T. W. Y. (2007), 'Understanding entrepreneurial learning: a

- competency approach', *International Journal of Entrepreneurship and Innovation*, Vol 8, No 3, pp 189–198.
- Matlay, H. (1999), 'Employee relations in small firms: a micro-business perspective', *Employee Relations*, Vol 21, No 3, p 285.
- Morrison, A., and Teixeira, R. (2004), 'Small business performance: a tourism sector focus', *Journal of Small Business and Enterprise Development*, Vol 11, No 2, pp 166–173.
- Mumford, E. (2001), 'Advice for an action research', *Information Technology and People*, Vol 14, No 1, pp 12–27.
- NCOE – National Commission on Entrepreneurship (2006), *Building Companies, Building Communities: Entrepreneurs in the New Economy*, Website: <http://www.nceo.org> (accessed October 2008).
- O'Dwyer, M., and Ryan, E. (2000), 'Management development issues for owner/managers of micro-enterprises', *Journal of European Industrial Training*, Vol 24, No 6, p 345.
- Patton, M. Q. (1990), *Qualitative Evaluation and Research Methods*, Sage, London.
- Perren, L. (1999), 'Factors in the growth of micro-enterprises (Part 1): Developing a framework', *Journal of Small Business and Enterprise Development*, Vol 6, No 4, pp 366–385.
- Phillipson, J., et al (2004), 'Adaptive responses and asset strategies: the experience of rural micro-firms and foot and mouth disease', *Journal of Rural Studies*, Vol 20, pp 227–243.
- Pikkemaat, B. (2008), 'Innovation in small and medium-sized tourism enterprises in Tyrol, Austria', *International Journal of Entrepreneurship and Innovation*, Vol 9, No 3, pp 187–197.
- Reason, P., and Bradbury, H. (2006), *Handbook of Action Research*, Sage, London.
- Riordan, P. (1995), 'The philosophy of action science', *Journal of Managerial Psychology*, Vol 10, No 6, pp 6–13.
- Schaper, M. T., Campo, M., and Imukuka, J. (2005), 'The training and management development needs of micro-firms', *Training and Management Development*, Vol 19, No 2, pp 13–23.
- Simpson, B. (2001), 'Innovation and the micro-enterprise', *International Journal of Services Technology and Management*, Vol 2, No 3/4, p 377.
- Sullivan, R. (2000), 'Entrepreneurial learning and mentoring', *International Journal of Entrepreneurial Behaviour and Research*, Vol 6, No 3, pp 160–175.
- Susman, G., and Evered, R. (1978), 'An assessment of the scientific merits of action research', *Administrative Science Quarterly*, Vol 23, December, pp 582–603.
- Taylor, D. W., and Thorpe, R. (2004), 'Entrepreneurial learning: a process of co-participation', *Journal of Small Business and Enterprise Development*, Vol 11, No 2, pp 203–211.
- Tell, J. (2000), 'Learning networks – a metaphor for inter organizational development in SMEs', *Enterprise and Innovation Management Studies*, Vol 1, pp 303–317.
- Tinsley, R., and Lynch, P. A. (2007), 'Small business networking and tourism destination development: a comparative perspective', *International Journal of Entrepreneurship and Innovation*, Vol 8, No 1, pp 15–27.
- Van der Wiele, T., and Brown, A. (1998), 'Venturing down the TQM path for SMEs', *International Small Business Journal*, Vol 16, No 2, pp 50–68.
- Welsh, J. A., and White, J. F. (1981), 'A small business is not a little big business', *Harvard Business Review*, Vol 59, No 4, pp 18–32.
- Witt, P. (2004), 'Entrepreneurs' networks and the success of start ups', *Entrepreneurship and Regional Development*, Vol 16, No 5, pp 391–412.
- Wyer, P., Mason, J., and Theodorakopoulos, N. (2000), 'Small business development and the learning organisation', *International Journal of Entrepreneurial Behaviour and Research*, Vol 6, No 4, pp 239–259.
- Zuber-Skerritt, O., and Perry, C. (2002), 'Action research within organisations and university thesis writing', *The Learning Organisation*, Vol 9, No 4, pp 171–179.