

Managing and profiting from innovation in strategic nets

Abstract

This research investigates how innovation occurs in the networks found within Manchester's creative and digital (MCD) sector; specifically, the aim is to explore and understand the role that innovation and networks play.

It is believed that networks have played a role in helping the MCD sector to become a thriving and growing industry. Previous research revealed that businesses with close customer, supplier, competitor and research institution relationships are more likely to have higher innovation success rates and they regularly outperform their competitors.

Aarikka Stenroos et al.'s (2017) framework guides the analysis and is used to provide an empirically refined understanding of six key management activities (resourcing, goal setting & refining, motivating & rewarding, consolidating, coordinating and controlling), hence allowing new insights to be developed.

Preliminary findings from six case studies confirm the existing framework needs to be expanded to include: leveraging; shared values & beliefs; network stability & embeddedness and learning, knowledge creation & transfer. It was also noted that the atmosphere of the relationships conditions the management activities.

Paper type: Work in progress.

Keywords: Innovation, networks, management activities.

Introduction

It has been noted that innovations are often developed within networks and a growing body of research focuses on how networks and collaboration impact on innovation development (Aarikka-Stenroos et al., 2014). Recent studies have also paid attention to the challenges posed by the different stages of the innovation process, where an idea is developed into a product or service and ends with launch or commercialisation (Cooper and Kleinschmidt, 1995). There are few companies that have the capability to create and manage innovations internally; within the firm. Successful innovations frequently need cooperation between actors (Story et al., 2009).

The research investigates how innovation occurs in the nets found within the MCD sector. Manchester is Europe's second largest creative, digital and media hub and the industry is growing faster in the city than anywhere else in the United Kingdom (UK) ((MIDAS), 2015). The North West is the most prolific area of network television programming outside of London and a significant contributor to the economy.

The objective of this research was to determine how innovation occurs in the sector; examining the full innovation process – from visioning to commercialisation. Aarikka Stenroos et al.'s (2017) framework guided the analysis, providing an empirically refined understanding of six key management activities, as well as investigating the management activities pertinent to the sector. The drivers and barriers to innovation were also explored in addition to observing the network characteristics and the significance of the atmosphere of

the relationships in the networks. The intention is to strengthen the knowledge of management activities; enabling practitioners, in an established and thriving sector, to benefit and potentially grow the industry further. The valuable insight gained may be applied to other fields, which, in turn, could spark further understanding of how networks can potentially profit from innovation.

Literature Review

The following section explores the key findings of the literature relating to networks, innovation and management activities.

Networks

Håkansson and Snehota (1995) advocated that networks can be seen in terms of actors, resources and activities (ARA). These may be complementary or in competition, dependent on the relationship or interaction. It should be noted that networks are constantly changing and evolving and so, “actors, relationships, needs, problems, capabilities and resources change over time.” (Ojasalo, 2008).

Due to their very nature, business networks are complicated entities (Håkansson and Snehota, 1995); with the network involving a minimum of three actors (Halinen and Törnroos, 2005). In addition, the definition and identification of a network is problematic; as each network is inimitable and dedicated to the development of desired goals and overcoming specific challenges. Each network is unique and context specific. They are rarely legal entities and by their very nature must be flexible and dynamic (Halinen and Törnroos, 2005).

Håkansson and Ford (2002) argued that networks are, “non-manageable” whereas, Möller (2013) stated that the structure and management of strategic nets was influenced by “value creation logic.” He provided a contingency theory for the, “management of specific strategic nets”; and called for further investigation into the approach of strategic nets and managerial recommendations, thus giving focus and purpose to this study.

A heightened pace of change has evolved into the present era, with the development of increased and super-fast communication technologies resulting in even more complexity in the networks of relationships between firms. How networks arise, evolve, function, develop, and grow or cease is critical to understand, to make appropriate recommendations for the future. Henneberg et al. (2010) argued that managers must make sense of the complex business networks they are involved in, to gauge their own situation and make steps for change.

Innovation and the innovation process

Innovation may be considered highly radical, radical, intermediate, significant incremental or minor incremental (Abetti, 2000). The term, highly radical innovation refers to those innovations which will make all others in its field obsolete. Innovations in this arena would be based on proprietary technology, requiring significant R&D (Ojasalo, 2008). Aarikka-Stenroos et al. (2017) define radical innovation as, “... a novelty with market or technological discontinuity” (Garcia and Calantone, 2002) and incremental innovation as, “...improvement or modification” (Garcia and Calantone, 2002). Traditionally, the innovation process is represented as a series of stages or phases (Cooper and Kleinschmidt, 1995). The first phase is the idea. This is followed by product development and finally commercialisation. These phases have been described (Gassman, 2006) as overlapping, which advocates a more dynamic, repetitive process with interwoven innovation activities (Aarikka-Stenroos et al., 2014, Lynn et al., 1996, Coviello, 2012).

Management activities in the innovation process

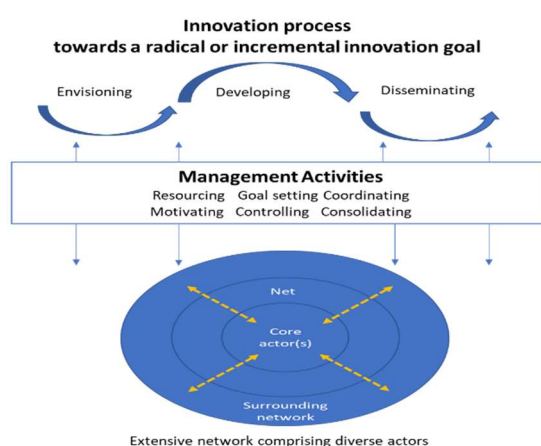
There are both opposing and shared management related activities discussed in the different streams of literature regarding innovation. The IMP group take the stance that, 'mobilisation' happens via relationships that are interactive (Aarikka-Stenroos et al., 2017). Mouzas and Naudé (2007) state: "utilizing a company's relationship to move other actors such as customers, suppliers, partners and even competitors to work within the plans of the mobilizing company." Öberg and Shih (2014) note that there are different drivers of motivations towards innovation(s). To date only the studies by Aarikka-Stenroos et al. (2017) and Manser et al. (2016) have highlighted the importance of motivating in networks for innovation development. Furthermore the Aarikka-Stenroos et al. (2017) study noted the importance of the emergent activity, leveraging – throughout the innovation process.

The literature centred on the strategic network approach puts forward orchestration as an important feature, it suggests that there is one distinctive actor that has a central position in the network and can execute a leadership role, managing the other actors (Dhanaraj and Parkhe, 2006). The emphasis here is on how actors are organised to reach their research and development goals (Heikkinen et al., 2007) or the development of new avenues of business (Möller and Svahn, 2009). Dhanaraj and Parkhe (2006) argue that the hub firm needs to ensure shared learning and collaboration remains attractive as the value and benefits of the innovation are distributed equally in the network. Möller (2010) proposes that radical innovation necessitates 'sensemaking', where it is important to jointly agree, shape and refine goals for innovation.

Finally, the body of research focused on innovation networks and management - features activities related to acquiring and confirming the involvement and collaboration of actors within the network. There is importance placed on trust and agreement between the involved actors (Manser et al., 2016, Rampersad et al., 2010). In addition, to safeguard effective collaboration, activities focused on communication, rule setting and task partitioning are accentuated (Perks and Moxey, 2011, Rampersad et al., 2010).

Möller and Halinen (2017) make the following recommendations for future research including, "Examining management in the emergence of business fields of varying complexity, novelty, and systemic characteristics...". Reinforcing this call, two years earlier, they commented that there remain gaps in the literature and there is an opportunity to gain a deeper understanding and broaden the knowledge of strategic network management. This includes a solid foundation on which to build, "managerial suggestions beyond generalities," (Möller and Halinen, 2015, p. 1). In the context of this study, it means looking at intentionally designed strategic nets which are constructed for attaining specific purposes and goals in business and innovation.

Figure 1 – A framework for managing innovation processes



Aarikka-Stenroos, L., Jaakkola, E., Harrison, D., & Mäkitalo-Keinonen, T. (2017). How to manage innovation processes in extensive networks: A longitudinal study. *Industrial Marketing Management*, 67, 88-105. Page 92.

Using literature from the three schools of thought: The industrial networks group, strategic networks and innovation research, Aarikka-Stenroos et al. (2017) identified six management activities with a priori definitions. The following literature was used as the source of the six constructs and is illustrated in Figure 1: resourcing (Perks and Moxey, 2011, Heikkinen et al., 2007, Baraldi and Strömsten, 2009); goal setting & refining (Öberg and Shih, 2014, Möller, 2010), motivating & rewarding (Manser et al., 2016, Öberg and Shih, 2014), consolidating (Dhanaraj and Parkhe, 2006, Rampersad et al., 2010), coordinating (Story et al., 2011, Heikkinen et al., 2007) and controlling (Baraldi and Strömsten, 2009, Manser et al., 2016). Figure 1 combines three main components (a) innovation process, (b) extensive network, (c) management activities and was used as an analytical tool to explore the management activities observed in the end to end process of ‘innovating in extensive networks characterised by actor diversity for both radical and incremental innovation’ (Aarikka-Stenroos et al., 2017).

Defining the research questions

Based on the research gaps outlined, the research questions that will be addressed are: (a) What management activities are involved in innovations in MCD’s nets? (b) What are the characteristics of the nets? (c) How does the innovation evolve? (d) What are the enablers and barriers of each innovation (in each phase?)

To facilitate answering the research questions, the research framework created by Aarikka-Stenroos et al., (2017) Figure 1 will guide the analysis with the intention to provide an empirically refined understanding of the six key management activities, hence allowing new insights to be developed.

This study takes a more holistic approach to address the main research question: What management activities are involved in innovations in MCD’s nets? As in addition to the key management activities outlined, additional features maybe discovered, for example - in particular phases of innovation which may give new insights, therefore, developing the research framework as illustrated in Figure 1 (Aarikka-Stenroos et al., 2017). This research will be opened to any factors that emerge that are not currently included in the framework.

Research design and methodology

Rationale for adopting qualitative case research

This empirical study draws on the multiple case study research methodology; allowing themes and patterns to be observed across more than one case in the MCD sector. Six cases were selected; three networks focused on the creation of incremental innovations and three which developed a radical innovation. This provided an opportunity to make comparisons. Case studies allow a holistic appreciation of complex phenomena that are not easily separable from their context (Easton, 1995, Yin, 2009, Halinen and Törnroos, 2005).

Data collection methods (case selection and access)

Following the research objectives, the focus of the empirical investigation in this study is the MCD sector. Access can be a practical barrier when conducting case study analysis. Indeed, suitable cases cannot always be easily accessed (Yin, 2009). In this instance, initiating new contacts was balanced with building on pre-existing relationships.

The purposive sampling technique was used (Eisenhardt, 1989), where the deliberate choice of a participant is selected due to the qualities the participant possesses. This involves the selection of firms that are well-informed with the phenomenon of interest, in addition to knowledge, experience, availability, willingness to participate, and the ability to communicate their experience(s). The following criteria were exercised: (a) Nets - as opposed to in-house innovation, with evidence of orchestration by one actor. (b) In each instance, the network must involve a minimum of three actors (Halinen and Törnroos, 2005). (c) Cases must involve the whole innovation process to ensure that management activities could be examined across the innovation development. (d) Innovations should represent processes aiming at both radical and incremental innovation to potentially reveal contrasting themes and patterns (Eisenhardt, 2007).

Via email and telephone calls, requests for interviews were made by reestablishing relationships with existing contacts. This led, through a network of people to the cases. Participants were also sourced by attending industry events. As interview requests were made in person, the strategy was productive, face to face discussions generated rapport and trust which smoothed the way for interviews. This led to contact with individuals in eight networks, five of which were a good fit.

To identify additional suitable networks, contact was made with The Landing; an enterprise sponsored by Salford City Council which gives digital SMEs and micro businesses a place to work alongside large media and technology organisations at MediaCityUK. Four businesses were identified from approximately fifty firms. This led to contact with one network, the other firms did not fit the criteria. Personal contact was made with the suitable firms via meetings prior to formal interviews and agreement that contact could be made with the other actors in the network(s).

Once relationships were established, follow up telephone calls were made to urge managers to participate and finalise a date and time for interview(s). In advance, an interview consent form was sent to participants, this included the confidentiality and anonymity agreements and an outline of the interview questions (if requested). Combined, this resulted in thirty-three interviews within six networks.

Data analysis

Preliminary data analysis occurred alongside data collection. Notes were made by the researcher directly after the interviews (and often during the interviews). Initial analysis sometimes led to follow-up conversations with interview candidates to clarify their

comments. In some instances, interview candidates passed on documents to the researcher which were related to the development of the respective innovations. The researcher used this information to help generate codes at a later point in the research, for example the management activities that occurred in each stage of the innovation development process. The interviews were transcribed after the data collection was carried out and observation notes were written up during the data collection stage. Copies of the documents were saved and added to the database of information related to the case studies. This ensured that they were contained in one secure place.

The coding process

In this research, the qualitative data (interview transcripts) were categorised to facilitate analysis; this was an analytical, data condensation, process (Miles et al., 2014). The most significant information was selected and attributed with other similar groups of data. This was further condensed into analysable units (Miles et al., 2014). Codes are allocated to groups of data, they may have a simple descriptive categorisation or a more complex one (Miles et al., 2014).

A priori codes were created with the intention to support the initial data analysis. In addition to this, inductive codes were added during the analysis process (Huberman et al., 2013). The initial list of codes was generated from the literature review, the pilot interviews and the interview guide. First cycle coding (Miles et al., 2014, Miles and Huberman, 1984) was used to support the initial coding of the transcripts, where sections of data were coded.

Second cycle coding subsequently followed. This entailed generating codes that acknowledged important themes, actor relationships, descriptions or explanations (Miles et al., 2014, Miles and Huberman, 1984). The definitive list of codes was an iterative process which was based on the first and second cycle coding outlined. Note that codes were frequently created and developed from an abductive process; moving between the data and theory (Dubois, 2002). The interview transcripts were analysed in cycles, case study by case study. The final list of codes evolved after reviewing each case and its associated interviews. Developing matrices to assess and visualise the data was straight forward during the cross-case analysis. The coding was conducted with NVivo 11 – qualitative data analysis software.

Findings and discussion

The theoretical framework created by Aarikka-Stenroos et al. (2017) guided the analysis. It was used to provide an empirically refined understanding and make comparisons with six identified management activities which were present in the development of the six cases, in addition, leveraging; an emergent theme discovered in the Aarikka-Stenroos et al. (2017) study was found. This implies that there are strong connections with the extant literature, in evidence in the MCD sector. Furthermore, the following three themes appeared in the data: (1) shared values & beliefs; (2) network embeddedness & stability and (3) learning, knowledge transfer & creation. This gives further insight into the management activities required, in the setting of MCD, to create successful innovation(s).

For the six innovations, different sets of management activities had more dominance. The new, emergent, themes featured more frequently for the radical innovations. The existing management activities featured in the Aarikka-Stenroos et al. (2017) research framework featured more frequently for the incremental innovations. This demonstrates that, in this sector, a distinctive set of management activities are required to create radical innovations.

Two findings of note are now discussed; the atmosphere and the management activity, motivating and rewarding. An unexpected finding, therefore, was the importance of the

atmosphere; the emotional setting or backdrop of a business relationship (Håkansson, 1982, Eggert and Helm, 2003). It was found to be a central factor in developing the relationships between firms in each net and in shaping the characteristics of those relationships over time. As such, the atmosphere motivated the actors, prompting close relationships, stimulating activity and trust. The close relationships enabled the nets to achieve positive gains during innovation development. The data revealed many examples of the productive use of; actor and firm competence, facilities and other resources such as highly valued technical and commercial information.

The atmosphere comprised many complex undertones; on occasions where difficulties were encountered between actors during challenging stages of innovation development, personal emotional reactions were exhibited which acted as a damper to the atmosphere; however, innovation development was not hindered. The inter-personal social actions did not stop the innovation(s) progressing. It seems the actors were so personally motivated to see the innovation development through to completion, they did not allow their personal feelings to dominate the situations. There were differences to the literature, therefore, as although there were difficulties and challenges, actors did not leave either the radical or incremental innovation nets due to lack of recognition, jealousy or frustrations with the perceived 'bureaucratic mindset of the firm'(O'Connor and Rice, 2013); their motivations were strong.

As highlighted, there are both contrasting and common management related activities discussed in the literature regarding innovation. The data shows that there are different drivers of motivations towards the innovation(s) as put forward by Öberg and Shih (2014). However, actor motivation did not come from financial or monetary rewards. The actors were motivated as they were empowered; they had a personal will and desire to be involved. In all the nets, actors were encouraged, invested and supported to create the innovations. Empowerment was therefore a considerable motivational driver.

In addition, for all six innovations, the plans of the mobilising company were realised via relationships, this concurs with Mouzas et al. (2008). The IMP view that 'mobilisation' happens via relationships that are interactive (Aarikka-Stenroos et al., 2017) was also apparent in the data.

The narrative focused on the strategic network approach which suggests that orchestration is an important feature is relevant. The data showed that for all six cases there was one individual from one of the firms that had a central position in the network. These people had a central position in the nets and were able to execute a leadership role, managing the other actors (Dhanaraj and Parkhe, 2006). Dhanaraj and Parkhe (2006) argue that the hub firm needs to ensure shared learning and collaboration remains attractive as the value and benefits of the innovation are distributed equally in the network. While shared learning and collaboration featured in the data, the value and benefits of the innovation were not distributed equally for radical innovations, this denotes some difference with the literature (Dhanaraj and Parkhe, 2006). Alignment with the literature was noted however, with the assertion by Möller (2010) that radical innovation necessitates 'sensemaking', where it is important to jointly agree, shape and refine goals for innovation.

The literature which is centred on innovation networks and management - highlights activities related to obtaining and corroborating the involvement and collaboration of actors within the network (Aarikka-Stenroos et al., 2017). Trust and agreement between the involved actors (Manser et al., 2016, Rampersad et al., 2010) was necessary for the innovations to succeed. In addition, to safeguard effective collaboration, activities focused on

communication, rule setting and task partitioning were also noted in the data (Perks and Moxey, 2011, Rampersad et al., 2010).

The predominant net characteristics show that three primary actor firms were involved in each net with one individual from one of the firms having a central, leadership, position. Three innovations evolved from the same innovation process with the same orchestrating firm. Another similarity was that external suppliers were identified to support the development process in each case.

Significantly, for both radical and incremental innovations, challenges related to barriers to innovation did not dominate in each net or stall progress. In all of the innovations; both radical and incremental there were major problems at times, however they were overcome, in contrast with the extant literature (D'Este et al., 2012, Sommer et al., 2014, Sandberg and Aarikka-Stenroos, 2014, Öberg and Shih, 2014, Madrid-Guijarro et al., 2009).

Conclusion

This study responds to calls for more empirical research exploring the emergence of business fields of different complexity, characteristics and novelty (Möller and Halinen, 2017); therefore researching intentionally designed strategic nets which are constructed for attaining specific purposes and goals in business and innovation. As noted, research by Aarikka-Stenroos et al. (2017) and Manser et al. (2016) highlighted the importance of motivating in networks for innovation development, this was further explored in addition to noting the importance of the emergent activity, leveraging – throughout the innovation process (Aarikka-Stenroos et al., 2017).

The findings highlight the need in both radical and incremental innovation development, in the MCD sector, to ensure that managers are aware of the importance of; leveraging throughout the innovation process, using soft means via communication which must be clear and well understood within the net; for example to change actors' mindsets; (ensuring full support for the novelty); the net is stable and embedded; learning, knowledge transfer and creation can occur easily between actors and finally, when shared values and beliefs exist between the actors prior to and during innovation development, the innovation process is smoother, resulting in success.

Limitations of the research

The findings are developed from the analysis of six cases in MCD's nets. Therefore, the cases are not representative of all nets and it is not clear to what extent these findings are generalisable across other sectors. Research focused on other industrial settings may provide different results regarding how management activities should be employed. In addition, the researcher recognises the different temporal perspectives, for example reflective as opposed to real time in the data gathering, which may have shaped or biased the researcher's interpretations (Halinen et al., 2012, Hoholm and Araujo, 2011) .

References

- (MIDAS), M. I. D. A. 2015. Manchester: Come create the future.
- AARIKKA-STENROOS, L., JAAKKOLA, E., HARRISON, D. & MÄKITALO-KEINONEN, T. 2017. How to manage innovation processes in extensive networks: A longitudinal study. *Industrial Marketing Management*, 67, 88-105.
- AARIKKA-STENROOS, L., SANDBERG, B. & LEHTIMÄKI, T. 2014. Networks for the commercialization of innovations: A review of how divergent network actors contribute. *Industrial Marketing Management*, 43, 365-381.
- ABETTI, P. A. 2000. Critical success factors for radical technological innovation: a five case study. *Creativity and Innovation Management*, 9, 208-221.
- BARALDI, E. & STRÖMSTEN, T. 2009. Controlling and combining resources in networks — from Uppsala to Stanford, and back again: The case of a biotech innovation. *Industrial Marketing Management*, 38, 541-552.
- COOPER, R. G. & KLEINSCHMIDT, E. J. 1995. Benchmarking the firm's critical success. *Journal of Product Innovation Management*, 12, 374-391.
- COVIELLO, N. E., & JOSEPH, R. M. 2012. Creating major innovations with customers: Insights from small and young technology firms. *Journal of Marketing* 76, 87-104.
- D'ESTE, P., IAMMARINO, S., SAVONA, M. & VON TUNZELMANN, N. 2012. What hampers innovation? Revealed barriers versus deterring barriers. *Research policy*, 41, 482-488.
- DHANARAJ, C. & PARKHE, A. 2006. Orchestrating innovation networks. *Academy of Management Journal*, 31, 659-669.
- DUBOIS, A., & GADDE, L. E. 2002. Systematic combining: an abductive approach to case research. *Journal of Business Research*, 55, 553-560.
- EASTON, G. 1995. *Methodology and industrial networks*.
- EGGERT, A. & HELM, S. 2003. Exploring the impact of relationship transparency on business relationships. *Industrial Marketing Management*, 32, 101-108.
- EISENHARDT, K. M., & GRAEBNER, M. E. 2007. Building Theories from Case Study Research. *Academy of Management Review*, 14, 532-550.
- EISENHARDT, K. M., J. ACADEMY OF MANAGEMENT REVIEW 1989. Building theories from case study research. 14, 532-550.
- GARCIA, R. & CALANTONE, R. 2002. A critical look at technological innovation typology and innovativeness terminology a literature review. *Journal of Product Innovation Management*, 19, 110-132.
- GASSMAN, O. 2006. Opening up the innovation process towards an agenda. *R&D Management*, 36.
- HÅKANSSON, H. 1982. *International Marketing and Purchasing of Industrial Goods*, JOHN WILEY & SONS.
- HÅKANSSON, H. & FORD, D. 2002. How should companies interact in business networks. *Journal of Business Research*, 55, 133-139.
- HÅKANSSON, H. & SNEHOTA, I. 1995. *Developing Relationships in Business Networks*.
- HALINEN, A., MEDLIN, C. J. & TÖRNROOS, J.-A. 2012. Time and process in business network research. *Industrial Marketing Management*, 41, 215-223.
- HALINEN, A. & TÖRNROOS, J.-A. 2005. Using case methods in the study of contemporary business networks. *Journal of Business Research*, 58, 1285-1297.
- HEIKKINEN, M. T., MAINELA, T., STILL, J. & TÄHTINEN, J. 2007. Roles for managing in mobile service development nets. *Industrial Marketing Management*, 36, 909-925.
- HENNEBERG, S. C., NAUDÉ, P. & MOUZAS, S. 2010. Sense-making and management in business networks — some observations, considerations, and a research agenda. *Industrial Marketing Management*, 39, 355-360.
- HOHOLM, T. & ARAUJO, L. 2011. Studying innovation processes in real-time: The promises and challenges of ethnography. *Industrial Marketing Management*, 40, 933-939.

- HUBERMAN, A., MILES, M. & SALDANA, J. 2013. *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage Publications Inc.
- LYNN, G. S., MORONE, J. G. & PAULSON, A. S. 1996. Marketing and discontinuous innovation: the probe and learn process. *California Management Review*, Spring 1996, 3-8.
- MADRID-GUIJARRO, A., GARCIA, D. & VAN AUKEN, H. 2009. Barriers to innovation among Spanish manufacturing SMEs. *Journal of Small Business Management*, 47, 465-488.
- MANSER, K., HILLEBRAND, B., KLEIN WOOLTHUIS, R., ZIGGERS, G. W., DRIESSEN, P. H. & BLOEMER, J. 2016. An activities-based approach to network management: An explorative study. *Industrial Marketing Management*, 55, 187-199.
- MILES, M. & HUBERMAN, M. 1984. *Qualitative data analysis: A sourcebook of new methods*. Sage publications.
- MILES, M., HUBERMAN, M. & SALDANA, J. 2014. *Qualitative data analysis*, Sage.
- MÖLLER, K. 2010. Sense-making and agenda construction in emerging business networks — How to direct radical innovation. *Industrial Marketing Management*, 39, 361-371.
- MÖLLER, K. 2013. Theory map of business marketing: Relationships and networks perspectives. *Industrial Marketing Management*, 42, 324-335.
- MÖLLER, K. & HALINEN, A. 2017. Managing business and innovation networks—From strategic nets to business fields and ecosystems. *Industrial Marketing Management*, 67, 5-22.
- MÖLLER, K. & SVAHN, S. 2009. How to influence the birth of new business fields — Network perspective. *Industrial Marketing Management*, 38, 450-458.
- MOUZAS, S., HENNEBERG, S. & NAUDÉ, P. 2008. Developing network insight. *Industrial marketing management*, 37, 167-180.
- MOUZAS, S. & NAUDÉ, P. 2007. Network mobilizer. *Journal of Business & Industrial Marketing*, 22, 62-71.
- O'CONNOR, G. C. & RICE, M. P. 2013. A Comprehensive Model of Uncertainty Associated with Radical Innovation. *Journal of Product Innovation Management*, 30, 2-18.
- ÖBERG, C. & SHIH, T. T.-Y. 2014. Divergent and convergent logic of firms: Barriers and enablers for development and commercialization of innovations. *Industrial Marketing Management*, 43, 419-428.
- OJASALO, J. 2008. Management of innovation networks: a case study of different approaches. *European Journal of Innovation Management*, 11, 51-86.
- PERKS, H. & MOXEY, S. 2011. Market-facing innovation networks: How lead firms partition tasks, share resources and develop capabilities. *Industrial Marketing Management*, 40, 1224-1237.
- RAMPERSAD, G., QUESTER, P. & TROSHANI, I. 2010. Managing innovation networks: Exploratory evidence from ICT, biotechnology and nanotechnology networks. *Industrial Marketing Management*, 39, 793-805.
- SANDBERG, B. & AARIKKA-STENROOS, L. 2014. What makes it so difficult? A systematic review on barriers to radical innovation. *Industrial Marketing Management*, 43, 1293-1305.
- SOMMER, A. F., DUKOVSKA-POPOVSKA, I. & STEGER-JENSEN, K. 2014. Barriers towards integrated product development — Challenges from a holistic project management perspective. *International Journal of Project Management*, 32, 970-982.
- STORY, V., HART, S. & O'MALLEY, L. 2009. Relational resources and competences for radical product innovation. *Journal of Marketing Management*, 25, 461-481.
- STORY, V., O'MALLEY, L. & HART, S. 2011. Roles, role performance, and radical innovation competences. *Industrial Marketing Management*, 40, 952-966.
- YIN, R. K. J. 2009. *Case study research: Design and methods (applied social research methods)*, Sage.