The emergence of an inter-organizational business net and
development of a managerial sensemaking framework

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DECLARATION

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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ABSTRACT

The emergence of an inter-organizational business net and development of a managerial sensemaking framework

A business net is a deliberately developed set of connected actors that is created for a particular purpose. A strategic or focal net is formed intentionally and includes a restricted group of firms, whereas a network refers to boundary-less, decentralized “macro networks” (Möller & Svahn 2003 p. 213). The emergence of an inter-organizational business net, net management and development of a managerial sensemaking framework involves continuous change. Change is described by Van de Ven and Poole (1995, p. 512) as “an empirical observation of difference in form, quality, or state over time…”. The business net changes through relationships. Change implemented by one actor in the net affects all other net participants and eventually other network actors. As a result, managers are required to contend with network change in addition to understanding how to initiate change.

Furthermore, previous understanding of the network was stability-change, and empirically the long term industrial network displayed stability. However, increasingly the network is understood to operate in a continuous state of change and renewal.

With increased globalization and interconnectedness between firms, the need for managers to work together in an inter-organizational business net and within the network is heightened. A sensemaking framework is developed through ongoing interactions between actors in a business net. Subsequently, ‘working together’, rather than just ‘working with’, firms in a net may involve the development of shared understandings between individuals involved in relationships in the net and a sensemaking framework between managers. An inter-organizational framework operates as shared perspectives or views of reality between individuals that facilitate development of common beliefs through which interactions and the relationship between firms is understood by managers and employees. The development of a shared framework influences identification and evaluation of opportunities and hence managerial decision-making. When two firms interact in a business relationship some form of a shared framework may develop. However, there is limited research on inter-organizational sensemaking and less on how sensemaking concerning network change occurs between firms.

The development of a framework enables the social interpretation of events that are pivotal to sensemaking. This research examines the development processes of an inter-organizational sensemaking framework. A case study of a government initiative to develop a local music industry cluster displays how the net framework is developed by managers. The qualitative interview data was organized according to three distinct groups: (1) business/musicians/artists, (2) government, and (3) knowledge institutions/facilitators. Results indicate that during the initial stages of net development there was a strongly perceived need for a shared framework and common understanding of the purpose and goals of the network. The categories of ‘framework’, ‘shared vision’, ‘other’ and ‘foresight’ were identified as key factors in the emergence of an inter-organizational business net and development of a managerial sensemaking framework. Further, the theoretical outcome of this thesis proposes that foresight precedes the emergence of a shared vision which is then followed by development and enactment of a managerial sensemaking framework. These concepts are interconnected and indicate a hierarchical iterative process over time.

Keywords: business net, network, framework, foresight, inter-organizational sensemaking
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CHAPTER 1: INTRODUCTION

1.1 Introduction

This research investigates how a business net emerges, a managerial sensemaking framework is developed, and change in the networked inter-organizational context is ‘managed’. This chapter outlines the theoretical background, origins of the business network perspective, the concept of sensemaking, and finally a summary of the study for this thesis.

1.2 Theoretical background

The theoretical perspective adopted for this research is a network approach. The network operates as the lens through which the research was viewed (Jabareen 2009). The key research objectives, concepts, variables, relationships and interrelationships studied (Miles & Huberman 1994) were determined by the network approach.

1.3 Origins of the business network perspective

The business network perspective developed by the Industrial Marketing and Purchasing (IMP) Group in the late 1970s in Europe represented a new paradigm or “network era” for industrial markets (Mattsson, L-G & Johanson 2006; Möller & Halinen 1999, p. 414). Häkansson (1997, p. 232) defines a network as being “characterized by a set of actors connected by a set of relationships”. The market is considered a “net of buyer-seller relationships” (Häkansson & Snehota 1995, p. 2) which are “interconnected” and “interdependent” and so comprise the business network (Brass et al. 2004; Häkansson & Snehota 1995, pp. 17-18). Consequently, the network is a boundary-less, decentralized organisation (Häkansson & Snehota 1995) with “flexible structures” (Snow & Miles 1992, p. 53). According to Snow and Miles (1992) in this conceptualization, the network operates in constant renewal.
The network perspective remains an emerging theory (Möller 2013) and therefore there is a need for greater understanding of business network processes, dynamics and behaviour. Further, there is limited research concerning how the network emerges (Gulati & Gargiulo 1999; Möller 2010; Powell et al. 2005). In addition, a limitation of the network perspective is the lack of clear managerial implications (Möller 2013). Subsequently, further exploration of network management and change in the business network is required.

The network perspective originally developed from transaction cost economics and social exchange theory (Möller 2013). A social constructivist perspective has been adopted for this research due to actors’ perception of the network being dependent on their position within the network (Nyström, Ramström & Törnroos 2014; Öberg, Henneberg & Mouzas 2007). Further, the sensemaking perspective demonstrates how an actors’ viewpoint is socially and contextually constructed (Weick 1993) to create a “view of reality” (Woodside 2001, p. xii). Next, the above mentioned theories and perspectives are considered in turn, except transaction cost economics which assumes that the minimization of costs is the most important criteria when conducting business transactions (Williamson 1989, 1998) rather than the development of ongoing network relationships.

1.3.1 Social Exchange Theory

Social Exchange Theory (SET) involves interdependent interactions (Blau 1964) which enable the development of enduring quality relationships (Cook, Molm & Yamagishi 1993; Cropanzano & Mitchell 2005). These interactions involve the network (Brass et al. 2004) which is also referred to as the exchange network (Cook, Molm & Yamagishi 1993). While there are divergent social exchange perspectives within the SET literature (Cropanzano & Mitchell 2005), each assumes that:

“…social exchange comprises actions contingent on the rewarding actions of others, which over time provide for mutually rewarding transactions and relationships” (Cropanzano & Mitchell 2005, p. 890).
SET assumes that economic and social exchange cannot be separated due to the involvement of relationships in the exchange process (Kragh & Andersen 2009). SET has become a more influential theory for the network perspective (Möller 2013) in terms of its emphasis on reciprocity and mutually rewarding relationships (Blau 1964). SET’s influence has occurred as a result of the development and emphasis on relationships and interaction in the network literature. Thus, SET’s mutual obligation to reciprocate rewards and benefits between actors (Blau 1964) has influenced how firms work together. From the network perspective SET also supports the development of business relationships through the assumption of reciprocity and mutual obligation between firms (Blau 1964). Thus, ideally, the pursuit of common goals operates in the best interests of all network actors.

Each network actor possesses their own perspective due to the heterogeneous nature of the social world (Henneberg, Mouzas & Naudé 2006; Medlin 2012; Öberg, Henneberg & Mouzas 2007, 2012). Hence, in order for firms to work together in the inter-organizational network requires the development of a partial shared understanding between managers. A partial shared understanding indicates that there are some overlaps in understanding, foresight and goals. However, these shared understandings are not identical but only similar to a certain degree.

1.3.2 Network epistemology and ontology

In this research a network epistemology and ontology was assumed. Based on a network epistemology, this research adopts a constructivist, pluralist and relativist paradigm.

Nineteenth century philosopher Thomas Kuhn’s paradigm concept:

“…refers to patterns or systems of beliefs (worldviews) about science and knowledge production occurring within and across disciplines” (Powers & Knapp 2010, p. 128).

Epistemologically, the network perspective is highly dependent on context and time (Halinen, Medlin & Törnroos 2012), where actors are considered to be embedded in the network
(Håkansson & Ford 2002; Möller 2013; Snehota & Håkansson 1995) and therefore historical case studies are largely used (Möller 2013).

Ontology is defined as the “science or study of being” (Blaikie 1993, p. 6) and:

“…the claims or assumptions that a particular approach to social enquiry makes about the nature of social reality” (Blaikie 1993, p. 6).

The network perspective views firms as actors based on the ontological assumption of markets as the network (Möller 2013). As such, an exchange of resources occurs through reciprocal relationships which are context dependent (Möller 2013). Subsequently, business relationships are considered organizational resources of considerable value (Håkansson 1987; Ritter, Wilkinson & Johnston 2004). However, challenges exist regarding network management (Ritter, Wilkinson & Johnston 2004).

Social constructivism is a meta-theory that draws upon “socio-historical institutionalism” (Risse & Wiener 1999, p. 778) or “sociological institutionalism” rather than “radical institutionalism” (Risse & Wiener 1999). Social constructivism emphasizes the roles of routines and their consequences in the construction of institutions (Risse & Wiener 1999). Socialization is defined as:

“…the process by which actors internalize the norms which then influence how they see themselves and what they perceive as their interests” (Risse & Wiener 1999, p. 778).

A constructivist epistemology is a relativist perspective that assumes a social construction of reality (King & Horrocks 2010; Searle 1995) located within an interpretivist ontology (King & Horrocks 2010; Searle 1995). Knowledge and truth are relative and depend upon the pluralist perspective of the individuals involved (Baxter & Jack 2008; Krefting 1991). A pluralist perspective provides multiple views of the business network which is socially constructed, and relative to and dependent on the lens of participants and researcher.

A social constructivist epistemology views knowledge as contextually and interpersonally “created”, in contrast to objective realism where knowledge is considered to be “discovered”
independent of context (Adams, P 2006, p. 254). Social constructivism’s ontology is concerned with “systems of meanings” and “social understandings” (Risse & Wiener 1999).

The social construction of reality is comprised of primary and secondary socialization (Berger & Luckmann 1967). Primary socialization considers society to be comprised of three processes: “externalization, objectivation and internalization” (Berger & Luckmann 1967, p. 149). Whereas, secondary socialization involves the internalization of institutional and socially distributed knowledge (Berger & Luckmann 1967).

The first process for an individual’s primary socialization is internalization where events are interpreted and given meaning (Berger & Luckmann 1967). However, an individual’s identity is assigned by their position in society and is a reflection of the attitudes of others (Berger & Luckmann 1967). Thus, an individual’s reality is constructed from their relationships to others (Berger & Luckmann 1967). Reality construction is therefore a social process.

1.3.3 Stability, change and emergence in the network

Considerable discussion has developed in the literature regarding network change that fluctuates between dynamism and stability (Ford et al. 2011; Ford et al. 2003; Gadde & Mattsson 1987; Sutton-Brady 2008). The business network changes through relationships (Håkansson & Ford 2002). Change is described by Van de Ven & Poole (1995, p. 512) as “an empirical observation of difference in form, quality, or state over time…”. Firms must adapt to the ongoing changes in business relationships (Abrahamsen & Håkansson 2012; Corsaro & Snehota 2012). Adaptation involves the management of expectations (Håkansson & Ford 2002) so that the network is transformed and change enabled (Håkansson & Snehota 1995; Havila & Salmi 2000). Even when change is implemented by only one actor in the network, all other network participants are affected (Abrahamsen & Håkansson 2012; Dubois 2006; Freytag & Ritter 2005; Håkansson & Ford 2002; Munksgaard & Medlin 2014). Hence,
managers are required to contend with network change and their business relationships in addition to understanding how they are able to initiate change.

The long term industrial network tends to be relatively stable (Gadde & Mattsson 1987) and relationships often exist for more than ten years (Freytag & Ritter 2005). Stability is considered to be achieved through the establishment of roles and routines which are generally repetitive and do not involve a great deal of change (Feldman 2000). However, routines are subject to change (Feldman 2000).

Abrahamsen and Häkansson (2012) argue that there is no stability in the network and interconnected relationships are in a constant state of change. The change management literature’s additional “unfreeze-move-refreeze” change model described the change process as a sequence of states (Isabella 1990). Further, Kamp (2005) proposes that continuity is identified as stability. However, some researchers suggest that for change to transpire stability is required, and thus for certain periods of time the network appears to be stable (Easton 1992; Freytag & Ritter 2005; Sutton-Brady 2008). Alternatively, Freytag & Ritter (2005) also propose that in order for a network to be stable change is required. Thus, it would seem that the unfreeze-move-refreeze model is more closely aligned with the change-dynamism-stability process so that there would be a ‘change-dynamism-(alleged) stability’ network change model. Further, the perception of stability versus change/dynamism may be affected by the speed and magnitude of the change. Thus, in conjunction with Kamp’s (2005) concept of continuity, both perspectives suggest an increasing trend towards viewing the network as only ‘appearing’ to be stable.

Interest in network management is a relatively recent development (Ritter, Wilkinson & Johnston 2004). Within business the network, relationships management is considered one of the major managerial challenges, but there remain limitations in the theoretical understanding
of network management (Ritter, Wilkinson & Johnston 2004). Due to globalization there is an increasing tendency for firms to develop and operate within the network (Möller 2013). This propensity for firms to work in the network is fuelled by growing trends such as open innovation (see for example Chesbrough 2003, 2004, 2012; Chesbrough, Vanhaeverbeke & West 2008; Gassmann, Enkel & Chesbrough 2010; Lichtenhaler 2011a, 2011b), co-creation (see for example Aarikka-Stenroos & Jaakkola 2012; Choi & Burnes 2013; Grönroos 2011, 2012; Grönroos & Voima 2013; Saarijärvi 2012; Vargo, Maglio & Akaka 2008), strategic alliance (see for example Anand & Khanna 2000; Cravens, Shipp & Cravens 1993; Das & Teng 2000; Gulati 1998; Prashant & Harbir 2009) and new product development and innovation projects (see for example Adams, Bessant & Phelps 2006; Anderson, De Dreu & Nijstad 2004; Audretsch & Feldman 1996; Bessant, Öberg & Trifilova 2014; Corsaro, Cantù & Tunisini 2012; Johnsen & Ford 2000; Möller 2010; Vercauteren 2009).

Ongoing debate in the literature regarding network management remains divided between two streams of research (Nyström, Ramström & Törnroos 2014). One area of study argues that the network cannot be managed (Dubois, Hulthén & Pedersen 2004; Ford et al. 2002; Håkansson & Ford 2002; Snehota & Håkansson 1995), considers network management as detrimental to efficiency and innovation, and therefore undesirable (Ford et al. 2002; Håkansson & Ford 2002; Waluszewski 2004). The alternative perspective proposes that interconnected buyer-seller relationships in the network become bounded “strategic nets” (Gulati 1998; Jarillo 1988, 1993; Möller & Rajala 2007; Möller & Svahn 2003) within the boundary-less, decentralized network (Snehota & Håkansson 1995).

A business net is a deliberately developed set of connected actors that is created for a particular purpose (Möller & Svahn 2003). A strategic or focal net is formed intentionally and includes a restricted group of firms, whereas network refers to the macro network (Möller &
Svahn 2003; Möller & Halinen 1999). The actors included in the net are those that are considered significant by management (Möller & Halinen 1999; Alajoutsijärvi, Möller & Rosenbröijer 1999). Therefore, the development of a net evolves from the wider network for a relevant purpose.

The net perspective argues that the development of “strategic nets” enables some form of net management/control (Gulati 1998; Jarillo 1988, 1993; Möller & Rajala 2007; Möller & Svahn 2003). A strategic net is defined as:

“…an arrangement by which companies set up a web of close relationships that form a veritable system geared to providing product of services in a coordinated way” (Jarillo 1993, p. 7).

A strategic net is deliberately created and includes a limited number of actors, a more defined purpose, and clearly defined roles which enable some degree of net management (Möller 2013; Möller & Rajala 2007). The development of “strategic nets” enables some managerial influence through a more closed net which is consequently more controllable (Möller & Svahn 2003). However, due to the constant change in the networked business environment, it would be practically impossible to have an entirely closed net. As one of the network perspectives limitations is the lack of managerial implications (Möller 2013), there is potential for insight into network management and influence in strategic nets. Further, the debate in the business network literature regarding network management has greater managerial implications and therefore requires greater understanding and further research, which in effect questions whether change is manageable.

There is scant research on how the net emerges in the sociology (Gulati & Gargiulo 1999; Powell et al. 2005) or business network literature (Heikkinen & Tähtinen 2006; Möller 2010). An inter-organizational net tends to emerge organically when complex tasks need to be undertaken within a limited time frame (Jones, Hesterly & Borgatti 1997). As a result, high-speed industries such as biotechnology, computers and aircraft manufacturing have seen the
widespread emergence and development of inter-organizational business nets (Jones, Hesterly & Borgatti 1997).

Despite the increasing tendency for firms to develop nets, managers are provided with limited guidance on how to develop an inter-organizational business net. Consequently, greater understanding of how to develop a sensemaking framework between managers in an inter-organizational business net has considerable research and managerial implications. Net management involves the development of common understandings within and between individuals involved in relationships between firms. This research focuses on the emergence of an inter-organizational net, net management and development of combined managerial understandings.

### 1.4 Sensemaking

“Sensemaking” is a concept first conceived by Weick (1979b) in the organizational management literature to describe “the process of organizing” (Mills, Thurlow & Mills 2010, p. 182) which is usually studied within an organization. Organizing is a social process involving other actors. Sensemaking as a process of organizing is a form of “contextual rationality” (Weick 1993) where individuals socially attempt to sustain constructed realities that reduce confusion and enable them to rationalize their activities (Morgan, Frost & Pondy 1983; Weick 1993). According to Weick (1993, p. 635):

> “The basic idea of sensemaking is that reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs.”

Weick’s (1993) definition indicates that there are at least two processes at work. The first is the social sensemaking process for creating an ongoing accomplishment of reality, and second is the individual process of ‘making sense’. These two processes necessarily rely on each other, although in most cases the social sensemaking process is dominant in creating an ongoing reality (Weick 1995). This suggests ‘making sense’ operates as a secondary process.
Hence, sensemaking is considered an ongoing, social and retrospective process that governs an accomplishment of reality.

Sensemaking adopts a social constructivist epistemology based on the interpretation of cues and meaning. Sensemaking develops social and common understandings (Nyström, Ramström & Törnroos 2014; 1997, p. 338; Weick 1993, 1995; Weick & Roberts 1993). The processing of cues, meaning and interpretation between actors plays a key role in sensemaking. Explicit sensemaking occurs when the perceived view is different to the expected view (Weick, Sutcliffe & Obstfeld 2005). The sensemaking process also involves open ended questioning in contrast to noun based questioning (Dervin 1998) (see table 1 below).

<table>
<thead>
<tr>
<th>TABLE 1: SENSEMAKING QUESTIONING</th>
</tr>
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<tbody>
<tr>
<td>“What’s going on here?”</td>
</tr>
<tr>
<td>“What do I do next?”</td>
</tr>
<tr>
<td>“What happened that brought you here?”</td>
</tr>
<tr>
<td>“What questions are you trying to answer?”</td>
</tr>
<tr>
<td>“What help would you like?”</td>
</tr>
<tr>
<td>“If I was able to help, what would you do with it?”</td>
</tr>
<tr>
<td>“What helped?”</td>
</tr>
<tr>
<td>“What hindered?”</td>
</tr>
<tr>
<td>“What are the barriers?”</td>
</tr>
<tr>
<td>“What do you conclude?”</td>
</tr>
<tr>
<td>“What emotions/feelings relate?”</td>
</tr>
<tr>
<td>“What would help?”</td>
</tr>
<tr>
<td>“What things need to be discussed here that aren’t being discussed”</td>
</tr>
<tr>
<td>“Whose voice needs to be heard that is not being heard?”</td>
</tr>
</tbody>
</table>

The question “same or different?” is intrinsic to sensemaking (Weick, Sutcliffe & Obstfeld 2005, p. 414) where a sequence of context dependent events are essential in the sensemaking process (Weick 1995). A process is defined by Pettigrew (1997, p. 338) as:

“…a sequence of individual and collective events, actions, and activities unfolding over time in context”.

As a result of the combined use of the term sensemaking for (1) individuals, and (2) the social process of sensemaking, distinction between the concepts of ‘making sense’ and ‘sensemaking’ has become obscured in the literature. Based on the division in the sensemaking literature between the two streams of research (Maitlis & Christianson 2014) the
need for a distinction between ‘making sense’ as an individual process and use of the term ‘sensemaking’ only in the context of a social process involving managers in two or more firms was identified for the purposes of this research. Therefore, for this thesis a distinction is made between ‘making sense’ as an individual process and ‘sensemaking’ as a social process.

The sensemaking process is affected by frameworks (Daft & Weick 1984) which assist the process of:

“…generating a clear and adequate formulation of what the problem ‘is’, of creating from a set of incoherent and disorderly events a coherent ‘structure’ within which both current actualities and further possibilities can be given an intelligible ‘place’” (Shotter 1993, p. 150).

A sensemaking framework is a shared, implicit, socially created mental model (Daft & Weick 1984; Fiske & Linville 1980; Hill & Levenhagen 1995; Labianca, Gray & Brass 2000; Maitlis & Christianson 2014; Tversky & Kahneman 1981). The organizational focus of most sensemaking research means a framework has generally been thought of by managers and employees as a shared perspective within a firm (Weick & Roberts 1993). However, in this research we extend this intra-organizational view by seeking to understand the framework that emerges in a business relationship between firms in a network.

For this research, a framework is defined as a socially understood lens or perspective through which reality is viewed. However, organizations interact with each other as single units (Ring & Van de Ven 1994) but each has their own framework that represents different views of reality (Woodside 2001). Firms also have their own managerial sensemaking framework so that contradictions between the frameworks lead to changes in understanding (Denzau & North 1994), which influences managerial perception and decision-making. Therefore, through necessity, managers in a business relationship may develop a shared inter-organizational framework that also includes an understanding of the surrounding network (Mouzas, Henneberg & Naudé 2008).
Inter-organizational action requires further elaboration of a managerial inter-firm framework to include business interactions and the surrounding network of relationships. The development of shared managerial inter-organizational framework involves firms ‘working together’, rather than merely ‘working with’ each other in a network. Examples of firms ‘working together’ are provided by the close and adaptive business relationships that exist in long-term parts of the business network (e.g. Häkansson & Snehota 1995) and also with Imai, Nonaka and Takeuchi’s (1984) rugby team analogy. The implication is that operating as a team does not always involve doing your very best, but rather through planned integration and coordination each team member is given the chance to excel at an optimal time (Ginnett 1993). Hence, firms ‘working together’ need to consider net dynamics and sensemaking from a network perspective.

Weick (1995) contests social sensemaking’s focus on shared meanings and social construction, suggesting that the coordination of various additional factors such as different forms of meanings, such as equivalent (Donnellon, Gray & Bougon 1986) and distributed (Rasmussen, Brehmer & Lepat 1991) play a significant role in the sensemaking process. Further, Weick (1979b) contends that due to the nature of exchange there is limited requirement for shared understanding or goals. Consequently, Weick & Roberts (1993) suggest that instead of shared meanings it is the development of the “collective mind” or “collective action” (Czarniawska-Joerges 1992) that is shared. However, the need for the alignment of resources and activities to achieve something in the future (Kragh & Andersen 2009) through joint action (Weick 1995) requires a combined intention between network actors ‘working together’ (Häkansson & Snehota 1995; Imai, Nonaka & Takeuchi 1984) which involves the development of complementary shared goals and some shared understandings. Therefore, it is possible to question whether meanings rather than mind are shared.
Research has not elaborated on the role and development of inter-organizational sensemaking frameworks. For this research the difference between ‘making sense’ and ‘sensemaking’ suggested that frameworks for understanding required further delineation, and thus the need for a distinction to be made between use of the term ‘frames’ for individuals versus ‘framework’ for the social process. Hence, as relationships develop which involves a social process, whether through the need for problem solving or identification of an opportunity, a framework evolves.

First, it is possible to argue that the usage of the terms cognitive and framework together is one reason why confusion has arisen concerning the processes of ‘sensemaking’ and ‘making sense’. Second, there was the need to make a distinction between individual ‘frames’ and a socially constructed ‘framework’, even when authors referenced in the literature interchangeably use frames, frameworks and other terms such as cognitive scripts, mental maps, vision and schema. Therefore, for clarity, the term ‘frame’ is used to denote an individual cognitive framework and ‘framework’ to signify a socially constructed framework.

The development of an inter-organizational managerial framework between individuals involved in development of relationships between firms in a business net is a key element for sensemaking. A framework is pivotal to sensemaking by providing connections between beliefs and understandings so that a background is available to enable social interpretation of events (Hansen 2008). Consequently, greater understanding of how to develop a sensemaking framework between managers in an inter-organizational business net is required.

1.5 Structure of this thesis

This thesis is comprised of eight chapters structured in the following manner. Chapter one provides an introduction to the theoretical context of the research. Further, the origins and background information for the network and sensemaking perspectives are provided. Chapter
two includes a literature review of the network perspective and sensemaking. First, the network perspective literature review includes discussion of the business network and stability, change and the emerging net. Second, the sensemaking literature review addresses sensemaking and the roles of meaning, interaction, foresight and serendipity in the sensemaking process. The need for a distinction to be made between the processes of an individual ‘making sense’ compared to ‘sensemaking’ as a social process is identified. This is followed by an examination of the key elements of the development of a sensemaking framework.

In chapter three making sense of sensemaking and changing sensemaking frameworks are discussed. Next, sensemaking, serendipity and network development are elaborated. Finally, the closing section of chapter three defines the research objectives and research questions of the study.

Chapter four presents the research methodology for two case studies with a mixed method research design used for the second case study. The first case uses an existing case study by Vercauteren (2009) about a dyad’s collaborative new product development process to provide an analysis of the development of a business relationship sensemaking framework. In this case, the initial formation and interaction of an inter-organizational sensemaking framework between firms is studied. Results from the analysis of this case study, provided in chapter five, determine the research method and focus of exploration for case study two. The empirical setting for the second case was a qualitative case study of firms involved in the emergence and development of a creative industries inter-organizational business net. This case was selected as it involved the emergence of an inter-organizational business net and how a managerial sensemaking framework develops.
Next, a discussion and analysis of the results of case study two are included in chapter six.

Finally, theoretical implications and future research are discussed in chapter seven followed by managerial implications in chapter eight.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of the network and sensemaking literature. First, there is an outline of the business network concept, change in the network, and emergence of a net. Next, sensemaking and the role of foresight and serendipity in the development of a sensemaking framework are discussed. Finally, a summary is provided.

2.2 The business network

Interconnected relationships are intrinsic to the business network (Ford et al. 2011). A business relationship is defined as a “mutually oriented interaction between two reciprocally committed parties” (Snehota & Häkansson 1995, p. 25). Thus, the business relationship is the context in which the inter-firm interaction operates within the network. While there is no agreed definition of interaction in the Industrial Marketing and Purchasing (IMP) literature nor business-to-business (B2B) and business-to-consumer (B2C) literature, interaction is considered a shared encounter between individual and organizational actors (Medlin & Saren 2012). An “interaction is the process at the heart of a business relationship” (Ford et al. 2011, p. 15) and involves numerous people in various companies in a back and forth iterative process (Ford et al. 2011, p. 4). The development of relationships as actors and subsequent interactions are key factors in the development of the business network.

Through their business relationships, individual and organizational actors form perceptions and understandings of their position in the network (Nyström, Ramström & Törnroos 2014). These perspectives are different to other individual and organizational actors’ views of the network (Henneberg, Mouzas & Naudé 2006; Öberg, Henneberg & Mouzas 2007, 2012). The connections between firms mean that managers can identify the network (Häkansson &
Snehota 1989), but each individual and organizational actor views the network differently depending on their role, position, centrality (Koka, Madhavan & Prescott 2006; Nyström et al. 2014), experience, knowledge (Weick, Sutcliffe & Obstfeld 2005), frames of reference, beliefs, understanding, attitudes and prior interactions (Ford et al. 2011; Hodgkinson & Johnson 1994; Öberg, Henneberg & Mouzas 2007; Weick, Sutcliffe & Obstfeld 2005) size of the company (Nyström et al. 2014), and nature of the industry (Chesbrough 2003). As a result of these socially constructed and heterogeneous realities (Koka, Madhavan & Prescott 2006; Nyström, Ramström & Törnroos 2014; Öberg, Henneberg & Mouzas 2007, 2012) individual and organizational actors possess different network perspectives.

2.2.1 Change and management in the business network

The business network is constantly changing (Abrahamsen & Håkansson 2012; Halinen & Törnroos 1998) so that any change by one network affects all other firms in the network (Abrahamsen & Håkansson 2012; Dubois 2006; Freytag & Ritter 2005; Håkansson & Ford 2002; Munksgaard & Medlin 2014). Thus, change in the business network requires networked firms to work together. ‘Working together’ involves cooperation (Corning 2003; Håkansson & Snehota 1989) between firms in a network which entails the development of some shared understandings between managers. To ‘work with’ firms in the network involves for example, contractual agreements and negotiations which are derived from a transaction cost economics approach (Williamson 1985). Alternatively, individuals and organizations ‘working together’ are influenced by social exchange theory (Blau 1964) which requires the development of relationships (Håkansson & Ford 2002), common understandings, mutually beneficial reciprocity (Blau 1964), shared goals and purposes, which are all concepts in social exchange theory (Blau 1964).
In contrast to the network management debate between network management/control and strategic nets, the concept of network orchestration has arisen as a form of subtle network leadership concerned with exercising network coordination and influence (Dhanaraj & Parkhe 2006, p. 211; Kindström, Kowalkowski & Sandberg 2013; Orton & Weick 1990). Such an approach is in preference to an authoritarian stance in order to foster value creation and knowledge exchange amongst network participants (Ritala, Hurmelinna-Laukkanen & Nätti 2012). The concepts of network coordination and influence have the potential to resolve the divide in the network management debate.

Kragh and Andersen (2009, p. 3) suggest that at different stages of a change process in the network different net actors may take on different roles and levels of influence defined as “distributed influence” and “limited managerial authority”. Barriers to change in the business network are caused by a firm’s routines which generates organizational resistance (Kragh & Andersen 2009). Subsequently, Kragh and Andersen’s (2009, p. 3) concepts of “distributed influence” and “limited managerial authority” support the notions of network orchestration and subtle network leadership. These concepts indicate a significant development in the network management debate.

Change is achieved by way of the network (Håkansson & Ford 2002). Business relationships operate as the ties between firms so that network relationships are connected (Håkansson & Ford 2002). The network can be viewed as both a group of firms and of relationships which are thus a “network of relationships” (Håkansson & Ford 2002, p. 136). Structural changes to the network result in changes between relationships (Håkansson & Ford 2002). Change in one relationship affects others so that change is contingent on associated firms’ activities (Håkansson & Ford 2002). Thus, change in networks occurs through and is dependent on relationships.
Change in networks needs to be understood in terms of the connection between relationships (Håkansson & Ford 2002). Interactions result in changes in relationships in the network (Halinen, Salmi & Havila 1999). Change and interactions between individuals and organizations in the network requires cooperation (Corning 2003) and coordination (Munksgaard & Medlin 2014) due to the interdependency of relationships between firms (Håkansson & Ford 2002). Through the network relationships shared understandings regarding how interactions should occur are developed (Håkansson & Ford 2002). Hence, the development of shared understandings regarding interactions between individuals and organizations is a significant factor in terms of implementing and managing change in the network.

2.2.2 Emergence of the business net

Emergence involves change in the business network (Halinen & Törnroos 1998). According to Halinen & Törnroos (1998) emergence accentuates change as a process. Van de Ven (1992, p. 170) describes a process as a “sequence of events or activities that describes how things change over time”. As the network is a group of relationships (Håkansson & Ford 2002) emergence of the network involves the development of new business relationships (Halinen & Törnroos 1998). The establishment of new relationships is affected by individual, organizational and network actors’ roles, for example, management’s knowledge, experience and personal relationships/contacts operate as a business resource (Halinen & Törnroos 1998).

Changes in the network may result in the emergence of a net. Emergence of a net, as with change in the network, is shaped by the relationships between firms (Halinen & Törnroos 1998). The rate of change is influenced by the nature of the industry (Halinen & Törnroos 1998). Thus, emergence of the business net is a process of change. Consequently, emergence of the business net as a process of change involves the development of new relationships.
that are dependent on the roles of network actors, and the rate of change in the industry. Hence, study of the emergence of the business net involves investigation of the change in business relationships.

A distinction is made between the emergence of a formalized and an organically evolved business network (Munksgaard & Medlin 2014). A formalized net emerges through an external organizing body, such as a government or industry agency or powerful firm that is responsible for initiating the development of the net. Whereas, with an organically emerging inter-organizational net a sense of need and time constraints are the key factors that mobilize development. While the motivations and driving force for establishing the net are different, once the formal or informally generated net has been established they are theoretically the same.

2.3 Sensemaking

This section provides an overview of sensemaking, followed by discussion regarding the distinction made between ‘sensemaking’ as a social process and ‘making sense’ as an individual process. Then, sensemaking, the framework concept and network development are addressed.

Sensemaking is the perception, interpretation and construction of meaning (Weick 1995) shaped by actors’ learning and experience, and developed through interactions (Medlin & Törnroos 2007). Sensemaking involves the “reciprocal interaction of information seeking, meaning ascription and action” (Thomas, Clark & Gioia 1993, p. 240). Sensemaking includes: 

“...meaning construction and reconstruction by the involved parties as they attempt to develop a meaningful framework for understanding the nature of the intended strategic change” (Gioia & Chittipeddi 1991, p. 442).

Plausibility is fundamental to sensemaking. The ongoing redrafting and incorporation of observed data enables sensemaking to become more resilient to criticism and involves a “search for meanings” (Weick, Sutcliffe & Obstfeld 2005, p. 415). In order to address
ambiguity those involved in interdependent relationships undertake sensemaking through a search for meaning, acceptance of plausibility and moving onwards (Weick, Sutcliffe & Obstfeld 2005). Therefore, sensemaking operates as a process that facilitates change between actors; a process that involves continual search for meaning.

Explicit sensemaking occurs when the perceived view is different to the expected view (Weick, Sutcliffe & Obstfeld 2005). If something is noticed but fits the actors’ reality the framework remains relatively unchanged and the occurrence is attributed to chance. Conversely, framework change begins when a cue or event is noticed but does not fit an actors’ reality due to uncertainty, incoherence or ambiguity so that a new plausible interpretation of events needs to be achieved (Shotter 1993; Weick, Sutcliffe & Obstfeld 2005).

Individuals rationalize their actions through the creation of images of “reality” which are realized through the interpretation of meaning of the situation (Morgan, Frost & Pondy 1983). The process of interpretation is influenced by additional factors such as organizational environment, culture and management experience (Hansen 2008). However, social, cultural and political classifications are often defined by a culture, which become the “dominant cultural order” and “dominant or preferred meanings” (Hall 2009, p. 169). These preferred meanings are inscribed with a culture’s social structure, beliefs and practices (Hall 2009). Consequently, country and organizational culture influences sensemaking by defining preferred meanings and influencing the interpretation of meaning amongst and between networked firms.

Meaningful exchange occurs between actors which continue if actors benefit from the learnings and meanings of the exchange (Weick, Sutcliffe & Obstfeld 2005). Being enactive of sensible environments signifies that actors function through a common understanding.
Actors determine actions in-line with their understanding of the environment. Consequently, through action individuals set in motion events and structures (Weick 1988) and action shapes new iterations of sensemaking.

The sensemaking literature has become fragmented and as a result a number of discrepancies have arisen. These include the development of differences about what sensemaking involves, its temporality and how sensemaking is achieved (Maitlis & Christianson 2014). The proliferation of additional sense-processing terminology (Huemer 2013) has also compounded confusion in the sensemaking literature. The terms “sensegiving” and “sensebreaking” have received considerable usage in the sensemaking literature (Maitlis & Christianson 2014). In the organizational literature, the term “sensegiving” was developed by Gioia and Chittipeddi (1991, p. 442) and is defined as:

“…the process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organizational reality”

Conceptually these sense-processes (Huemer 2013) are on-going, non-linear and iterative progressions that involve the creation, influence, provision or destruction of meaning (Huemer 2013). While sensemaking involves the development of a mutual understanding by two or more actors, sensemaking and sensegiving are both concerned with the “creation of meaning” (Huemer 2013, p. 241). Sensegiving is sequential and reciprocal process (Gioia & Chittipeddi 1991) which aims to influence the actions and thinking of others (Huemer 2013). Sensegiving involves the transfer of knowledge from one actor (Gioia & Chittipeddi 1991; Huemer 2013). Senetaking and the reception of learning, knowledge or education “involves how others provide meaning for you” (Huemer 2013, p. 249). Sensebreaking as defined by Pratt (2000, p. 464) involves “the destruction or breaking down of meaning”. Hence, the creation, transmission and change of meaning are integral to each of these sense-processes.
2.3.1 Sensemaking versus making sense

Differences between the concepts of ‘sensemaking’ and ‘making sense’ have become obscured. As a result discrepancies between the terms have resulted in the literature (Maitlis & Christianson 2014). These inconsistencies include the development of differences that arise regarding what sensemaking involves and the shared/social nature of sensemaking (Maitlis & Christianson 2014). Despite ‘sensemaking’ and ‘making sense’ being used interchangeably the processes are inherently different. According to Maitlis and Christianson (2014) two sensemaking ontologies exist: (1) individual and (2) social. If this is the case the notion of ‘making sense’ by individuals will have blurred understanding of the intrinsically social aspect of Weick’s (1979b) original sensemaking concept.

Weick (1995, p. 17) describes sensemaking as

“…a process that is (1) grounded in identity construction, (2) retrospective, (3) enactive of sensible environments, (4) social, (5) ongoing, (6) focused on and by extracted cues, (7) driven by plausibility rather than accuracy.”

These seven elements are applicable to both the individual and social perspectives of capturing reality. Further, sensemaking involves circularity between beliefs and what is perceived, where beliefs determine what is seen, but seeing subsequently influences beliefs (Weick 1979b).

In the next two subsections distinctions are drawn between an ‘individual’s’ making sense process and the ‘social’ sensemaking process by elaborating each according to Weick’s (1995) seven elements.

2.3.1.1 Making sense

According to Maitlis and Christianson (2014) ‘making sense’ is a cognitive process. The term ‘cognitive’ assumes an individual process but with socially created categories. Thus, making sense is an individual process that requires an understanding of social meaning and doing, but
is mainly a personal cognitive process. This process can exist because of activity and meaning in the social sphere. The seven elements of an individual making sense process are addressed in table 2 below, in increasing order of elaboration.

**TABLE 2: AN INDIVIDUAL MAKING SENSE PROCESS IN INCREASING ORDER OF ELABORATION**

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ongoing</td>
<td>Making sense is an ongoing and equivocal individual process in time.</td>
</tr>
<tr>
<td>retrospective</td>
<td>An individual makes sense with hindsight which is ongoing in time.</td>
</tr>
<tr>
<td>focused on and by extracted cues</td>
<td>To make sense of a cue requires a frame that brackets events and allows apprehension of cues and signs. New cues can lead to developing an individual’s frame.</td>
</tr>
<tr>
<td>driven by plausibility rather than accuracy</td>
<td>Making sense never arrives at accuracy, truth or correctness only plausibility and credibility. Waiting for accuracy stalls action. Accepting plausibility enables on-going decisions and activities.</td>
</tr>
<tr>
<td>enactive of sensible environments</td>
<td>Making sense is future focused that enables understanding of how the future is unfolding and how actors will unfold a future. Individuals enact their environment by how they undertake actions. Enacting a sensible environment is based on a purpose.</td>
</tr>
<tr>
<td>grounded in identity construction</td>
<td>In making sense the individual continues to construct their identity. The making sense process is cognizant of the past. Enacting the environment aids the individual to form their identity which is a social process.</td>
</tr>
<tr>
<td>social</td>
<td>Making sense is relative to a social environment. The making sense process is personal to the individual, but applies social categories.</td>
</tr>
</tbody>
</table>

Analytically, making sense is separate from the social sphere. But in reality this is impossible and indicates the need for predominance of the social aspect of sensemaking over making sense. When an individual makes sense by themselves they have been influenced in reality, imaginarily, socially or inferentially by others (Bogner & Barr 2000; Weick 1995; Berger & Luckmann 1967). Further, as individuals attempt to make sense they compare personal perceptions with others (Brass et al. 2004). Making sense is not only an individual process, but also reliant on a social process. Even when a person believes that they have undertaken a making sense process, they have relied predominantly on socially constructed meanings, with very few ideas that were solely their own. These issues point to a need for clarity between an individual developing a new personal understanding and the social frameworks that support that personal process.

Coexisting frames of understanding are not considered identical as two individuals are unlikely to have the same experiences, histories, emotions and interactions which would be
required in order to achieve a single framework (Weick 1995). Rather, despite the
development of differing interpretations, sensemaking can occur through shared activities,
tasks, interactions and communication (Weick 1995). Thus, it is the mutual occurrence, the
act or activities that enables each actor to understand the sense that the other has made of that
experience (Weick 1995).

2.3.1.2 Sensemaking

Sensemaking is a social process of reality creation (Gioia & Chittipeddi 1991) which is
grounded in identity construction (Weick 1995) amongst the participants. Thus, in table 3 the
order of elements begins with social and then proceeds to elaborate sensemaking at greater
levels of complexity.

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>social</td>
<td>Sensemaking occurs as a social and shared process.</td>
</tr>
<tr>
<td>ongoing</td>
<td>Sensemaking by a group is ongoing in time, but only when the individuals communicate regarding an issue.</td>
</tr>
<tr>
<td>focused on and by extracted cues</td>
<td>As an ongoing social process sensemaking requires a common understanding. The development of a common framework allows group members to understand and share new meanings derived from cues.</td>
</tr>
<tr>
<td>retrospective</td>
<td>Sensemaking is retrospective. Two or more individuals undertake sensemaking after one or more identify a cue. A new understanding is apparent to members of the group, rather than by the individual only.</td>
</tr>
<tr>
<td>driven by plausibility rather than accuracy</td>
<td>The process of sensemaking is driven by the plausibility and reasonableness of a change to the framework and the derived decision to act. The framework always remains somewhat equivocal and incomplete.</td>
</tr>
<tr>
<td>enactive of sensible environments</td>
<td>A group enacts and functions through a common understanding that decides actions in-line with their understanding of the environment.</td>
</tr>
<tr>
<td>grounded in identity construction</td>
<td>Sensemaking is grounded in the identity construction of the group and reinforces identity formation.</td>
</tr>
</tbody>
</table>

To reiterate table 3, according to Gioia and Chittipeddi (1991) sensemaking occurs as a
socially shared process and begins “…with immediate actions, local context, and concrete
cues” (Weick, Sutcliffe & Obstfeld 2005, p. 412). Language plays a crucial role in
socialization (Berger & Luckmann 1967) and contextualization (Brannen 2004). Hence,
sensemaking as a social process includes two or more individuals who use a socially
understood language.
The cues, actions and context are apprehended socially. A new understanding develops amongst the involved participants, rather than only an individual perception and interpretation. A sensemaking process takes time because of the continuous sequences of meaning re-construction required between individuals before a new socially accepted set of meanings is achieved.

As an inherently social process sensemaking is necessarily retrospective. Evaluation of the question “what’s the story?” emerges in retrospect, influenced by past experience, appraisal and discussion amongst individuals who belong to larger social groups (Weick, Sutcliffe & Obstfeld 2005, p. 413).

2.4 Framework

This section defines what a framework is, how frameworks differ and why they exist. Second, there is discussion of the existence of multiple frameworks within and between firms and the need for the development of a common framework amongst firms involved in business relationships.

Frameworks and individual frames, or personal understandings, are necessarily interrelated. The term framing has been used to include a:

“…range of cognitive, linguistic, and cultural processes within a variety of organizational and institutional contexts [and is considered] a central construct within management and organization theory” (Cornelissen & Werner 2014, p. 182).

A substantial amount of research on sensemaking and frameworks has occurred within organizational settings (Maitlis & Christianson 2014; Weick 1979b, 1993; Weick & Roberts 1993; Weick, Sutcliffe & Obstfeld 2005) and in the strategic management field (Vanharanta & Easton 2010). Reese (2001, p. 5) refers to the term frames to define a framework as:

“…organizing principles that are socially shared and persistent over time, that work symbolically to meaningfully structure the social world”.
While this definition applies to an individual making sense, it also articulates a framework as a socially shared organizing principles that need to be shared in some way in order to be “significant and communicable” (Reese 2001, p. 5). Further, Reese’s (2007) description of a framework reinforces the process of highlighting and selecting certain cues, where frames are structures that define boundaries and categories that include/exclude certain ideas, and function to actively link related concepts. Reese’s (2001, 2007) definition of a framework reinforces the notion that the individual making sense is heavily influenced by socially constructed ideologies that structure the interpretation and meaning of a social reality.

A variety of cognitive based (Maitlis & Christianson 2014) and cognitive social psychology terminology (Fiske & Linville 1980) are used interchangeably to refer to the concept of frames, including mental models (Huff 1982), interpretive scheme, vision (Hill & Levenhagen 1995), mental maps (Daft & Weick 1984), schema and cognitive frameworks (Fiske & Linville 1980; Labianca, Gray & Brass 2000; Maitlis & Christianson 2014), decision frames (Tversky & Kahneman 1981) and cognitive scripts (Louis 1980). However, cognitive frames are considered an “individual-level concept” (Bogner & Barr 2000, p. 213) where frames:

“…are defined as knowledge structures that help individuals to organize and interpret incoming perceptual information by fitting it into already available cognitive representations from memory” (Cornelissen & Werner 2014, p. 187).

A frame applied by an individual is also somehow derived from memory of a social framework. The development of individual understanding relies upon socially created frameworks.

Due to the various overlapping usages between the terms frames and frameworks a distinction between an individual frames and a socially constructed framework needs to be made. In this thesis, a framework is defined as a social construction, generated by two or more people, which operates as the basis for how socially constructed cues and events are perceived, interpreted, categorized and evaluated. As a result, meaning is socially created.
However, an individual making sense of a situation and their personal development of frames is also influenced by socially constructed frameworks. But this is not recognized by the individual. Thus, there are interesting effects observed between how a framework operates with a frame and so how individuals and event groups are influenced by the interpretation of cues and events, the serendipity in the process are outlined in the next section.

Frameworks operate as structures (Reese 2001) that influence the sensemaking process. According to soft determinism, actors’ decisions/choices are causally determined, even though through unawareness of causes actors may think they have made individual decisions/choices (De Rond & Thietart 2007). Actors are able to apply organizational frameworks, but are often unaware of their features or able to provide detailed descriptions of them (Goffman 1974) which causes them to think they have made decisions individually (Allport 1955). A framework operates as the structure that causally determines organizational actors’ interpretation of cues and events, decision-making and the sensemaking process.

Additionally, structure shapes meaning. Structure is considered as:

“...a configuration of activities that is characteristically enduring and persistent [where] ‘patterned regularity’ prevails” (Ranson, Hinings & Greenwood 1980, p. 1).

Weick (1993) proposes that structuring is comprised of two patterns and their relationships. First, “shared provinces of meaning” (Weick 1993, p. 645) that stabilize meaning through social construction, informal structure, interaction patterns and “shared interpretive schemes” (Ranson, Hinings & Greenwood 1980). Second, “structural frameworks” (Weick 1993, p. 645) that are comprised and constrained by organizational context, configured activities, rules, roles, procedures, dominant meanings, and authority relations which enable the construction of meaning (Ranson, Hinings & Greenwood 1980). Hence, a framework as a structure organizes interpretation and the creation of meaning.
Sensemaking enables the development of a more common understanding and closely aligned framework. Structuration theory (Giddens 1991) is concerned with the interdependent relationship between meaning and structural frameworks (Weick 1993). The development of a common framework allows members to understand and share new meanings derived from a cue. Sensemaking may lead to the development of an inter-organizational framework and shared understandings relevant to the two firms’ on-going business relationship. When two firms interact in a business relationship some form of a shared sensemaking framework may develop (Mouzas, Henneberg & Naudé 2008). Awareness of inter-organizational actors’ frameworks involves managerial perception and interpretation of interactions. Perceptual differences between managers can occur in the external environment and internally where different degrees of a phenomenon or situation, e.g. uncertainty, co-exist (Anderson & Paine 1975; Weick 1979b). The perceptual process involves selectivity, closure and interpretation and results in the development and adjustment of different decision frameworks (Anderson & Paine 1975). The process of sensemaking is driven by the plausibility of a change to the framework and the derived decision to act. If an interpretation is plausible a framework remains in place and may be considered partially stable. Thus, a framework or collective understanding influences managerial decision-making and allows other actors to develop a united vision and act appropriately/inappropriately.

Due to the interdependent relationship between meaning and the framework, collapse of the structural framework is mirrored by a breakdown in meaning and hence sensemaking (Weick 1993). When sensemaking breaks down confusion is the initial consequence (Weick 1993). However, if a new structural framework is developed, meaning and sensemaking are restored (Weick 1993). If a new sensemaking framework is not achieved this can result in severe consequences as illustrated in Weick’s (1993) sensemaking analysis of the Mann Gulch disaster where sensebreaking of a framework occurred and a new framework was not.
constructed when the head fire officer had been unable to communicate the safety in the burnt area behind a second fire. The organizational implications of this analysis are that the combination of a number of small or seemingly insignificant incidents can result in a major disaster (Weick 1993). Subsequently, sensemaking has considerable managerial implications from a network perspective.

Weick et al. (2005) note that sensemaking is undertaken by noticing and bracketing, and then labelling and categorizing. Together these socially accepted categorizations and the ways they are associated constitute a framework. Frameworks provide the connections between beliefs, understandings and social interpretation of events that are pivotal to sensemaking. A framework is a common belief and set of understandings which are the basis of making sense of new events by groups of individuals (Weick 1993). A framework is continuously up-dated by social sensemaking processes (Weick 1995) and constructed when actors interact (Goffman 1974).

2.4.1 Framework for inter-firm context

Frameworks differ in terms of how they are organized, ranging from specific rules and guidelines, while others have no defined shape and only provide a perspective or understanding (Goffman 1974). Hansen (2008) suggests that any managerial process of interpretation is influenced by additional factors such as organizational environment, culture and management experience. This implies that managers apply multiple frameworks for sensemaking.

The relationship and interactions between two firms is the foundation of their sensemaking framework. However, business relationships are dependent on expectations which may be violated, eliciting emotion and positively or negatively “valenced interpretation” (Weick, Sutcliffe & Obstfeld 2005, p. 418). If an expectation is not met, attempts are made to make
“plausible sense” of what is occurring, enabling a restoration of expectation so that a framework can continue to exist (Weick, Sutcliffe & Obstfeld 2005, pp. 414-415). Business relationships offer a suitable site for seeking an understanding of framework development between managers.

The adjustment of a social framework is determined by motivation and intention of the actors (Goffman 1974). Actors between firms filter meaning through both inter-organizational and their own organizational frameworks during the sensemaking process. As a result, a shared sensemaking framework can develop between firms, over time, depending on the actors’ purpose for developing the business relationship. Vercauteren’s (2009) case study illustrated how when actors from two firms first meet their initial interpretations and decision-making will be made on the basis of their own organizational framework.

Views of a network part, referred to as “network pictures” in the literature (Corsaro et al. 2011; Henneberg, Mouzas & Naudé 2006; Vanharanta & Easton 2010), are interpreted as frameworks. Amalgamation of network frameworks creates a collective mind (Weick & Roberts 1993), collective network picture (Colville & Pye 2010), or social network mind. Further, as there is only some literature on managerial sensemaking from a network perspective (Möller 2010) further research in this area is required.

To achieve a shared framework of understanding also requires plans and goals. Gioia and Chittipeddi (1991) argue that a framework is constructed for the goals and context of involved actors. Thus, a framework is developed between actors to serve a purpose, either allowing the actors to implement and change or in some way manage future interactions to achieve a goal. Thus the nature of a goal or purpose is likely to aid in structuring and development of a managerial sensemaking framework in the business network. In addition, changing the goals will lead to re-evaluation and adjustment of the sensemaking framework. Hence, exploration
of the development of a managerial sensemaking framework in a business network requires further research. Further, the role of frameworks in the shaping of meaning and interpretation of interactions amongst actors in the network needs to be considered.

Management will have multiple frameworks that exist within and between firms as frameworks are social and contextual. Each framework will come into the sensemaking process according to the understanding of different contexts. Further, actors may apply multiple frameworks for a particular activity (Goffman 1974). Multiple frameworks exist because individuals experience various events and activities and the appropriate framework is adjusted to interpret them (Goffman 1974). Consequently, there is a need for greater understanding of how to develop a sensemaking framework between managers in an inter-organizational business net.

2.4.2 Sensemaking, foresight and serendipity

Knowing how to change a sensemaking framework is likely to be based on foresight. Garud et al. (2011) suggest that foresight is a skill that individuals can cultivate. Foresight is about acting in the present while simultaneously considering or anticipating future possibilities (Tsoukas & Shepherd 2004a). The development of foresight is achieved through understanding and insight as a result of understanding the present (Whitehead 1967). Foresight is different to forecasting or prophesizing (Tsoukas & Shepherd 2004a) and the formulation of goals. While it is only possible to predict based on what already exists, the development of foresight is about considering the likely future direction of events (McMaster 1996). Thus, changing a sensemaking framework requires foresight which is distinct from goal setting as framework change involves consideration of the probable course of the future.

Originally, sensemaking was considered predominantly retrospective, although recently interest has resurfaced in its future orientation (Maitlis & Christianson 2014). Sensemaking’s
first question “what’s going on here?” is retrospective, followed by “what do I do next?” which has a future orientation (Weick, Sutcliffe & Obstfeld 2005, p. 412). Answers to the first question are found in “retrospection” as they are based on past experience and communication between individuals involved in organizational social groups (Weick, Sutcliffe & Obstfeld 2005, p. 413). Answers to the second question:

“…emerge from presumptions about the future, articulation concurrent with action, and projects that become increasingly clear as they unfold” (Weick, Sutcliffe & Obstfeld 2005, p. 413).

According to Weick (1995) a sensemaking framework anticipates the future rather than cultivating foresight. However, only in retrospect are foresight to achieve a forecasted outcome and hindsight for evaluation involved in the sensemaking process (Weick 1995). What becomes evident is that sensemaking is a social process that occurs relative to a past and also to an objective or purpose in the future.

Some researchers consider sensemaking an ongoing process (Mills, Thurlow & Mills 2010) that has a retrospective (Anderson 2006; Weick 1993) and future orientation (Gioia et al. 1994; Weihe 2010; Weick, Sutcliffe & Obstfeld 2005) where ambiguity and uncertainty are the basis of the development of a new framework (Mills, Thurlow & Mills 2010). However, debate in the literature remains divided about whether sensemaking has a retrospective or future orientation (Maitlis & Christianson 2014). Weick (1995) identified retrospection as one of the fundamental traits of sensemaking. However, “future orientation” or “prospective” sensemaking was defined by Gioia et al. (1994, p. 373) as:

“…the conscious and intentional consideration of the probable future impact of certain actions, and especially nonactions, on the meaning construction processes of themselves and others.”

Deliberation exists in the sensemaking literature regarding temporality and when sensemaking occurs (Maitlis & Christianson 2014). Weick et al. (2005, p. 411) argue that sensemaking is an episodic process comprised of an “infinite stream of events and inputs”. Sensemaking begins “with immediate actions, local context, and concrete cues” (Weick,
Sutcliffe & Obstfeld 2005, p. 412). Alternatively, Weibe (2010) argues that sensemaking occurs in the present, but involves a past, present and future temporality. Theoretically, foresight as an element of sensemaking is an under investigated area of research.

Decisions based on sensemaking lead managers to deploy resources and activities forward in time. Usually these decisions are based on forecasting (Waluszewki, Ingemansson & Häkansson 2014). Forecasting is based on a vision or future expectation about “how the future will be created” from existing circumstances based on history (Waluszewki, Ingemansson & Häkansson 2014, p. 2). Unlike retrospection, this future aspect of sensemaking is not strongly commented on in the literature (Maitlis & Christianson 2014). Hence, perhaps ‘interspection’ is a more appropriate term rather than retrospection. Interspection is informed by social experience and addresses the social aspect of inter-organizational interaction. Whereas, retrospection is about looking back in time and subsequently it may be possible to confuse retrospection with a purely individual process.

Pasteur (1854 in Garud, Gehman & Kumaraswamy 2011) stated that “chance favours the prepared mind”. A prepared mind is considered an example of how a situation, event or cue is viewed through a particular framework or lens that enables an opportunity or chance to be identified. Serendipity is defined as “fortunate and unexpected discoveries made by chance” (Meyer & Skak 2002, p. 179) and is often informed by knowledge based chance, especially in terms of technological innovations (Garud, Gehman & Kumaraswamy 2011) despite often being mistakenly interpreted as pure chance or luck. Hence, without that particular framework the opportunity and serendipitous moments would be missed.

Serendipity involves flexibility and the ability to recognize opportune moments (Garud, Gehman & Kumaraswamy 2011). Serendipity in the network is not highly documented in the literature (Meyer & Skak 2002), but is considered to play an integral role in the innovation
process (Dhanaraj & Parkhe 2006) and managerial decision-making as illustrated in Garud, Gehman & Kumaraswamy’s (2011) empirical case study of 3M Corporation. Therefore, serendipity in the network warrants further research.

### 2.5 Sensemaking and network development

There is limited research on sensemaking within a network perspective (Henneberg, Naudé & Mouzas 2010; Möller 2010; Ramos & Ford 2011) and less concerning how sensemaking occurs between networked firms.

Change in the network occurs via relationships between individuals and organizations, where the social understanding of the change depends on the capability of the two firms’ managers to sensemake. The ability to react to change requires sensemaking. However, the capacity to create change relies on sensemaking, but also requires foresight and an understanding of how change is ramified through the surrounding network. That means change can only be ‘orchestrated’ by collective actions between firms.

From a network perspective, as individual and organizational roles and dynamics influence sensemaking in the business network, understanding of their influence on sensemaking is required. One of the critical factors identified for successful teams is “synergy” (Ginnett 1993). The term synergy from “synergos” (Greek) means to “work together” or “co-operate” (Corning 2003). Synergy enables groups to perform better collectively than individually (Kerr & Tindale 2004) and is considered a critical factor for success in the network. Imai, Nonaka and Takeuchi’s (1984) rugby team analogy and Rothwell’s (1994) fifth generation (5G) innovation process model support the concepts of individual and organizational actors ‘working together’ and in ‘cooperation’ so that the influence of sensemaking on the network, its development and change, deserves further research.
However, firms do not always act collectively, nor can firms easily be orchestrated. Some firms do not want to give up privileged positions in a network, but that is not a focus of change to pursue here. Another source of inertia is when managers do not understand the opportunities that exist in their surrounding network, as evidenced in Vercauteren’s (2009) case study. This inability rests on a sensemaking issue related to a managerial frame or the framework of managers in a business relationship.

Some events go ignored or undetected because they do not fit the actors’ interpretation of reality (Weick 1993). Expectation, knowledge, reputation and experience can hinder or delay initial interpretation of the thing noticed or of surprise (Weick 1995). This was described by Westrum (1982, p. 384) as the “fallacy of centrality”, or overconfidence (Woodside 2001), which is the limitation or rejection of re-interpretation. Consequently, what was noticed or one was unaware of will be dismissed or interpreted as something that cannot occur (Weick 1995; Westrum 1982). This is particularly likely if an individual is a reputable specialist in a particular field, and what was noticed does not fit with current understanding, interpretation or frames of reference (Weick 1995). Thus, the “fallacy of centrality” supports the proposition that the development of knowledge and ignorance grow simultaneously (Meacham 1983) which has significant implications for the development of long-term relationships between individual and organizational actors in a network.

Sensemaking, sensegiving and sensetaking play a significant role in network management and the interpretation of business relationships and interactions. This enables retrospective sensemaking of something that has happened (Weick 1993). If an occurrence is considered the same current interpretations, experience or meanings are reinforced (Weick 1995). However, if something is different, this may be noticed, or cause some surprise (Weick 1995). If something is noticed but considered implausible and sensemaking breaks down, it then
requires re-interpretation or re-framing of the situation (Colville & Pye 2010; Weick 1993). Therefore, sensemaking between actors in a network entails ongoing and retrospective re-interpretation and re-framing.

As sensemaking depends on managements’ perspectives (Henneberg, Mouzas & Naudé 2006; Weick 1995) and is context dependent (Weick 1995), it is possible for a diversity of management interpretations of an interaction or networked firm relationship to occur. Equally, other connected firms in the network and their roles may also constitute mutual understandings within sensemaking frameworks.

2.6 Summary

Chapter two provided a literature review of the network perspective and sensemaking literature which addressed the distinction between making sense and sensemaking, framework, the development of a managerial sensemaking framework, and sensemaking and network development. In the following chapter the research objective and research questions of the study are defined.
CHAPTER 3: THEORETICAL OUTLINE

3.1 Introduction

Chapter three begins with a discussion of ‘making sense’ of sensemaking in a business network where the process of an individual ‘making sense’ is compared to ‘sensemaking’ as a social process. This is followed by changing a framework to orchestrate change in the network. Next, the research objective and questions are presented which led to a conceptual framework. Finally, a brief summary of the chapter is provided.

3.2 Making sense of sensemaking in a business network

The following models (figures 1 and 2) illustrate the differences between an individual’s ‘making sense’ and ‘sensemaking’ as a social process, respectively. An individual experiences and makes sense of an event based on a personally developed frame or on a collectively developed framework. A framework is socially constructed and exists to either confer actors’ views, or be accepted by individuals who then act on them. These frameworks are not socially created by the individual, but rather they use, accept, adjust or adopt socially created frameworks. Further, actors shape each other’s interpretation of what is occurring (Goffman 1974). This shaping of each other’s’ interpretation will change each actor’s framework/s. However, individuals may create their own interpretation of the framework by making sense of a specific situation. Initially, events or cues do not make sense but then at a particular moment (i.e. vertical line) sense is made retrospectively. Making sense is a process of cumulative events and unappreciated re-ordering of cognitive frames, but there is an instant where a new understanding is achieved or there is a sequence of instants of realization.
The predominance of social categories and a common framework that allows joint comprehension and interpretation in a sensemaking process points to a need for a more elaborate understanding of how a framework develops and changes. For periods of time a framework may seem to be partially fixed or stable and resistant to change. However, the construction of multiple frameworks may result in framework contests and framework disputes (Fiss & Hirsch 2005), which further shape and re-shape the emergence and development of a framework and shared understanding.

In figure 2 the network at time period $p^1$ is an understanding at a particular point in time, as developed inside one relationship. Thus, we denote the sensemaking framework as singular, as the understanding is centered and focused from the perspective of the business relationship. Events and cues occur that are interpreted or given meaning based on socially constructed frameworks. This sensemaking process involves changes in categorization, language and the externalized response of the individual so that over time the framework changes. The externalized response between network actors requires an interaction that occurs over two or more moments (Medlin 2004). As a result changes are enacted in relationships and thus the network. The new framework occurs at period $p^2$. However, the time between the
development of a new framework is when sensemaking breaks down, a new interpretation of the situation occurs, and a new framework is developed.

**FIGURE 2: SENSEMAKING AS A SOCIAL PROCESS**

**KEY TO FIGURE 2**

- **actors**
  - events and cues are interpreted/given meaning
  - from socially constructed frameworks
- **social interactivity between actors**
  - involves changing categorization and language
- **sensemaking is retrospective**
- **frameworks are temporarily fixed/stable**
- **time periods**

### 3.3 Changing framework to changing the network

This section re-addresses how a sensemaking framework changes and actors’ then perceive how the network is changed, or a relationship can be changed resulting in network change.

If an interruption of understanding occurs where an interpretation seems implausible a framework may break down resulting in a form of framework opacity as illustrated in figure 3. A breakdown of a framework requires re-interpretation and the development of a new reality/framework for the situation which occurs through the sensemaking process (Colville &
Thus, cues, ongoing events, plausibility, interpretation and the filtering of information relative to a framework are key elements in the sensemaking process (Weick 1995).

The framework is the source of comparison in the sensemaking process. Events are foreseen, or appear as chance incidents occurring in the environment. Further, processes that impact a framework and cause change are (1) the construction of meaning, (2) interpretation; and (3) chance/serendipity.

**FIGURE 3: HOW A FRAMEWORK CHANGES**

The relationship framework operates as a simplification of reality and change through the process of continuous communication. The framework changes because a number of managers are involved in complex two-way communication that influences each other’s understandings. Through communication managers change each other’s framework and hence perspective of reality in the network. The transition of an established framework to a new framework involves sensebreaking followed by the re-construction of a framework. This results in changes in the understanding of the past network, so that a new understanding of the network is created. Sensemaking enables modification to a framework, and that allows managers to understand change and how to see the network transition from a previous to a new form as illustrated in figure 4.

**FIGURE 4: HOW TO TRANSITION INTO A NEW NETWORK**
3.4 Broad research problem

Managers are required to contend with network change in addition to understanding how they are able to initiate change. However, there is limited research in the following areas:

1) how the net emerges (Gulati & Gargiulo 1999; Halinen, Törnroos & Elo 2013; Powell et al. 2005);

2) managerial sensemaking concerning change from a network perspective (Henneberg, Naudé & Mouzas 2010; Möller 2010a; Ramos & Ford 2011); and

3) how foresight (Tsoukas & Shepherd 2004a, Tsoukas & Shepherd 2004b) and social expectations of the future affect sensemaking.

These areas of potential investigation are a result of current debate in the literature regarding network management (Nyström, Ramström & Törnroos 2014), and sensemaking as a retrospective (Weick 1995) or future oriented, prospective and temporal process (Maitlis & Christianson 2014; Weihe 2010).

3.5 Research objective

The objective of this research is to explore the development of a managerial sensemaking framework in the business network. Hence, research question one investigates how an inter-organizational sensemaking framework is developed between managers in two or more networked firms. Research question two examines the role of foresight in the development of an inter-organizational managerial sensemaking framework.

The conceptual outline developed for this research is based on the network perspective, and the sensemaking and framework literature. This conceptual model was originally derived from Möller’s (2013, p. 326) Fig. 1 “Roots of relationship marketing and business networks research” (see Appendix 1 and 2).
3.5.1 Research Question One

RQ1: How do managers in two or more firms develop an inter-organizational sensemaking framework?

3.5.2 Research Question Two

RQ2: What is the role of foresight in how managers develop an inter-organizational sensemaking framework?

3.6 Summary

Chapter three addressed making sense of sensemaking in a business network and changing a sensemaking framework. This was followed by discussion of the broad research problem, research objectives and research questions. The next chapter discusses research methodology, methods and research design.
CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter describes the research methodology, research design and case study methods. The research incorporates two case studies. Case study one utilizes an existing case (Vercauteren 2009) to provide an initial analysis of the development of a sensemaking framework by managers between two large firms.

Case study two is a qualitative study and empirical investigation of an emerging inter-organizational business net and the development of a managerial sensemaking framework amongst small to medium enterprises (SMEs).

4.2 Research methodology

Understanding the development of a managerial sensemaking framework is inherently a matter of “how” and “why” questions. A case study research methodology is particularly suited when the study involves “how” and why” questions (Yin 2014; Patton & Appelbaum 2003). Case studies enable deep understanding of particular phenomenon and (Gerring 2004) the dynamics of a specific context (Eisenhardt 1989). Case studies are well suited to process questions (Hyde 2000), when phenomena under investigation is context sensitive, boundaries are unclear and participant behaviour cannot be manipulated (Yin 2014). As the boundaries are unclear, a single case study research method enables exploration and observation (Baxter & Jack 2008) of the emergence of an inter-organizational business net and development of a managerial sensemaking framework in context. Therefore, case studies were considered the most appropriate research method for this research.

Advantages of the case study research method are that the participants and researcher can work together closely (Crabtree & Miller 1999) and consequently the results are considered to
have greater reliability and rigour (Baxter & Jack 2008). Further, the researcher is close to the respondent’s understanding of the world (Crabtree & Miller 1999). However, disadvantages of case study research are the amount of time it takes to collect the data, which is also costly (Baxter & Jack 2008).

4.3 Qualitative research design/methods

This research involved a sequential research design (King & Horrocks 2010), where two qualitative case studies were undertaken successively and a mixed method research design was adopted for case study two. Case study one was undertaken prior to the selection and development of case study two.

Study of the emergence of an inter-organizational business net is undertaken in two contexts. Case study one, DSM and Hampidjan, was based on an existing case between two firms in different industries ‘working together’ as a dyad and thus the development of a managerial sensemaking framework through involvement in a new product development process. Case study two, The Music Industry Initiative, involved the study of a single industry involved in the emergence of an inter-organizational business net and development of a managerial sensemaking framework. Finally, analysis of the qualitative text from case study one was undertaken using the software program Leximancer.

The first case study was conducted in a setting with individuals and firms from two diverse industry technologies and frameworks and the second case is within one industry where a variety of frameworks exist. The first context has the advantage of comparison and contrast of the two firms from different industries. The second context focuses on a very narrow industry in order to gain insight into the emergence of an inter-organizational business net and development of a managerial sensemaking framework. The advantage of the first is that the disparate industries are so context dependent that there are initially no shared perspectives
only differences; while the second context indicates that it may be difficult to determine shared views (Yin 2014) as it involves one industry that exhibits many differing frameworks.

Following the focus on the development of an inter-organizational sensemaking framework in case one, it followed that the most appropriate research for the next stage of investigation with case study two was to explore the emergence of a net within one industry. Conducting case study research regarding the emergence of an inter-organizational business net and development of a managerial sensemaking framework amongst divergent industries in comparison to a single industry enabled identification of the similarities and differences between the two case studies. Analysis of case one is provided in chapter five, with an integrated analysis of both case study one and two in chapter six.

Investigation of an emerging inter-organizational net with case study two was most suitable for research question two because it addressed the role of foresight in the development of a sensemaking framework.

4.4 Case study one: DSM and Hampidjan

Use of an existing case enabled the identification and analysis of sensemaking concepts. Further, it was possible to analyze the development of a managerial sensemaking framework between a dyad. This case study was selected as it was an exemplary example of a dyadic relationship between two large firms involved in different industries and countries where a sensemaking framework was developed in order for them to ‘work together’ on a new product development project and innovations. As a result, the need for further research of the development of a managerial sensemaking framework within an inter-organizational business net was identified. In addition, the importance of the development of a shared managerial framework between firms was illustrated. The case also demonstrated how the absence of a shared sensemaking framework influenced managerial evaluation and decision-making.
regarding new product developments which could result in the inability of firms to identify opportunities that had significant market potential.

4.4.1 Research method: Case study one

In this study an analysis was undertaken of sensemaking by managers between two firms, DSM and Hampidjan, based on Vercauteren’s (2009) case study entitled “Modelling uncertainty in customer/supplier cooperation for technology-based radical innovation”. This task was not elaborated in the original publication, but enough evidence was provided for such an analysis. This research was an investigation of the development of managerial sensemaking frameworks over an eight year period.

The analysis involved open ended coding (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010) in the search for similarities and differences of approach between the two firms. First, based on Vercauten’s (2009) case study, open ended coding was conducted, identifying key concepts and similarity and differences (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010). Second, axial coding (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010) was undertaken to determine relationships between categories and the two firms’ sensemaking processes.

In addition, the constant comparison method was applied (Dye et al. 2000; Glaser 1965; Glaser & Holton 2007). Third, identified concepts were coded in relation to sensemaking concepts and characteristics from the literature. Finally, the new product development process was divided into stages according to the innovation development process literature (Cheng & Van de Ven 1996; Cooper 1983; Rothwell 1994) over the eight year time period.
4.4.2 Case background

DSM, a large chemical company from the Netherlands accidentally discovered in the late 1970s a very strong fibre. While they had no use for the material in 1978 they patented the fibre as Dyneema®. In the early 1980s Hampidjan, a large international fishing net manufacturer from Iceland, had a need for a new material. High-density polyethylene (HDPE) used in the 1970s for manufacturing fishing nets had reached full capacity for development and therefore the firm no longer had a competitive advantage. In 1986 DSM presented Dyneema® at a trade fair in Dusseldorf, Germany. Hampidjan discussed with DSM the potential of Dyneema® for the production of fishing nets. Hampidjan already had a relationship with DSM as a consumer of polymers.

This case documented the new product development between a dyad of a fishing rope manufactured with Dyneema®. Dyneema® was the first fishing net rope application where strength per unit of diameter was considered more important than strength per unit of weight. DSM who discovered the Dyneema® material that was exceptionally strong assumed that strength per unit of weight was its unique selling proposition. However, Hampidjan, as a supplier of fishing net ropes possessed a comprehensive understanding of the demands of the industry, and was aware of the need for a new fishing net material. Hence, Hampidjan, through their specialist knowledge and experience, knew that strength per unit of diameter was of more importance in the production of fishing net rope. The importance of this factor was that it meant that the rope was lightweight and more efficient due to less resistance. Greater efficiency was achieved as less fuel was required by fishing boats to pull nets through the water. Consequently, Hampidjan was very interested in developing the material due to its strength per unit of diameter rather than its strength per unit of weight (Vercauteren 2009). Whereas, DSM was unable to consider that the material may have an alternative benefit of considerable importance other than its strength per unit of weight.
The material provided in Vercauteren’s (2009) case study clearly illustrates the development of managerial sensemaking frameworks between dyadic firms at different stages of the new product development process.

4.5 Case study two: The Music Industry Initiative

The second case study investigates the emergence of an inter-organizational business net in the music industry in an Australian city, and the subsequent development of a managerial sensemaking framework. In this study a diverse local music industry which had not previously been operating as a network was chosen. Further, the development of the network was at its emergent stage, and a government cluster initiative attempted to bring a diversity of participants together in order to create a stronger industry voice and world view/framework. Therefore, as it was at the emergent stage, it was possible to observe how a framework emerged.

As the research involved conducting emergent qualitative research (Charmaz 2008) a grounded theory approach was the most appropriate method to adopt. Two streams of approach to grounded theory have developed since Glaser and Strauss (1967) first introduced the method (Heath & Cowley 2004). For this research, Glaser and Strauss’ (1967) approach was adopted as there is a very limited amount of literature on the emergence of an inter-organizational business net. As a result, concepts were able to surface from the data followed by the emergence of a theory with minor researcher bias (Glaser 1965; Glaser & Holton 2007; Glaser & Strauss 2009).

4.5.1 Research method: Case study two

The second case study utilized a single industry case design (Yin 2014) which was selected as the most appropriate method to determine a holistic view of the similarities and differences of perspectives/frameworks between networks of firms within the context of one industry. The
single industry case study method enabled a comparative analysis between different firms within the industry in a variety of contexts to explore similarities and differences (Yin 2014).

An instrumental case study is when the research aims to move beyond the case itself, and undertake an analysis of the quintain – the overall umbrella or topic underlying the case under investigation (Stake 2013). In this research that quintain included: (1) the emergence phase of the business net and development of a managerial sensemaking framework, and (2) how the net evolved and was managed. Case study two includes details of background information, in-depth interviews, data collection, participant selection and exclusion criteria, analysis and reporting and an ethics clearance. This study occurred through the use of semi-structured in-depth interviews and analysis of the firms’ internal materials, documents and online information where the researcher was not in a position to manipulate participants. Finally, as part of a sequential mixed method research design (King & Horrocks 2010), interview transcripts were used for quantitative and qualitative analysis (Powers & Knapp 2010) as a form of verification using the software program Leximancer. Leximancer is a textual analysis program that quantifiably classifies themes in the texts. These themes are identified based on measurement of the relationships between concepts which is based on the frequency of use of the concept and position in relation to other concepts (Leximancer Manual 2011; Munksgaard & Medlin 2014).

While table 5 of interviewees included details of the type of organization, interviewees were categorized according to three groups: (1) business/musicians/artists, (2) government, and (3) knowledge institutions/facilitators. While there are some overlaps within these categories, in that some government employees were musicians, or some business people were also involved in innovation organizations, they were assigned only one categorization based on core or primary activity. In addition, business includes musicians/artists who may not think of
themselves as a business because they are motivated by doing what they love rather than running a business, but they are still essentially small to medium enterprises (SMEs). Facilitators were included in the knowledge/innovation institution category.

4.5.2 Case background

Development of The Music Industry Cluster Initiative stems from state government and city council policies in an Australian capital city, in addition to appointment of an international urban change specialist engaged by the government. The state has historically invested in traditional manufacturing industries. However, new technologies are changing the manufacturing sector. Currently, the state government’s economic priorities are to develop, support and invest in advanced manufacturing, creative industries and the development of industry sector clusters as part of a long term plan for creating vibrancy and renewal in the city and the development of a creative culture. In addition, government agencies have been recently encouraged to work collaboratively on a ‘change project’ or on an issue and provide a resolution to the problem within a three month period. Further, alterations to the Liquor Licensing (General) Regulations 2012 under the Liquor Licensing Act 1997 occurred recently. These legal changes make it easier for entertainment venues and small bars to obtain liquor licenses in order to encourage the development of more small bars, pop-up bars and live music venues in the city.

Beginning in 2011, research was conducted by two government agencies into the state’s music industry. The initiative initially focuses on the state’s music industry, with a long term view to include other creative industries. In addition, an established international live music promoter and festival organizer undertook a live music residence as part of a government program. One outcome of this residence was a report that included a number of suggestions and recommendation for the development of a music industry cluster. As a result of these
activities, two government departments successfully secured government funding for three years and a central business district premise for the establishment of a music industry cluster. The recent naming of this venue as a creative centre reinforces the long term plan to expand the location to include other creative industries beyond music.

In March 2014 fifty-six music industry professionals and participants were invited by government to attend a ‘Confab’ seminar, held in April 2014, to discuss the emergence of a creative industries cluster. This seminar was organized by the government agencies, and was attended by thirty-six participants involved in the music industry, music education, music/audio/sound/recording/film production related businesses, musicians/artists, audiophiles, composers, booking agents, and government employees employed in arts/music departments were invited based on the organizers’ knowledge, and in particular one agency’s extensive knowledge of the local contemporary music industry.

An external facilitator ran the seminar, with speakers from government, and one who had been previously involved in the development of clusters. Formalized networking activities were undertaken, followed by group discussion in response to questions posed by the facilitator. One person in each group acted as a scribe. After completion of the exercises there was a discussion about each of the groups’ thoughts on responses to each of the questions. The notes were collected after the seminar and a report was produced by the facilitator incorporating participant comments. At the end of the seminar a networking event was held at a local bar. As the researcher attended the seminar and participated in the activities, some participants agreed to be interviewed and consequently most of the participants that the researcher met at the seminar were interviewed (see Appendix 3).

The design of the seminar followed a bottom up approach, as advised by speaker/third party facilitator and subsequent interviewee K, who had significant experience with the
development of clusters in Australia in addition to having conducted cluster research overseas. This interviewee reinforced that the development of the cluster must be driven by participants and that by doing so they will take on ownership of the cluster and the subsequent development of the net. Based on previous research and experience in cluster development, interviewee K also suggested that the success of a cluster was dependent on the involvement of four types of bodies: (1) government, (2) innovation and knowledge institutions, (3) business, and (4) content providers/suppliers. Interviewee K also mentioned that there is resistance amongst participants to cluster development and the formation of the net. Therefore, interviewee K suggested that a key leading question to ask participants was what things are annoying you “that you can’t solve on your own”; to look at the “too hard” box that requires a “complete shift in mindset”.

At the end of the seminar industry participants were invited to express their interest in participating in a strategy/leadership group to discuss how they would like the cluster initiative to develop. The group were tasked to ensure that the industry drove cluster development decision-making from ‘the bottom up’, despite the fact that the government speaker made a suggestion for on which industry the music cluster might concentrate on. However, the government speaker reinforced that it was up to the group to decide the direction of the cluster. Consequently, a strategy/leadership group was formed, based on voluntary participation.

4.5.3 Data collection

Over a five month period, sixteen semi-structured interviews ranging from approximately thirty minutes to ninety minutes, but on average forty-five to sixty minutes, were conducted face-to-face and in one instance via telephone (see table 4). Other than government agencies, all were small to medium enterprises (SMEs), ranging from approximately two to three, to
less than an estimated fifteen employees. All interviews were digitally recorded and transcribed. Following the appointment of the Music Development Officer at the beginning of July, a meeting with the researchers was arranged on 18 August 2014. This person had already been interviewed at the end of June in a previous role within the local music industry, so the meeting was not an official interview, rather an informal meeting where parts of the conversation were written down. Further, data saturation had been reached as much of the information provided was a repeat of other interviewee’s comments about potential directions the cluster could take.

A grounded theory approach was used where analysis and coding of interview data is ongoing during the interview process, so that insights from one interview inform later interviews (Corbin & Strauss 1990). Topics repeatedly discussed in different interviews, and comments which were similar, were pursued by the researcher for further details from the respondent. For example, a number of participants mentioned that the music industry was “fragmented”, “disjointed”, and “segregated”. As a consequence, during later interviews when interviewees mentioned this, the researcher asked the recipient why they thought this was the case. Further, following each interview questions were modified until a refined set of questions was achieved (see Appendix 4). Additionally, questions asked also depended on the interviewee’s role, experience and particular answers to questions, for example, some spoke at considerable length, and some were reluctant to elaborate in detail. Further, in response to certain questions interviewee answers digressed in different directions due to the diversity of industry experience, which meant that the researcher had to modify the order of questions and discussion accordingly.
TABLE 4: INTERVIEWS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>TYPE OF ORGANIZATION</th>
<th>CATEGORY</th>
<th>DATE</th>
<th>INTERVIEWEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Industry Advisor</td>
<td>State Government Department</td>
<td>Government</td>
<td>3 April 2014</td>
<td>A</td>
</tr>
<tr>
<td>Principal Project Officer</td>
<td>State Government Department</td>
<td>Government</td>
<td>14 April 2014</td>
<td>B</td>
</tr>
<tr>
<td>Director and Founder</td>
<td>Innovation Institution</td>
<td>Knowledge institutions/facilitators</td>
<td>15 May 2014</td>
<td>C</td>
</tr>
<tr>
<td>Founding Member and 3rd year Undergraduate University Student in Product Development</td>
<td>Knowledge and Innovation Institution</td>
<td>Knowledge institutions/facilitators</td>
<td>15 May 2014</td>
<td>D</td>
</tr>
<tr>
<td>Founder and Chief Marketing Officer</td>
<td>Digital Distribution</td>
<td>Business</td>
<td>20 May 2014</td>
<td>E</td>
</tr>
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<td>Content Manager</td>
<td>Community Radio Station</td>
<td>Business</td>
<td>21 May 2014</td>
<td>F</td>
</tr>
<tr>
<td>Director</td>
<td>State Government Department</td>
<td>Government</td>
<td>22 May 2014</td>
<td>G</td>
</tr>
<tr>
<td>Managing Director</td>
<td>Creative Event Technology Company</td>
<td>Business</td>
<td>23 May 2014</td>
<td>H</td>
</tr>
<tr>
<td>Director</td>
<td>Audio and Mastering Company</td>
<td>Business</td>
<td>26 May 2014</td>
<td>I</td>
</tr>
<tr>
<td>Futurist</td>
<td>Foresight Agency</td>
<td>Knowledge institutions/facilitators</td>
<td>3 June 2014</td>
<td>J</td>
</tr>
<tr>
<td>Business Development Manager &amp; Third Party Cluster Facilitator</td>
<td>Australian Government Department</td>
<td>Government</td>
<td>5 June 2014</td>
<td>K</td>
</tr>
<tr>
<td>Development Officer – Contemporary Music</td>
<td>State Government Department</td>
<td>Government</td>
<td>5 June 2014</td>
<td>L</td>
</tr>
<tr>
<td>Musician/Booking Agent/Project Manager</td>
<td>Musician &amp; State Government Department</td>
<td>Business</td>
<td>12 June 2014</td>
<td>M</td>
</tr>
<tr>
<td>Director &amp; Chair</td>
<td>Audio Technology Manufacturer &amp; Innovation Institution</td>
<td>Business</td>
<td>19 June 2014</td>
<td>N</td>
</tr>
<tr>
<td>General Manager</td>
<td>Not-for-profit Contemporary Music Organization</td>
<td>Business</td>
<td>24 June 2014</td>
<td>O</td>
</tr>
<tr>
<td>Director &amp; Founder</td>
<td>Online live broadcast music studio/radio</td>
<td>Business</td>
<td>21 August 2014</td>
<td>P</td>
</tr>
</tbody>
</table>

4.5.4 Participant selection and exclusion criteria

Respondents were selected based on the following sampling criteria: (1) they were key music industry actors or professional musicians/artists with significant knowledge and experience and involvement in the industry through a music related business; (2) they were involved in a government department involved in the project; and (3) they were involved in a knowledge or innovation institution related to the industry. Only willing participants were included in data collection in order to facilitate honesty (Shenton 2004) and compliance with human ethics clearance.

A partial snowballing technique (Donegan, Dodd & McMaster 1992) was used for participant recruitment, where some respondents were met at the seminar, recommended by interviewees, government employees or key industry actors. Further, one of the government departments
responsible for organizing the seminar provided the researcher with the names, contact details, position, organization and email addresses of those invited to the seminar, to facilitate contact with a cross section of participants from the list. This represents a limitation of the study, as other relevant actors may be key participants in forming the network but did not attend the seminar and were not included on the list provided by the government agency or did not wish to be interviewed.

4.5.5 Method of analysis and reporting

4.5.5.1 Qualitative

The predominant criticism of qualitative case study research has been the lack of validity (Patton & Appelbaum). As a result, social science researchers developed an alternative set of criteria to evaluate qualitative research (Schwandt 1996). Hence, based on Guba’s (1981) model to ensure trustworthiness and rigor of qualitative data (Krefting 1991; Lincoln & Guba 1986; Shenton 2004) the following criteria of “credibility”, “transferability”, “dependability” and “confirmability” (Shenton 2004 p. 64) are addressed in the case-study analysis and reporting.

4.5.5.1.1 Credibility

Credibility in qualitative research is equivalent to the concept of “internal validity” as an evaluation tool in quantitative research (Lincoln & Guba 1985). Credibility is assessed based on the findings’ ability to be comprehended by both internal participants involved in the phenomenon and external actors (Lincoln & Guba 1985).

In case study two, in-depth interviews with a diversity of participants from the music industry across a number of different types of organizations was undertaken. Combined with comparison of the data, and access to secondary sources and documents this enabled “site
triangulation” of the data to increase credibility of the results (Shenton 2004, pp. 64-66).

Triangulation reduces researcher bias (Krefting 1991; Shenton 2004) by observing the same phenomenon in a variety of data sources (Decrop 1999, p. 158). Secondary data sources such as the firms’ websites and public documents were studied.

4.5.5.1.2 Transferability

Transferability involves evaluating the level that qualitative research findings can be applied to a similar context (Lincoln & Guba 1985). The limitations of case study research are that the research question is often too broad or there are numerous objectives (Stake 1995; Yin 2014). Therefore, it is necessary to enforce boundaries (Baxter & Jack 2008; Yin 2014) such as place, time (Creswell 2009), activity (Stake 1995) context and definition (Miles & Huberman 1994). The setting of research boundaries enables the establishment of concepts and variables to be included in the framework through which the research is conducted (Miles & Huberman 1994). As data is collected, the framework is revised and refined (Miles & Huberman 1994). As a result, a multi-disciplinary, interpretive understanding and analysis of the phenomenon under investigation is undertaken (Jabareen 2009).

In order to determine the quality and transferability of the results to other contexts or industries (King & Horrocks 2010) these boundaries were defined prior to data collection (Shenton 2004). While the scope of the research was the emergence of the business network and development of a managerial sensemaking framework, it was not about the personal characteristics, idiosyncrasies or behaviour of participants as individuals. Instead, the research explored the emergence of relationships and a framework of understanding between the firms and individuals.
4.5.5.1.3  Dependability

Dependability is evaluated based on whether the research findings are constant and consistent (Riege 2003). The establishment of credibility is considered to increase the assessment of dependability (Lincoln & Guba 1985). For case study two, data was gathered primarily through in-depth interviewing, in addition to secondary data available through internal documents or organizational websites. If necessary, follow-up contact was conducted to address specific questions that occurred at a later stage of the research process. Further, during the case study, reflexivity by the researcher was conducted on a regular basis, in order to consider and evaluate the research process and its effectiveness (Baxter & Jack 2008; Krefting 1991).

4.5.5.1.4  Confirmability

Confirmability is evaluated in terms of whether analysis and interpretation of the data evolved from the research process rather than researcher bias (Lincoln & Guba 1985). Conducting an audit trail is considered the most effective way to establish confirmability (Lincoln & Guba 1985). Hence, an audit trail was recorded to document the nature of decision making and procedures undertaken in the research process (Shenton 2004). Such an approach reinforces the quality, credibility (Krefting 1991, p. 219) and confirmability (Miles & Huberman 1994) of the research.

4.5.5.1.5  The Music Industry Initiative

For The Music Industry Initiative case study, adoption of a single study method enabled the identification of categories, themes and patterns from the data through abductive analysis (Patton 1990; Dubois & Gadde 2002). It was important that categories emerged from the data, rather than fitting the dating to categories created by the researcher (Dye et al. 2000). Therefore, a grounded theory approach and the constant comparative method were utilized
(Glaser 1965; Kendall 1999), where comparison between data occurred simultaneously with the data classification and analysis process (Goetz & LeCompte 1981). This enabled the identification of new relationships and typologies within the data (Goetz & LeCompte 1981) and for the researcher to “converge” and “integrate” the data (Shenton 2004, p. 72).

Interview data was organized according to three distinct groups according to an abductive grounded theory research methodology (Glaser 1965; Kendall 1999; Dubois & Gadde 2002): (1) business/musicians/artists, (2) government, and (3) knowledge institutions/facilitators. These categories resulted as during the course of the interviews it became apparent to the researcher that interviewees’ perspectives could be classified as belonging to one of three distinct perspectives. From a theoretical standpoint this suggested the existence of at least three if not more frameworks. Next, three stage manual data coding: (1) open, (2) axial, and (3) selective (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010) was used to analyze results. Data management was systematic (Baxter & Jack 2008). Open coding involves the identification of similarities or differences in the data and the development of conceptual categories and subcategories (Corbin & Strauss 1990). Open coding is followed by axial coding, where the interview data is re-read and involves identifying the relationships between categories in addition to the development of categories (Corbin & Strauss 1990). Subsequently, subcategories are assigned to a particular category (Corbin & Strauss 1990). Finally, selective coding involves the identification of a “core category” which is the study’s predominant phenomenon (Corbin & Strauss 1990).

Data coding involves descriptive and interpretive coding followed by development of overarching themes as the third stage of the coding process (Corbin & Strauss 1990). As a result of this coding process, there is the emergence of a theory (Glaser 1965; Glaser & Holton 2007; Glaser & Strauss 2009). However, this is not a purely sequential but iterative
process (King & Horrocks 2010). Initially, a three-part open-ended, axial and selective coding process was undertaken. This resulted in the identification of two core categories and a total of eleven subcategories. For research question one, one core category (‘expectations’) and six main sub-categories (‘attitudes’, ‘context’, ‘leader’, ‘conversations’, ‘engagement’ and ‘networks’) were identified. Research question two was classified as having one core category (‘shared vision’) and five key sub-categories (‘outcomes’, ‘future’, ‘technology’, ‘risk’ and frameworks). Finally, this three stage coding process was followed by manual colour coding of the data based on these core and sub-categories.

To enable comparative data analysis the continual refinement of codes during the process of data collection and analysis helped to identify serious coding errors or inconsistencies (Goetz & LeCompte 1981). Coding and re-coding by the researcher at a later date was used, (at least two weeks after the initial coding) (Krefting 1991) which reinforced dependability as coding is one of the main areas of qualitative research criticized for a lack of rigour and subjective nature (Krefting 1991). This staged process substituted for coding by a second researcher. When researchers work as a team, they often code separately and then compare results (Krefting 1991).

Closer analysis of the initial coding categories indicated that most of the categories were interrelated with a number of overlaps occurring between the research questions and concepts. Thus, it was unfeasible to exclusively allocate certain concepts to each research question. Thus, four overarching categories were identified as those which could be applied to each research question. Subsequently, the twelve concepts identified in the three stage coding process were allocated to one of the four categories. Further, as a result of this process two codes were collapsed into other coded concepts as the overlaps were considered significant. Further, three of the four overarching categories were ascribed to research question one. Two
categories were applied to research question two, but one of these also applied to research question one due to the usage of the term ‘framework’ in both research questions.

As the interviews for case study two were confidential all names of people, places and firms have been marked as [X] in the transcripts i.e. [X] is one person, place or company, [XX] a different person, place or company, and [XXX] another person, place or company and so on. A key of the person, place or company has been recorded by the researcher but has not been included in the thesis for the purpose of ensuring confidentiality.

4.5.5.2 Quantitative and qualitative

The Leximancer software involves a combination of quantitative and qualitative interpretation and analysis. The first process involves a quantitative analysis where concepts are categorized based on the relationships, frequency of use and proximity to other concepts resulting in the identification of predominant categories. Following this a qualitative interpretation of the results is conducted by the researcher where redundant concepts are deleted or related concepts are merged into the same category.

As part of the process of using the Leximancer software the data was categorized according to the three groups: (1) business/musicians/artists, (2) government, and (3) knowledge institutions/facilitators. As the research involved investigated the development of frameworks, the transcripts were analyzed according to the three groups in order to ascertain if there was any correlation or evidence of a shared framework between each group. While analysis of all of the transcripts as a group would have been possible, the results would not have identified framework similarities or differences between the three groups.

Analysis of the transcripts using the Leximancer software indicated that certain concepts could be merged as they were very similar such as ‘industry’ and ‘industries’, ‘cluster’ and
‘clusters’, ‘look’ and ‘looking’. The program automatically eliminates “stop words” such as ‘it’, ‘in’, ‘of’, ‘the’, ‘is’ and so on, but there are certain additional words that interviewees use with frequency in qualitative interviews, such as ‘I think’, which have no meaning. Therefore, additional concepts deemed ‘stop’ words were omitted such as phrases that are meaningless including ‘probably’ and ‘in terms of” (Leximancer Manual, 2011). Further, concepts such as ‘radio’ and ‘station’ were also amalgamated as preliminary results showed a distorted relevance of the word radio. This result was due to the fact that two of the most informative and talkative and thus lengthy interviews both worked in radio.

4.6 Ethics clearance

An ethics clearance for low risk research involving people for the qualitative component of this research was granted by the University of Adelaide. This complies with requirements as stated in the National Statement on Ethical Conduct in Human Research (2007). Examples of the participation consent and complaint forms are provided (see Appendix 5 and 6).

4.7 Summary

Chapter four provided details of the research methodology, research design and methods for the two case studies undertaken where a mixed method research design was applied. Case study one involved a managerial sensemaking analysis of an existing case, while case study two involved a single industry case design. The following chapter presents research results.
CHAPTER 5: RESULTS

5.1 Introduction

This section presents the results of the two case studies: case study one, DSM and Hampidjan and case study two, The Music Cluster Initiative. Case study one also includes analysis and discussion, as these informed the analysis of case study two. However, the analysis for case study two is discussed in chapter six.

5.2 Case study one: DSM and Hampidjan

The original purpose of Vercauteren’s (2009) case was to investigate the role of uncertainty and the cooperation process between customer and supplier firms involved in the development of an innovation. As a result, the case identified how uncertainty is decreased through cooperation between firms during the new product development process. Further, the research examined uncertainty, interaction and the cognitive perspectives of both firms. In addition, the study identified the commercialization process that occurs within the network. Vercauteren’s case provided a very good example of how two or more firms developed inter-organizational sensemaking frameworks and the role or lack of foresight that hindered decision-making in the initial stages of the new product development process. However, Vercauteren’s (2009) case did not investigate sensemaking inside a business network.

5.2.1 Case material for case study one: DSM and Hampidjan

The result of the analysis of Vercauteren’s (2009) case study enabled this researcher to produce an outline of the sensemaking phases of the Dyneema® fishing net rope from the initial stages until commercialization. Product development stage outlines are provided in Appendix 7: DSM (table 11), Hampidjan (table 12). In addition, technological process stages and activities timeline of the development of Dyneema® fishing net rope are included in Appendix 7. Appendix 8 illustrates the firms’ sensemaking, sensegiving and sensebreaking
processes between DSM and Hampidjan at each stage of product development, as developed from analysis by this researcher.

During the early stage of the product development process which lasted for approximately six months, a shared framework was not developed despite both companies already being involved in each other’s network, with DSM operating as a supplier to Hampidjan. As a consequence, initial negotiations resulted in confusion, miscommunication and misunderstandings between DSM and Hampidjan regarding the perceived unique benefit of the Dyneema® material (Vercauteren 2009).

5.2.2 Analysis of case study one: DSM and Hampidjan

A sensemaking analysis of Vercauteren’s (2009) case study is implemented and presented according to research questions one and two.

5.2.2.1 Research question one

RQ1: How do managers in two or more firms develop an inter-organizational sensemaking framework?

The development of a mutual understanding was prevented as a consequence of (1) lack of managerial experience and knowledge as DSM was unfamiliar with the fishing net industry, and (2) language and cultural barriers due to one company being from the Netherlands and the other from Iceland. In terms of language and cultural barriers, even if it is assumed that English as a second language is spoken by both firms, it is neither firm’s first language and therefore unavoidable language misunderstandings, confusion or misinterpretations could be expected, however minor. The development of a shared sensemaking framework during the initial stages of the new product development process is illustrated in table 5 below, as developed for this thesis by the researcher.
TABLE 5: INITIAL STAGES OF SENSEMAKING PROCESS BETWEEN DSM AND HAMPIDJAN

<table>
<thead>
<tr>
<th></th>
<th>DSM</th>
<th>Hampidjan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986 - 1993</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strength per unit of weight (fallacy of centrality)</td>
<td>Strength per unit of diameter</td>
<td></td>
</tr>
<tr>
<td>Confusion</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Irrelevance (clue)</td>
<td>Potential (plausibility)</td>
<td></td>
</tr>
<tr>
<td>Lack of experience and knowledge (sensetaking)</td>
<td>Specialist knowledge and expertise (sensegiving)</td>
<td></td>
</tr>
<tr>
<td>Language and cultural barriers</td>
<td>Language and cultural barriers</td>
<td></td>
</tr>
<tr>
<td>Inaccurate interpretation and evaluation of market size and potential</td>
<td>Accurate interpretation and evaluation of market size and potential</td>
<td></td>
</tr>
<tr>
<td>Decision not to pursue as not a core priority</td>
<td>Persistent pursuit due to awareness of need in market</td>
<td></td>
</tr>
<tr>
<td>Learning (frameworks)</td>
<td>Experience (frameworks)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mutual understanding reached – managerial sensemaking framework developed</strong></td>
<td></td>
</tr>
</tbody>
</table>

Adapted by the researcher from Vercauteren (2009)

Through the ongoing and persistent education and sensegiving about the product’s potential by Hampidjan to DSM a mutual understanding was reached. During the joint development stage, which lasted for approximately seven years, both companies became involved in joint problem solving, negotiated knowledge sharing and trading, and cooperation. These activities resulted in a better value offer and ability to grasp the magnitude of the product’s market potential. During the commercialization stage, Dyneema® was released to the fishing rope market which became one of the largest Dyneema® markets.

Table 6 provides an example of sensemaking questioning applied by the researcher to Vercauteren’s (2009) case study of DSM and Hampidjan’s Dyneema® fishing net rope product development.

TABLE 6: SENSEMAKING QUESTIONING FOR DYNEEMA® FISHING NET ROPE PRODUCT DEVELOPMENT

<table>
<thead>
<tr>
<th>“What helped?”</th>
<th>The joint and open iterative development process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cooperation</td>
</tr>
<tr>
<td></td>
<td>Rich solutions to problems that were of greater value than if they had been attempted independently</td>
</tr>
<tr>
<td></td>
<td>Enabled the achievement of a successful outcome that may not have been possible if it had been attempted autonomously</td>
</tr>
<tr>
<td>“What hindered?”</td>
<td>Fallacy of centrality</td>
</tr>
<tr>
<td></td>
<td>Language and cultural barriers</td>
</tr>
<tr>
<td></td>
<td>Confusion</td>
</tr>
<tr>
<td></td>
<td>Lack of knowledge and experience</td>
</tr>
<tr>
<td></td>
<td>Need to learn</td>
</tr>
<tr>
<td>“What do you conclude?”</td>
<td>This case illustrates the potential to miss a significant opportunity due to lack of knowledge and experience that impacts sensemaking and subsequent</td>
</tr>
</tbody>
</table>
decision-making

| “What emotions/feelings relate?” | • Fear of competition |
| “What things need to be discussed here that aren’t being discussed” | • The impact of sensemaking and development of sensemaking frameworks on decision-making |
| “Whose voice needs to be heard that is not being heard?” | • Initially Hampidjan’s |

Adapted by the researcher from Vercauteren (2009) and Dervin (1998)

A sensemaking framework and shared understanding had not been developed in the early stages of the new product development and business relationship. Instead, each firm viewed the potential of the opportunity from within their own managerial framework. Each firm’s managerial framework resulted in DSM’s deciding to postpone investment in the development of the Dyneema® material, and Hampidjan to persistently pursue DSM to explore the material’s potential. As a result, during the initial stages, there was confusion and misunderstanding as DSM assumed that Dyneema®’s unique selling proposition was its strength per unit of weight which had no relevance to fishing net rope, and therefore was unable to comprehend Hampidjan’s persistent interest in developing the material. During the initial stages, despite both firms being already involved in a network with each other with one firm as a supplier and the other a customer, this indicated an example of ‘working with’ each other rather than ‘working together’ as the relationship was purely transactional and did not involve the development of shared understandings, a sensemaking framework or the establishment of common goals or purpose. Westrum’s (1982) “fallacy of centrality” was evident in Vercauteren’ (2009) case study. Although DSM had a lack of understanding and knowledge of the fishing net industry, and therefore no expertise in this area, the fallacy of centrality operated when DSM assumed that the unique selling proposition or benefit of the Dyneema® material for fishing net rope was its strength per unit of weight which they perceived as irrelevant to fishing nets. Consequently, DSM was unable to understand why Hampidjan was interested in developing
the Dyneema® material for fishing net ropes and were therefore reluctant to invest in development of the material.

Adjustments to a sensemaking framework were demonstrated in Vercauteren’s (2009) study. Through interaction between actors during the different stages of the product development process the sensemaking framework changed. Further, during the joint product development process stage, which lasted for approximately seven years, a shared framework was developed and relatively stable due to both firms having the same goals and sense of purpose. Both firms had a mutual understanding and new problems were jointly addressed. Further, a two way communication process developed, where each informed the other of research and discoveries as the product was developed. While the shared sensemaking framework may have altered throughout the process, during the development stage both firms were committed to joint problem solving to achieve a successful outcome.

Later in the development process stage, as the commercialization stage became increasingly imminent, a re-evaluation and re-interpretation of activities occurred, such as a reduction in knowledge sharing, transparency and the learning development process. Consequently, the sensemaking framework broke down, sensebreaking occurred, goals and purposes for each firm were re-evaluated and re-defined so that a new framework involving less transparency and increased self-interest for each firm was developed.

During the final stages of the product development process the sensemaking framework began to change significantly and goals were re-evaluated as each firm moved closer towards the commercialization stage. These changes were evidenced by both firms continuing to work together, but their priorities, goals, transparency and thus sensemaking framework had been re-evaluated and a new framework developed. The newly defined goals of both firms were different due to their different roles and position in the industry. When both firms had been
working on product development they had developed similar goals i.e. to bring the product to market.

These changes in a sensemaking framework indicate how shared understandings are re-evaluated and affected by the plans and goals of the actors in the relationship or network. The DSM and Hampidjan case study provides a clear example of how two firms were involved in sensegiving, sensetaking, the development of a sensemaking framework, sensebreaking and establishment of a new sensemaking framework throughout the new product development process. This case reinforces the theory that firms may be involved in the network but there is a significant difference between firms ‘working with’ each other and those that are ‘working together’. Previously they had worked with each other, where DSM was a supplier and Hampidjan a consumer, which functioned as a purely transactional relationship. During the new product development process, both firms had a shared goal, and developed mutual understandings, reciprocity and a sensemaking framework in order to work together on the development of the Dyneema® material to produce a highly successful fishing net application. Further, during different stages of the new product development process goals were re-evaluated resulting in sensebreaking and the development of new goals and a sensemaking framework.

5.2.2.2 Research question two

RQ2: What is the role of foresight in how managers develop an inter-organizational sensemaking framework?

DSM’s initial decision not to invest in or prioritize development of the Dyneema® material due to their failure to grasp the material’s potential indicates a lack of foresight and ability to identify a significant opportunity. This lack of foresight resulted in DSM’s incorrect evaluation of the product’s potential and influenced managerial decision making.
Vercauteren’s (2009) case study demonstrates how, without the development of mutual understandings and a shared sensemaking framework between managers, and lack of foresight had the potential to result in the loss of significant opportunities.

As a consequence of sensegiving on the part of Hampidjan, and sensetaking by DSM, DSM was able to grasp the potential of the opportunity so that the development of an inter-organizational shared framework and mutual understandings were achieved. Once the possibility of commercialization was realized, each firm re-evaluated their current position. As DSM was the supplier of the product their goal was to expand the market and reach as many potential users as possible. DSM made a considerable effort to educate suppliers about the potential benefits of the product in order to increase market share. Whereas, Hampidjan, from the user perspective, began to fear competition, and thus became less open about sharing new discoveries or technical knowledge of which DSM was unaware.

Similar goals and a sense of united purpose and foresight were realized by both firms in order to develop the product. During the early, middle and later stages of joint development the sensemaking framework appeared relatively stable where the sensemaking process was mutually beneficial. Both firms attempted to assist each other with any problems they were experiencing and were supportive of each other through mutual sharing of knowledge and research results regarding the material.

5.3 Case study two: Music Cluster Initiative

This second case study was undertaken to investigate the emergence of the inter-organizational net and development of a managerial sensemaking framework between firms. The results of the Music Cluster Initiative case study are divided into two parts. Part one includes the qualitative results, and part two quantitative and qualitative results using the
software package Leximancer. Analysis of results and discussion for case study two is provided in chapter six.

5.3.1 Qualitative results

Analysis of case study one indicated how the lack of the development of a managerial sensemaking framework during the initial stages of the new product development process between dyads impeded evaluation and decision making. Lack of foresight and the “fallacy of centrality” (Westrum 1982) contributed towards the inaccurate evaluation of significant opportunities of considerable market potential as the Dyneema® fishing net example clearly indicated.

Results of case study two are divided into four main categories based on research questions one: ‘framework’, ‘shared vision’, and ‘other’, and research question two: ‘framework’ and ‘foresight’. Within these four concepts are eleven subcategories, as illustrated in table 7 below. These subcategories were identified through open, axial and selective coding (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010) as discussed in chapter four. Qualitative results appear in sections 5.3.1 and quantitative and qualitative results, using the software package Leximancer in section 5.3.2.

<table>
<thead>
<tr>
<th>FRAMEWORK</th>
<th>SHARED VISION</th>
<th>OTHER</th>
<th>FORESIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>expectations</td>
<td>leadership</td>
<td>context</td>
<td>technology</td>
</tr>
<tr>
<td>collaboration</td>
<td>serendipity</td>
<td>risk</td>
<td></td>
</tr>
<tr>
<td>network</td>
<td>geographical proximity</td>
<td>future</td>
<td></td>
</tr>
<tr>
<td>goals/outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3.1.1 Research question one

RQ1: How do managers in two or more firms develop an inter-organizational sensemaking framework?
Factors classified as relating to research question one were ‘framework’, ‘shared vision’, and ‘other’. These were identified through the open, axial and selective coding processes (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010) mentioned in chapter four. Subcategories of ‘framework’ identified from the results were ‘expectations’, ‘collaboration’, ‘network’ and ‘goals/outcomes’ (see table 7 above). Results based on these categories are addressed in the next section.

5.3.1.1.1 Framework

Due to the use of framework in research questions one and two, as to be expected results indicated that ‘framework’ was a key factor. However, usage of the word framework was deliberately avoided in the interview questions in order not to bias results. However, the need to develop a framework and shared language in order to facilitate communication between individual and organizational actors was clearly identified by a number of interviewees (Interviewee K, N, J and O). The four factors of ‘expectations’, ‘collaboration’, ‘network’ and ‘goals/outcomes’, as outlined in table 8, enable the development of a sensemaking framework. These were identified as a result of the process of open, axial and selective coding of the data (Burnard 1991; Corbin & Strauss 1990; King & Horrocks 2010) as described in chapter four. These four factors are thus elaborated on in the next section.

Interviewee K discussed the need for people to be on the same page, i.e. to develop shared understandings and a sensemaking framework. The first step towards achieving a shared sensemaking framework was that different languages need to be mitigated (see Appendices 9-12):

“The challenge is to have a facilitator that can manage the different languages because when you get government people they talk in policy, when you do it with research people they talk in their own language and the business people and even the regional development guys talk in different languages. So getting people on the same page, understanding what the other person is saying is a critical part of getting something to happen” (Interviewee K, knowledge institution/facilitator)
Also apparent was that each interviewee was approaching the idea of a music cluster from a different perspective. This supports the literature regarding the application of multiple managerial frameworks that exist because an appropriate framework is adjusted by individuals to interpret various events and activities according to different contexts and activities (Goffman 1974). Interviewee N placed the issue well in commenting:

“Some people are thinking about today, some people are thinking about tomorrow, some people are thinking about five years out... Risk number two is that different people see things at different levels. So you know different people know different stuff. So some people’s perception of what is possible may be different to other people’s perception of what is possible.” (Interviewee N, business)

Interviewee J also discussed the need for people to think differently:

“More of the same might be more scale so that’s okay but then I think you’re not getting the full benefit of the cluster which should be about jamming up people who have overlapping interests but quite divergent capabilities and saying what new emerges from this mix and again that is a mindset thing so that’s a difficult challenge as well because you are asking people to think completely differently around how they thought about what they do.” (Interviewee K, knowledge institution/facilitator)

As identified in the sensemaking literature, these comments support the need for firms to develop a shared language. The ability for actors involved in the emergence of a net to communicate enables the development of a sensemaking framework.

5.3.1.1.1 Expectations

Results identified expectations as subcategory of the concept of ‘framework’. During the initial stages of the emergence of the net many respondents mentioned their expectations about the cluster development. As a result of the fragmented nature of the industry, expectations varied considerably amongst respondents. Interviewee K suggested that expectations were something that requires considerable mediation. The management of expectations involves dealing with “preconceived ideas” amongst network participants that are resistant to collaboration and result in questioning such as “why do I need to collaborate?” (Interviewee K, knowledge institution/facilitator).

“I mean there are quite a few issues with it but it’s the expectation that businesses expect an innovative environment that something is going to produce magic in two weeks.” (Interviewee K, knowledge institution/facilitator)
“That’s one of the problems as well is that we went in there not knowing what to expect... Yeah, but I don’t think there was enough information provided, like what you expect of us, and then it was kind of like, ‘okay, introduce each other’” (Interviewee E, business)

“I’m not really expecting looking to get that much out of it I guess other than working in a good positive creative environment.” (Interviewee M, business)

Change in expectations over time was mentioned by interviewee J, knowledge institution/facilitator:

“It is a little bit like an expectation, so we run TEDx here in [X] and when we did the first TEDx there was no sense of expectation so we could do whatever we wanted, it could fail it could do whatever and there was enormous capacity to pull volunteers and it ended up being quite successful and that was fantastic...now there is high expectations around what TEDx looks like, there is high expectations about what a partner would get out of it, higher expectations about how the partner can control it...” (Interviewee J, knowledge institution/facilitator)

In relation to the development of expectations, one of the key elements addressed by participants that would have an impact on the emergence and development of the cluster and subsequent emergent net were ‘attitudes’. Attitudes, as a subcategory of expectations, were seen as impacting the different perspectives regarding the emergence of the business net (see Appendix 9).

“I think there’s got to be, like any opportunity, the industry can choose to see this in a certain light and run with it and make something of it, or they thought they could talk themselves into a different view of what we’re trying to do and take a different view of it and not make anything out of it. So there’s something about a challenge will be - or a risk will be... but any group with any opportunity the risk is the perception. I think, like anything at all, the perception will be about people’s attitudes I reckon because the industry actually – if they decide to – the groups of individuals who represent the industry in this thing, if they tell themselves the story about this is what success could look like and this is what we can do about it then there will be – they’ll do great stuff. But if they enter into some other narrative about it then it might not be as fruitful as it probably could be, you know?” (Interviewee C, government)

Interviewee E was interviewed one month after the seminar and mentioned that if nothing happened within another month that people would “…just go do their own thing”:

“If it’s another month or whatever people are just going to go their own ways. They’ve made the networking opportunities that were available to them, that’s all they wanted to get out of it, and then they’ll just go do their own thing. I think that’s probably the wrong attitude to have, but I think that might be the attitude that some people will have.” (Interviewee E, business)

The need for communication as an expectation was mentioned by interviewee P who was interviewed four months after the seminar:

“Out of that meeting, I caught up with six or seven people and that is because I approached them got their number and asked them and had a chat with them and that has been quite useful but since then on the actual cluster side of the fence there has been zero communication, zero feedback,
Whereas, interviewee O, who was originally interviewed in a not-for-profit government role, but was since appointed as the Music Development Officer for the cluster, had a much more long term, albeit protracted, view of the project:

“There’s not a lot we can do in three years I’ve got to say. It’s a very short window and most clusters that are happening around the world are usually six to 10 year funded projects ...Look the outcomes that I’d really like to see is within the first year that the industry starts to come together in a fairly big way and realizes that by collaboration that’s going to lead to sustainability and it’s about changing mindsets ....” (Interviewee O, business)

The management of expectations and attitudes requires considerable attention. Additionally, expectations tied to attitudes reveal different perceptions of timing, where business operators’ perspective and government’s perspective of time, and thus the future, are different.

5.3.1.1.2 Collaboration

In terms of the emergence of an inter-organizational business net there was the perception that “collaboration” was enabled through “conversations” (Interviewee L), and “connections” (Interviewee L), “connecting people” (Interviewee P), “having a relationship” (Interviewee C). These conversations had the potential to enable collaboration, but required something “that ties them together and they have a shared vision about doing something” (Interviewee A). The potential for starting conversations that result in collaboration and the emergence of the broader network was seen as an outcome of cluster development. Collaboration and the development of relationships were seen as an opportunity to benefit from involvement in the cluster and subsequent business net.

“It was really interesting starting working with the music industry to see how segmented it was and how little some groups talk to each other when, for me at least, there seemed to be an obvious connection of benefit to having a conversation amongst each other. So I think the real potential for the cluster’s actually to start facilitating some of those conversations to happen because I think there’s some real opportunities for the businesses to grow on the back of working together.” (Interviewee A, government)
Collaboration was perceived as the building of “trust” and “confidence” (Interviewee K) between firms. In addition, through connections the potential for “cross-pollination” (Interviewee N) was identified.

“Attitudes” and preconceived ideas were identified by Interviewee K as having the potential to be detrimental to collaboration. Interviewee K identified the issue of actors’ preconceived ideas about collaboration and subsequent resistance. This resistance is exacerbated by a lack of understanding of the benefits of developing alliances, such as the potential ability to be heard as a group in contrast to remaining unheard as a sole business (see Appendix 10):

“So that’s the challenge to get people to shift their thinking and to find out what’s possible…why do I need to collaborate? I’ve worked for the last 30 or 40 years and I’ve been successful. My answer is well what are the things that are frustrating you that you can’t do that we might be able to do together? … On their own they can’t do anything about it but as a group they can actually go to some organisation that will listen to them as a group but won’t listen to an individual business…” (Interviewee K, knowledge institution/facilitator)

In terms of the emergence of a net and networking many respondents mentioned time constraints and subsequent lack of participation due to demands of running a business and potential lack of engagement in the cluster initiative over time (see Appendix 10):

“It’s hard because we’re all focused on just surviving to make a living in our own little chosen field let alone…maybe if there was a conduit such as this cluster, that kind of gave people the opportunity to at least have a say, or at least have a regular email…maybe that’s a start and maybe a step in the right direction.” (Interviewee I, business)

Engagement and “participation” (Interviewee L) in terms of maintaining interest in the cluster development in addition to people having “time” (Interviewee L) to be involved was identified as a potentially challenging factor for the emergence of an inter-organizational business net. First, many SMEs are extremely busy “working 60 to 90 hours a week” (Interviewee P). Second, one interviewee mentioned that there was the possibility that over time the project may be viewed as “stale” (Interviewee L). This reinforced the need for “goals” (Interviewee P), “outcomes” (Interviewees E, F and P) and “milestones” (Interviewee E) to be determined as mentioned by a number of business participants.
5.3.1.1.3  Network

The development of the themed network was identified by interviewee K. However, these were distinct from potential networking opportunities and benefits perceived by respondents. Interviewee K mentioned the need to find “commonalities” between divergent business groups which involves identifying “What are the key issues they are facing as a business?” Use of the term “commonalities” by interviewee K referred to common or shared issues not shared meanings in order to develop networks and generate projects with common goals amongst the network actors. For example, even if actors are working in different areas each business may be experiencing the same issues for example, human resources, legal, or policy which was not specific to their area of specialization, but rather are shared problematic areas related to running a business. Further, interviewee K suggested that following the formation of the cluster and identification of common problems referred to as “commonalities” then themed networks should be formed and developed based on these shared issues.

“...activation of all the independent people that are involved and gets some structure and gives some commonalities to issues that they want to pursue. In the next level down in my opinion is the formation of themed networks ... So I view it as a cluster, then you activate it, then you produce networks underneath that then start to drive some of the projects to happen.” (Interviewee K, knowledge institution/facilitator)

In order for an inter-organizational business net to emerge there is a need for identification of “commonalities to issue that they want to pursue” (Interviewee K). From these commonalities the themed network (Interviewee K) emerges that has specific goals and purposes such as human resources or policy issues. The development of “themed” inter-organizational business networks enables the development of a stronger, united voice comprised of a number of firms that could not be achieved by one firm alone.

Participants A, B, E, G, H, I and L identified networking opportunities as one of the benefits of cluster development. The perception of benefits was fundamentally identified by most as those of self-interest rather than an understanding of the possibilities of mutual benefits.
However, in terms of the development of commonalities, as mentioned by interviewee K, not many seminar participants perceived these benefits. Instead, the majority of respondents only saw networking opportunities as the major benefit of the cluster development (see Appendix 11).

“I got a sense that everybody had their own individual needs which I think just underlines what I said before about the fact that we’re all in many ways quite isolated from each other… I would be very happy if I achieved from the cluster a greater sense of connection …. And to be able to take advantage of the networking opportunity with these guys that we wouldn’t normally get because they’re there and present for the cluster purpose.” (Interviewee 1, business)

While networking opportunities were generally understood by participants, greater understanding of the broader potential of developing the network was required. For example, that a stronger voice/body could be achieved by a network of firms that would not be possible for one firm to achieve alone (Interviewee N and O).

5.3.1.1.4 Goals and purpose

Interestingly, those that saw the need for outcomes, goals and milestones were those with a business orientation, whereas some of the knowledge/institution and government officers saw the benefits of collaboration, connection and relationships as of primary importance (see Appendix 12).

“I guess it depends on what the intended outcomes are, I have heard a few different things like programs about helping us develop programs about connecting corporate people and talent programs for connecting, people working on the industry like speaker providers and staging companies, to connect with people that are actually performers or booking agents...which is great but I am not sure...what the focus is or what the desired outcome is...I am not sure what the goal is.” (Interviewee P, business)

The perception of what is needed shown by these interviewees supports the earlier contention that a framework is structured by goals and foresight. Interviewee N was very clear that defining the goals, purpose and vision would lead to determining the most appropriate future direction for the cluster initiative. Identification of the need to articulate goals, purpose and outcomes during the emergence of the inter-organization business network is required was
supported by interviewees E, F, and P. Identifying goals, purpose and outcomes will have a significant impact on shaping the development of a managerial sensemaking framework.

5.3.1.1.2 Shared vision

Results identified ‘shared vision’ as a factor related to research question one. A subcategory of ‘shared vision’ identified was ‘leadership’. Results based on these categories are addressed in the next section.

Amongst interviewees there was a strongly perceived need to articulate a “shared vision” (Interviewee N) and subsequent “single voice” (Interviewee C) at the initial stages of the emergence of an inter-organizational business net. Four interviewees (Interviewees A, C, H, and N) were concerned about “vision”, “leadership” and a “single voice” indicating that they saw a role for a “shared vision” and the future development of some form of common understanding or framework.

Participants saw the potential benefit of the initiative being the development of “connections” (Interviewee L), a “vision” (Interviewee N), “one voice” (Interviewee C), the development of the network and networking opportunities (Interviewees E, K and I), and “improving networks” (Interviewee J). Interviewee M, a musician, mentioned that they made some new network contacts at the seminar and were already working collaboratively or planning future collaborations.

One respondent was very concerned with vision and the effect of a clear path forward on facilitating communication between the firms:

“I think not being clear about vision is probably the biggest one [risk], because if we are clear about vision then we can start communicating effectively, so if we can’t communicate effectively then we’re not going to be able to bring in the right people, into the community...without the vision being clear, without the ability to communicate that, then there’s no community to communicate that, I think that’s risk number one...risk number two is that different people see things at different levels and that different people know different stuff...so some people’s perception of what is possible, may be different to other people’s perception of what is possible” (Interviewee N, business).
Interviewee A saw the need for the development of a “shared vision”. Interviewee N stressed that one of the biggest challenges would be if a vision was not developed. They stated the need to identify whether the cluster would be a “band aid”, “catch-up” which involves “best practice” or if it would “lead”. This was in addition to the need to know others visions and “aspirations”:

“…this is about everybody working together to do something for all of us … So a choice of the band aid, the catch up or the leading, I think is gonna be heavily affected by how quickly everyone can or can’t get on board with the notion of leading. Because if everyone can’t, or if a substantial body can’t, that means the best we can hope for is catch-up” (Interviewee N, business).

Key factors identified by interviewee P for the successful development of the cluster and the inter-organizational net were information and communication:

“… information and communication is key and anything that saves time in that process, there is no point me talking to a speaker manufacturer if they have no interest in the low end stuff, or if they make speakers for cinemas and not studios or night clubs, you know what I mean?” (Interviewee P, business)

Certain interviewees A, C, H and N, and in particular interviewee N who was the chair of the strategic leadership group and a very well established and influential actor in the industry, were very adamant and quite passionate about the need to develop a “shared vision”. This research shows that the development of a shared vision was perceived as integral during the initial stages of the emergence of an inter-organizational business net.

5.3.1.2.1 Leadership

Interviewee H suggested that potential challenges were “leadership/foresight”. There was a perceived need for a designated leader or person to hold the group together. This was based on participants’ experience of previous government initiatives that have failed to deliver.

“So having somebody to mediate those expectations, otherwise it just falls to bits and they go ‘oh yeah been there done that and it didn’t work’. So there is a real role in a lot of this stuff for somebody to be in between it because it just doesn’t work on its own.” (Interviewee K, knowledge institution/facilitator)

Due to the fragmented nature of the industry there was seen a need by a number of participants for a leader to bring the group together as a cohesive body (see Appendix 13).
“I guess foresight/leadership. Like it really needs somebody who will really want to drive that. I guess a clearly defined end goal which I think would be hard, it might get there, though at the moment walking out of there, what is this thing? Where’s it going? You know, so if there is a strong leader type and they can sort of really identify what that goal is then I reckon it could really work. The challenges are that of money, finding that leader and setting those goals.” (Interviewee H, business)

One respondent suggested that the reason the industry is considered so fragmented was because there was “no central body that is bringing everyone together” (Interviewee E).

Further, due to the industry being comprised of a number of quite small and separate networks, there was seen to be a need for some kind of “leader” (Interviewee C), someone “in between” (Interviewee K) “keeping everyone together” (Interviewee E) or a kind of “internal champion” (Interviewee J). This is interpreted as being a specific need in this type of disjointed industry to facilitate the emergence of an inter-organizational business net. One respondent was working with another cluster development and mentioned that they spoke the same language and understood the nature of each other’s work, unlike the music cluster.

“…they come from a less diverse space of world views, in the music one you have got manufactures and you have got performers and you have got composers and teachers and producers and range of ages and I suspect for the [XXXXXXXXXXXXXXX] it is more likely to be male gendered it is more likely to be engineers and manufacturers. So they share a common value set and it I suspect it is easier for them to understand each other to start with .... ... some of that relationship building stuff has either been done or it’s a little bit easier based on the diversity and interests of the group I think. It seems quite different.” (Interviewee J, knowledge institution/facilitator)

Thus, in a different kind of cluster development and network emergence there may not be the need for a “leader” or “in between” person. Therefore, the perceived need for a leader may be particular to this context and the nature of the music industry in this state. However, interviewee K suggested that there was a need for this type of in between person in any type of cluster development:

“...the thing that makes clusters work is having the right people working between everything. That’s the critical thing so without somebody filling in the gaps and pulling things together it just doesn’t work.” (Interviewee K, knowledge institution/facilitator)

After conducting a number of interviews it became clear that those more established and experienced in the industry became voluntarily involved in the strategic leadership
group, rather than those with less experience but who were very involved in exceptionally innovative activities in the industry.

5.3.1.1.3 Other

The ‘other’ category includes key factors identified in the data that did not fit within the broad concepts of research question one: framework and research question two: foresight. These concepts were ‘context’, ‘serendipity’ and ‘geographical proximity’. Results based on these categories are addressed in the next section.

5.3.1.1.3.1 Context

Context includes the background of the music industry and the nature of the city. The music industry is currently considered fragmented, and was described by different interviewees as “segmented”, “fragmented” (Interviewee A), “disjointed” (Interviewee E), “fractured” (Interviewee L), “disaggregated” (Interviewee N), “we’re all in many ways quite isolated from each other” (Interviewee I), and comprised of “randomness” (Interviewee N). At the seminar, participants were asked to raise their hand if they knew more than ten people in the room, which very few did, as mentioned by the following participant:

“...when [XX] got up there at the cluster and started listing off names and people of building things I had no idea who those people were, like I looked into the Confab area and there was maybe three people that I knew. So yeah the kind of the music sound is very disjointed I think that is going to be one of the problems in the future, everyone is going to split off into their own little groups, that makes sense from a business point of view it may not make sense from a cluster point of view but it will just be like a casual networking gig.” (Interviewee E, business)

Separate pockets of activity in the music industry include high quality audio manufacturers, community radio stations, digital distributors, recording and mastering studios, live music venues, online radio producers and musicians. Each group tend to work independently with very little interaction between the different types of businesses or shared knowledge about what music industry activities others are involved in if they are not a part of their small network, as discussed by interviewees E and I:
"I would have to say a lot of the studio guys don’t know the broadcast guys. All of the broadcast guys don’t know half the studio guys. Radio don’t know what TV is doing. Live don’t really know what all the others are doing. " (Interviewee I, business)

"Yeah there’s a lot of people doing a lot of awesome things but we just don’t know about them..." (Interviewee E, business)

The disjointed nature of the industry in conjunction with the character and size of the city was considered by many participants as something that has a significant impact on the industry and the emergence of the net (see Appendix 14).

"I think there is not a lot of kind of like music industry business kind of stuff that happens in [X] but that’s because we don’t have a huge population..." (Interviewee M, business)

Interviewee O saw the need for industry mapping at the initial stages of the development of the cluster and the subsequent net:

"...we’re going to be doing a fair bit of industry mapping in the first twelve months looking at global people that we can pull in as resources not necessarily to have them come here but it’s about okay you know here’s what’s happening in London for example. This is where technology’s going in London and getting that, using that as Intel so that we can start to build a bit of a concept for a project that we can work on together as a cluster. So I would like to see that by the end of the first three years of funding that we’ve at least go one project if not two that are really kicking because you know knowing how long it takes to sort of evolve something like this especially when you’ve got to start by pulling the industry together for the first time that’s going to be the biggest I think the biggest first year challenge and then from there it’s building our projects around what the skill set is. ” (Interviewee O, business)

Table 8 illustrates, that from the actors’ perspective, the perception of the industry is fragmented and contradictory where small groups are working together in pockets or small networks, that some view it as an industry and others do not, and that some think it is small whereas others think it is bigger than the industry itself realizes.

<table>
<thead>
<tr>
<th>TYPE OF ACTOR</th>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>UNDERSTANDING OF INDUSTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Manager</td>
<td>F</td>
<td>Business</td>
<td>This respondent involved primarily in the business side of the industry described it as the “music business” rather than as an industry, or referred to the city in the context of the Australian music industry.</td>
</tr>
<tr>
<td>Government Employees</td>
<td>A, B, G, L</td>
<td>Government</td>
<td>Government agency employees were relatively consistent. They saw an “industry” as a consequence of their research into the current state of music and subsequent application for project funding.</td>
</tr>
<tr>
<td>Managing Director</td>
<td>H</td>
<td>Business</td>
<td>This respondent described it as “a very small industry”.</td>
</tr>
<tr>
<td>Director &amp; Director</td>
<td>I, N</td>
<td>Business</td>
<td>These said it was likely to be bigger than thought.</td>
</tr>
<tr>
<td>and Chair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Futurist</td>
<td>J</td>
<td>Knowledge</td>
<td>This person did not consider it an industry but rather “a pocket” here and “a pocket” there of activity that “tend to be isolated”. Instead “there is a performance industry and there’s a classical industry and there is a festival industry”</td>
</tr>
</tbody>
</table>

TABLE 8: INTERVIEWEE INDUSTRY PERSPECTIVES/FRAMEWORKS
and they don’t overlap I think very well in the general nature of their work”

| Manager          | O  | Business | “…the industry got together for the first time in I think probably 20 odd years. It’s the first time I’ve ever seen the industry in the room together all open to talk about you know what we can do to make it better. Look we’re all passionate people so it’s really now about putting all these guys together and saying well how can we work together and what can we do and make the industry bigger and better and so we all win.” |
|------------------|----|-----------|
| Government Employee | A  | Government | This employee also stated that “I think some of its being driven by, a lot of the industry doesn’t think of itself as an industry. So lots of people in the industry do what they do because they love it and not because it’s a business for them. They may make their living out of it, but they’re not doing it to make money, they’re doing it because they love it. So they don’t think about it as a business and they don’t think about how to maximize the business and grow the business. They’re just thinking about what. “I need a gig to play my music”, or, “how do I get someone to sell my album”, or whatever it is. They’re not thinking about it as a business with a very traditional business plan on how I’m going to grow this business and who’s the supply chain and all of those things that go with it. But I think there is a growing recognition that there is a business underpinning this and there’s an industry that’s here that isn’t recognized as much as it could be and potentially as much as it should be and I think people are starting to see that if they work a little more closely together, they can actually get some of that recognition as the value of the industry and then get the support they need to grow the industry.” |

This variation in industry understanding notes the different firm and individual backgrounds of respondents, and that frameworks are diverse. However, government employees were relatively consistent in their understanding that an industry exists which may be the result of knowing that there are enough actors involved for an industry to exist. As the actors are disjointed and only connected in small networks, participants may not think there is an industry or call them an industry.

“What is our industry I think is another interesting question that came out of this whole first meeting. What is our industry? What constitutes our industry? How big is it? Do we really know?”
(Interviewee I, business)

The government as an external observer determined that an industry exists, while those involved in the industry failed to realize that they exist as an industry. Further, the government employees’ perspective is the result of government administration of the planning and funding application process in to secure funds for cluster development. This suggests that
the context of the actor operates as a prime shaper in the development of a sensemaking framework.

Tied to the actors’ perception of the industry was the impact of the city context on the nature of the industry and its development. The city was described as “a small town” (Interviewees I, L and B), “conservative”, “tribal” (Interviewee J), and as “not a ‘show-offy’ type of state” (Interviewee H), despite the theory that it is “the perfect size” (Interviewee J) for innovation where

“...a million to a million and a half is good because you have got enough capacity for variety and diversity but you have also got enough capacity to make the networks work” (Interviewee J, knowledge institution/facilitator).

The fragmented nature of the industry and small and separate SME networks within the industry indicates the existence of numerous divergent sensemaking frameworks. As a consequence, there was the perceived need for a clear goal and purpose for the development of the cluster and the subsequent emergent network, particularly amongst business participants (Interviewees E, P and F), whereas another respondent (Interviewee J) from the knowledge/innovation institution stream considered the development of relationships to be more important than outcomes. An understanding of context is considered intrinsic to qualitative and case study research (Yin 2014b). Additional external factors that have had a considerable impact on the industry generally are the internet, and rapid technological developments (Interviewees N, M, O and P).

**5.3.1.1.3.2 Serendipity and geographical proximity**

Some interviewees considered the close proximity of working alongside others in the music industry as advantageous and an enabler in terms of fostering serendipitous moments (see Appendix 15):

“... there is never any guarantees for anything like that it’s really about happy accidents, you know? It is what the best stuff is. I just think it is that thing where of course it’s always a bit of a lottery but if you get 60 creative people working in one environment and there is just that kind of
Interviewee D identified the benefits of working alongside others in a co-working space that would not happen if working alone:

“...and so when someone is clearly struggling and you know in your head I have some work to do but I know how to fix this person’s problem ... I sort of go out of my way to try and help people in [XXXXXXX] because that’s what keeps the whole thing going. Especially when you’re new.”

(Interviewee D, knowledge institution/facilitator)

Interviewee K provided a Swedish example about industry growth and an appealing approach to addressing the role of geographical proximity:

“...the Paper Province in Karlstad in Sweden and they had something like 10 or 11 or 12 years ago now when he first started there they had 50 plus soils in pulp mills, they now have...seven or nine. So you’d think ‘oh that’s a severe rationalization, it’s had a huge effect on the region’ but what they have done is while they rationalized their primary drivers what they’ve said is if you want to sell us blades for our saw mills you will shift your factory from China to across the road...they’ve put up the supplier value chain to be local and so even through the rationalization they have actually got more people now in that region in that industry than they had before even though they have gone from 50 businesses that were driving that industry back to seven because they put all the support industries back into the region.”

(Interviewee K, knowledge institution/facilitator)

In terms of relationships, the concept of interaction that appeared to be natural rather than “forced” (Interviewee D) was seen as a result of working in co-working spaces and understanding what others are doing, so that you have something to talk about in order to enable conversations (Interviewee D). Therefore, geographical proximity was one of the advantages of co-working spaces that enable conversations (Interviewees C, M, K and D), and help develop connections and collaborations (Interviewee C) which thus facilitate serendipity.

### 5.3.1.2 Research question two

RQ2: What is the role of foresight in how managers develop an inter-organizational sensemaking framework?

Factors identified as relating to research question two were ‘foresight, and ‘framework’.

Subcategories of ‘foresight’ were ‘technology, ‘risk’ and ‘future and ‘goals/outcomes’ (see table 7 above). Results based on these categories are addressed in the next section excluding
framework which was addressed in the section above on research question one categories as there is an overlap of this concept in both research questions.

5.3.1.2.1 Foresight

‘Foresight’ was a major concept investigated by research question two. As a result of three stage coding, ‘technology’, ‘risk’ and thinking about the ‘future’ were identified as key factors in the development of foresight. Each of these variables is elaborated upon below.

The need to be aware of global trends was recognized as a way of developing foresight by interviewee H (see Appendix 16):

“Look, for us [foresight] it’s a bit of global research. You can be guilty of just looking around you rather than looking beyond so we do tend try to look at it on a global scale. It’s also trying to identify what the market needs and wants and again crystal ball style...What does the market want in five years or 10, not today, and globally, and trying to capture those global trends because, arguably, you know, we still follow trends. Australia follows America....so you might try to capture what we are following early and then try to use that as the innovation angle and go, ‘This is something that is going to work, not now, but in the future’.” (Interviewee H, business)

5.3.1.2.1.1 Technology

Linked to technology was the need for awareness and monitoring of global trends. The need for foresight and the role of technology were discussed by interviewee N (see Appendix 17):

“...from [XXXXXXXXXX] perspective we certainly want to keep leading and for that to occur we’ve got to have products that are relevant to where the world is going and it would be helpful to us if the technology aspects I just mentioned were identified and there was a place that all these people came together so we could actually float propositions for fairly sophisticated and visionary products and there’d be clever people there that we could attract to be included in projects.” (Interviewee N, business)

Interviewees C, M, N, O and P considered collaboration between firms in the technology and creative sectors as favourable.

5.3.1.2.1.2 Risk

Risk is based on predictions and change which is considered an educated gamble

(Interviewees H, M and D). However, interviewee H saw it as part of the process of developing foresight and remaining relevant and sustainable in business:
“Just by looking at research and really just gauging what is happening overseas and there’s a bit of a role of the dice, like you could quite easily pick up something at development level that didn’t really, you know, go to any thought. Like anything in business it’s just taking a risk and hoping it pays off.” (Interviewee H, business)

5.3.1.2.1.3 Future

Interviewee J discussed “the difference between a projected future, a range of possible futures and a preferred future” and the tension that exists between “the range of possible futures” and “the projected future”.

“…you are fixing you are changing you are questioning you are constantly reassessing where you are through the time … the futures work would probably dictate that what we are really interested in is a space where there is significant change … because that is the bit where you actually reframe the whole market where you reframe the whole problem or you find something completely new that wasn’t being done before.” (Interviewee J, knowledge institution/facilitator)

The distinction between projected and preferred futures was made by interviewee J:

“…when you have a projected future that comes here and you have got your preferred one that comes out to the side, all of those little changes are really around tacking on a sailboat to bring it back to a, maybe you’re jibing…where is there space for large scale change that is quite disruptive.” (Interviewee J, knowledge institution/facilitator)

These results suggest that in terms of foresight, awareness of technological developments and global trends are key factors that involve understanding risk and which all inform future projections.

5.3.2 Leximancer quantitative results

The software program Leximancer was used to explore the broad research objective in terms of exploring the development of a managerial sensemaking framework in a business network.

Transcripts from case study two were categorized into three distinct groups: (1) business/musicians/artists (referred to for convenience as business) (2) government and (3) knowledge institutions/facilitators. Interview transcripts from each of the three categories were loaded into the software separately to produce concepts maps, list of relevant themes and a list of words, count and relevance.
Following the case study two qualitative data analysis, as one would expect, no patterns or similarities existed between the three groups. Results from the Leximancer analysis confirmed three distinct perspectives with very little overlap between concepts or a common language between the three groups as listed in table 9 below (see also Appendix 18-20). Further, while there were some overlaps in terminology, such as reference to the concepts of ‘music’, ‘innovation’, ‘time’ and ‘business’, they occur at very different levels of priority.

Consequently, it is possible to infer that at least three frameworks exist, and potentially more, within the industry and that the three distinct groups have very little in common in terms of a shared understanding or sensemaking framework.

**TABLE 9: LEXIMANCER THEMES AND CONCEPTS RESULTS**

<table>
<thead>
<tr>
<th>BUSINESS THEMES</th>
<th>CONCEPTS</th>
<th>GOVERNMENT THEMES</th>
<th>CONCEPTS</th>
<th>KNOWLEDGE INSTITUTIONS/FACILITATORS THEMES</th>
<th>CONCEPTS</th>
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<tr>
<td>Music</td>
<td>music</td>
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The Leximancer analysis confirms that shared understandings or a managerial sensemaking framework did not exist within the state’s music industry at the emergence stage of the development of an inter-organizational business net.
5.4 Summary

Chapter five provided the results and analysis of case study one, followed by the results of case study two. Case study one included the results and analysis of Vercauteren’s (2009) case study, by this researcher, from a sensemaking perspective. The case illustrated the sensemaking processes including: sensemaking, sensegiving, sensetaking and sensebreaking.

The changing development of a managerial sensemaking framework within a business dyad was mapped through the various stages of the innovation process. The establishment of the network was not explored in the Vercauteren (2009) case study. Results and analysis identified the potential of firms to miss significant opportunities without the development of a managerial inter-organizational sensemaking framework. This case also demonstrated how goals impacted the development of a sensemaking framework. A re-evaluation of goals at different stages of the new product development process resulted in sensebreaking, and the development of a new sensemaking framework.

In contrast, case study two was selected in order to explore the emergence of an inter-organizational business net and the development of a managerial sensemaking framework within one industry. Results from case study two identified four overarching categories: ‘framework’, ‘shared vision’, ‘other’ and ‘foresight’ the emergence of an inter-organizational business net. Results from the quantitative analysis of qualitative text reinforced that a managerial sensemaking framework was not in existence between the three distinct groups of (1) business/musicians/artists, (2) government, and (3) knowledge institutions/facilitators at the emergence stage of the development of an inter-organizational business net. The following chapter provides an analysis of the results from case study two.
CHAPTER 6: ANALYSIS

6.1 Introduction

In this chapter is present an analysis of case study two: The Music Industry Cluster Initiative, including an integration of the discussion for case study one. The analysis for case study two includes qualitative research results which are further informed by quantitative and qualitative results from the Leximancer software analysis of the qualitative text, thus providing additional analytical perspectives. Finally, while a summary of the analysis of case one was provided at the end of chapter five, an integrated summary of the analysis of case one and two is provided at the end of this chapter.

6.2 Analysis of case study two: The Music Industry Initiative

This analysis is conducted based on the four categories identified in chapter five: ‘framework’, ‘shared vision’, ‘other’, ‘foresight’ and the eleven subcategories (see table 8, chapter five).

6.2.1 Research question one

RQ1: How do managers in two or more firms develop an inter-organizational sensemaking framework?

Analysis of factors related to research question one were ‘framework’, ‘shared vision’, and ‘other’. Analysis of the subcategories of ‘framework’ were ‘expectations’, ‘collaboration’, ‘network’ and ‘goals/outcomes’ (see table 7) are addressed in the next section.

6.2.1.1 Framework

The four subcategories identified as integral to the concept of framework in an emerging inter-organizational business net were (1) ‘expectations’, (2) ‘collaboration’, (3) ‘network’, and (4) ‘goals/purpose’ which are elaborated on in the following section. These concepts are closely interrelated in terms of the emergence of the net between organizations, in that the
development of collaboration and the net involves expectations, engagement and the identification of goals/purpose. As sensemaking is a social process (Gioia & Chittipeddi 1991; Maitlis & Christianson 2014; Weick 1995; Weick, Sutcliffe & Obstfeld 2005) a framework enables shared understandings. Hence, the development of frameworks influences action. As a result, the development of shared frameworks has a significant impact on managerial decision-making.

How a framework is developed is influenced by the subcategory concepts which are analyzed separately in the next section. However, these concepts are connected to each other and the overarching framework concept. For example, the concept of expectations influences collaboration, network emergence and development and the establishment of goals. Further the concepts are interlinked in that through the net collaborations are formed. Each of these concepts then shapes the development of a sensemaking framework.

The development of a single voice was seen by respondents to offer potential opportunities and an ability to be stronger as a single body in order to achieve things that could not be done by an individual firm on its own. Subsequently, network actors would need to develop a shared framework.

A sensemaking framework is achieved as a result of the development of foresight, followed by a shared vision. A framework combines the development of a shared vision that results in the emergence of a sensemaking framework that incorporates action and a social process. Therefore, the development of a sensemaking framework is the final stage of a social process, thereby enacting the previously developed foresight and shared vision.
6.2.1.1  **Expectations**

The network literature discusses the role of managing expectations in terms of realizing change in the network (Håkansson & Ford 2002). Further, ‘expectations’ are addressed in the sensemaking literature in terms their role in business relationships and the perception of plausibility, which if achieved results in the restoration of a framework (Weick, Sutcliffe & Obstfeld 2005). As a result, it is possible to consider that the reduced focus on expectations in the sensemaking literature is tied to the emphasis placed on retrospection (Weick 1993), rather than the future (Weibe 2010). Therefore, expectations, as a key factor in the development of a managerial sensemaking framework, support the growing sensemaking literature that recognizes the temporality of sensemaking that has a past, present and future (Maitlis & Christianson 2014; Weibe 2010).

6.2.1.1.2  **Collaboration**

The realization of collaboration is highly documented in the network literature (see for example Henttonen, Pussinen & Koivumäki 2012; Batt & Purchase 2004). The potential to develop collaborative relationships and the net was perceived favourably by most research participants as one of the major benefits of the development of the inter-organizational net. However, there was limited evidence of a depth of understanding by interviewees of additional benefits of the collaborative process beyond networking opportunities. However, some respondents were aware of the strength of voice that could be achieved as a group that would not be possible working alone. Further, the sustained engagement of actors to participate in a net is not discussed in-depth in the network literature.

6.2.1.1.3  **Network**

The network literature identifies the significance of business relationships and the interconnection and interrelatedness of participants within the network (Ford et al. 2011;
Networking opportunities were seen by most respondents as the major benefit of developing a network. However, only a few, particularly those involved in the strategic leadership group, were able to see beyond self-interest benefits and identify the mutual benefits that could arise through working together and which could not be achieved working alone, as discussed in the literature (Håkansson & Snehota 1989; Munksgaard & Medlin 2014). Potential mutual benefits were articulated by interviewee O who was a member of the strategic leadership group:

“...a London cluster for music ...got together and collectively as three different clusters who each had their own individual organizations within them created a bid for the London Olympics for all the infrastructure, the PA, lighting, sound all of the high tech stuff that went on into the actual production side of the opening ceremony. So they bid it, they won it. But it was because of the fact that they collectively got together and said well ...you're doing that, you're doing that, you're doing that, we could all do this together ... so that became a project for the three clusters to work together. (Interviewee O, business)

This perception amongst research participants highlights the need for inter-organizationally networked firms to ‘work together’ rather than just ‘working with’ each other in order to realize the benefits to all not just the individual firm. However, only a general rather than a comprehensive understanding of the development of the net and the difference between ‘working with’ and ‘working together’ was evident from the responses of most interviewees. Instead, the benefits of the concept of ‘networking’ obscured a deeper understanding of the benefits of developing relationships and the net.

One participant (Interviewee N) was particularly aware that the benefits needed to be mutual, rather than purely self-serving. Involvement in the net would require all participants to contribute in order to receive the advantages of the interaction or collaboration. Such an approach supports social exchange theory (Cropanzano & Mitchell 2005) and the development of mutually beneficial relationships (Hakansson & Snehota 2002). This approach is in contrast to the self-interest perspective of transaction cost economics (Williamson 1989) which involves an organizational actors’ primary pursuit being the
attainment of their share of the benefits (Medlin 2006) in relation to other network actors (Munksgaard & Medlin 2014).

6.2.1.4 Goals and purpose

Goals and purpose are intrinsic to the development of a managerial sensemaking framework (Gioia & Chittipeddi 1991). The identification of goals or purpose was a key issue in how respondents sought to grapple with an understanding of the cluster and net opportunity. What ties interviewees together was the concept of a direction for action, an idea that represents a goal or purpose for the industry. Consequently, the development of a sensemaking framework is closely tied to articulation of goals and purpose.

6.2.1.2 Shared vision

The need to develop a shared vision during the emergent stages of the development of an inter-organizational business net was considered crucial before the development of the net occurred. The term ‘shared vision’ is not used in the sensemaking literature. A shared vision involves a common projection of the future, rather than a way of perceiving reality. A shared vision is developed independently and operates on a purely conceptual or ideal basis but is not enacted upon nor results in the development of a shared framework. In contrast, a ‘framework’ and shared understanding develop as a result of formation of a shared vision. A framework operates as a shared perspective (Weick & Roberts 1993), or socially constructed lens, through which reality is viewed (Woodside 2001).

During the initial stages of network emergence perceptions of time and the future were identified as fundamental toward the development of a shared vision. In addition, it was recognized by interviewee N and O that a shared vision requires forward and progressive thinking, road mapping, and a need to think both nationally and internationally.
6.2.1.2.1 Leadership

‘Leadership’ was identified as the subcategory of shared vision. There is some debate concerning the need for a leader (Ritala, Hurmelinna-Laukkanen & Nätti 2012), co-ordinator of some kind of orchestration (Dhanaraj & Parkhe 2006; Ritala, Armila & Blomqvist 2009) in the network literature. Distinction is made between leadership and the setting of rules (in collaboration with network participants) (Ritala, Hurmelinna-Laukkanen & Nätti 2012) and orchestration. Orchestration is considered to facilitate network coordination (Dhanaraj & Parkhe 2006; Ritala, Armila & Blomqvist 2009) through implicit influence rather than explicit direction or leadership (Ritala, Hurmelinna-Laukkanen & Nätti 2012).

The debate between leadership and orchestration is reinforced by the ongoing network management debate (Nyström, Ramström & Törnroos 2014) where one research stream argues that it is not possible to control or manage a network (Dubois, Hulthén & Pedersen 2004; Håkansson & Ford 2002; Snehota & Håkansson 1995), while another advocates the existence of “strategic nets” that enable some form of network management (Jarillo 1988, 1993; Möller 2013; Möller, Rajala & Svahn 2005) and coordination (Möller & Rajala 2007).

Despite the use of the term leader by interviewees, analysis of the data for this case study supports the need for a net orchestrator. This perceived need by interviewees follows from the heterogeneous and fragmented nature of the net participants and the industry. Further, the perceived need for an orchestrator was exacerbated by the general lack of understanding amongst participants of what the work of other firms involved in the industry actually encompasses, especially if they were not a part of a firm’s smaller network.

Respondent J who was engaged in an alliance, where participants spoke a common language, had a better understanding of alliance member roles, implied that there may not be a strong need for a leader or orchestrator. Therefore, the role of context and the need
for an orchestrator in an emerging net is an area of research that requires further empirical investigation.

6.2.1.3 Other

‘Other’ comprises ongoing and external concepts that influence the development of foresight, shared vision and framework. This concept includes three categories: ‘context’, ‘serendipity’ and ‘geographical proximity’.

6.2.1.3.1 Context

Context is based on the industry and city. Analysis of interview data indicated that sensemaking frameworks differed depending on the nature of a respondent’s involvement in the music industry, the nature of the industry and the nature of the city itself. The understanding of the industry varied considerably, in some cases consistently and in other cases contradictorily, based on respondents different perspectives, experience and knowledge. This variation indicates the existence of multiple heterogeneous frameworks where shared understandings and a mutual framework had not been developed.

6.2.1.3.2 Serendipity and geographical proximity

Serendipity in the network has not received a great deal of attention in the literature (Meyer & Skak 2002). Serendipity is recognized as playing a significant role in the innovation process and subsequent decision-making (Garud, Gehman & Kumaraswamy 2011). Further, based on this case study research, serendipity seems to be inextricably linked to geographical proximity. Serendipity also affects foresight, visioning and the development of a framework. While seemingly associated with chance or pure luck, serendipity is the result of a prepared mind and knowledge based chance (Garud, Gehman & Kumaraswamy 2011). As a consequence, it is the development of a framework which enables the opportunity or chance to be identified.
Hence, the development of a framework which is the result of foresight and visioning enables serendipity to occur.

6.2.3.3 Summary

Results of the analysis of research question one revealed that at the initial stages of the net development there was a strongly perceived need for a shared framework which required a common understanding of the purpose and goals of the net. Analysis indicated that the development of a sensemaking framework is the final stage of a social process, involving shared vision. The development of frameworks encompasses expectations, collaboration, network and goals/outcomes. In this case study shared vision was closely related to leadership, and the other factors were context, serendipity and geographical proximity. Thus, the development of a sensemaking framework occurs as a result of shared vision.

6.2.2 Research question two

RQ2: What is the role of foresight in how managers develop an inter-organizational sensemaking framework?

Analysis of factors related to research question two were ‘foresight and ‘framework’.

‘Foresight’ subcategories were ‘technology’, ‘risk’ and ‘future’ (see table 7) which are addressed separately in the next section. These results indicated that technology, risk and future were identified as intrinsic to the development of foresight. Further, technology, risk and future are interrelated in that the future is influenced by technological progress. The development of new technologies involves innovations, which as new products/services entering the market involve some degree of risk. A new technology’s success in the market may be predicted or calculated but involves the future which is unknown. Thus, entering the unknown future involves risk.
As there was some overlap in the research questions regarding the development of an inter-organizational sensemaking framework, ‘framework’ and subcategories ‘expectations’, ‘collaboration’, ‘network’ and ‘goals/outcomes’ were discussed in the research question one section above.

6.2.2.1 Foresight

Foresight is considered anticipation of the future while being in the present (Tsoukas & Shepherd 2004a). Foresight is different to shared vision, which then differs from the development of a sensemaking framework. The subcategories of foresight identified in the results of this research were ‘technology’, ‘risk’ and ‘future’. While these concepts are addressed separately, there are some overlaps between each subcategory as they remain interrelated, where, for example, the definition of foresight involves mention of the future.

6.2.2.1.1 Technology

Technology was identified as a key subcategory of foresight in terms of the need to be aware of the development of trends and new technological developments (Interviewees H, N and O). The importance of remaining abreast of new technologies and innovations for developing foresight is supported in the literature in that such an approach enables consideration of the likelihood of future directions (McMaster 1996). In addition, many interviewees saw the need to recognize the significant impact technology, such as the internet, has had on the music industry in terms of distribution, accessibility and income streams (Interviewees M, N, O and P). As a result, the potential of cross-pollination in the emergence of the net was perceived as offering considerable future potential, opportunities and benefits (Interviewees N and O).
6.2.2.1.2  Risk

As foresight involves projections and estimates about the future (Tsoukas & Shepherd 2004a) and thus levels of uncertainty (Gulati & Gargiulo 1999; Vercauteren 2009), there is the potential for error and subsequently increased risk. However, risk was considered by one participant as part of the process of developing foresight, thus the need to be aware of global trends in order to remain relevant as a business (H). Thus, risk involves uncertainty (Gulati & Gargiulo 1999; Vercauteren 2009) which includes consideration of the future. Foresight encompasses predictions of likely events in the future (McMaster 1996), but the future encompasses elements of the unknown which includes uncertainty and risk.

6.2.2.1.3  Future

By definition, foresight is inextricably linked to the future. The future is also intrinsically connected to the concept of time. One element of context is the nature of the viewpoint taken by the actor, which on the one hand reflected their role in the cluster venture and on the other hand reflected the actor’s time horizon. As noted by interviewee N, each actor had different timelines for action. Here is evidence a different type of constraint to the development of foresight; namely the length of the forward view for action. This analysis addresses the growing debate regarding temporality of the sensemaking process (Maitlis & Christianson 2014). The evidence here points to support for sensemaking being involved in past present and future (Weibe 2010), rather than being a retrospective process (Weick 1993, 1995).

6.2.2.1.4  Summary

Analysis of research question two results indicate that foresight, as linked to the future, involves consideration of technology, risk and the future. The development of a sensemaking framework is preceded by a shared vision, which is built upon foresight based on future technologies and risks.
6.3 Limitations

The limitations of case study research as being context dependent and hence restricted in terms of making broad generalizations from the analysis and results is well documented (Guba 1981; King & Horrocks 2010; ). Further, building theory from case studies can be restrictive because it is very narrow and particular to a certain context only (Eisenhardt 1989).

Case study two involved a study of the emergence of a formalized net and was therefore context dependent. In addition, during initial analysis of the data for case study two it became clear that the overlap between concepts in relation to the research questions involving the development of a managerial sensemaking framework was somewhat problematic. Subsequently, overlapping relevance of numerous concepts to each research question meant that it was not possible to make mutually exclusive distinctions between what concepts related to each research question. As a result, the data was re-analyzed and four overarching categories of ‘framework’ ‘shared vision’, ‘other’ and ‘foresight’ were identified.

Limitations of using the Leximancer software were that the data was analyzed based on the three distinct groups of interviewees. However, each group did not have the same number of participants. There were predominantly more business/musicians/artists interviewed than knowledge institution/facilitators who were underrepresented. Thus, research involving an equal number of participants for each group may yield more robust results.

6.4 Summary

In terms of the network perspective, four key factors identified that influence the emergence of an inter-organizational business net were: ‘framework’, ‘shared vision’, ‘other’ and ‘foresight’. Further, foresight, as linked to the future, involves consideration of technology, risk and the future. Consequently, frameworks enact the previously developed foresight and
shared vision. Thus, the development of a sensemaking framework is preceded by a shared vision, which is built upon foresight based on future technologies and risks. The following chapter provides details of the theoretical implications and future research directions as a result of this study.
CHAPTER 7: THEORETICAL IMPLICATIONS AND FUTURE RESEARCH

7.1 Introduction

This chapter provides theoretical implications and areas of future research including contributions to the network perspective and sensemaking literature. Network implications involve a contribution to how an inter-organizational business net emerges. With regard to the sensemaking literature, theoretical implications indicate that goals, purpose and foresight play key roles in structuring and shaping the development of a managerial sensemaking framework.

7.2 Network theoretical implications

This study makes a contribution to the network literature by addressing the limited research on the emergence of an inter-organizational business net. In addition, this research contributes to the ongoing network management debate between control in the network versus the development and management of a strategic net, network orchestration, coordination and subtle network leadership. This research provides support for the argument for strategic nets and subtle network leadership.

The multitude of sensemaking frameworks operating at the beginning of net formation was evident in the diverse views of the study respondents of case study two. This variety is natural, even in a single and relatively small industry, but also evident were attempts to bridge these differences at the initial stages of the net formation. Identification of four key factors that influence the emergence and development of an inter-organizational net in the context of this research included ‘framework’, ‘shared vision’, ‘other’ (‘context’, ‘serendipity’ and ‘geographical proximity’) and ‘foresight’. In addition, differing time perspectives influenced expectations. However, this was a particularly divergent group, partly due to the nature of the industry and the propensity of small networks of firms to work independently rather than as one large net. Nonetheless, suggestions made by respondents are in line with theoretical
directions developed in our literature review, namely that sensemaking is based on different frameworks according to context, and that goals, purpose and foresight structure and shape an actors’ sensemaking framework.

In terms of the role of foresight in the emerging net and development of a managerial sensemaking framework, the need for shared vision or common understanding, goal and purpose was identified. The research presented here provides initial and exploratory evidence that a sensemaking framework in the case of inter-organizational actors is structured by the goals and purposes of the joint activity.

From the very early stages of The Music Cluster Initiative case study participants identified the need to determine as a group a united vision, purpose and mutual understanding. Further, the development of a shared framework was seen as an integral step that needed to be undertaken prior to the future development of the cluster. Other key factors in developing a shared sensemaking framework included the need for a common language with two way communication, and an awareness of technology and global trends in the development of foresight and future thinking. In addition, participants experience and length of time involved in the industry were factors that influenced development of a framework.

That foresight is important as one element of goal and purpose achievement follows from this study. The development of foresight was identified as significant especially in terms of leadership. Further, foresight as thinking about the future encompasses various perceptions of time and therefore the development of a framework requires a shared understanding of a time framework.
7.3 Sensemaking theoretical implications

This research makes a contribution to the sensemaking literature regarding the distinction between an individual’s ‘making sense’ and the social process of ‘sensemaking’; individual cognitive ‘frames’ and social sensemaking ‘framework’; and how different frameworks based on context, structure and time shape actors’ sensemaking processes and development of an inter-organizational sensemaking framework. Further, this research contributes to the growing debate regarding temporality in the sensemaking process literature (Maitlis & Christianson 2014) and involvement of a past, present and future (Weibe 2010). Inevitably, these results are provisional and further study needs to be undertaken.

7.3.1 The development of a sensemaking framework process

The development of a business relationship framework requires foresight and shared vision. A shared vision requires foresight. Additional external factors identified besides foresight and shared vision that contribute to the development of a sensemaking framework include context, serendipity and geographical proximity.

The development of foresight, a shared vision and framework initially occur sequentially in a hierarchical linear process. The development of each factor continues over time as an iterative process. Thus, while foresight precedes shared vision and framework, foresight remains an ongoing iterative process during the development of shared vision and framework, as does shared vision during the development of a framework. On the basis of the results of case study two, and the arguments provided in chapter six, a provisional model is presented of how a sensemaking framework develops (figure 5).
Figure 5 provides a cross-section of the iterative process and ongoing development of foresight, shared vision and framework. Further, due to the continuous nature of the iterative process, the establishment of a framework may also be important subsequently in altering shared vision and foresight in the future.

Also important are the underlying subcategories of ‘foresight’, ‘shared vision’ and ‘framework’. Each subcategory (e.g. technology is a subcategory of foresight) is involved in the ongoing development of a framework. For example, understandings of ‘technology’ development shape foresight, which leads to changes in ‘shared vision’ and that moves ‘framework’ to a new understanding.
For case study two of this research, the development of a shared vision was considered fundamental during the initial stages of the emergence of an inter-organizational business net. Further, leadership as a subcategory of shared vision was considered essential. However, this case study documented the emergence of a formalized net comprised of a considerable number of heterogeneous actors who did not share a common language or framework. Therefore, further empirical research is required to determine if orchestration is necessary with the emergence of an alternate net where the participants are more homogenous, understand the nature of other participants’ activities and share a common language.

‘Foresight’ involves continued awareness of technological developments and innovations which was supported by the literature (McMaster 1996). While foresight attempts to determine likely events in the future (McMaster 1996) such projections involve a degree of risk and uncertainty (Gulati & Gargiulo 1999). Further, forecasts of the future imply temporality of the sensemaking process (Maitlis & Christianson 2014). This supports the growing debate in the literature regarding sensemaking encompassing a past, present and future (Weibe 2010), rather than essentially being a retrospective process (Weick 1993, 1995).

In order to develop a managerial sensemaking framework, there is a need for firms in the inter-organizational net to make the distinction between ‘working together’ and ‘working
with’ each other. In addition, maintaining engagement of participants in the interorganizational net through the establishment of goals and purpose was identified as intrinsic to the development of a shared sensemaking framework, which is supported in the literature (Gioia & Chittipeddi 1991).

The role of context, in this study based on the industry and city, is intrinsic to qualitative research. Further, serendipity in the net as one of the ‘other’ subcategories has received little attention in the literature (Meyer & Skak 2002) although geographical proximity was identified as being inextricably interrelated with serendipity.

The theoretical outcome of this thesis proposes that foresight precedes the emergence of a shared vision which is then followed by the development and enactment of a managerial sensemaking framework. These concepts are interconnected, and while indicating a hierarchical sequence, are also involved in an ongoing back and forth iterative process over time as illustrated in figure 6.

7.4 Future Research

Theoretical implications of the proposed framework indicate that the development of foresight is integral to the establishment of goals and purpose between firms in the inter-organizational net. While foresight involves the anticipation of the direction of future events (McMaster 1996), sensemaking’s historical emphasis on retrospection has limited the cultivation of foresight in the sensemaking process. However, recent developments in the sensemaking literature indicate that the sensemaking process involves a past, present and future orientation.

Further research of the concepts of “distributed leadership” and “limited managerial authority” contribute to the existing network management debate. Additional research in the form of a longitudinal study of the case used in this study to explore these concepts would be valuable.
The second case is a three year government supported project with the view to developing financial independence after the three years. As only the initial stages of the emergence of a net were researched, it offers an ideal opportunity to monitor distributed leadership and limited managerial authority as the net expands and new and more established actors enter and perhaps leave the net, become less active, or take on different roles and net positions.

Additional research into the emergence of an inter-organizational business net would be useful. The current research was a particular case and opportunity that began at the emergence of a net. Such opportunities may be difficult to find and explains why there is scant literature on the emergence of a net. As the case studied began as a government initiative it is a very specific example and context of the emergence of a net. Longitudinal research into how a business net emerges based on one SME company may be useful i.e. monitoring from the beginning how participants build the business, the net and make decisions about who to attract into the net. Retrospective analysis of how established companies’ net emerged may provide valuable insight through qualitative interviews with the founding member/s about the enablers and constraints they experienced during an inter-organizational business net’s emergence stage (building on the research by Halinen, Törnroos and Elo 2013). Further research in this domain would be valuable in terms of contributing to the emergence of an inter-organizational business net literature.

Considerably more conceptual work is required on the role of serendipity in the sensemaking process in addition to the question of ‘how do opportunity driven moments foster sensemaking in the net?’ The issue of explaining after the fact that an event was good luck is caught up in the process of sensemaking framework change. This retrospective interpretation enables the development of organizational narratives which contribute to the construction of organizational culture. An event is only interpreted as good luck if the outcome was positive,
whereas if the outcome was negative it is considered bad decision making. Further empirical research is only possible with conceptualizations that account for time and the process of sensemaking. In any case, further research on serendipity and the role of narratives will require close contact with respondents and a longitudinal study.

Areas of research that may be of value include: how the development of a sensemaking framework enhance performance in the business network; how emotion is involved in sensemaking and managerial decision making in the inter-organizational net given the cultivation of foresight is considered the anticipation of the future; how the development of confidence between actors impacts the emergence of an inter-organizational net; how sensemaking concerning network change occurs between networked firms; serendipity in the network (Meyer & Skak 2002) and its relationship to geographic proximity; group roles and dynamics and their influence on sensemaking from a network perspective; the role and development of an inter-organizational sensemaking framework; and the role of frameworks in the shaping of meaning and interpretation of interactions amongst actors in the network.

7.5 Summary

This research indicates that a framework is achieved as a result of the development of foresight followed by a shared vision. This chapter outlined theoretical implications and areas of future research. This included the identification of four key factors that influence the emergence of an inter-organizational business net and that context, goals, purpose and foresight play key roles in structuring and shaping the development of a managerial sensemaking framework. The following and final chapter elaborates on the managerial implications drawn from this research.
CHAPTER 8: MANAGERIAL IMPLICATIONS

8.1 Introduction

This chapter provides managerial implications in terms of the network and sensemaking literature.

8.2 Network managerial implications

There are a number of managerial implications from this exploratory study. First, managers need to understand why the shared goal of inter-firm interaction needs to be realized by all firms during the emergence of a net, as it will shape the development of the framework considerably. How a framework is developed is influenced by expectations, collaboration, the net, goals and purposes. Once the framework is developed it plays a significant role in how opportunities are identified, perceived and evaluated. The evaluation of opportunities has a significant impact on managerial decision making. The incorrect identification of an opportunity can result in management’s failure to grasp the market potential of a product/service and subsequent decision making. Case study one clearly illustrated how an opportunity with significant market potential was almost neglected, as a sensemaking framework had not been developed between the two firms during the initial new product development stage.

Second, during the emergence of an inter-organizational business net the importance of shared goals and their impact on shaping a framework need to be comprehended by managers. The emergence of a net involves the development of new relationships which entails management of the process of change. The development of shared goals enables the developed of shared understandings and a sensemaking framework between firms. A sensemaking framework enables joint problems solving and cooperation, which again was illustrated in case study one. During the joint product development stage both firms had developed shared goals (i.e. to
research the product for a fishing net application working towards eventual commercialization). As a result, a sensemaking framework evolved. This framework then enabled both firms to work collaboratively, engage in negotiated knowledge sharing and trading for the same purpose. Through the development of a sensemaking framework both firms combined activities which resulted in an enhanced value offer that they would not have been able to achieve individually. In addition, through the establishment of shared goals and a sensemaking framework both firms were able to grasp the magnitude of the product’s market potential.

8.3 Sensemaking managerial implications

According to the results and analysis of case study two for this research, foresight precedes shared vision and then a framework. The development of foresight, shared vision and framework in an emerging inter-organizational net involves ongoing iterative processes that managers need to take into consideration. The development of a managerial sensemaking framework as a social process requires managers to understand how foresight and shared vision are cultivated within an inter-organizational business net.

How to develop a sensemaking framework between managers in an inter-organizational business net has considerable research and managerial implications. Managers need to recognize the role of goals and communication in the development of a managerial sensemaking framework between firms. Realizing that at the beginning of an inter-organizational relationship a specific actor’s sensemaking framework is contextual and is based on an actor’s role opens the possibility to understand that communication needs to proceed from the firm perspective to the goals of the relationship. Goal setting involves discussion and negotiation between actors to arrive at an agreed end point or outcome, which subsequently requires highly developed communication skills and the development of a
managerial sensemaking framework between managers involved in an inter-organizational business net. Managerial communication skills are key towards developing a sensemaking framework in the area of inter-organization settings. Two way communication is integral, enabling goal setting and the development of foresight between actors through discussion to reach an agreed decision about future directions.

8.4 Summary

This chapter outlined managerial implications and the need for managers to grasp the importance and impact of goals and communication on developing a managerial sensemaking framework during the emergence of an inter-organizational business net.
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Appendix 1: Conceptual outline

Additional theoretical perspectives and concepts used in the outline have been synthesized from items listed in the delineation of the conceptual outline. Due to space constraints not all items were included, only key references.

FIGURE 7: CONCEPTUAL OUTLINE

Broad Research Question: How does an inter-organizational business net emerge and develop a managerial sensemaking framework?

RQ1: How do managers in two or more firms develop an inter-organizational sensemaking framework?

RQ2: What is the role of foresight in how managers develop an inter-organizational sensemaking framework?

## Appendix 2: Delineation of conceptual outline

### TABLE 10: DELINEATION OF THE CONCEPTUAL OUTLINE

<table>
<thead>
<tr>
<th>Theories</th>
<th>Literature</th>
<th>Constructs</th>
<th>RQ1</th>
<th>RQ2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network change</td>
<td>(Abrahamsen, Henneberg &amp; Naudé 2012; Corsaro, Cantù &amp; Tunisini 2012; Corsaro &amp; Snehta 2012; Dubois 2006; Freytag &amp; Ritter 2005; Gadde &amp; Mattsson 1987; Havila &amp; Salmi 2000; Kragh &amp; Andersen 2009; Van de Ven &amp; Poole 1995)</td>
<td>Networks; stability and dynamism</td>
<td>RQ1</td>
<td></td>
</tr>
<tr>
<td>Foresight</td>
<td>(Bechara, Damasio &amp; Damasio 2000; Damasio 1994; Garud, Gehman &amp; Kumaraswamy 2011; McMaster 1996; Tsoukas &amp; Shepherd 2004a, 2004b; Whitehead 1967)</td>
<td>Future</td>
<td></td>
<td>RQ2</td>
</tr>
<tr>
<td>Decision making</td>
<td>(Bechara, Damasio &amp; Damasio 2000; Damasio 1994; Fellows 2004; Garud, Gehman &amp; Kumaraswamy 2011)</td>
<td>Managerial</td>
<td></td>
<td>RQ2</td>
</tr>
<tr>
<td>Serendipity</td>
<td>(Garud, Gehman &amp; Kumaraswamy 2011; Meyer &amp; Skak 2002)</td>
<td>Opportune moments</td>
<td></td>
<td>RQ2</td>
</tr>
</tbody>
</table>
Appendix 3: Invitation to participate

X

XX

Hi X

We met at the cluster initiative seminar last week and as mentioned I would like to interview you about this initiative and the development of XX as part of my research at The University of Adelaide. Therefore, are you able to suggest a date and time that might be suitable for you? It would be about a 45-60 minute interview.

Regards

Joanne
Appendix 4: Interview questions

Interview questions (version 1)

Individual – Geographical cluster formation

Cluster
1. How would you describe a cluster?
2. Why do you think a geographical cluster is necessary, rather than a virtual cluster?
3. How have you been able to influence the perceived need to form a geographical cluster?
4. How was a need for the formation of a geographical cluster amongst audio technology manufacturers identified?
5. Why is there seen to be a need for the development of a geographical cluster in the creative industries, in particular the audio and digital technologies industry in Adelaide?
6. How important to you think it is for those involved in the formation of a cluster to be in the same industry?
7. How important to you think it is for those involved in the formation of a cluster to be in a related industry?
8. How important to you think it is for those involved in the formation of a cluster to be in a completely different industry?
9. Would the cluster include musicians? Why/Why not?
10. Would the cluster include other creative industries? Why/Why not?
11. What do you see as the role of the formation of the geographical cluster?
12. What do you consider is not the role of the formation of the geographical cluster?

Cluster – (Narratives)
13. You mentioned when we met that Adelaide has a reputation in Melbourne for having the highest quality specialist audio technology. Does Adelaide have a national or international reputation as well?
14. How long has it had this reputation?
15. How has Adelaide developed this reputation in the audio technology manufacturers and music industry (e.g. word of mouth?)
16. How did you hear about this reputation?

Cluster – Enabling/constraining factors
17. Where there any factors that enabled or fostered the perceived need for a cluster of specialist audio technology manufacturers?
18. What do you think will be the advantages or benefits of the geographical cluster formation?
19. What factors do you think will be critical to the success of the geographical cluster formation?
20. What do you think will be the challenges of the geographical cluster formation?
21. Are there any factors that may constrain the geographical cluster formation?
22 Do you think it was possible for you to influence decision-making about the geographical cluster formation?
23 What factors will be critical to influencing decision-making about the formation of the cluster?
24 What role do you think foresight plays in the formation of clusters?
25 What role do you think serendipity plays in the formation of clusters?

**Cluster – Management**
26 Have you previously been involved in the formation of a cluster?
27 What factors were critical to success in that process?
28 Have you ever experienced failure in the formation of a cluster or know of a cluster that failed?
29 What do you think are the key factors that resulted in the failure in the formation of that cluster?

**Cluster – Contact details (reminder)**
30 Who is the facilitator of the 31 March seminar?
31 Would it also be possible to briefly interview your manager briefly about the cluster formation?
32 Are you able to provide the names and contact details of companies involved in the creative industry of specialist audio technology manufacturers in Adelaide, South Australia?

**Innovation process**
33 How would you describe the importance of a geographical cluster in the innovation process?
34 How would you describe the innovation process?
35 Have you ever been involved or know of a networked innovation process that succeeded?
36 What do you think are the factors that enabled the innovation process to being successful?
37 What role do you think serendipity plays in the networked innovation process?
38 What role do you think foresight plays in the networked innovation process?
39 Have you ever been involved or know of an innovation process that failed?
40 What do you think are the factors that prevent the innovation process from being successful?
41 What role do you think feedback plays in the innovation process?
42 What role do you think communication access plays in the innovation process?
43 What role do you think knowledge sharing plays in the innovation process?

**Innovation process – Organization (organizational psychological safety)**
44 How would you describe the attitude to innovation in your organisation?
45 How would you describe the organization’s attitude to the innovation process?
46 How would you describe you organization’s approach to innovation?
47 What role do you think innovation plays in your organisation?
48 How important do you think innovation is to your organization’s economic success?
49 Who is involved inside your company, and inside other companies/entities in the innovation process?
50 How does your organization develop foresight?
Innovation process – Management

51 Was that innovation process successfully managed?
52 What factors enabled the successful management of that innovation process?
53 What do you think are the most effective networked innovation management strategies for success?
54 What would you describe as managements’ strengths in that innovation process?
55 What would you describe as managements’ challenges in that innovation process?
56 How would you describe managements’ attitude to the innovation process?

Final

57 Is there anything else that you think is important to cluster formation and the networked innovation process that we haven’t covered?
58 Also, if the need arises for any further questions or a follow-up, would it be possible to contact you again?
Interview questions (version 2)

Cluster – Management
1. Have you previously been involved in the formation of a cluster?
2. Do you have SMART objectives for the cluster formation?
   - Specific – target a specific area for improvement.
   - Measurable – quantify or at least suggest an indicator of progress.
   - Assignable – specify who will do it.
   - Realistic – state what results can realistically be achieved, given available resources.
   - Time-related – specify when the result(s) can be achieved.
3. Do you have a particular time frame in which to assess/measure the outcomes?

Cluster – Narratives
4. You mentioned when we met that Adelaide has a reputation in Melbourne for having the highest quality specialist audio technology. Does Adelaide have a national or international reputation as well?

Cluster – Enabling/constraining factors
5. Where there any factors that fostered the perceived need for a cluster of specialist audio technology manufacturers?

Innovation process
6. How would you describe the innovation process?
7. How would you describe the importance of a geographical cluster in the innovation process?

Innovation process – Organization (organizational psychological safety)
8. How would you describe the attitude to innovation in your organisation?

Innovation process – Management
9. Can you tell me about an innovation process that you were involved in? Was that innovation process successfully managed?

Final

Cluster – Contact details (reminder)
10. Would it also be possible to briefly interview your manager briefly about the cluster formation?
11. Of these contacts are you able to suggest the best way to contact them (e.g. phone or email?)
Interview questions (version 3)

Individual – Geographical cluster formation

Cluster
1. How would you describe a cluster?
2. Do you think a geographical cluster is better or a virtual? Why?
3. How was a need for the formation of a geographical cluster amongst audio technology manufacturers identified?
4. Why is there seen to be a need for the development of a geographical cluster in the creative industries, in particular the audio and digital technologies industry in Adelaide?
5. How have you been able to influence the perceived need to form a geographical cluster?
6. How important to you think it is for those involved in the formation of a cluster to be in the same industry?
7. How important to you think it is for those involved in the formation of a cluster to be in a related industry?
8. How important to you think it is for those involved in the formation of a cluster to be in a completely different industry?
9. Would the cluster include musicians? Why/Why not?
10. Would the cluster include other creative industries? Why/Why not?
11. What do you see as the role of the formation of the geographical cluster?
12. What do you consider is not the role of the formation of the geographical cluster?
13. Do you have SMART objectives for the cluster formation?
   - Specific – target a specific area for improvement.
   - Measurable – quantify or at least suggest an indicator of progress.
   - Assignable – specify who will do it.
   - Realistic – state what results can realistically be achieved, given available resources.
   - Time-related – specify when the result(s) can be achieved.
14. Do you have a particular time frame in which to assess/measure the outcomes?

Cluster – (Narratives)
15. You mentioned when we met that Adelaide has a reputation in Melbourne for having the highest quality specialist audio technology. Does Adelaide have a national or international reputation as well?
16. Do you know how long has it had this reputation and if so how do you know this?
17. How has Adelaide developed this reputation in the audio technology manufacturers and music industry (e.g. word of mouth?)
18. How did you hear about this reputation?
Cluster – Enabling/constraining factors
19 Where there any factors that enabled or fostered the perceived need for a cluster of specialist audio technology manufacturers?
20 What do you think will be the advantages or benefits of the geographical cluster formation?
21 What factors do you think will be critical to the success of the geographical cluster formation?
22 What do you think will be the challenges of the geographical cluster formation?
23 Are there any factors that may constrain the geographical cluster formation?
24 Do you think it was possible for you to influence decision-making about the geographical cluster formation?
25 What factors will be critical to influencing decision-making about the formation of the cluster?
26 What role do you think foresight plays in the formation of clusters?
27 What role do you think serendipity plays in the formation of clusters?

Cluster – Management
28 Have you previously been involved in the formation of a cluster?
29 What factors were critical to success in that process?
30 Have you ever experienced failure in the formation of a cluster or know of a cluster that failed?
31 What do you think are the key factors that resulted in the failure in the formation of that cluster?

Cluster – Contact details (reminder)
32 Who is the facilitator of the 31 March seminar?
33 Would it also be possible to briefly interview your manager briefly about the cluster formation?
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43 What role do you think feedback plays in the innovation process?
44 What role do you think communication access plays in the innovation process?
45 What role do you think knowledge sharing plays in the innovation process?
Innovation process – Organization (organizational psychological safety)
46 How would you describe the attitude to innovation in your organisation?
47 How would you describe the organization’s attitude to the innovation process?
48 How would you describe your organization’s approach to innovation?
49 What role do you think innovation plays in your organisation?
50 How important do you think innovation is to your organization’s economic success?
51 Who is involved inside your company, and inside other companies/entities in the innovation process?
52 How does your organization develop foresight?

Innovation process – Management
53 Was that innovation process successfully managed?
54 What factors enabled the successful management of that innovation process?
55 What do you think are the most effective networked innovation management strategies for success?
56 What would you describe as managements’ strengths in that innovation process?
57 What would you describe as managements’ challenges in that innovation process?
58 How would you describe managements’ attitude to the innovation process?

Final
59 Is there anything else that you think is important to cluster formation and the networked innovation process that we haven’t covered?
60 In terms of the contacts you have provided, do you mind if I mention that you referred them?
61 Of these contacts are you able to suggest the best way to contact them (e.g. phone or email?)
62 Also, if the need arises for any further questions or a follow-up, would it be possible to contact you again?
### Interview questions (version 4)

| Framework | How do you see the music/sound situation in Adelaide?  
|           |   • audio technologies situation  
| Audio technologies | How does the local reputation compare to interstate/international technology manufacturers’?  
|           | How do you see the future for high quality audio technologies in Adelaide?  
| Change | How do you think it will change? Why?  
|          | Who do you think will change it? How?  
|          | Who/where/what is the source/mechanism of change?  
|          | How does your organization develop foresight?  
| Cluster enabling/constraining factors | What do you think will be the advantages/benefits of the cluster formation?  
|          | What factors do you think will be critical to its success?  
|          | What do you think will be the challenges?  
|          | Have you been involved in a cluster or cluster formation previously? Can you tell me about this?  
|          | **What would you want from the cluster?**  
| Innovation | What role does innovation play in your organisation?  
|            | Can you tell me about the innovation process?  

### Interview questions (version 5)

<table>
<thead>
<tr>
<th>Question</th>
</tr>
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<tbody>
<tr>
<td>Tell me a bit about your involvement in the cluster initiative</td>
</tr>
<tr>
<td>Tell me a bit about X</td>
</tr>
<tr>
<td>How do you see the music/sound situation in Adelaide?</td>
</tr>
<tr>
<td>How do you think it will change? Why?</td>
</tr>
<tr>
<td>Who do you think will change it? How?</td>
</tr>
<tr>
<td>Who/where/what is the source/mechanism of change?</td>
</tr>
<tr>
<td>What does a futurist do?</td>
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<tr>
<td>How do you develop foresight?</td>
</tr>
<tr>
<td>What role does innovation play in your organisation?</td>
</tr>
<tr>
<td>Can you tell me about the innovation process?</td>
</tr>
<tr>
<td>What do you think will be the advantages/benefits of the cluster formation?</td>
</tr>
<tr>
<td>What factors do you think will be critical to its success?</td>
</tr>
<tr>
<td>What do you think will be the challenges?</td>
</tr>
<tr>
<td>Have you been involved in a cluster or cluster formation previously? Can you tell me about this?</td>
</tr>
<tr>
<td><strong>What would you want from the cluster?</strong></td>
</tr>
<tr>
<td>How does the local reputation of audio technology manufacturers compare to interstate/international?</td>
</tr>
<tr>
<td>How do you see the future for high quality audio technologies in Adelaide?</td>
</tr>
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## Interview questions (version 6)

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<th>What do you think will be the advantages/benefits of the cluster formation?</th>
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<tbody>
<tr>
<td>What factors do you think will be critical to its success?</td>
</tr>
<tr>
<td>What do you think will be the challenges?</td>
</tr>
<tr>
<td>Have you been involved in a cluster or cluster formation previously? Can you tell me about this?</td>
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</tbody>
</table>

### What would you want from the cluster?

<table>
<thead>
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<th>How do you think it will change? Why?</th>
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<td>Who do you think will change it? How?</td>
</tr>
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<td>Who/where/what is the source/mechanism of change?</td>
</tr>
<tr>
<td>How do you develop foresight?</td>
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<thead>
<tr>
<th>What role does innovation/the development of new things play in your work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you tell me about the innovation process?</td>
</tr>
</tbody>
</table>
Appendix 5: Human research ethics committee consent form

Human Research Ethics Committee (HREC)

CONSENT FORM

1. I have read the attached Information Sheet and agree to take part in the following research project:

| Title: | |
| Ethics Approval Number: | HP-2013-087 |

2. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.

3. Although I understand the purpose of the research project it has also been explained that involvement may not be of any benefit to me.

4. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.

5. I understand that I am free to withdraw from the project at any time.

6. I agree to the interview being audio recorded. Yes [ ] No [ ]

7. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet.

Participant to complete:

Name: __________________________ Signature: __________________________ Date: ____________

Researcher/Witness to complete:

I have described the nature of the research to __________________________

(print name of participant)

and in my opinion she/he understood the explanation.

Signature: __________________________ Position: __________________________ Date: ____________
Appendix 6: Information on project

The University of Adelaide

Human Research Ethics Committee (HREC)

This document is for people who are participants in a research project.

CONTACTS FOR INFORMATION ON PROJECT AND INDEPENDENT COMPLAINTS PROCEDURE

The following study has been reviewed and approved by the University of Adelaide Human Research Ethics Committee:

| Project Title:          | Approval Number: HP-2013-087 |

The Human Research Ethics Committee monitors all the research projects which it has approved. The committee considers it important that people participating in approved projects have an independent and confidential reporting mechanism which they can use if they have any worries or complaints about that research.

This research project will be conducted according to the NHMRC National Statement on Ethical Conduct in Human Research (see http://www.nhmrc.gov.au/publications/synopses/e72syn.htm).

1. If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project co-ordinator:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Principle supervisor:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Co-supervisor:</td>
</tr>
<tr>
<td></td>
<td>Student:</td>
</tr>
<tr>
<td></td>
<td>Phone:</td>
</tr>
</tbody>
</table>

2. If you wish to discuss with an independent person matters related to:

- making a complaint, or
- raising concerns on the conduct of the project, or
- the University policy on research involving human participants, or
- your rights as a participant,

contact the Human Research Ethics Committee’s Secretariat on phone (08) 8313 6028 or by email to hrec@adelaide.edu.au
## Appendix 7: Product development stages

### TABLE 11: DSM’S PRODUCT DEVELOPMENT STAGES OF DYNEEMA® FISHING NET ROPES

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initiation</strong></td>
<td><strong>Opportunity evaluation</strong></td>
<td><strong>Education and learning</strong></td>
<td><strong>Cooperation &amp; learning</strong></td>
<td><strong>Cooperation, learning and active pursuit of different goals</strong></td>
<td><strong>Successful outcome</strong></td>
<td><strong>Alternative applications developed</strong></td>
</tr>
<tr>
<td><strong>Decision making</strong></td>
<td><strong>Confusion and miscommunication</strong></td>
<td><strong>Joint problem solving</strong></td>
<td><strong>Reinterpretation &amp; re-evaluation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Open iterative development process</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Negotiated knowledge trading and sharing</strong></td>
<td><strong>Unawareness of change in knowledge trading</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DSM incorrectly evaluates potential of Dyneema for fishing net applications</strong></td>
<td><strong>DSM not interested in exploring possibilities of Dyneema</strong></td>
<td><strong>Confused by Hampidjan’s interest</strong></td>
<td><strong>Mutual understanding reached</strong></td>
<td><strong>DSM actively educating rope manufacturers about properties of Dyneema in order to expand market</strong></td>
<td><strong>First fishing net made of Dyneema to market</strong></td>
<td><strong>Other major applications identified and developed for alternative uses for Dyneema ropes</strong></td>
</tr>
<tr>
<td><strong>unaware of alternative performance benefit for Dyneema</strong></td>
<td><strong>Confused by Hampidjan’s interest</strong></td>
<td><strong>Mutual understanding reached</strong></td>
<td><strong>DSM actively educating rope manufacturers about properties of Dyneema in order to expand market</strong></td>
<td><strong>DSM now understands size and potential of market</strong></td>
<td><strong>Market becomes one of the larger Dyneema application markets</strong></td>
<td><strong>DSM provides Dyneema service - laboratory supports fisheries in identifying best net for their needs</strong></td>
</tr>
<tr>
<td><strong>unaware of market potential and size</strong></td>
<td><strong>Educated about the possibilities and market potential by Hampidjan</strong></td>
<td><strong>DSM tries to add to knowledge generated by Hampidjan while trying to solve some of the problems Hampidjan experienced</strong></td>
<td><strong>Result of DSM’s active education is that advantages of Dyneema for fishing nets well understood in industry</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Convinced Dyneema’s major benefit is strength per unit of weight</strong></td>
<td><strong>Learns new logic that strength per unit of diameter is Dyneema’s major performance benefit</strong></td>
<td><strong>Value realized during cooperation through DSM as supplier and Hampidjan as user. New problems surfaced but jointly addressed and better value offer created</strong></td>
<td><strong>Market becomes one of the larger Dyneema application markets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted by the researcher from Vercauteren (2009)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial stage</td>
<td>Early development stage</td>
<td>Joint development stage</td>
<td>Cooperation &amp; learning</td>
<td>Successful outcome</td>
<td>Diffusion stage</td>
<td></td>
</tr>
<tr>
<td>Initiation</td>
<td>Opportunity evaluation</td>
<td>Education</td>
<td>Cooperation &amp; learning</td>
<td>Cooperation, learning and re-evaluation of knowledge trading</td>
<td>Commercialization stage</td>
<td></td>
</tr>
<tr>
<td>Misunderstanding</td>
<td>Joint problem solving</td>
<td>Education required</td>
<td>Open iterative development process</td>
<td>Less open iterative and learning development process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication limited by cultural and language barriers</td>
<td>Negotiated knowledge trading and sharing</td>
<td>Non-negotiated reduction in knowledge trading and sharing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hampidjan accurately evaluates potential of Dyneema for fishing net applications</td>
<td>Hampidjan very interested in exploring possibilities of Dyneema</td>
<td>Hampidjan educates DSM to reach mutual understanding about the importance of strength per unit of diameter</td>
<td>Hampidjan conducts research and experiments and reports back to DSM</td>
<td>Hampidjan begins to fear competition and becomes less open about technical knowledge and discoveries</td>
<td>First fishing net application where diameter is more important than weight</td>
<td>Other major applications identified and developed for alternative uses for Dyneema ropes</td>
</tr>
<tr>
<td>Hampidjan’s opinion is that Dyneema could be very promising</td>
<td>need for new material – HDPE properties fully developed – no competitive advantage</td>
<td>Cultural and language barriers to discussion and understanding</td>
<td>Reinterpretation and awareness of different goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploring new high performance materials gradually appearing on market</td>
<td>High degree of research capacity</td>
<td>Hampidjan contributes more of the actual work to realize fishing net made of Dyneema</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimenting with HDPE and new materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong interest in innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hampidjan approaches DSM about possibilities of exploring Dyneema for fishing net applications</td>
<td>Hampidjan persistent in pursuit of DSM exploring possibilities of Dyneema for fishing nets</td>
<td>After some time mutual understanding reached of importance of strength per unit of diameter</td>
<td>Hampidjan shares lessons learnt from trials and asks additional questions</td>
<td>Reduction in some aspects of knowledge trading and sharing – fear of competition</td>
<td>First fishing net made of Dyneema to market</td>
<td>DSM provides Dyneema service - laboratory supports fisheries in identifying best net for their needs</td>
</tr>
</tbody>
</table>

Adapted by the researcher from Vercauteren (2009)
| Table 13: Technological product development stages of DSM and Hampidjan’s activities for Dyneema® fishing net ropes |
|-------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------|-------------------------------------------------|
| **Year** | **1986** | **2nd half of 1986** | **1986 - 1993** | **1993** | **1993 onwards** |
| **Initial stage** | **Early development stage** | **Joint development stage** | **Later stage of joint development** | **Commercialization stage** | **Diffusion stage** |
| **Initiation** | **Evaluation** | **Education & learning** | **Cooperation & learning** | **Cooperation, learning and re-evaluation** | **Successful outcome** | **Alternative applications developed** |
| **Hampidjan approaches DSM (accurately evaluates potential of Dyneema for fishing net ropes)** | DSM sends Hampidjan small samples to conduct trials – says it would be at least 1.5 years before DSM could look into fishing net applications | Discussion – confusion between 2 companies in terms of the main significant performance feature of Dyneema | Open iterative and learning development process between DSM and Hampidjan | Less open iterative and learning development process | First fishing net made of Dyneema to market | Other major applications identified and developed for alternative uses for Dyneema ropes |
| **Little known about Dyneema’s material properties** | Hampidjan keen to explore Dyneema’s possibilities | Fishing net rope not core priority for DSM | DSM continues working with other rope manufacturers | DSM working extensively to educate rope manufacturers about Dyneema fishing net ropes | First fishing net application where diameter is more important than weight | DSM provides Dyneema service - laboratory supports fisheries in identifying best net for their needs |
| **No full-scale of production of Dyneema fibre** | | | DSM begins to understand the market potential | Hampidjan begins to fear competition and becomes less open about technical knowledge and discoveries | Market is one of the larger Dyneema application markets |
| **Net manufacturing not priority or goal for DSM** | | | | | Advantages of Dyneema for fishing nets well understood in industry |
| **Hampidjan’s opinion is that Dyneema could be very promising** | | | | | |

Adapted by the researcher from Vercauteren (2009)
### TABLE 14: SENSEMAKING PROCESSES AND TECHNOLOGICAL DEVELOPMENT PROCESS STAGES BETWEEN DSM AND HAMPIDJAN FOR DYNEEMA® FISHING NET ROPES

<table>
<thead>
<tr>
<th>Sensemaking processes and technological development process stages between DSM and Hampidjan</th>
<th>1986-1993</th>
<th>1993</th>
<th>1993 onwards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; half of 1986</td>
<td>1986 - 1993</td>
<td></td>
</tr>
<tr>
<td><strong>Initial stage</strong></td>
<td><strong>Early development stage</strong></td>
<td><strong>Joint development stage</strong></td>
<td><strong>Later stage of joint development</strong></td>
</tr>
<tr>
<td>Initiation</td>
<td>Opportunity evaluation</td>
<td>Education and learning</td>
<td>Cooperation &amp; learning</td>
</tr>
<tr>
<td>Decision making</td>
<td>Confusion and miscommunication</td>
<td>Joint problem solving</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reinterpretation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Open iterative development process</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Negotiated knowledge trading and sharing</td>
</tr>
<tr>
<td><strong>DSM incorrectly evaluates potential of Dynema for fishing net applications</strong></td>
<td><strong>DSM not interested in exploring possibilities of Dynema</strong></td>
<td><strong>Confused by Hampidjan’s interest</strong></td>
<td><strong>Mutual understanding reached</strong></td>
</tr>
<tr>
<td>unaware of alternative performance benefit for Dynema</td>
<td>unaware of market potential and size</td>
<td></td>
<td>Reinterpretation of value of pursuing joint development</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DSM provides samples and knowledge about rope processing</td>
</tr>
<tr>
<td><strong>Hampidjan very interested in exploring possibilities of Dynema</strong></td>
<td><strong>Hampidjan educates DSM to reach mutual understanding about the importance of strength per unit of diameter</strong></td>
<td><strong>Hampidjan conducts research and experiments and reports back to DSM</strong></td>
<td>Reduction in some aspects of knowledge trading and sharing – fear of competition</td>
</tr>
</tbody>
</table>

Adapted by the researcher from Vercauteren (2009)
## Appendix 9: Expectations

### TABLE 15: EXPECTATIONS/ATTITUDES

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>ATTITUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Government</td>
<td>“I think that the industry will change it and I think that the goodwill and the good attitude and if we can foster a good culture here and if like I said if government can be that artificial mechanism to fill a gap and gaps where they’re needed and then help the industry to change itself will be the most powerful change that we could have.” (Interviewee L, government)</td>
</tr>
<tr>
<td>M</td>
<td>Business</td>
<td>“The right people, people having the right attitude about it, the right people, the right businesses. People being -- yeah I think people just being open and collaborative in their approach to going in there because if you go in there with the attitude of like ‘oh this is some lame contrived government thing’ or use it for the free, you know? I think if people have that attitude it won’t work, so I think you have to go in there with a positive, and look at it like ‘this is a great opportunity’ that you know you are lucky to live somewhere where these kinds of things happen. I think positive attitudes towards it is the main thing…” (Interviewee M, business).</td>
</tr>
</tbody>
</table>
### TABLE 16: COLLABORATION

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>COLLABORATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Government</td>
<td>“You compete against the rest of the world for the benefit of this state. So if we can help them compete and then help them gain access to new markets, new opportunities that they couldn’t have done by themselves, then that would be a meaningful thing for us to do in our role as the government…” (Interviewee C, government)</td>
</tr>
<tr>
<td>L</td>
<td>Government</td>
<td>“I think connections. Bringing people together, being a conjugate for bringing people together to have conversations that would otherwise not have happened. Different ways of working and I’ve always really been inspired by different industries and different practices coming together to try something new. You know, an innovation kind of model. That’s exciting.” (Interviewee L, government)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>“So I think the next step I felt they needed was to say ‘okay if we put this together what are some of the things we could potentially do that we can’t do now?’ Or ‘what are the juxtapositions of two odd things that don’t happen.’” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>C</td>
<td>knowledge/innovation institution</td>
<td>“I think we have an appetite for collaboration now. I think that we didn’t in the past and I think it was lots of little disparate businesses and I think now they are understanding that if they want to compete and if they want to have a voice in the national and international music scene we need to start working together and I think that obviously the power of a cluster is lots of small businesses get together to actually have one voice rather than be separate independent entities and I think there is a real appetite for that, I think it’s going to be interesting and cause a lot of probably intense strategies that might need to be changed but I think it’s a really exciting opportunity. I think it’s a kind of a win-win situation. I can’t see any reason why anyone wouldn’t want to do it but I could see in that room some suspicion: ‘Why is government coming with us to ask for this office?’ It almost seems too good to be true, that kind of thing. ‘What do government want from us?’ But actually I think from what I can make of it this government are actually just seeing an opportunity for kind of economic development if they do actually work together so I think it’s a really exciting opportunity.” (Interviewee C, knowledge/innovation institution)</td>
</tr>
<tr>
<td>A</td>
<td>Government</td>
<td>“I think the thing that’s really important is having something to actually collaborate around. So it’s all well and good to get everyone together and sit them down in a room and have a chat but if they haven’t got something that ties them together and they have a shared vision about doing something it’s just going to be a chat and there’s not that driver to make the, to have the companies want to work together.” (Interviewee A, government)</td>
</tr>
<tr>
<td>C</td>
<td>Government</td>
<td>“There’s a couple of hurdles for people to get over if they want to collaborate. It’s not just about knowing someone as a person and having a relationship with them, it’s as much about how do I understand how you work, what your corporate structure is or your corporate culture is so I can work with you through that?” (Interviewee C, government)</td>
</tr>
<tr>
<td>P</td>
<td>Business</td>
<td>“…we hear about connecting people around the industry I still don’t know quite what that means, maybe that is why it needs to exist but yeah, I am not sure what the point is.” (Interviewee P, business)</td>
</tr>
<tr>
<td>P</td>
<td>Business</td>
<td>“It is and especially when you are dealing with a huge cross spectrum of really motivated people and a lot of whom have dragged themselves from the ground up, they can work incredibly hard, but generally for any kind of creative or business person generally they need direction because these are people that are very busy and very successful and they are not going to kind of try and figure that out for you. I know half the people from that room are working 60 to 90 hours a week, and they would love to get on board with stuff but they don’t really have time to sit down with giant sheets of paper and brainstorm it you know what I mean?” (Interviewee P, business)</td>
</tr>
<tr>
<td>L</td>
<td>Government</td>
<td>“Participation. I think that it’s really easy for people to get busy and in their own, I’m a victim of it myself, you know you get busy and you end up in your spiral in your own little whirlwind and forget to breathe and step outside and I think so if we, through the Music Development Officer, can really do activities and create opportunities to keep that stimulated participation, the goodwill, that kind of you know, I think if we can keep driving that energy and keeping the right people together and that kind of thing then hopefully the magic will happen.” (Interviewee L, government)</td>
</tr>
<tr>
<td>B</td>
<td>Government</td>
<td>“… we are often dealing with people with SMEs they are running around like headless chickens keeping the business going and while they may have that view they don’t just to put the time aside and just to sort of go ‘okay let’s get all of this together and make it happen’ it’s kind of its there, it’s just taking that step is not that easy I think.” (Interviewee B, government employee)</td>
</tr>
<tr>
<td>N</td>
<td>Business</td>
<td>“Like all things like this the more you want out the more you put in and you’ve got to contribute to get the right to benefit and I think that’s, I believe that that kind of culture’s going to be important to what we’re doing. So this isn’t about a culture of dependency it’s not about a culture of other people’s responsibility to do stuff for us this is about everybody working together to do something for all of us. That’s the culture. So without the vision being clear without the ability to communicate that then there’s no community to communicate that I think that’s risk number one.” (Interviewee N (business))</td>
</tr>
</tbody>
</table>
| L     | Government | “Well that people don’t, that it you know falls stale. I mean the music industry here I’ve got to give it to them there’s, you know, there’s key players who’ve been around for a very long time and you know have been in so many reference groups and meeting groups and referred to over the years of this, they must have massive fatigue you know but they still come back. So people here are really passionate but they’re sick of meeting for meeting’s sake but it needs to be up to
So you can pull people together for a meeting but you can’t give them the answers you know they need to create them themselves so you need to inspire them to do that. While people have been coming together for ages and meeting and banging on about the same stuff and you know they get sick of that and then they get pissed off with government because it’s like ‘okay we’ll come together and we’ll do this and we’ll talk about it’ and it’s like well we’ve been talking for years, what’s actually going to happen now? So it’s about actually presenting opportunities or different you know stimulating that kind of through you know programs like the [XXXXXX] stuff. The cluster project is about bringing new people in so it’s not just specifically looking at musicians and managers and promoters and agents, it’s actually having speaker manufacturers and you know cinema people and producers and studio owners and so different, it’s the auxiliary kind of part of the industry and actually what we did through the 90 day change project was map the music industry in a way that had showed a supply chain. And so that revealed more than just the typical kind of music industry that everyone instantly thinks about as music – managers, agents, that kind of thing – so if you bring everyone into the conversation it’s a much more dynamic outcome I think.” (Interviewee L, government)
## Appendix 11: Networks

### TABLE 17: NETWORKS

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>NETWORKS/OPTIONS/BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Government</td>
<td>&quot;...when you speak to small SMEs their mindset is it’s about what benefit it is going to be to them, I am seeing it actually a more of a discussion around ‘yes better economic conditions with benefit us’ so there is actually a more industry view or economic development view so it’s quite a sophisticated view…” (Interviewee B, government employee).</td>
</tr>
<tr>
<td>H</td>
<td>Business</td>
<td>&quot;I mean because that’s the reason you go down there. Why am I here, right? Well, look, I would have just said I just wanted to check it out and see what it was about. For me and our business we want this to benefit our business, understanding it might not benefit it in five years or hopefully it will down the track so ultimately I think everybody in that room wanted something. For us it was for it to trigger potential income streams in the future, I guess. Me, I am pretty honest about it. As much as I was there to meet some new people, etc., I was still there to go, ‘Well, how can this benefit the business world, keep the cluster generated and it created that - made Adelaide a bit of a go-to place that we could eventually tap into that down the track’, but it depends what form it takes.” (Interviewee H, business)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>&quot;... I think the mechanism of change will be the network but I think what makes the network work is the space of which the people of the network can be vulnerable enough to let new ideas come in... so that’s sort of based on the idea that through dialogue they get to understand each other’s perspectives better that they form personal relationships that make them more empathetic to where others are coming from and other points of view and there comes a point in those conversations where they’re happy to be real with each other and from that something new is more likely to emerge. If they are only just sharing ideas then you will get more of the same, you’ll get scale and quality but you are not going to get something different, I think actually the network needs to engage in those personal levels, I don’t mean they need to go out to dinner and doing, having barbecues with the family but just that being very honest and real with other about what their passions are on that sort of level and if the network can get to that level of trust and that level of authenticity if you like, a willingness to be vulnerable and explore things together then I think you will get the network and the peer then culture of ‘let’s do something’ will be the thing that changes it.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>I</td>
<td>Business</td>
<td>&quot;I’m interested in the cluster concept because of the networking opportunities. I got to meet at the first client thing, I got to meet some interesting guys from [XXXXX] who are out there trying to capitalise on the new delivery media, you know? Streaming and download. Or not streaming but download. I got to meet a couple of people from the [XXXXXXXXXXXX] environments which are teaching. I got to spend some more time with the [XXXXXXXXXXXX] from [XXXXXXXXXXXXXXX] and discuss some of the new changes in what’s happening in live. So from that point of view I think that’s a win straight away for me because I’ve had the opportunity to just network with these guys in a way that we often don’t get to do. We always say must catch up for a drink or we must go and do some networking but you never do as a business. You sort of just keep running along doing your own thing. So I think having something that kind of forces you to come together and collectively look at okay what can we do, how can we build our relationship? How can I help [XXXXXXXX] by producing a good product from this live stuff that they’re capturing? I think there’s opportunities there. How do I think that benefits the industry as a whole? I think the more activity we have, the more we’re all talking on the same page about trying to do better with what we’ve got and I think that’s a step forward.” (Interviewee I, business)</td>
</tr>
<tr>
<td>M</td>
<td>Business</td>
<td>&quot;I guess A it’s a really good way to network and be surrounded by other creative people which can be inspiring and everything else...” (Interviewee M, business)</td>
</tr>
</tbody>
</table>
### Appendix 12: Goals and purpose

**TABLE 18: GOALS AND PURPOSE**

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>GOALS/PURPOSE/OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Business</td>
<td>“So I think there needs to be a lot more contact, a lot more involvement, there needs to be I guess milestones, there needs to be some kind of foreseeable outcomes otherwise people are just going to lose interest and just go back to what they are doing.” (Interviewee E, business)</td>
</tr>
<tr>
<td>E</td>
<td>Business</td>
<td>“There needs to be some kind of commercial outcome or why would you use your precious time? If I went there and they were focusing on, ‘okay we’re only focusing on high quality audio speakers’, that’s not relevant to me. 100 percent not relevant to me so why would I waste my time in developing this music space? Whereas there’s nothing for me to get out of it and so when I go to my team and say, ‘yeah I’m going off to spend a day at this co-working, this cluster’, and they say, ‘okay, so what’s the outcomes of you spending eight hours of your day doing this?’ and I say, ‘free tea, free coffee, I get some cakes and I get to talk about what we’re doing in Adelaide’, they’re going to go, ‘there’s probably more important things that you could be doing here. You could be calling up independent boutique music labels and trying to get their catalogues onto [XXXXX] or you could be talking to investors or you could be doing anything but spending a day talking about how to produce high quality’.” (Interviewee E, business)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>“But that process where you are not willing to engage on a personal level at the start but at the end actually engaging on a personal level is what is sustaining about the whole process. It is not the business outcome it is not the technical knowledge it is not the funding of the thing it is actually the relationships. So I think if this group, I think for this group that’s important because you are asking them to come together as strangers really and then develop something new so you know if I was spending time on funding I would be doing lots of get together and site tours of each other’s businesses and just doing stuff that exposes who they are and what their passions are to each other.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>“...I think you are asking to work with different people and do completely different things which go beyond their self-interest and there is a benefit but it might not be an immediate benefit. It is a karma benefit to some extent which might then come back to create something that they can benefit from.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>P</td>
<td>Business</td>
<td>“I am still not sure what the cluster expects to do … it is always great to get an introduction but people like myself are capable of going out there and meeting people if that is what we want to do, and we always have, entrepreneurs have never needed their hand held to make stuff happen and it was great to get a whole bunch of these people in a room together but without a particular goal I don’t think that it really changes anything but if I had gone and cold called and introduced what we do and all that kind of stuff I don’t feel like that would be any different to having met them at the classroom.” (Interviewee P, business)</td>
</tr>
<tr>
<td>P</td>
<td>Business</td>
<td>“Meeting people full stop is great and that was worth going because I did meet some new people and I did catch up with them from there but beyond that I am not really sure what the point is set … I am always interested in participating in that kind of stuff I just don't know what it is meant to be doing [laughs].” (Interviewee P, business)</td>
</tr>
<tr>
<td>F</td>
<td>Business</td>
<td>“Part of the thing with the music cluster and the reason why it’s important is that it can’t be, under any circumstances, a decision by committee. That would be the one thing that will shoot it in the foot because I like the idea of a whole bunch of people getting in a room and speaking with each other and being great, but I fucking hate just talking about things.” (Interviewee F, business)</td>
</tr>
<tr>
<td>F</td>
<td>Business</td>
<td>“I have more meetings a day than I know what to do with and sometimes it’s the worst thing in the world because spending nine hours in a day talking about doing some work rather than actually doing it … it’s bonkers to me.” (Interviewee F, business)</td>
</tr>
</tbody>
</table>
### Appendix 13: Leadership

#### TABLE 19: LEADERSHIP

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>LEADERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>“Well I think they need at least one person who wants to succeed, so the internal champion doesn’t come from government and I think they kind of have that a little bit in Music SA who sees benefit for them being involved but also I think that’s good it’s not up to an individual who gets excited you have actually got an organization in there which is sort of saying we would actually like to see something bigger happen. So I think that is the first thing, having that internal champion” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>C</td>
<td>Government</td>
<td>“I really hope they, you know - a leader emerges which helps them work out which way they want to go and, you know, does all of the stuff you’ve got to do to get people to go in the right direction like convince some that it’s a good idea or bring some along anyway or, you know, create some sort of a vision so see how that emerges.” (Interviewee C, government)</td>
</tr>
<tr>
<td>K</td>
<td>Government</td>
<td>“...the thing that makes clusters work is having the right people working between everything. That’s the critical thing so without somebody filling in the gaps and pulling things together it just doesn’t work. I guess a classic example of that is in our hidden jobs example I gave you before, two of the part time jobs were 70 to 80 thousand dollar jobs for six months of the year. They just happened to be the opposite six months on a year and when I rang one of the organisations they said that ‘do you realise that there is somebody else who has got exactly the same job in a different market segment, exactly the same job for the other six months of the year?’ and they said ‘oh that must be in the stone fruit industry’ because it was citrus people I was talking to. I said ‘yeah that’s exactly right.’ I said ‘have you ever considered job sharing?’ and the lady said to me ‘oh we job share the forklift drivers.’ They hadn’t thought about the higher level person. See just having somebody from the outside coming in and putting that together and answering that question and going ‘well perhaps you should consider that’ and they go ‘ah’. Well that was too hard because they couldn’t get a 70 or 80 thousand dollar person for six months of the year, was just too hard but by working together.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>B</td>
<td>Government</td>
<td>“There’s a whole lot of smaller consultants out there who are actually really interested and they participate and they turn up and they do things and they know those industries intimately. Those people are really great enablers as well.” (Interviewee B, government)</td>
</tr>
<tr>
<td>E</td>
<td>Business</td>
<td>“But I think the cluster’s a great idea and I think there could be a lot to be gained out of it. I just think it just has to be, at the start, it has to be micromanaged. There needs to be someone that brings together people and kind of just keep everyone engaged. There needs to be more engagement” (Interviewee E, business)</td>
</tr>
<tr>
<td>E</td>
<td>Business</td>
<td>“It needs to be more cohesive than it currently is. I think it needs to – If it’s not held together or someone keeping everyone together, it’s just going to split apart.” (Interviewee E, business)</td>
</tr>
</tbody>
</table>
### Table 20: Context (Industry/City Perspectives)

<table>
<thead>
<tr>
<th>Actor</th>
<th>Category</th>
<th>Understanding of City</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Business</td>
<td>“We are only a small town after all.” (Interviewee I, business)</td>
</tr>
<tr>
<td>L</td>
<td>Government</td>
<td>“[X]’s a small town.” (Interviewee L, government)</td>
</tr>
<tr>
<td>C</td>
<td>Government</td>
<td>“I think they are a collection of individuals that would have all come with their internal dialogue about what they wanted and we didn’t get into that kind of stuff so I think as an industry comes together all of that personal agendas will play out amongst themselves and hopefully they will be able to answer what they want out of it in a collective because they will have to because otherwise they won’t have a project to fund so hopefully that will emerge but I think it is way too soon to see that.” (Interviewee C, government)</td>
</tr>
<tr>
<td>H</td>
<td>Business</td>
<td>“Like I said, we’re not a show-off type of state for a start so we are not likely to sing our own praises ... So you see that in a lot of other states where there’s programs and government funds to really bring that stuff forward. We don’t tend to do that. You know, it’s not up to them to go, ‘Look at us. We do heaps of cool things.’ Like it would be better for the state or community to recognise that...” (Interviewee H, business)</td>
</tr>
<tr>
<td>B</td>
<td>Business</td>
<td>“I guess in a broad sense there is a lot of – there’s some really good stuff that’s come out of this small town of ours ... and you know there are some real high end worldwide recognised companies coming from [XXXX] but again it’s quite an unknown – it’s a very small industry so, I guess, you know, the average Joe probably wouldn’t know that those guys make some of the world’s best speakers and systems.” (Interviewee H, business)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>&quot;... because as a city it is always what is happening over there ... so we’re constantly look over our shoulder rather than looking kind of where we are...&quot; (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>“It’s a little bit like that in the entrepreneurial college that you hear people talk about where putting in hub [X] was seen as ‘okay let’s put in a big anchor space to try and give it some gravity’ because there is a whole lot of little things that are all okay but none of them are really getting to scale so I kind of see the music cluster in a similar way, so that there are, there is a pocket of really good record producers, there’s a pocket of people who are doing interesting things around radio. There is not nothing, there is some really good stuff happening but it tends to be isolated and it tends to be the passion of maybe one or two people and even when you look at the manufacturing systems you have got some pretty amazing organizations that are doing global stuff but its three of them, so they might be more medium size but there is still really three and it is kind of missing the glue, you have got three here and three here and three here and I think that some of the stuff that came out in the concerns around quality of performance if you like was around individuals trying to make their own way, you don’t really have the they’re not sort of grounded in anything or have anything that they can aspire to that helps mold their direction.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>&quot;... X is the perfect size, if you think about innovation some of that theory around the size of the city for innovation and they’re sort of saying you know ‘a million to a million and a half is good’ because you have got enough capacity for variety and diversity but you have also got enough capacity to make the networks work.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>J</td>
<td>Knowledge/innovation institution</td>
<td>“At the table I was at they were talking about how electronic music in [X] is actually fairly, that’s a strength, and we don’t recognize it as a strength there has been a lot of good things coming out and not only that there is XXX which has kind of been promoting that and there is space for that to happen and there is small festivals where that can grow that have started here and so there is more of an ecosystem but then it becomes a vertical supply chain ecosystem. So if you are not into electronic music that vertical supply chain is not going to help shit all really so I think it is just clustered, I mean why is it not better? Maybe it’s because I have heard X described as very tribal I don’t know if it’s a similar sort of thing?” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>O</td>
<td>Business</td>
<td>“... [X]’s very conservative and in its approach but also there seemed to be quite a bit of thinking that you know that guy in that band he’s competition to my band you know he’s going to take my market because the market’s really small.” (Interviewee O, business)</td>
</tr>
<tr>
<td>L</td>
<td>Government</td>
<td>“It’s just been, you know, world changes, global changes and we’re a small city --.” (Interviewee L, government)</td>
</tr>
</tbody>
</table>

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The content provides insights into various perspectives on the understanding of city size and its impact on innovation and business development. The text highlights the challenges and opportunities faced by different actors within the context of a small town or city, emphasizing the importance of recognizing individual strengths and fostering an ecosystem that can help scale these initiatives effectively.
# Appendix 15: Serendipity

## TABLE 21: SERENDIPITY/GEOGRAPHICAL PROXIMITY

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>SERENDIPITY/GEOGRAPHICAL PROXIMITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Government</td>
<td>“Part of its making sure that universities and businesses can actually just run into each other, you know. Has coffee at the same place, eyeball each other, get that actually they’re not so different. We could maybe have a whole conversation about something and then eventually building up trust so that they might share a problem, try and work on something together. So it’s that kind of social interaction that helps people start a relationship and then I think it’s also connecting.” (Interviewee C, government)</td>
</tr>
<tr>
<td>M</td>
<td>Business</td>
<td>“I think it’s like one of those things with the cluster thing, there is never any guarantees for anything like that it’s really about happy accidents, you know? It is what the best stuff is. I just think it is that thing where of course it’s always a bit of a lottery but if you get 60 creative people working in one environment and there is just that kind of inadvertent crossover of you know, over hearing what people are doing …” (Interviewee M, business)</td>
</tr>
<tr>
<td>D</td>
<td>Knowledge/innovation institution</td>
<td>“And if someone offers to help you they’re not getting paid to help you 90 per cent of the time. Just out of the kindness of their heart and that makes you really—the sort of like [XXXXXX] in my mind has got a really good karma. So every time someone helps you, you kind of feel indebted not just to that person but to [XXXXXX]. And so when someone is clearly struggling and you know in your head I have some work to do but I know how to fix this person’s problem and you think of all the thousands and literally thousands of times … I sort of go out of my way to try and help people in [XXXXXX] because that’s what keeps the whole thing going. Especially when you’re new.” (Interviewee D knowledge institution/facilitator)</td>
</tr>
<tr>
<td>M</td>
<td>Business</td>
<td>“I guess something like this … I guess, is to get these people from these different areas of the music industry in close correlation and you know I guess hope that there is some mutual beneficial things about it. But I think maybe in general you really kind of relate to people you relate to. No matter what kind of background they are from. I think you can’t contrive those things too much. There’s got to be a certain kind of natural, organic thing about your networks and your relationships whether they are professional or not professional.” (Interviewee M, business)</td>
</tr>
<tr>
<td>K</td>
<td>Government</td>
<td>“… the proximity is about doing business with a person across the road and having conversations that wouldn’t otherwise be had. So the closer they are the better off they are as far as that sort of conversation stuff happening but I don’t think it’s the end of the world.” (Interviewee K, knowledge institution/facilitator)</td>
</tr>
<tr>
<td>O</td>
<td>Business</td>
<td>“So it goes beyond just the geographics and I think that will be a challenge to expand the thinking of the people within the cluster of how it can work so one of, I think one of our challenges especially in the next few months will be starting to sort of educate people as to what a cluster can do for them and get them to see it as not I’m competing against that guy for the same thing but seeing how oh that guy does this and I do that well maybe if we talk there could be some great mutual benefits that we can come up with.” (Interviewee O, business)</td>
</tr>
</tbody>
</table>
### TABLE 22: FORESIGHT

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>FORESIGHT/FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Government</td>
<td>“So the foresight comes from hindsight.” (Interviewee C, government)</td>
</tr>
<tr>
<td>I</td>
<td>Business</td>
<td>“I guess that’s just looking at what’s going on around you and perhaps taking note of what other people are doing. Looking at what they’re doing and going can we do that any better or any different?” (Interviewee I, business)</td>
</tr>
<tr>
<td>O</td>
<td>Business</td>
<td>“Just have a listen to what industry thinks and wants but then look at what opportunities will exist or do exist now and how you can build on those opportunities for future years. So those kind of things will be part of the mechanisms to actually bring that into play. But yeah it’s really early to tell you know for sure but I think you know one of the things for me is going to be especially in the first 12 months it’s all about listening and looking.” (Interviewee O, business)</td>
</tr>
<tr>
<td>O</td>
<td>Business</td>
<td>“Because I think you know we’ve got the opportunity over the next three years for the cluster to actually lay the foundation for the industry to have some sustainability and longevity for it to be you know 10 to 20 years down the track.” (Interviewee O, business)</td>
</tr>
<tr>
<td>N</td>
<td>Business</td>
<td>“By not looking at what your company’s doing today by looking at what people need and what people are doing. So a good example of this was when Facebook was floated and [XXXXXXXXXXXX] did the float and they asked me to comment on the valuation and I said the valuation was not too high. All that noise about no it’s too high and it’s not worth that much and I said it’s not too high because what’s actually happening is something that nobody’s talking about. What’s actually happening is a redefinition of the relationship between the people that make stuff and the people that use stuff. Whereas people think that the advertise in play is their end game and because Google is seen as a successful company because it makes so much money out of advertising and advertising’s been important because it’s been the only way we’ve had to let people know what we do and Google’s got the best model of doing that. The best model today of doing that. But that’s a brilliant example of yesterday. So Google’s figured out the best way of basically making you and me the target and the product for people to manipulate convince we need stuff we don’t need and try to get our money and like I said that’s not a bad thing. Businesses need to get their word out but is it a great thing? It’s not that great right?” Interviewee N (business)</td>
</tr>
<tr>
<td>N</td>
<td>Business</td>
<td>“Whereas go back to that example with Facebook. The redefinition of the relationship between the people that make stuff and the people that use stuff is a profound thing because it means that this is the death of advertising as we know it. That’s happening at the same time as two other things. So this is a long answer to your question but I think it’s the right answer to your question. So Facebook’s doing something that nobody’s noticed just yet and I projected that they’d start selling physical objects which they did their birthday things a year or so back after the float and they got into a bit more of that. So people like Amazon online and things like that are going to be, their business models are going to be threatened. But the second observation is corporates today are brilliant at understanding who you are because they’re tracking everything you do. Every time you use a credit card they know exactly what you’re spending it on who you are where you were who you were with at the time all this data I mean there’s more and more and more of it and those guys have got scientists and psychologists and all kinds of people and they all know everything about us. So whether we believe it don’t believe it its true. There was a wonderful piece in the Strategic News Service this morning it’s a wonderful news thing you should subscribe to. Interviewee N (business)</td>
</tr>
</tbody>
</table>
## Appendix 17: Technology

### TABLE 23: TECHNOLOGY

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>CATEGORY</th>
<th>TECHNOLOGY/FORESIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Business</td>
<td>“You’ve just got to surround yourself with forward thinkers and people that are sort of looking and monitoring technologies and where they’re going and all sorts of things like that. I mean there’s people around the world like you know, for example you look at Canon versus Kodak. Canon saw the very first digital camera 15 years ago before they were even thought of. It took up the size of a small office and Canon said we’re going to focus all our energies into developing that for the consumer market. Kodak didn’t. So what’s happened to Kodak? Disappeared. Now they’re struggling to have little photographic booths that you can go and put a USB in and get your digital photos done. Whereas Canon have created the high end, low end consumer cameras that everyone’s got and have become the world standard. So it’s about you know kind of seeing things and saying well I think that in 10 or 15 years’ time with a bit of R and D can be this let’s do it and that’s what they did. So it’s looking at our industry with that same kind of lens.” (Interviewee O, business)</td>
</tr>
<tr>
<td>O</td>
<td>Business</td>
<td>“No and that’s the exciting part because the great thing about the whole cluster sort of thing with [XXXXXXXXX] particularly is there’s six clusters forming at the moment and [XXXXXXXXX] is one of them which have a bunch of techo dudes that sit there and write code … So how do we get those guys and musicians in the same room? Start to think well you guys do the techy stuff we’ve got products and services that we deal with in music how can you guys bring something together to create the next iTunes? Or whatever it might be.” (Interviewee O, business)</td>
</tr>
<tr>
<td>O</td>
<td>Business</td>
<td>“So that’s going to be the exciting part I think is bringing those sort of nontraditional music focus areas together. So tech is definitely one and the thing with tech too is that it has to well music has to change to go with change because tech is so rapidly changing that if music doesn’t sort of stay on that path with it it’s going to get left behind and record companies are a classic example of that. It’s taken them, how long has iTunes been out? Five, seven years something like that? It’s taken them until now to actually realize how they can monetize the internet. It’s taken them all this time whereas the little small independent labels all went straight down the tech path are the ones that are really thriving now because they’ve gone with technology and as it’s changed they’ve developed their model because they’ve been small enough to be able to do that. So as opposed to it being sort of corporate companies so yeah it’s interesting.” (Interviewee O, business)</td>
</tr>
<tr>
<td>N</td>
<td>Business</td>
<td>“So if we get good at the science and the tech as well as the creative development and the artist development there is absolutely no reason why we can’t start leading in some areas so I think there’s a profound benefit to what the cluster could achieve for the participants if we could collaborate in a broader level than just the creative and just to be a hundred percent specific I’m not diminishing the importance of creative it’s critical and must be the focal point of this but the technology that surrounds it and the business models that are driven by that technology are the things that make it globally relevant. So we’ve got to get those things right.” (Interviewee N (business))</td>
</tr>
</tbody>
</table>
Appendix 18: Business Leximancer results

FIGURE 8: BUSINESS CONCEPT MAP

FIGURE 9: BUSINESS' LIST OF RELEVANT THEMES

<table>
<thead>
<tr>
<th>Theme</th>
<th>Connectivity</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>music</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>time</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>cluster</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>song</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>work</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>play</td>
<td>07%</td>
<td></td>
</tr>
<tr>
<td>idea</td>
<td>06%</td>
<td></td>
</tr>
<tr>
<td>market</td>
<td>05%</td>
<td></td>
</tr>
<tr>
<td>months</td>
<td>04%</td>
<td></td>
</tr>
<tr>
<td>better</td>
<td>02%</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 24: CONCEPTS INCLUDED IN BUSINESS THEMES

<table>
<thead>
<tr>
<th>THEME</th>
<th>CONCEPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>music</td>
<td>(music, industry, sound, business)</td>
</tr>
<tr>
<td>time</td>
<td>(time, live, world, year, technology)</td>
</tr>
<tr>
<td>cluster</td>
<td>(cluster, different)</td>
</tr>
<tr>
<td>song</td>
<td>(song, artists)</td>
</tr>
<tr>
<td>work</td>
<td>(work)</td>
</tr>
<tr>
<td>play</td>
<td>(play)</td>
</tr>
<tr>
<td>idea</td>
<td>(idea)</td>
</tr>
<tr>
<td>market</td>
<td>(market)</td>
</tr>
<tr>
<td>months</td>
<td>(months)</td>
</tr>
</tbody>
</table>
### FIGURE 10: BUSINESS’ LIST OF WORDS, COUNT AND RELEVANCE

<table>
<thead>
<tr>
<th>Word-Like</th>
<th>Count</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>music</td>
<td>155</td>
<td>100%</td>
</tr>
<tr>
<td>cluster</td>
<td>63</td>
<td>41%</td>
</tr>
<tr>
<td>industry</td>
<td>53</td>
<td>34%</td>
</tr>
<tr>
<td>time</td>
<td>50</td>
<td>32%</td>
</tr>
<tr>
<td>work</td>
<td>44</td>
<td>28%</td>
</tr>
<tr>
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<td>play</td>
<td>30</td>
<td>19%</td>
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<tr>
<td>live</td>
<td>26</td>
<td>17%</td>
</tr>
<tr>
<td>artists</td>
<td>26</td>
<td>17%</td>
</tr>
<tr>
<td>sound</td>
<td>24</td>
<td>15%</td>
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<tr>
<td>year</td>
<td>24</td>
<td>15%</td>
</tr>
<tr>
<td>idea</td>
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<td>15%</td>
</tr>
<tr>
<td>money</td>
<td>21</td>
<td>14%</td>
</tr>
<tr>
<td>world</td>
<td>20</td>
<td>13%</td>
</tr>
<tr>
<td>different</td>
<td>20</td>
<td>13%</td>
</tr>
<tr>
<td>song</td>
<td>19</td>
<td>12%</td>
</tr>
<tr>
<td>started</td>
<td>18</td>
<td>12%</td>
</tr>
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<td>technology</td>
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<td>11%</td>
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<td>place</td>
<td>16</td>
<td>10%</td>
</tr>
<tr>
<td>whole</td>
<td>15</td>
<td>10%</td>
</tr>
<tr>
<td>market</td>
<td>15</td>
<td>10%</td>
</tr>
<tr>
<td>months</td>
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<td>09%</td>
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<td>opportunity</td>
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<td>07%</td>
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<td>better</td>
<td>11</td>
<td>07%</td>
</tr>
<tr>
<td>day</td>
<td>9</td>
<td>06%</td>
</tr>
<tr>
<td>making</td>
<td>8</td>
<td>05%</td>
</tr>
<tr>
<td>room</td>
<td>7</td>
<td>05%</td>
</tr>
<tr>
<td>electronic</td>
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<td>04%</td>
</tr>
</tbody>
</table>
Appendix 19: Knowledge Institutions/Facilitators’ Leximancer results

FIGURE 11: KNOWLEDGE INSTITUTIONS/FACILITATORS’ CONCEPT MAP

FIGURE 12: KNOWLEDGE INSTITUTIONS/FACILITATORS’ LIST OF RELEVANT THEMES

<table>
<thead>
<tr>
<th>Theme</th>
<th>Connectivity</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>people</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>innovation</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>business</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>time</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>workshop</td>
<td>03%</td>
<td></td>
</tr>
<tr>
<td>making</td>
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<td></td>
</tr>
</tbody>
</table>

TABLE 25: CONCEPTS INCLUDED IN KNOWLEDGE INSTITUTIONS/FACILITATORS’ THEMES

<table>
<thead>
<tr>
<th>THEME</th>
<th>CONCEPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>people</td>
<td>(people, different, space, whole, industry, access)</td>
</tr>
<tr>
<td>innovation</td>
<td>(innovation, process)</td>
</tr>
<tr>
<td>business</td>
<td>(business, development)</td>
</tr>
<tr>
<td>time</td>
<td>(time)</td>
</tr>
<tr>
<td>workshop</td>
<td>(workshop)</td>
</tr>
<tr>
<td>making</td>
<td>(making)</td>
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FIGURE 13: KNOWLEDGE INSTITUTIONS/FACILITATORS’ LIST OF WORDS, COUNT AND RELEVANCE

<table>
<thead>
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<th>Word-Like</th>
<th>Count</th>
<th>Relevance</th>
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<td>people</td>
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<tr>
<td>time</td>
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</tr>
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<td>different</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>process</td>
<td>19</td>
<td>33%</td>
</tr>
<tr>
<td>space</td>
<td>18</td>
<td>31%</td>
</tr>
<tr>
<td>business</td>
<td>16</td>
<td>28%</td>
</tr>
<tr>
<td>money</td>
<td>13</td>
<td>22%</td>
</tr>
<tr>
<td>industry</td>
<td>12</td>
<td>21%</td>
</tr>
<tr>
<td>idea</td>
<td>12</td>
<td>21%</td>
</tr>
<tr>
<td>music</td>
<td>11</td>
<td>19%</td>
</tr>
<tr>
<td>research</td>
<td>10</td>
<td>17%</td>
</tr>
<tr>
<td>whole</td>
<td>8</td>
<td>14%</td>
</tr>
<tr>
<td>change</td>
<td>8</td>
<td>14%</td>
</tr>
<tr>
<td>workshop</td>
<td>8</td>
<td>14%</td>
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<tr>
<td>development</td>
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<td>network</td>
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<td>12%</td>
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<td>4</td>
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<tr>
<td>expertise</td>
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<td>0.2%</td>
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</table>
Appendix 20: Government’s Leximancer results

FIGURE 14: GOVERNMENT CONCEPT MAP

FIGURE 15: GOVERNMENT'S LIST OF RELEVANT THEMES

<table>
<thead>
<tr>
<th>Theme</th>
<th>Connectivity</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>look</td>
<td>16%</td>
<td>[ ]</td>
</tr>
<tr>
<td>research</td>
<td>15%</td>
<td>[ ]</td>
</tr>
<tr>
<td>change</td>
<td>04%</td>
<td>[ ]</td>
</tr>
<tr>
<td>time</td>
<td>02%</td>
<td>[ ]</td>
</tr>
<tr>
<td>quality</td>
<td>02%</td>
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</tr>
<tr>
<td>creative</td>
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</tr>
</tbody>
</table>

TABLE 26: CONCEPTS INCLUDED IN GOVERNMENTS' THEMES

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<thead>
<tr>
<th>THEME</th>
<th>CONCEPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>innovation</td>
<td>(innovation, cluster, involved, different, talking, important, process)</td>
</tr>
<tr>
<td>music</td>
<td>(music, development, live, business, artist)</td>
</tr>
<tr>
<td>value</td>
<td>(value)</td>
</tr>
<tr>
<td>look</td>
<td>(look)</td>
</tr>
<tr>
<td>research</td>
<td>(research)</td>
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<tr>
<td>change</td>
<td>(change)</td>
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<tr>
<td>time</td>
<td>(time)</td>
</tr>
<tr>
<td>quality</td>
<td>(quality)</td>
</tr>
<tr>
<td>creative</td>
<td>(creative)</td>
</tr>
<tr>
<td>Word-like</td>
<td>Count</td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>music</td>
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<tr>
<td>cluster</td>
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<td>innovation</td>
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</tr>
<tr>
<td>development</td>
<td>22</td>
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<td>different</td>
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</tr>
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<td>time</td>
<td>17</td>
</tr>
<tr>
<td>value</td>
<td>15</td>
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<td>business</td>
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<td>process</td>
<td>15</td>
</tr>
<tr>
<td>involved</td>
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<tr>
<td>government</td>
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</tr>
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<td>13</td>
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<tr>
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<td>change</td>
<td>13</td>
</tr>
<tr>
<td>look</td>
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<tr>
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