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Understanding the fuel of innovation

A comparative case study on the role and importance of organisational and individual knowledge in the idea generation process in high and low organisational knowledge environments

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Abstract

Title: *Understanding the fuel of innovation* - A comparative case study on the role and importance of organisational and individual knowledge in the idea generation process in high and low organisational knowledge environments

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Keywords: Front End Innovation, Idea Generation, Creativity, Knowledge, Knowledge Management, Innovation, Social Networks, Explorative Innovation, Exploitative Innovation

Research question: How does the role and importance of individual and organisational knowledge differs in the stages of idea generation in high versus low organisational knowledge environments?

Methodology: The research was conducted as a qualitative comparative case study. The research followed an abductive approach with tendencies towards a more deductive approach. The main source of collected data were semi-structured interviews. Recommendations from Gioia et al. (2013) and Eisenhardt (1989) were used to analyze the data to generate a concept and the grounded theory model.

Theoretical perspectives: To understand the context of this study, the literature of front-end innovation and idea generation was reviewed. The literature on creativity, knowledge, explorative/exploitative innovation strategies and social networks was utilized to describe the underlying concepts of idea generation.

Conclusions: Research must consider two dimensions to truly understand the idea generation process. These two dimensions are organisational knowledge environment and the specific idea generation stages. Only by considering both dimensions the complexity of this field can be reflected sufficiently. By doing that a more detailed and nuanced picture of how the role and importance of individual and organisational knowledge significantly differs can be drawn. Based on this nuanced picture it can be concluded, that the role and importance of organisational and individual knowledge in the idea generation process differs significantly. Therefore, innovation management asks for focused attention towards differentiated knowledge utilization during the idea generation process.

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1.0 Introduction

1.1 Background

"Without knowledge there is no innovation." (Case Company, 2018)

It is a common view that the economy or the 21st century is based on innovation and knowledge and that only those organisations will survive that constantly drive for and succeed in innovation. Hamel and Green (2007) argue that organisations will only achieve this by not focusing but turning the idea of innovation management into their corporate DNA. Only through this paradigm shift organisations will be able to survive in a business world where adaptability and creativity drive success.

In this notion, Cooper and Kleinschmidt (1987) recognized already 30 years ago that the front end of innovation (FEI) is a critical process to manage in order to develop successful, new, and innovative products during the new product development (NPD) process. However, although the importance of managing the FEI was discovered 30 years ago and a recent meta study confirmed the importance (Evanschitzky et al., 2012), the FEI is due to its complexity and variety "*yet not fully understood*" (Eling and Herstatt, 2017). However, in order to manage innovation, innovation processes such as the FEI must be understood in terms of its underlying concepts, principles and processes.

The FEI itself starts with the discovery of an opportunity or raw idea and ends once there is a "Go" decision to move the idea into the formal NPD process (Eling and Herstatt, 2017; Van Oorschot et al., 2017). The FEI consists of a range of activities such as opportunity/ problem identification, analysis, market and technology analysis, idea generation, testing, requirement definition, project planning and risk analysis (Eling and Herstatt, 2017). However, although the activities within the FEI context are manifold, the idea generation activity is the most crucial. This is based on the fact, that the idea generation process ultimately feeds the innovation funnel with a continuous flow of ideas which are necessary for continuous and sustainable innovation results (Kurkkio et al. 2011). Subsequently, firms that are better at identifying, generating and recognizing ideas gain a

significant competitive advantage (Francis and Bessant, 2005). Summarized, ideas are the fuel for innovation and the root of innovation can always be traced back to the idea generation phase of the FEI.

However, and coming back to the need of companies for innovation management, the idea generation process is often poorly managed (Frishammar et al., 2016). The inability to manage the idea generation process can once again be traced back to the fact, that its underlying concepts and activities are still not well understood (Frishammar et al., 2016). Until now the idea generation process plays only a minor role in the NPD literature, despite its recognized importance (Kock et al., 2015). Page and Schirr (2008), for instance, have found in their study that only 5% of the identified innovation literature has addressed the topics of ideation and creativity. Therefore, shedding light on how firms can successfully manage the idea generation process is theoretically as well as practically relevant (Lyles, 2014). In order to get these insights on how to better manage the idea generation process, one must consider that idea generation is essentially a process mastered by individuals, since employees are the fundamental drivers of ideas (Rietzschel et al., 2010; Birdi et al., 2014). Furthermore, knowledge as the foundation of innovation (Grant, 1996) is crucial to consider when trying to understand the idea generation process in detail, as described in the following chapter.

1.2 Problem formulation

Since the context of this study is the idea generation, firstly the idea generation framework of Akbar and Tzokas (2013) will be utilized to define the idea generation activities. Akbar and Tzokas (2013) divide the idea generation process into four stages, namely *initial idea generation*, *idea evaluation*, *idea expansion*, and *idea refinement*. Based on the definition of Akbar and Tzokas (2013) the idea development ends, once an raw idea based on an identified opportunity was developed into a workable and practical concept, e.g. a product definition.

However, in order to draw a full picture of the idea development process not only the activities but especially the role of knowledge throughout the idea development process must be considered (Grant, 1996). In order to achieve this, the study is building upon the knowledge-based view (KBV) concept since it essentially describes how knowledge ownership and coordination is

affecting the firm`s performance, including the innovative performance (Grant, 1996). One main concept of the KBV theory in terms of knowledge characteristics is crucial for this study, namely ownership of knowledge. Ownership of knowledge determines if the knowledge is possessed on an individual level or an organizational level (Grant, 1996).

This differentiation of organisational knowledge is important since literature shows that individual and organisational knowledge impact the idea generation process of individuals in different ways. This impact has been described in literature from mainly two perspectives.

One part of literature describes how organisational and individual knowledge impact the single stages of idea generation. There is a common view, that each stage profits differently from organisational and individual knowledge. Individual knowledge is considered as the main driving force in stages which require to generate and expand ideas through divergent thinking (Akbar and Tzokas, 2013), for instance by providing highly specialized fields of professional knowledge (Leiponen, 2006). However, for stages which screen the idea and ensure their implementation, such as the evaluation and refinement stage, organisational knowledge proved to be dominant and the main driving force compared to individual knowledge (Akbar and Tzokas, 2013). The organisational knowledge provides in these stages for instances context in terms of guidelines, rules and expected work outcomes (Grant, 1996; Gilson et al., 2005).

The second significant part of the literature has researched the role of individual and organisational knowledge for idea generation in the environments of low organisational knowledge, e.g. explorative innovation strategies, and high organisational knowledge, e.g. exploitative innovation strategies. In the context of low organisational knowledge environments, studies showed that the individual knowledge should play a dominant role, while organizational knowledge should only take a secondary, supportive role throughout the idea development process to allow novel ideas not being hold back by organizational knowledge biases (Lin et al., 2017; Roper and Hewitt-Dundas, 2015). Contrary, in environments of high organisational knowledge literature states that it is of significant benefit for the company if the organisational knowledge takes the dominant role and individual knowledge only plays a secondary role throughout the idea development process (March, 1991; Eisenhardt and Martin, 2000; Lin et al., 2017). The benefit are for instance reduced cost of learning and avoidance of experimentation failures in these cases (March, 1991).

However, if one combines these two views of literature on idea generation it becomes apparent that they are not compatible and for some stages even opposing. These opposing views are marked by a red "X" in *Figure 1*. For instance, the expansion phase should be mainly driven by individual knowledge according to literature on idea generation processes. However, if the generate stages takes place in a high organisational knowledge environment, this stage, just like the other three stages, should be dominated by organisational knowledge according to literature of high organisational knowledge innovations.

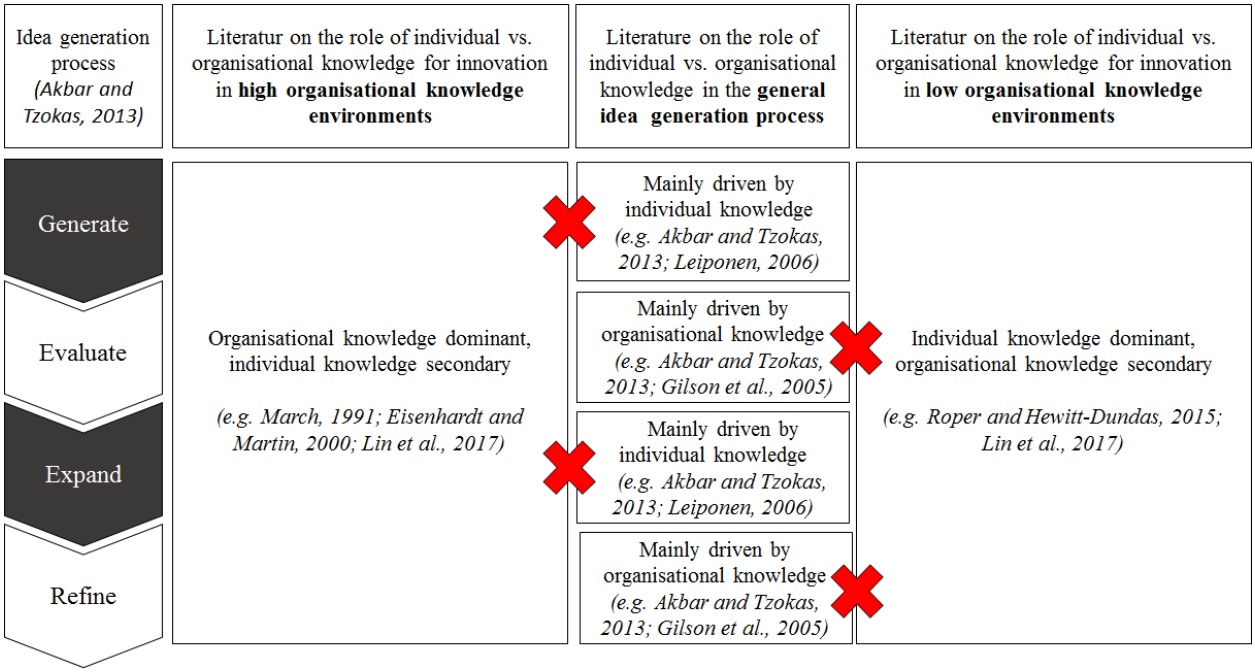

Figure 1: Conceptualized problem formulation

This contradiction of views and studies could have several reasons. Firstly, one of these general views could be simply proven wrong when investigating the idea generation process in detail in the context of high and low organisational knowledge environments, e.g. the expansion stage might not be driven by individual knowledge in high organisational environments. Secondly and building up on the first point, it might be that current literature generalized and simplified the idea development process too much and was therefore unable to recognize important differences between the diverse stages in high and low organisational knowledge environments. Thirdly, current literature mentions the supportive role of individual and organisational knowledge vice

versa, however, does not explain these roles in detail. The contradictory views might be able to be better aligned by describing these secondary, supportive roles better.

1.2.1 Research question

Therefore, in order to investigate, understand, and explain the described inconsistency in current literature this study will be guided by the following research question:

How does the role and importance of individual and organisational knowledge differs in the stages of idea generation in high versus low organisational knowledge environments?

Since employees are the fundamental drivers of ideas (Rietzschel et al., 2010; Birdi et al., 2014), this research question will investigate the idea generation on an individual level.

1.3 Research purpose

By addressing the research question above this study will contribute on several levels to the literature of idea generation and FEI. Firstly, by investigating each stage of the idea generation process in detail within the context of high and low organisational environments this study will add to previous literature a more nuanced, completed, and differentiated picture of the role of individual and organisational knowledge in the idea generation process. This detail level of the study will be further supported by literature on creativity and social networks to provide an even more comprehensive picture.

The contrary views on the idea generation process in terms of organisational and individual knowledge impact underline Frishammar et al.`s (2016) argument, that the underlying concepts of idea generation are still not well understood, i.e. that there is a literature gap. Therefore, this more comprehensive picture gained by this study will be a general add to the underrepresented ideation literature (Page and Schirr, 2008) in the FEI context, but will more specifically help to resolve the two presented contrary views on idea generation in terms of organizational and individual knowledge roles during the idea generation process. This first purpose will be eventually achieved

by designing a comprehensive framework for the idea generation process based on the empirically collected data.

Secondly, this study will be of help for practitioners by providing a better understanding how organisational and individual knowledge impact the idea development process. This is of value to firms in order to generally better manage the idea generation. But also, for instance, to improve the basis for better investment decisions in organisational knowledge. The development of organizational knowledge is costly and time intensive, which often results in a situation where organizations choose to not invest, since the uncertainty of return of investment is too high (Leiponen, 2006). By providing a better understanding how organisational knowledge impacts the idea generation, this study improves therefore the knowledge basis for better investment decisions in organisational knowledge.

1.4 Case company

The case company for this study is a leading global media company operating in fifteen countries. The vision of the company is to reinvent their media appearance to face the challenges of disruption that have hit the industry as a result of digitalization. To face these challenges innovation has been declared as a key pillar of the strategy to make up for revenue losses. Similar to other companies, innovations inside and outside the core business are crucial for future survival. To facilitate this transformation an innovation program has been established only focusing on producing new products and services.

The context of this study will be based on this innovation program. Since this study is investigating the role and importance of organisational and individual knowledge in high and low organisational knowledge environments the case company is a unique study object. This is because the idea generation of new products took place under the very same conditions, with different levels of organisational knowledge being the only differentiation between the projects. Projects operating in high organisational environments are considered to be close to the core, yet, new to the company. Projects operating in low organisational environment are on the other hand considered as outside of the core innovations. Furthermore, the study provided a good foundation to

investigate this on an individual level since the case company have an individualistic approach to the idea generation where one business developer has been responsible for moving the idea through all four stages of the idea generation.

2.0 Literature review

The following chapter will present the relevant literature within the fields of this research. An introduction to the front-end literature will be followed by a more detailed description of the idea generation process. Based on this, the three underlying concepts of idea generation will be discussed, namely creativity, knowledge, and network.

2.1 Front end innovation

The term "front-end" describes the early phase of the innovation process and takes place before the formalized NPD process. In general, the "front-end" activities include opportunity identification, idea generation and evaluation, and new product/ service concept formulation (Brentani and Reid, 2012; Khurana and Rosenthal, 1998; Koen et al., 2001).

The "front-end" has been subject to numerous studies, both from practitioners as well as researchers. This interest in the "front-end" process can be traced back to the fact that the process is still not well understood, especially compared to the well-researched and understood NPD process (Barczak et al., 2009; Brown and Eisenhardt, 1995; Cooper, 2008). However, a better understanding of the front-end would be of great benefit for two major reasons.

Firstly, it is widely acknowledged that a high percentage of NPD projects tend to fail. The failure often occurs in the last stage of the development process or in a later commercial stage, after significant development investments has been taken (Cooper, 2008). However, the initial reason for failure can be often traced back to the front-end processes and outcomes, due to the lack of well-developed ideas entering the NPD (Koen et al. 2001). Improving the understanding of the front-end processes would therefore reduce failure in the later NPD process.

Secondly and complementary to the first point, studies have shown that pursuing appropriate activities in the front-end can result in the biggest savings at the least cost throughout the overall innovation process (Reid and de Brentani, 2012; Verworn, 2006).

However, prior literature has not yet given a clear and common description of the front-end process (Florén and Frishammar, 2012), which has led to a certain disagreement on how to manage the FEI efficiently. Kim and Wilemon (2002), for instance, state that the front end starts with the surfacing of an opportunity for innovation and ends with a decision to either approve or disapprove a formal product development project (Khurana and Rosenthal ,1998; Verworn, 2006). Koen et al. (2001), in a similar notion, describe opportunity identification/analysis, idea genesis, idea selection and concept development as the main activities of FEI.

2.2 Idea generation process in detail

However, although there is no common definition of the FEI, it is widely accepted in literature that within the FEI process the idea generation stage embodies a crucial role. This is based on the fact, that the idea generation process ultimately feeds the innovation funnel with a continuous flow of ideas which are necessary for steady and sustainable innovation results (Kurkkio et al., 2011). Schroeder et al. (2000, p. 108) explain this importance by arguing that ‘‘the process of innovation centers on the temporal sequence of activities that occur over time in developing and implementing new ideas from concept to concrete reality.’’ Subsequently, firms that are better at identifying, generating, recognizing and ultimately implementing ideas gain competitive advantage (Francis and Bessant, 2005).

Due to this importance within the FEI process, the idea generation process has been subject to numerous research studies. They aimed at conceptualizing and improving the understanding of the idea generation process and have resulted in a wide variety of idea generation process definitions and concepts, which we will presented in the following.

Kornish and Hutchison-Krupat (2016) define ideas as solutions to problems, whether this might be discrete, enumerated, or descriptions of solutions. However, they also note that the word idea has different outcomes in different areas of innovation. Ideas can be for example concepts for new products, solutions for organizational issues, or potential methods on how to improve existing

processes. Furthermore, idea generation takes place in many ways throughout products, processes, reinventions of business models or the positioning of the firm (Francis and Bessant, 2005). This variety of outcomes might also be a reason why prior literature has not yet been able to fully conceptualize the idea generation process.

Despite these issues of conceptualizing, there are two recent concepts of the idea generation process, which are widely accepted and generalized despite the variety of outcomes. They come from Koen et al. (2001) and Florén and Frishammar (2012). Koen et al. (2001) define the idea generation process as developing an opportunity into a concrete idea. This idea may go through several iteration steps as it is further developed, refined and detailed. They describe the idea generation process as an iterative process in which an idea is examined, studied, discussed and further developed. Florén and Frishammar (2012) argue that the idea generation process develops and refines a recognized opportunity (or "idea") into a product concept and later on into a product definition. This transformation process is achieved through iterative refinement and screening activities.

However, in the context of this paper Akbar and Tzokas` (2013) framework of the idea generation process will be utilized, since it provides more detailed insights into relevant activities within each stage of the idea generation process. They argue that the critical activities performed in the idea generation process consist of generating new raw ideas, evaluate these ideas, expand on them and finally refine the ideas. The framework of Akbar and Tzokas (2013) originally consists of another stage called "implementation", however, since this study is solely investigating the idea generation but not the implementation of ideas, we will not further consider this stage. In order to explain in detail what activities are performed at each stage the process transformation framework by Florén and Frishammar (2012) of iterative refinement and screening activities will be added to this idea generation framework. The refinement and screening activities polishes a recognized opportunity (or "idea") into a product concept and later into a novel product definition. With other words, these activities are the underlying force that will move the idea through the generation, evaluation, expansion and refinement phase as described by Akbar and Tzokas (2013). In order to get the most comprehensive picture and understanding of the idea generation process, we will combine these two frameworks (*Figure 2*). However, it needs to be clarified that the refinement activities from

Florén and Frishammar (2012) and the refinement stage of Akbar and Tzokas (2013) do not have the same meaning as we will elaborate on in the following paragraphs.

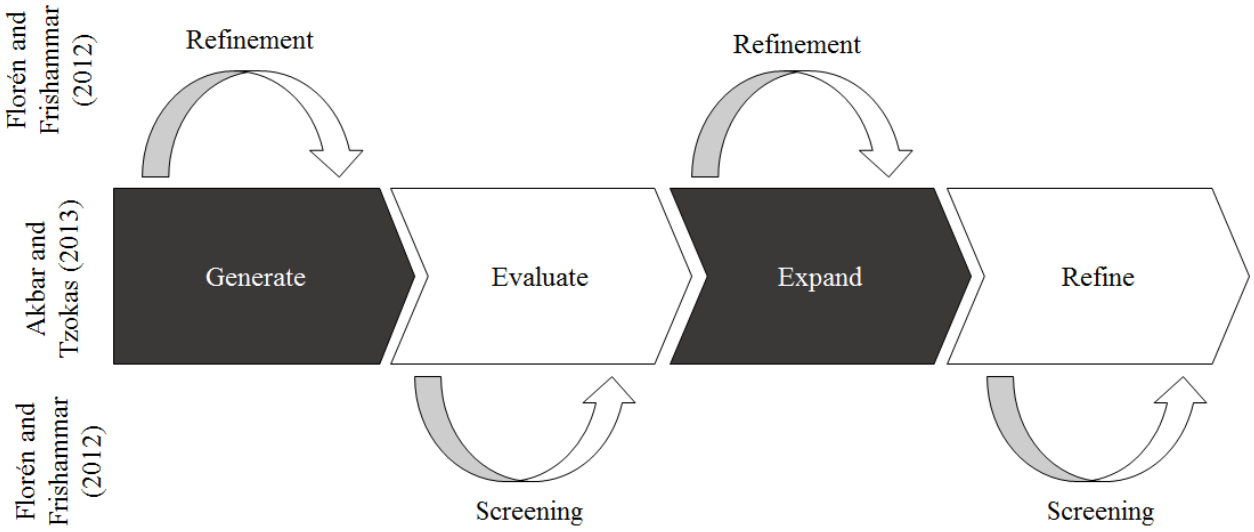

Figure 2: Combination of Akbar and Tzokas (2013) framework and Florén and Frishammar (2012) concept of refinement and screening

Refinement activities are the force that pushes ideas forward into a product concept and later into a product definition. The refinement process aims to collect reliable information, e.g. information about changes in technology, markets, competitors and customers. Refinement gives opportunities/ ideas/ concepts key technical contents, energy and direction. Furthermore, the refinement activates are characterized by experiments and trial and error. Features of this work are often qualitative, informal, and approximate rather than quantitative, formal, and precise. Screening activities, on the other hand act as a control on the development of product ideas by means of assessment and evaluation. The screening activities ensure that ideas and concepts satisfy market needs, are technical feasible, add value to the firm and fit with the business strategy. The screening process evaluates the information in terms of correct product attributes and customer benefits. Subsequently, it determines if and how an idea should be further developed. A key activity is screening in terms of its business propositions and financial profitability (Florén and Frishammar, 2012).

In terms of the four stages, the initial generation of new raw ideas starts when an opportunity worth investigating further has been identified (Akbar and Tzokas, 2013). The activity undertaken at this stage is characterized by refinement activates. Relevant information is collected, for instance, by trend analyses and interaction with customers/experts. Techniques such as brainstorming and brain writing are common features of this stage to explore and generate ideas based on the collected information (Florén and Frishammar, 2012). The output of this stage is the shape of new raw ideas (Akbar and Tzokas, 2013).

The raw ideas then progress into the evaluation stage of the idea generation process (Akbar and Tzokas, 2013). This evaluation stage is in line with the screening concept defined by Florén and Frishammar (2012). The initial screening, for instance, evaluates the ideas in relation to the market, competitive environment, technology assessment, customer needs and existing business models, product and services (Bacon et al., 1994, Khyrana and Rosenthal, 1998). Moreover, this initial screening intends to generate insights on if the ideas should be further developed or not, and this selection decision also represent the output of this stage (Akbar and Tzokas, 2013).

The selected ideas then move into the expansion phase. The expansion phase aims at amplifying the features and application of ideas (Akbar and Tzokas, 2013). Activities within the expansion phase are once again characterized by refinement activities (Florén and Frishammar, 2012). More in depth information are being collected in terms of technology, markets, competitors and customers. Experiments are often carried out in order to set the technical content, energy and direction for further development. The activities are rather qualitative, informal and approximate (Florén and Frishammar, 2012). Focus groups, brainstorming and mapping customer journey could for example be performed to generate ideas and directions based on the collected information to amplify the features. The output of this stage represents an extended scope of the idea such as new applications and features (Akbar and Tzokas, 2013).

Lastly, the idea reaches the refinement stage to modify and prune the idea and transform it into a workable, practical and deliverable concept (Akbar and Tzokas, 2013). It could, for instance, include a statement of customer benefits, information about target markets, product specifications and product and technology requirement to produce the product (Montoya-Weiss, 2000).

Furthermore, feasibility and financial profitability analysis are two key activities that should be performed at this stage (Khurana and Rosenthal, 1997; Florén and Frishammar, 2012). The more in-depth screening will result in an improved and refined idea aligned with organisational resources and operations. This refined idea in shape of a concept represents the output of the refinement stage (Akbar and Tzokas, 2013).

To conclude, the idea generation process ends once the product idea, which represents a possible and feasible solution to the problem or recognized opportunity has been captured in a concept (Akbar and Tzokas, 2013). At this point, the conceptual gap between an identified opportunity and the definition of the idea/solution subsequently has been minimized by the refinement and screening activities (Florén and Frishammar 2012).

2.3 The role of creativity within the idea generation process

To fully explain the idea generation process, an explanation of the cognitive constructs and sub processes on an individual level are needed to understand how these novel ideas are being developed over time (Amabile, 1998). The first researcher who described this cognitive process as a creative process, was Guildford (1950) in his landmark address to the American Psychological Association. The definition of creativity from Guilford (1950) as a problem-solving process, that involves divergent and convergent processes will be adopted in this research for two reasons.

Firstly, the idea generation process is widely described as a problem-solving process (Runco and Chand, 1995; Frishammar et al., 2016). Secondly, the concept of divergent and convergent thinking is comparable to our definition of idea generation process, which involves idea refinement and screening activities (Florén and Frishammar, 2012). Therefore, the concept of Guildford (1950) is complementary to our definition of idea generation and adds insights to the underlying cognitive processes contributing to novel and useful ideas.

The underlying cognitive constructs and sub processes of divergent thinking is characterized by coming up with multiple or alternative ideas and solutions to a problem (Cropley, 2006). The

individual must make unexpected combinations, identify links between remote topics, and transform information into novel forms. This is done by gathering information, recombining mental categories of information, format links among those categories and transfer one category from one domain to another (Ward et al., 1999). Different possibilities, associations and interpretations are explored and put into the context of the problem (Dacey, 1989). Baron (2006) described this process as "connecting the dots", although he did not explicitly refer to it as divergent thinking. The divergent thinking process could also be described as a funnel, which opens up from a specific starting point (in the context of problem solving for example with a narrowly defined problem) and results in a broad number of novel ideas or solutions, which need to be screened, evaluated, and further refined in a subsequent step (Cropley, 2006).

This screening, evaluation and refinement activities are represented by convergent thinking. It aims to identify the single best (or correct) answer to a clearly defined question or problem (Cropley, 2006). Cropley (2006) describes convergent thinking as a process which is characterized by speed, accuracy, and logic. It is focused on recognizing the familiar, reapplying proven techniques, and collecting information for analysis. Consequently, convergent thinking starts with a broad set of ideas and subsequently narrows down the scope but is at the same time increasing the level of detail and quality. Both positive and negative aspects of the proposed solution or idea will be evaluated in order to select the most promising idea for future development (Basadur and Finkbeiner, 1985).

By applying the concept of divergent and convergent thinking to the framework proposed by Akbar and Tzokas (2013), the role of creativity for each stage of the idea can be explained in detail.

The initial phase of generation new raw ideas, as described in the previous chapter, is characterized by refinement activities. Thus, divergent thinking is performed at this stage. The information collected, based on for example trend analysis and customer/expert interaction are used as a foundation to make unexpected combinations and identify links between different topics to transform the information into novels form. The result is the shape of new raw ideas, and multiple or alternative solutions to the problem (Akbar and Tzokas, 2013; Cropley, 2006).

When the multiple raw ideas or potential solutions to the problem have been identified with help of divergent thinking the ideas will be evaluated (Akbar and Tzokas, 2013). The evaluation is based on convergent thinking and follows a more logical reasoning (e.g. analysis of competitive environment, technology assessment and market size) to identify the ideas with most potential to solve the problem (Cropley, 2006). It will investigate both positive and negative aspects to each idea and subsequently narrows down the scope to ensure detail and quality of each proposed idea (Cropley, 2006). The convergent thinking will enable the selection of the most promising ideas for further development (Akbar and Tzokas, 2013).

When the most promising ideas have been selected, the ideas reach the expansion phase (Akbar and Tzokas, 2013). Once again, the funnel opens up and multiple ideas and solutions are generated by divergent thinking to increase the novelty of the ideas (Cropley, 2006). Qualitative, informal and approximate information are gathered which enables new connections and combinations to be done in order to create new ideas for example in terms of features and applications of the idea (Cropley, 2006; Akbar and Tzokas, 2013). This result is a new set of ideas that needs to be evaluated.

The new idea will then be modified and pruned to make it workable, practical and deliverable in the refinement stage (Akbar and Tzokas, 2012). Convergent thinking is applied to identify the best answer to the problem to enable the identification of the most promising ideas (Cropley, 2006). This is done, for example, by activities such as analysis of target market, product specifications and technology assessment (Montoya-Weiss, 2000). Accuracy and logic reasoning successively narrows down the scope, to propose final adjustments before the final product idea has been identified (Akbar and Tzokas, 2013).

To summarize, the individual creative process is the underlying force of the idea generations that ultimately drives the evolvement of the identified opportunity into a feasible idea. The cognitive process of refinement and screening activities presented by Florén and Frishmmar (2012) could further be explained and understood as the creative process of divergent and convergent thinking. As described, divergent thinking is ultimately about transforming and connecting new and existing knowledge. Convergent thinking on the other hand is about making sense of knowledge and ideas

to narrow down the scope of the generated ideas. Therefore, the role of knowledge during the idea generation needs to be considered to set the basis for fully understanding the idea generation process.

2.4 Role of knowledge within the idea generation process

In order to describe the role of knowledge within the idea generation process, this study will draw upon the knowledge-based view of a firm. In its essence the knowledge-based view (KBV) states, that a firm's knowledge is its single most important resource to achieve competitive advantage and generate innovation (Grant, 1996). Furthermore, the KBV states that innovation is the result of novel knowledge combinations, either from existing or new knowledge (Grant, 1996).

The study will build upon this framework since it essentially describes how knowledge coordination and ownership within an organisation impacts the performance of a firm, including its innovative performance (Grant, 1996). In more detail, to describe the role of knowledge in the idea generation process it is of importance to consider two crucial assumptions of the KBV-concept:

1) Knowledge can either be possessed on an individual or on an organizational level
2) Knowledge differentiates in terms of explicit and tacit knowledge

The presented literature will provide a sharp distinction between organisational and individual knowledge, respectively tacit and explicit knowledge and their different roles in the idea generation process. The researchers have been aware of the fact that this distinction in knowledge cannot be that polarizing in reality. However, in order to analyze the different roles of individual and organisational knowledge it is necessary to make a clear distinction.

Firstly, ownership of knowledge refers to the question if an individual holds the relevant knowledge or if it is hold by the organisation. This differentiation is important since it determines who can access and utilize the knowledge. If knowledge, for instance, is incorporated on an

individual level the organization cannot utilize this knowledge unless the individual pro-actively shares it with the organization (Leiponen, 2006).

Secondly, the knowledge type describes if knowledge is available in tacit or explicit form. Tacit knowledge is characterized by subjective insights, intuitions, and skills that can be hardly put into words or figures (Teece et al., 1997). It is therefore difficult to communicate unless it is described through story-telling approaches or direct interactions. This means in turn that tacit knowledge is also characterized by a high cost of transfer and sharing (Leiponen, 2006). Explicit knowledge on the other hand can be codified into numbers and words, e.g. it can be written down in documents (Nonaka et al., 1998). Therefore, explicit knowledge is easier to share within organizations than tacit knowledge (Akbar and Tzokas, 2013).

Based on these concepts this study adapts the definition of organizational knowledge in its explicit form as written down processes, intellectual property, documents, knowledge-sharing systems, and patents (Smith, 2001). In its tacit form it is defined as a collective understanding how individual operations fit together (Leonard and Sensiper, 1998) and joint routines and processes (Leiponen, 2006), which primarily exist in the head of each team member (Leonard and Sensiper, 1998). Furthermore, it includes intangible core competencies of an organisation, which are embedded in organisational knowledge and processes (Whitehill, 1997).

Individual knowledge is defined in its explicit form as professional “know-what”, which can be gained through, for example, education, books, internet research or other easily accessible sources (Nonaka et al., 1998). Individual knowledge in its tacit form is defined as experience (professional and personal) which is the base to individual expertise, skills and intuition (Leiponen, 2006).

Both dimensions of knowledge (type and ownership) are important to describe the idea generation process since they impact the innovative idea generation process in different ways.

The differentiation in terms of type of knowledge is important because studies have shown that explicit and tacit knowledge give the idea generation process different directions. For instance, Hargadon and Fanelli (2002) have shown that tacit knowledge is associated with novel ideas, which deviate from existing patterns to explore new possibilities. Furthermore, Leonard and

Sensiper (1998) argue that the more innovative a product is, the more tacit knowledge is utilized and generated. Furthermore, Akbar and Tzokas (2013) found in their empirically study that tacit knowledge generates, evaluates, expands and integrates new ideas, whereas explicit knowledge is rather used to refine and crystalize new knowledge. In addition to that, Akbar and Tzokas (2013) argue that explicit knowledge is used only very limited in the early phases of idea generation, but becomes increasingly important in later stages, such as the evaluation phase.

Also, the ownership of knowledge has different roles and impacts within in the idea generation process. Individual knowledge has proven to be of significant importance in stages, which require to generate or expand ideas in creative ways (Akbar and Tzokas, 2013). This can be traced back to the individuals` tacit and explicit knowledge which provide highly specialized fields of professional knowledge (Leiponen, 2006). For instance, to identify and develop technical solutions within the idea generation process. Summarizing, the individual knowledge plays an important role to generate new ideas and acquire new knowledge. However, the individual knowledge alone may not lead to innovative new ideas (Subramaniam and Youndt, 2005). In order to prevent a too limited focus on only discovering new ideas, but not further refine and develop those, it is necessary to tap into existing organizational knowledge and routines which will ensure the screening and implementation of new ideas and knowledge (Lin et al., 2017).

For instance, Gilson et al. (2005) have shown that a high standardization within the work environment through processes, i.e. organizational knowledge, promote creativity and that joint routines increased flexibility and adaptation (Feldman and Pentland, 2003), all of which are important skills during the idea generation process. In more detail, organizational knowledge is needed to provide individuals a context within they are creating new knowledge, while applying existing knowledge to their work (Gilson et al., 2005). This context provides individuals for instance with information of firm`s guidelines, rules, and expected work outcomes (Grant, 1996) to create a focus on innovation areas, which are potentially value contributing to the firm. Furthermore, organisational knowledge is especially valuable when ideas have to be screened or evaluated, which require instrumental and practical skills as well as a certain degree of objectivity (Akbar and Tzokas, 2013). Furthermore, organizational knowledge facilitates the creative idea generation process with a heterogeneous, but at the same deep knowledge base (Leiponen, 2006).

To conclude, based on current literature individual knowledge primarily takes the role of generating and exploring new ideas, whereas organizational knowledge is predominantly responsible for providing context to the idea generation process and the ability to screen and implement new ideas and knowledge. Consequently, if a firm relies too much on individual knowledge and ignores the organizational knowledge within the idea generation process, it might gain numerous new ideas and knowledge. However, it will most likely fail to integrate these new ideas and knowledge with existing knowledge and subsequently fail to capitalize them (Reed et al., 2006).

Moreover, in the context of generating novel and useful ideas, it is important to consider also the potential downside of organizational knowledge. Organizational knowledge is by nature biased towards existing knowledge in the organization, for instance embodied in memory, routines, and archives (Huber, 1991). Meaning in turn, that new ideas might be discarded because they contradictory or are only hardly to combine with the existing organizational knowledge. Despite this downside it is still valid that organizational knowledge is needed within successful idea generation processes.

2.4.1 Role of organizational knowledge level in the context of explorative and exploitative innovation strategies

This research is investigating the role and importance of organisational and individual knowledge in the idea generation process under considerations of high and low organisational knowledge environments. To describe these different organisational knowledge environments, the context of explorative and exploitative innovation strategies will be utilized since they represent low respectively high organisational knowledge environments. This study does not aim at investigating explorative and exploitative innovation strategies, however, it will act as inspiration to understand the role of knowledge in the idea generation in different knowledge environments.

March (1991) described in his influential framework of innovation strategies exploration as activities "captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, innovation" and exploitation as activities characterized by terms like "refinement, choice, production, efficiency, selection, implementation, execution". In more operational terms, firms who pursue an explorative innovation strategy aim for new knowledge and develop novel services and products for emerging markets (Benner and Tushman, 2003; Jansen et al., 2006). Explorative activities include the development of new organizational structures and routines and experiments towards new technologies, business process or markets. Furthermore, the orientation has a clear focus on innovation and long-term return. Also, an explorative strategy requires questioning status-quo and reconsider past decisions (Mom et al., 2007). Firms pursuing an exploitative innovation strategy, on the contrary, utilize existing knowledge assets and focus on improving and extending existing services and products (Benner and Tushman, 2003; Jansen et al., 2006). These exploitation activities include refining existing knowledge (Levinthal and March, 1993) or utilizing, further developing and extending existing competencies, technologies, processes and products (March, 1991). Furthermore, the activities have a production and rather short-term characteristic (Tushman and O'Reilly, 1996).

Both strategies, exploitation and exploration, are characterized by different levels of organizational knowledge. As mentioned before, an exploration strategy depends heavily on acquiring new knowledge in order to create novel and potentially disruptive ideas (Henderson and Clark, 1990). Therefore, a high level of organizational knowledge, in terms of becoming the dominant logic of a firm, is hampering the innovation process. This is due the biased characteristic of organizational knowledge towards existing knowledge (Huber, 1991). For instance, Roper and Hewitt-Dundas (2015) found in their study that the size of patent stocks, as a measure of organizational knowledge, has a negative impact on the innovation output of plants. They argue that this high level of organizational knowledge has potentially created negative path-dependencies, core-rigidities or search myopia in the firms. Furthermore, Lin et al. (2017) found in their study, that organizational knowledge should only play a secondary or supportive role within the context of an explorative strategy. The individual knowledge must play the dominant role to create truly explorative new ideas, since individual knowledge is considered as the main origin of creativity and scientific understanding (Chen et al., 2009; Tzabbar et al., 2008). Moreover, as individuals gain new

knowledge they will increase their competencies to develop new ideas and solve complex problems (Hatch and Dyer, 2004; Hill and Rothaermel, 2003; Subramaniam and Youndt, 2005). Lastly, Lin et al. (2017) reinforces the necessity of a dominant individual knowledge by arguing for the biased nature of organizational knowledge, which will make it likely to miss promising channels to explore and acquire new knowledge and ideas.

Contrary, exploitation strategies explicitly build up on existing organizational knowledge and focus on proven routines and processes. The organisation`s activities are centered around what has proven useful based on previous experiences (Lyles and Mitroff, 1980) and what is highly linked to existing organisational knowledge (Martin and Mitchell, 1998). Katila and Ahuja (2002) argue that organisation focus on organizational knowledge in these situations is due to the fact that organisational knowledge is considered as more reliable when it is used for structured and recurrent activities. This approach comes with several advantages like familiarity in terms of knowledge area, reduced cost of learning, and avoidance of experimentation failures (March, 1991). Eisenhardt and Martin (2000), for instance, argue that employees are being repeatedly exposed to familiar ideas when working in the context of high organizational knowledge, which in turns increases the chances that individuals find ways to improve and further develop these familiar ideas. Lin et al. (2017) conclude in their study that an optimal exploitation strategy relies on dominant organizational knowledge, which is supported by individual knowledge in a secondary role. Moreover, Lin et al. (2017) argue that the effectiveness of exploitative strategies depends more on utilizing preexisting organisational knowledge than the ability to explore new technologies and knowledge.

To conclude, an explorative innovation strategy benefits from a low level of organizational knowledge to avoid negative influences like path-dependency, core rigidities, and search myopia, which eventually prevent new knowledge acquisition and novel ideas. Contrary, an exploitative innovation strategy benefits from a rather high level of organizational knowledge, since it increases the effectiveness and efficiency when further developing and refining existing ideas, products, and services. Nevertheless, there is a common understanding that both knowledge areas are needed, although on a different level within both innovation strategies. However, the innovation and in specific idea generation process is a complex process with a variety of different activities (Florén

and Frishammar, 2012). Therefore, a more nuanced description of organizational knowledge levels within these processes is needed. For instance, does organizational knowledge play only a supportive role throughout all activities of the idea generation process within a high organisational knowledge environment? Or are there specific activities which would benefit from a high organizational knowledge? Current literature does not provide sufficient answers to that.

2.5 Role of social networks in the idea generation process

In close relation to knowledge concepts, this research considers social networks as a complement to organizational and individual knowledge, since knowledge can also be gained through social networks. This is because innovation by nature is a social and communicative process and has the potential to stem from all sources where information and knowledge can be found (Bergendahl and Magnusson, 2014). This social and communicative process includes the interaction with other colleagues and external parties to acquire and create new knowledge (Howells, 2002). In general terms, inputs from other individuals are considered valuable to guide and improve the generation of novel and useful ideas to "share expertise and knowledge in free-flowing, creative ways that foster new approaches to problems'' (Wenger and Snygder, 2000).

However, it has also been shown that the role and function of social network differs depending on the different stages of the idea generation process. This insight highlights that organizations need to address the role of social networks in their idea generation activities in more detail (Bergendahl and Magnusson, 2014). Consequently, the different functions of the network ask for different strategies based on the objectives of receiving and acquiring specific knowledge (Ohly et al, 2010).

To put this in the context of the study and the framework presented by Akbar and Tzokas (2013), the activities presented by Florén and Frishammar (2012) in terms of refinement and screening activities will be used to explain the different roles of the social network in the idea generation process.

In the stages characterized by refinement activities (e.g. generation and expansion) the role of social network involves the communication and interaction with other colleagues and partiers. The individual shares his or her knowledge (i.e. idea) to receive valuable input. This includes building

up on others knowledge and might result in a changed direction of the development to increase the novelty and usefulness of an idea (Ohly et al, 2010). This input includes for instance, new perspectives and specialized task knowledge (Madjar, 2008) to foster the divergent thinking of the individual.

In the stages which are characterized by screening activities and convergent thinking (e.g. evaluation and refinement) the social network is rather utilized to get a sense of what people consider valuable as a way of evaluating and validating an idea (Binnewies et al., 2007). Moreover, an approval from others in the organisation for an idea will ensure the needed support to facilitate the transformation towards implementation of the idea (Rost et al., 2007). This is especially true for more radical innovations, for which political support and sponsorship are even more important to successfully implement innovations within the existing organization. Moreover, it has also been discovered that for more radical innovation, internal support will result in faster product developments (Eisenhardt and Tabrizi, 1995).

To conclude, for stages characterized by refinement activities and divergent thinking it is substantially more important to use the network to receive specialized or unique knowledge. Furthermore, different perspectives in stages characterized by screening activities and convergent thinking are more important in order to validate the idea and gain the political support by creating strong ties to influential people in the organization (Ohly et al, 2010).

3.0 Methodology

3.1 Research approach and purpose

3.1.1 Epistemology and ontology

This study essentially investigates the role and importance of organisational and individual knowledge within the context of idea generation and different levels of organizational knowledge environments. Especially the idea generation process of individuals has to be viewed as a social construct since the case participants will be influenced by culture, objectives, structures and leadership (Bryman and Bell, 2011). Therefore, the epistemological position known as interpretivism will be applied to the study to enable an analysis based on their own words, concepts and terms to understand their interpretation of the world (Bryman and Bell, 2011). Therefore, this knowledge cannot be value free or objective, because it will be influenced by social patterns in the organization (Bryman and Bell, 2011).

The social construct influencing the idea generation process will constantly shift and emerge the individual's perception of the social reality. In other words, social phenomena and categories are in a constant change of revision when being produced through social interaction (Bryman and Bell, 2011). Therefore, the social construct must be taken into account when conducting business and management research, since the study ultimately relies on the subjective view of the individual (Bryman and Bell, 2011). Consequently, the study follows the philosophy of constructivism of the interpretivism epistemology (Bryman and Bell, 2011).

3.1.2 Research design and strategy

The research field of FEI has emerged over the last decades, however there is still a need to get a deeper understanding of the process to improve the conditions for innovation management. The purpose of the research is to get a deeper understanding how individual and organizational knowledge impact the idea generation process within different levels of organizational knowledge environments. Therefore, the aim is to explore the creation of building new concepts and theories

(Bryman and Bell, 2011). Consequently, this research will take on a qualitative approach as opposed to a quantitative study that aims to test existing theories (Gioia et al, 2013).

In more detail, an abductive theory approach is applied to ensure the delivering of pragmatic perspectives to the research field. This is done by combining deductive and inductive elements to generate and build concepts based on observations and findings, and relate it to the concepts found in the literature review (Bryman and Bell, 2011). Although this research used an abductive theory approach, this research was tenderly more deductive than inductive. This approach is helpful for three reasons. Firstly, the emphasis on deductive characteristics is necessary, since the research aimed at providing a more detailed and nuanced picture of what is already known. Secondly, it facilitates the understanding of the empirical findings through the theoretical point of view. Secondly, it is effective because it helps to make sense of the data when generating the new theories (Bryman and Bell, 2011).

The identified research gap represents a great learning opportunity, which is one of the main criteria for conducting a case study (Bryman and Bell, 2011). By designing the research as a case study, the role and importance of organisational and individual knowledge in different organizational knowledge environment in the idea generation process could be studied in detail.

This detailed study was achieved through a comparative design between two cases, i.e. a multiple case study. One case includes projects which have taken place in an environment of high organizational knowledge, whereas the second case consists of projects which have been developed in the context of low organizational knowledge. The comparative design of this study will make it possible to contribute with theoretical reflections on the contrasting findings within the different organisational knowledge environments (Bryman and Bell, 2011), because previous research has shown that we often understand social phenomena better when they are being compared in contrasting situations (Bryman and Bell, 2011). Furthermore, this case study design enabled a broader understanding of the phenomena which potentially can be generalized. Therefore, we argue that the case study is an intrinsic and instrumental case (Bryman and Bell, 2011).

3.1.3 Research process

The case studies have been conducted in the context of a large media company and its innovation program. After having several initial meetings with the individuals working in this program and making first observations the researchers noticed that this program was characterized by the fact, that projects took place in the context of different organisational knowledge environments.

Based on these insights an initial literature review was performed, which included topics on front-end innovation, idea generation, role of knowledge within innovation and the role of creativity. Although Gioia et al. (2013) recommend staying "semi-ignorant" when working with a grounded theory approach, it was important for the researchers to get a broad understanding for relevant concepts to reflect the deductive tendency early on. One the one hand, this provided a deeper understanding of the concepts within the idea generation process. On the other hand it allowed the researchers to conduct this research within the limited time available. Lastly, this approach gave helpful indications of valid literature gaps which could be addressed with this research.

Based on this initial literature review the researcher conducted several unstructured interviews, which provided further insights on relevant challenges within the idea generation process in the context of the case company. Simultaneously the researcher refined the literature review, identified relevant concepts and developed alternative research questions. After completing this iterative process a research field and question had been set. This research field and question had been narrow enough to guide the research, but at the same time open enough to let new topics and insights emerge from the subsequent semi-structured interviews (Bryman and Bell, 2011).

The semi-structured interviews have resulted in the empirical-data, which represented the base for the analysis. The semi-structured interviews have been conducted accordingly to academic standards in terms of ethical and practical terms as Bryman and Bell (2011) recommend them. Also, as Bryman and Bell (2011) recommend the data collection started with a pilot interview, which gave valuable insights for the following interviews.

Based on this empirical data the analysis was done according to the guidelines of Gioia et al. (2013) and Eisenhardt (1989), which resulted in a first model based on the empirical insights. However,

since the grounded theory approach is an iterative process, literature was continuously conducted throughout the process and incorporated in the model (Gioia et al. 2013; Bryman and Bell, 2011). Moreover, the insights from the first analysis have been incorporated in subsequent interview guides to follow up on and understand emerging topics which have not been identified before. This included the incorporation of social network concepts into the research. When additional interviews did not provide any new insights the data collection was finalized and the final theoretical model was developed and grounded in theory by comparing the two cases according to Eisenhardt`s (1989) cross-case analysis method.

3.2 Data collection

The collection of data is determined by the research design and purpose (Bryman and Bell, 2011). Within the chosen case study design of this research paper the data collection was based on purposive sampling. This is based on the need, that the chosen sampling method must ensure that the selected projects and the individuals working on them are able to provide relevant insights and data in regard to the research question (Bryman and Bell, 2011).

In terms of data sources, for this study a multiple evidence approach was chosen (Bryman and Bell, 2011). Relevant information for this study are based on unstructured informal interviews, semi structured interviews, observations, and company documents. This provided the researchers with valuable information to understand the case participants activities and the environment they are operating in (Bryman and Bell, 2011). Furthermore, these insights have shaped and further narrowed down the research area and question. The semi-structured interviews, on the other hand, provided the relevant data for the theory development of this paper (Gioia et al., 2013; Bryman and Bell, 2011).

3.2.1 Interviewee sampling for semi-structured interviews

The process of selecting interviewees had to take several aspects into account to cover the research question (Bryman and Bell, 2011). The first criteria was to identify innovation projects, which have been either developed in the context of either high or low organizational knowledge.

The context of high organisational knowledge is defined as, although the project depends on acquiring new, for instance, technological or marketing knowledge, and aims on introducing novel services, it builds upon existing core competences, processes, guidelines, experiences, or information (Whitehill, 1997; Leonard and Sensiper, 1998; Smith, 2001). Within the context of low organizational knowledge the project don't (or only to a very limited extent) have been able to build up on these existing structures, competence, information and experiences.

Based on the identified projects the next criteria was, to reflect that this research is based on an individual level, that the project had been developed by one individual who came up with the idea for the project and consequently had been responsible in the process from the initial generation phase until the refinement stage of the idea generation (Akbar and Tzokas, 2013). It was of importance that all projects have passed the last refinement stage, in order to fulfill this criteria. This was possible since the case company has a very individual approach to the idea generation process, in which the team takes only a supportive role. Based on our definition this team was furthermore defined as the network of the individual (Bergendahl and Magnusson, 2014). Lastly, the criteria was that the selected projects have been represented by different individuals, i.e. that no individual had been interviewed twice. This enabled a broader data collection (Bryman and Bell, 2011).

Based on these criteria six projects with six corresponding interviewees were identified, split up equally into two different cases of high and low organizational knowledge environments. Furthermore, the projects within each case represented different levels of high and low organizational knowledge environments. In the following these two cases and the corresponding projects will be described in detail.

There are three projects in the context of high organizational knowledge (Table 1). Based on the description it can be concluded that Project 1 and Project 3 are most integrated into organisational knowledge. Project 2, although based on the core competence of job advertisement business, is less connected to organizational knowledge since it required new technological solutions and customer relations.

Title	Operationalization of high organisational knowledge	Quotes from interviews
Project 1	This project is about commercial verticals aiming on creating valuable advertisement content. This is considered as a project within a high organisational knowledge environment, because commercial verticals are advertisements based on editorial content. Since advertising and editorial content generation are considered as core competencies of the company (March, 1991), this project has been allocated to a high organisational knowledge environment. Yet, at the time the idea was generated, the project was new to the company since they have not used this form of advertisement before. Therefore it was an innovative idea to the company.	"When I started this, I came from the editorial side" "We had the editorial content since it was the starting point, we had a documentation what people read in the newspaper, and we checked that of course" "I needed the material, since it is the based on us reusing editorial content."
Project 2	This project is about passive job advertising based on an algorithms using existing data and channels. This is considered as high organizational knowledge because job advertisement has been an important part and revenue driver of the business ever since (Benner and Tushman, 2003). There is therefore a lot of organisational business knowledge and experience on how to do job advertisements in addition to extensive customer data (Levinthal and March, 1993). However, this is out of the three projects in this case the one most distance to existing knowledge within the organisation since it required new technological solutions. Lastly, the algorithm based advertisement was considered as an innovation to the company.	"How it started was basically we looked broadly at the different areas of our business and we looked at where are the challenges and where are there opportunities" "We needed to do something very radical to stand out in the market because in a few years, we our recruitment to revenue was going to be zero" "So we had a lot of experience with the user experience of that platform and also the sales tactics. That was definitely helpful"
Project 3	This project aims on specialized news for the corporate sector within a clearly defined niche region solely delivered through a news website. This innovation project was allocated to the high organisational knowledge environment, since it was based on the core competence of journalism and advertising based business (March, 1991; Benner and Tushman, 2003). It was still new to the company, because it was a completely new way of thinking of niche markets instead of large scale markets. Furthermore, this also resulted in innovative advertisement packages, e.g. mobile/ desktop advertisement packages which at the time had not been done before.	"What we had was, of course, very good knowledge in journalism, good knowledge of how to publish online to reach the target group, a very high reach in this area strong brands and so on." "For example, because we saw that advertisers were willing to pay more when there was a more specific target group that was of higher value to them. I wouldn't say it was written down anywhere but that was general knowledge in the organization." "So it was their experience of doing journalism that lead the way to how we performed"

Table 1: Description of projects in the high organisational knowledge environment case

There are three projects in the context of low organizational knowledge (Table 2), based on the description it can be concluded that Project 4 and Project 5 are most distant to organizational knowledge, whereas Project 6 is slightly more connected to organisational knowledge, since it is linked to the current advertisement business. However, due to the technological component of the project it is still considered as a low organisational knowledge project.

Title	Operationalization of low organisational knowledge	Quotes
Project 4	This project is about combining machine learning and big data to deliver information to customers and stakeholders by tracing and analyzing people behaviours in real life based on mobile phone sensors. This projects is a completely new way of delivering news to consumers. It is allocated to low organisational knowledge environments since it is mainly a product based on high technology (Benner and Tushman, 2003). The case company has no experiences and knowledge in terms of machine learning and big data.	"It doesn't seems to be done before" "I think the idea growed most when we were outside of the company" "I do not think that something from the company influenced the idea."
Project 5	This project provides a digital personalized platform combining journalism and commercial offers (e.g. selling last minutes ticket to a discounted price). It is allocated to low organisational knowledge environments because the company has not built any integrated platforms based on big data before (Mom et al., 2007). In addition to that the company has not done any direct commercial offers to end customers until this point.	"This idea or this concept doesn't exist anywhere else" "No insights from the company helped us to developed the idea" "We didn't gain any knowledge from other departments"
Project 6	This projects is a new form of CRM advertisement by targeting niche customer segments relevant for B2B customer. This is allocated to low organisational knowledge environments since advertisement has not been done on CRM data before (Jansen et al., 2006). It still has a strong link to current advertisement business, however, the technology behind it is completely new to the industry, i.e. there is knowledge available in how to design this idea.	"Everyone that we spoke to said that the this is totally new " "The internal legal department was really important to us" "There was nothing we could use from a technology and CRM point of view"

Table 2: Description of projects in the low organisational knowledge environment case

3.2.2 Design of interview guide

The interview guide for this research has been prepared in accordance with the recommendations from Bryman and Bell (2011). In specific, it was ensured that the interview guide provided the necessary order and structure to gain relevant answers to the research questions. On the other hand, it provided the needed flexibility and openness to gain rich data (Bryman and Bell, 2011).

Since this research is investigating the role of individual and organisational knowledge along the idea generation process, the interview guide was structured in way that it reflects the four stages of the idea generation process and its activities from Akbar and Tzokas` (2013) framework. Additionally, two categories were added to cover formalities and to understand the background of the interviewee. The interview guide was therefore build up on six main categories, namely (1)

Interview process, (2) Background of interviewee, (3) Idea exploration and generation, (4) idea evaluation, (5) idea expansion, and (6) idea refinement (Appendix 1).

The first category, interview process, aims at promoting a common understanding of the general purpose and is useful to avoid concerns regarding the recording of the interview (Bryman and Bell, 2011). It included information related to the purpose of the interviewee process, and matters of confidentiality.

The background category is useful for the researcher to understand the context and environment the interviewee is working in (Bryman and Bell, 2011). Furthermore, questions in regards to individual explicit knowledge are being asked in terms of educational background and tacit individual knowledge in terms of experience and expertise (Leiponen, 2006). To understand the individual knowledge level is the basis to interpret how it was impacted by organizational knowledge. Although the data gained through the questions in this category have not been explicitly used in the findings chapter, it was important for the researcher to understand and consider the individual background for the analysis.

The interview guide categories regarding idea exploration and generation, idea evaluation, idea expansion, and idea refinement have been buildup on the same five question areas. In the following paragraphs the purpose of the areas and its questions will be described.

Stage specific activity questions

Based on Akbar and Tzokas (2013) and Florén and Frishammar (2012) the first question within each category aims at identifying the relevant activities that have been performed in the respective stage. To understand how the ideas have been generated and further developed is the prerequisite to investigate how these activities have been impacted by organizational and individual knowledge. The characteristic of each stage has been included in each stage, so it was easier for the interviewee to relate to the relevant activities (e.g. "*After you have discovered the opportunity for project x, can you explain step by step how you came up with options on how to exploit this opportunity?*" (Akbar and Tzokas, 2013; Florén and Frishammar, 2012)) Follow up questions have been prepared in case the interviewee couldn't relate specific tasks to this stage ("*For instance in*

terms of strategic fit, market needs, competitive environments, technology feasibility and customer needs?" (Akbar and Tzokas, 2013; Florén and Frishammar, 2012))

General reflective question

The second area of questions for each stage includes a reflective question to better triangulate the actual influence of organizational knowledge. The question asks how the activities and outcome of each stage, described in the previous stage, would have been different if there was no organizational knowledge at all. In order to receive this insight the interviewees are asked to hypothetically describe how their activities have looked if they would have performed this activity on their own outside the case company, assuming they would have the same resources available, i.e. the only variable changing is organizational knowledge.

Questions regarding the influence of tacit and explicit individual knowledge

The third section is investigating how individual knowledge has influenced each stage. The questions asked include tacit as well as explicit knowledge of the individual (Leiponen, 2006). Once again, it is crucial to understand how the individual knowledge has impacted each stage to determine the influence of organizational and individual knowledge (Lin et al., 2017). To avoid misunderstandings and biased answers, the researchers decided not to use the term explicit and tacit knowledge (Bryman and Bell, 2011). Instead, the interviewee had to refer to explicit knowledge in terms of education, books, podcasts, internet research or other easily accessible sources (Nonaka et al., 1998). Furthermore, to cover the tacit individual knowledge, the interviewees have been asked for the influence of previous work experience (Leiponen, 2006). Lastly, the interview guide includes a question if the tacit or explicit knowledge had the bigger impact to allow a more differentiated picture of individual knowledge.

Questions regarding the influence of tacit and explicit organisational knowledge

The fourth section investigated the influence of explicit and tacit organizational knowledge. Once again, in order to avoid misunderstandings and biased answers, the terms of explicit and tacit organizational knowledge are being avoided (Bryman and Bell, 2011). The term explicit organisational knowledge is described as corporate documents, databases, or documented process in accordance with Smith`s (2001) definition. The term of tacit organisational knowledge is

broadly described as experiences from previous projects and operations in the organisation to cover a wide field of organisational tacit knowledge (Leonard and Sensiper, 1998; Leiponen, 2006). Furthermore, in order to receive more differentiated data, the interviewees have been asked if this influence had positive and/ or negative impacts.

Questions regarding the influence of social networks

The last question was asked in order to understand the impact of the individual`s network in terms of how it improved the novelty and usefulness of the idea. The network was split up into internal and external network to cover the definition of network in terms of other colleagues and external partier (Bergendahl and Magnusson, 2014).

The last questions of the interview guide included a open closing questions. Bryman and Bell (2011) recommend this in order to ensure important information not covered in the interview guide was not missing.

3.2.3 Interview preparations

All semi-structured interview have been conducted face-to-face, since this allows the interviewers to not only consider the verbal-answers but also non-verbal information which allows a deeper and richer data collection (Bryman and Bell, 2011). The interviews took place at the case company's office. Based on the experience from the unstructured interviews we were convinced based on previous interviews that the interviewees felt comfortable to speak freely about their work within in their office environment (Bryman and Bell, 2011).

The interviews itself took place in a silent meeting room and it was ensured that there had been no disturbance or interruption, for instance, through mobile phones. Furthermore, the researchers created an informal atmosphere by placing the two researchers and the interviewee in a triangle constellation (Bryman and Bell, 2011).

Furthermore, the two researchers took two different roles in the interviews. One was actively leading the interview, whereas the second researcher took a rather passive observational role. The clear advantage of having two researchers present at the interviews was to have two different

perspectives and therefore richer empirical data (Bryman and Bell, 2011). Furthermore, the second researcher ensured that the interviews focused on relevant topics according to the interview guide and asked, if needed, relevant follow up questions (Bryman and Bell, 2011).

Since the research team had an international background the interviews have been conducted in English. However, since all interviewees have been fluent and professional in English, this does not represent a limitation to the validity of the study (Bryman and Bell, 2011). Lastly, all interviews have been recorded and transcribed to enable the subsequent coding and analysis of quotes.

3.3 Data analysis

There is only a very limited number of studies which in detail explain the role and importance of organisational and individual knowledge in the idea generation process in different organisational knowledge environments. Therefore, this research is characterized by its explorative nature, which in turn results in novel concepts and theories. Bryman and Bell (2011) argue the most suitable approach to develop such novel concepts and theories within explorative, qualitative research is the grounded theory concept.

Based on the chosen approach by Gioia et al. (2013) the data analysis followed a multi-step approach. This multi-step process is supported by a graphic documentation, which describes how the researchers progressed from the raw interview data to the collapsed dimensions describing the novel framework (Gioia et al., 2013). This systematic and transparent way was chosen to increase the overall validity of the study (Bryman and Bell, 2011). The following description of the process has been performed for the two cases of low and high organisational knowledge separately. This is in line with Eisenhardt (1989) who argues that the first step of a comparative case study design is to become intimately familiar with each case as a stand-alone entity. She further argues that this allows unique patterns of each case to emerge before further generalizing these findings during the comparison of the two cases.

The first step of this process suggested by Gioia et al. (2013) had the objective to document and unfold the experiences, opinions, and perceptions of the interviews in regards to the studied topics. This process starts by coding direct quotes of the raw interview data for within the case. The

expressions and language of the interviewees is kept untouched until the end of this stage, which helps to avoid too early conclusions. In total 329 codes were collected, divided in 177 within the high organisational knowledge case and 152 codes within the low organisational knowledge case. The researchers coded the data in a way that the single codes have been allocated to the corresponding idea generation stages. This was necessary since the analysis needed to ensure that dedicated and detailed results for each stage of Akbar and Tzokas` (2013) framework became visible, which is in line with the deductive tendency of the grounded theory approach (Bryman and Bell, 2011). Moreover, it was ensured that the differences between the projects within each case were still visible to be able to analyze within case similarities and differences (Eisenhardt, 1989). Subsequently, the codes from the different interviews within each case have been merged together. Based on similarities among the codes representative and interviewee-centric 168 1st order concepts have been developed (92 for the high organisational knowledge case and 76 for low organisational knowledge case).

In a following step, these 1st order concepts have been further developed into 2nd order concepts. In total 36 2nd order concepts were developed (12 in high and 14 in low knowledge case). These 2nd order concepts are more abstract and linked to theory, which revealed the first theoretical themes for the integrated framework of idea generation on an individual level. As suggested by Bryman and Bell (2011) this step was done by utilizing two different perspectives. In a first step, each researcher would create 2nd order concepts on her/his own and only afterwards the final version would be completed together.

In a final step, the 2nd-order concepts have been studied and compared to identify aggregated dimensions. In total 8 aggregated dimensions were developed, four for the high organisational knowledge case and four for low organisational knowledge case. These aggregated dimensions have a high degree of generalizability and represent the essential and crucial findings (Gioia et al., 2013). These aggregated dimensions have been grounded in theory, however, have not been limited by the discussed literature.

The data structure on which these aggregated dimensions are based on provide essentially a high robustness to this research (Gioia et al., 2013). This step was once again facilitated by consulting

the literature review and its presented concepts and theories (Gioia et al., 2013). Gioia et al. (2013) argue for this deductive influence, which promotes a dynamic framework based on data-to-theory connections. A solely inductive based development of the framework without the iterative process of literature consultation would have not resulted in the same rich understanding of individual idea generation processes.

After this process step the two cases and their aggregated dimensions for each stage have been compared to each other to better understand this social phenomenon (Bryman and Bell, 2011). Since the research question aimed at understanding the influence of high organisational knowledge environments the researcher focused on the tactic of finding within case similarities and cross-case similarities and differences as Eisenhardt (1989) recommends it. Based on these findings and comparison the grounded theory and the contribution was developed.

3.4 Reflections of method choices

The aim of this study was to gain a rich and comprehensive understanding of the individual idea generation process. Since Bryman and Bell (2015) argue that the research purpose should guide the choice of research methodology, consequently a qualitative research approach was chosen. Therefore, a qualitative study methodology was chosen, since it allows based on semi-structured interviews to gain rich empirical data on research phenomena (Bryman and Bell, 2011). Furthermore, the opportunity within qualitative research is to combine inductive and deductive design approaches. This allows new concepts not only to emerge from the interviews itself, but also to integrate relevant academic insights to improve the understanding of underlying schemes (Bryman and Bell, 2011). However, it needs to be mentioned that this study had, as argued before, a tendency towards the deductive approach, since the data analysis had been structured according to Akbar and Tzokas (2013) framework for the idea generation process. One could argue that this deductive approach limited the potential for new themes and patterns to emerge. Nevertheless, within each stage of idea generation we chose a highly inductive approach to let new themes patterns emerge, in terms of understanding the influence of organisational knowledge. Without this specific approach of deductive and inductive influences it would not have been possible to get the detailed and deep understanding of the idea generation process this research was aiming for.

However, qualitative research is also subject to several points of criticism that need to be considered and, if possible, mitigated. First and foremost, within qualitative research the researcher represents the crucial interpretation instrument of empirical data, which implies in turn that the researcher's background and preunderstanding of a topic will affect the findings (Bryman and Bell, 2011). Therefore, the main criticism of qualitative research is, that it, by default, cannot be objective. However, it would be short sighted to judge a study based on these criteria of positivistic research, since this research builds upon the philosophy of constructivism of the interpretivism epistemology.

However, to still ensure the quality of this study it will be assessed in accordance with the four widely accepted criteria from Lincoln and Guba (1985):

1. *Credibility*
2. *Transferability*
3. *Dependability*
4. *Confirmability*

Credibility refers to the quality criteria of the used sample size. The empirical data material must be large enough, so that the researcher are able to draw conclusions from it (Lincoln and Guba, 1985). This study ensured a sufficiently large empirical database by including six in depth semi-structured interviews, which allowed broad insights and different perspectives in regards to the research question.

Transferability, or generalizability, of a study assesses if the insights and learnings gained from the research can be applied in a different context other than the study itself (Lincoln and Guba, 1985). Firstly, the question how different levels of individual and organizational knowledge impact the idea generation process is of interest to researchers as well as practically relevant in a broad context across different industries and organisations (Lyles, 2014). Secondly, transferability itself was achieved by using the applied analytic method from Gioia et al. (2013) and Eisenhardt (1989), which aims at generalizing the interpretations (Bryman and Bell, 2011; Gioia et al. 2013).

Lincoln and Guba (1985) state that dependability assesses a study according to accuracy and consistency. This criterion is fulfilled by providing a high level of transparency and a detailed research process description in addition to a critical reflection upon the chosen methods and processes.

Lastly, confirmability of the study was achieved by working methods which made it possible to not let the researcher's personal values be seen. Furthermore, it was ensured that the interviewees would not misinterpret the questions asked, which in turn would lead to misleading answers. This was on the one hand achieved by providing the interviewees with the context and purpose of the study upfront. Also, both researchers have attended the semi-structured interviews to avoid misunderstandings between interviewer and interviewee and to increase the objectivity of the interview interpretation by having two perspectives (Bryman and Bell, 2011). Furthermore, by choosing Gioia`s et al. (2013) transparent framework for data analysis with its 1st and 2nd order concepts further credibility was given to the study.

4.0 Findings

The following chapter presents the findings derived from the interview data. Firstly, the high organisational case will be presented, followed by the low organisational knowledge case. Secondly, within each case the findings are structured according to the single idea generation stages. The identified themes in each stage are derived in relation to the research question.

4.1 High organisational knowledge case

4.1.1 Generation stage

Organizational knowledge creates foundation complemented by individual knowledge

The data collected in the context of projects within high organizational knowledge showed, that the foundation or source for each idea was organizational knowledge itself, or the knowledge about existing assets. Furthermore, the data showed that the idea generation was influenced by knowledge actively gained through the network of the individual. Also, the individual knowledge, either possessed through previous experience or customer discussions, added to the organisational knowledge to create the initial idea.

2nd order concept	Representative quotes from data collection
Idea evolves around organizational knowledge and assets	"It started off in the editorial content, and the home and interior content was published in the newspaper every week" "What we had was, of course, very good good knowledge in journalism in general and the good knowledge of how to publish online to reach the target group and a very high reach in this area, strong brands and so on" "We looked at job recruitment ads listings which historically have been enormous source of revenue for our morning newspaper; that was like where you've found the job offerings going through the morning paper on Sundays, but gradually the revenue has declined very rapidly"
Network provides relevant expertise	"That was mainly a process with in like meeting with clients and then discussing with colleagues, what to do with the input we got from the customers." "One of the first who reached out to me was an older acquaintance, one of journalists here, who had been fighting for a project like this for several years." "Going up to Stockholm and meeting with Bonnier colleagues there. And we try to collaborate"
Individual knowledge complements organizational knowledge	"So those two generally insights combined; he wanted to do something, he had a general idea and I saw a specific need based on my previous situation." "I realized that the material was coming back in the same form every year, for example on how to cut the grass. So why did we rewrite all content every year?" "But just having this discussion and meet with them [customers] early on, where we didn't have a product and we didn't have a fancy presentation, we just talked about ideas with them. I wanted to listen to them."

Table 3: Representative quotes for 2nd order concepts in the generation stage of the high organisational knowledge case

Idea evolves around organizational knowledge and assets

This describes how each idea in the context of high organisational knowledge evolved around an existing organizational knowledge and its assets. It was not the individual knowledge that gave the triggering input for the idea generation, but much more organisational problems, developments and insights. Especially experiences with previous organisational operations were helpful for the interviewees to generate new ideas. For *Project 2* this included established customer relations and user knowledge on job advertisement platforms. ("*So we had a lot of experience with the technology and with user experience of that platform"*). Furthermore, the ideas for *Project 1* and *Project 3* were generated by focusing on the core competences of the company, such as editorial

and advertising competences. ("*It started off in the editorial content*" (Project 1); *"What we had was, of course, very good good knowledge in journalism in general and the good knowledge of how to publish online"* (Project 1); "*We saw that advertisers were willing to pay more when there was a more specific target group that was of higher value to them. I wouldn't say it was written down anywhere but that was general knowledge in the organization..*"(Project 3)).

Network provides relevant expertise

The interviewees described how their network helped them to get an better understanding of the opportunity and idea. For *Project 2* it was mainly discussing customer feedback with a experienced sales colleague ("*He is a very, very experienced salesperson.*"), but also by utilizing his knowledge about relevant customers that could be of help to generate the idea ("*So his connections* [..] *were crucial for us").* For *Project 3* the initial idea came even from the internal network, a journalist, and was then further developed by the interviewee ("*He wanted to do something, he had a general idea.*"). Lastly, *Project 1* used the personal external network to receive further input to develop their idea, for instance by discussing trends with experts ("*My network was very important for me*"; "*I gained a lot of knowledge by just talking to other more experienced people*"). To summarize, the network provided for the three projects very different kind of inputs, but the common pattern is that talking to experts from their network gave the idea important direction and support, despite having already benefited from a lot organisational knowledge.

Individual knowledge complements organizational knowledge

Based on the interviewee`s answers there can be seen a clear pattern, that the described insights through organisational knowledge needed to be complemented with individual knowledge to generate novel and useful ideas. For *Project 3* one critical source of knowledge was personal experiences from outside of the company (*"I remember I had worked as a consultant for several media companies before and I saw general trends"*), for *Project 1* it was based on many years of experience within the company ("*The knowledge I got from over a long period to see what kind of content is relevant and what is good content*".) For *Project 2* individual knowledge gained through interactions and discussions with potential customers were crucial to complement the organisational knowledge ("*I wanted to listen to them* [customers]." Lastly, individual explicit knowledge gained through online research, books, blogs, and news feed added relevant insights

during the idea generation phase for all three projects (*"I also read a lot of blogs and online content that posted content in line with what we did."*). One finding in relation to the organisational knowledge is that *Project 2,* which was based on organisational knowledge in terms of customer relations also profited the most from individual knowledge gained from customers. For *Project 1* and *Project 3* which ideas evolved more around core competencies and assets the personal experience in the same areas, such as journalism and editorial, were more beneficial.

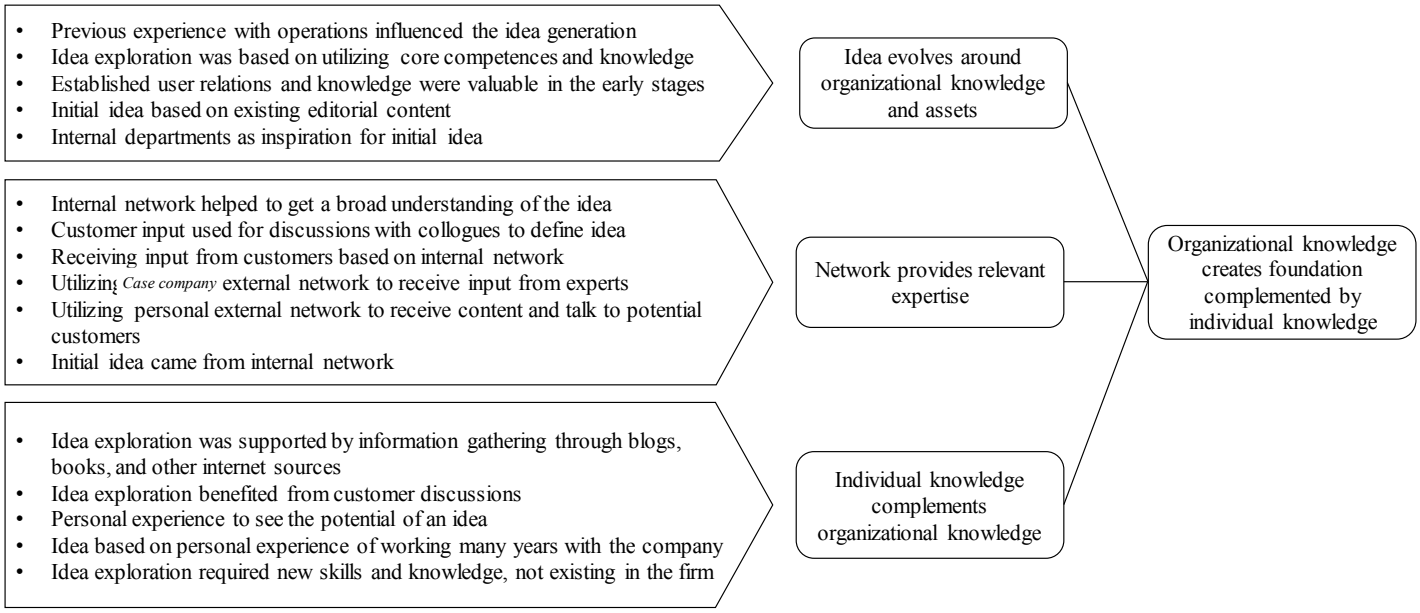

Figure 3: Data structure for "Organisational knowledge creates foundation complemented by individual knowledge"

4.1.2 Evaluation stage

Organizational knowledge leads to superficial assessment, individual knowledge asses market need

Based on the collected data it can be observed that projects within the environment of high organisational knowledge have been subject to less detailed and diligent evaluation and assessment (i.e. superficial assessment) of the individuals. This is because the value and feasibility of the idea was to them obvious, since it took place in the very domain knowledge of the organisation ("*No rocket since.*"). This meant, for example, that feasibility or specific business aspects were not really

evaluated. Only when it came to the market need for their idea, they conducted a more detailed analysis, mainly by discussing the idea with customers. Furthermore, they sought for an informal objective opinion regarding their idea based on their internal network in the organisation to evaluate the idea further.

2nd order concept	Representative quotes from data collection
Assess market need	"When I met with customers I gradually also started talking more and more about that. And the more I did that the more positive feedback. I got from those meetings" "And also what I did also was to map out all of the big competitors in the job market in Sweden and we just saw that there's was like a gap."
Organisational domain knowledge	"We were not so much on the business side, it was more a discussion in-house." "It was much more intuition" "We have lots and lots of readers in this region. We are very dominant so that's not like rocket science."
Objective opinion from internal network	"We also had weekly meeting, which gave time for us to reflect on each other's projects" "The internal network, or my group working with innovation was very important and very helpful."

Table 4: Representative quotes for 2nd order concepts in the evaluation stage of the high organisational knowledge case

Assess market need

The individual knowledge in terms of market need was mainly based on customer feedback for all three projects ("*I communicated with users, all the time and asked for opinions about the product.*" (Project 1); "*When I met with customers I gradually also started talking more and more about that*." (Project 2); "*So I interviewed people from different parts of the business and brought back that insight to the party.*" (Project 3)), but also based on research or knowledge gain through blogs, industry articles and so on. This helped them, for example, to evaluate the competitive situation. ("*Blogs in innovation and business. It was helpful because it gave me a backup and validation that we are doing things in the right way.*"). Furthermore, it is an interesting observation that two out of three interviewees (*Project 1* and *Project 3*) mentioned that they specifically utilized knowledge gain through training to better assess the market need of the idea.

Organisational domain knowledge

The main observation in this stage was, that, since all ideas took place in the domain knowledge of the company, that this resulted in a situation, in which the individuals did not see the necessity to screen their idea in detail. This was especially visible for the business assessment for *Project 1* and *Project 3*, i.e. in terms of profitability or business model. (*"We were not so much on the business side, it was more a discussion in house"* (Project 1); *"I would probably be looking for a supporting business model much more soon."* (Project 3)). It was clear to them that there is value in their idea, without assessing it in much more detail. For *Project 2* that was also based on the fact, that they could clearly allocate their idea in terms of a solution to a existing need or problem in the organisation (*"That was more like you looking at what are these people actually in need of"*).

Objective opinion from internal network

Lastly, all three interviewees referred to their internal network as a helpful objective opinion, which helped them to get a new perspective on their idea. ("*So I got a lot of help from them, to just think through everything and external perspectives on what we were working on.*" (*Project 2*)). Also, the discussion with their team members gave them valuable input to evaluate the idea from a corporate side ("*We also had weekly meeting, which gave time for us to reflect on each other's projects.*" (*Project 1*)). In *Project 3* the interviewee referred to his boss as an important source of knowledge because of his previous experiences in the publishing industry. ("*He got here and saw a huge opportunity in doing much more high relevance type of products and more vertical products."*). In all three projects the internal network was considered valuable to add on to the individual knowledge.

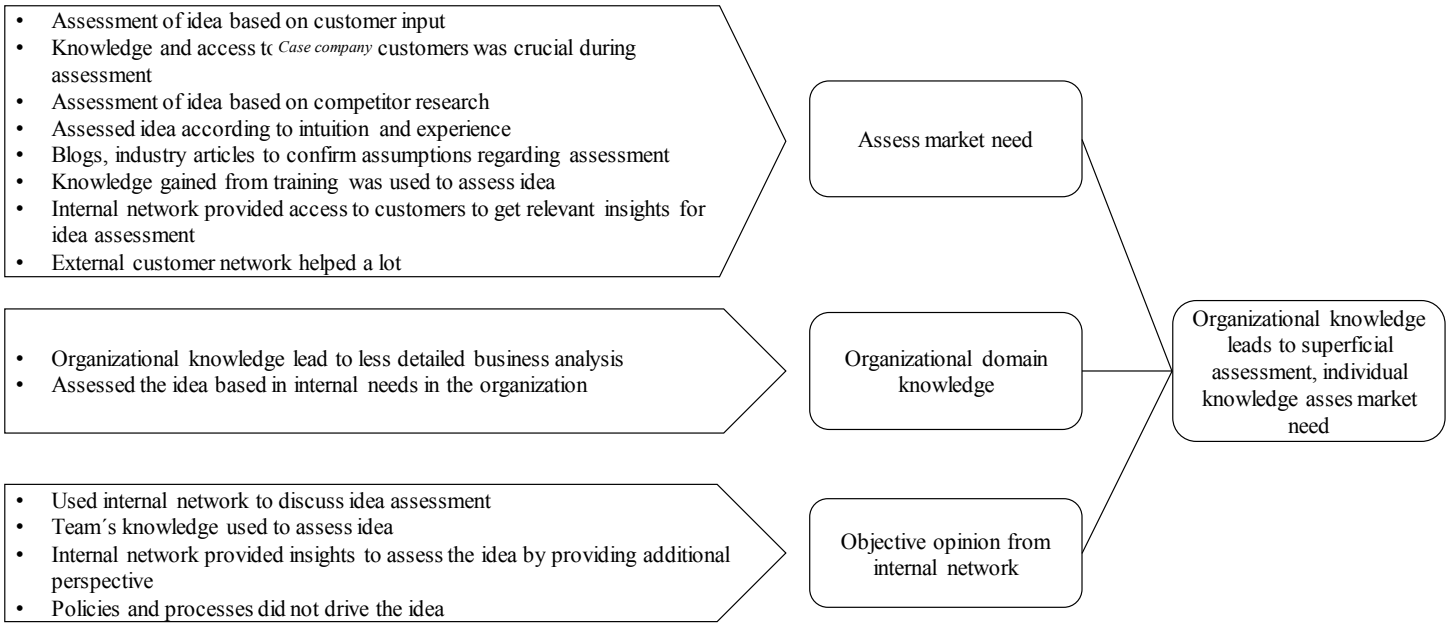

Figure 4: Data structure for "Organizational knowledge leads to superficial assessment, individual knowledge asses market need"

4.1.3 Expansion stage

Expansions requires knowledge ambidexterity

Based on our interview data we could observe that the expansion stage requires knowledge ambidexterity. Knowledge ambidexterity can be explained with that the individual has to make equal use of his/ her individual knowledge and the organisational knowledge. So some tasks required more use of organisational knowledge, whereas other tasks depended more on the individual knowledge. The utilization of individual knowledge also required the individuals to occasionally break with organisational knowledge, for instance, with established routines or processes (*"How we made it work in an organization that believes in something else" (Project 3)*). In addition to that, the internal network also showed to be important in this stage. The network gave additional input on how to develop key features, especially in terms of journalistic and technical inputs (*"My background as a journalist I think was important, because I knew people and I could ask them questions and get material"(Project 1)*).

2nd order concept	Representative quotes from data collection
Utilize existing organizational knowledge	"But we didn't see it from a new point of view, for example we did use the data to consider how we could get paid from the material." "We could see signals in the sales department of what clients would be interested in this product and we've made them ambassadors by asking them how to develop it, and therefore buying it." "So it was their experience of doing journalism that lead the way to how we performed"
Internal network to receive specialized knowledge	"The internal network is very important. ["name"] got a lot of input from ["name"]" "That is definitely positive. I mean if we are a couple of business developers running different projects and we meet to discuss and sort of, oh you build that." "We definitely influenced each other. You could say that the way that we presented the ads on the websites was influenced by ["name"] who at the time run native advertising project to create that product."
Occasional break with organizational knowledge	"It is in how we approach the potential and how we make it work in an organization that believes in something else." "I think there is a lot of pressure from like sales support to do everything in our power to reduce workload on the support staff. Whereas our priority was the opposite." "So we got rid of that problem. So that was one of the insights where we connected my knowledge with internal ways of doing things and made it better."

Table 5: Representative quotes for 2nd order concepts in the expansion stage of the high organisational knowledge case

Utilize existing organizational knowledge

The existing organisational knowledge was utilized by the interviewees in different settings and roles. For example, the idea must be aligned with general policies in the company ("*..some document concerning the laws*" (Project 1)). Furthermore, the idea needed to be aligned with assets and processes to work in the existing organization ("*We tend to look at workflow and processes and try to like integrate it with everything else*" (Project 2)). In addition to that, key features of the idea tended to be in line with the core competences, for instance, in how to do journalism or using existing brands ("*We didn't really need to build the brand as it was launched within our channels*." (Project 3). Lastly, the organisational knowledge regarding customers had an important influence when designing the key features. This knowledge included tacit organisational knowledge from the sales department as well as explicit knowledge from user data banks. The knowledge gave implications on how to align applications and features of the idea with customer needs ("*The*

material and areas of interest to customer, we had data on that which was helpful."(Project 1)).

Internal network to gather more information

The internal network gave the interviewees additional information and knowledge, for instance, by having informal workshops. For *Project 1* and *Project 3* it was helpful to have discussions with journalists ("*I knew people and I could ask them questions and get material*"). Also, the interviewee for *Project 2* described his discussions with other business developers in the organisation as very helpful when defining the key features, as they were able to take inspiration from each other ("*That is definitely positive. I mean if we are a couple of business developers running different projects, and we meet to discuss and sort of oh you build that..*" (Project 2)). But also when it came to defining the key technical features and how to integrate them into the existing systems the internal network was of help ("["name"] *got a lot of input from* ["name"] *and from the development team how to develop the systems so that internal networks was very, very important.*" (Project 2)). However, the data also shows that the complexity of the project determines how much internal expertise from the network was necessary. For instance, *Project 3* was not very complex therefore the internal network wasn`t utilized as frequently as for the other projects ("*The development of the key features was straightforward.*" (Project 3)).

Occasional break with organizational knowledge

However, the interviewee also stated that their individual knowledge was of importance when defining the key features, especially when they felt that going with the organisational routines would jeopardize the core of their idea. As soon as this point was reached they saw the need to break with organisational knowledge on specific features or topics. For instance, the interviewee for *Project 2* described how he resisted to accept the organisational logic to build new business with as little administrative effort as possible. He was convinced that his idea would not be successful without intensive customer care, so he broke with the organisational knowledge. ("*I think there is a lot of pressure from like sales support to do everything in our power to reduce workload on the support staff. Whereas our priority was the opposite.*" (Project 2)). Also, when the interviewee felt, based on their previous experience, that they knew how to improve and add to organizational knowledge, they resisted to go with the routines and insisted on doing it their way. ("*I think the fun part of that was really that we did it in every to the organization unfamiliar*

way. I did it in the way I would do it on my own." (Project 3); "*What happened was that the sales department was not really onboard, they did not understand how to sale in one specific area.*" (Project 1)).

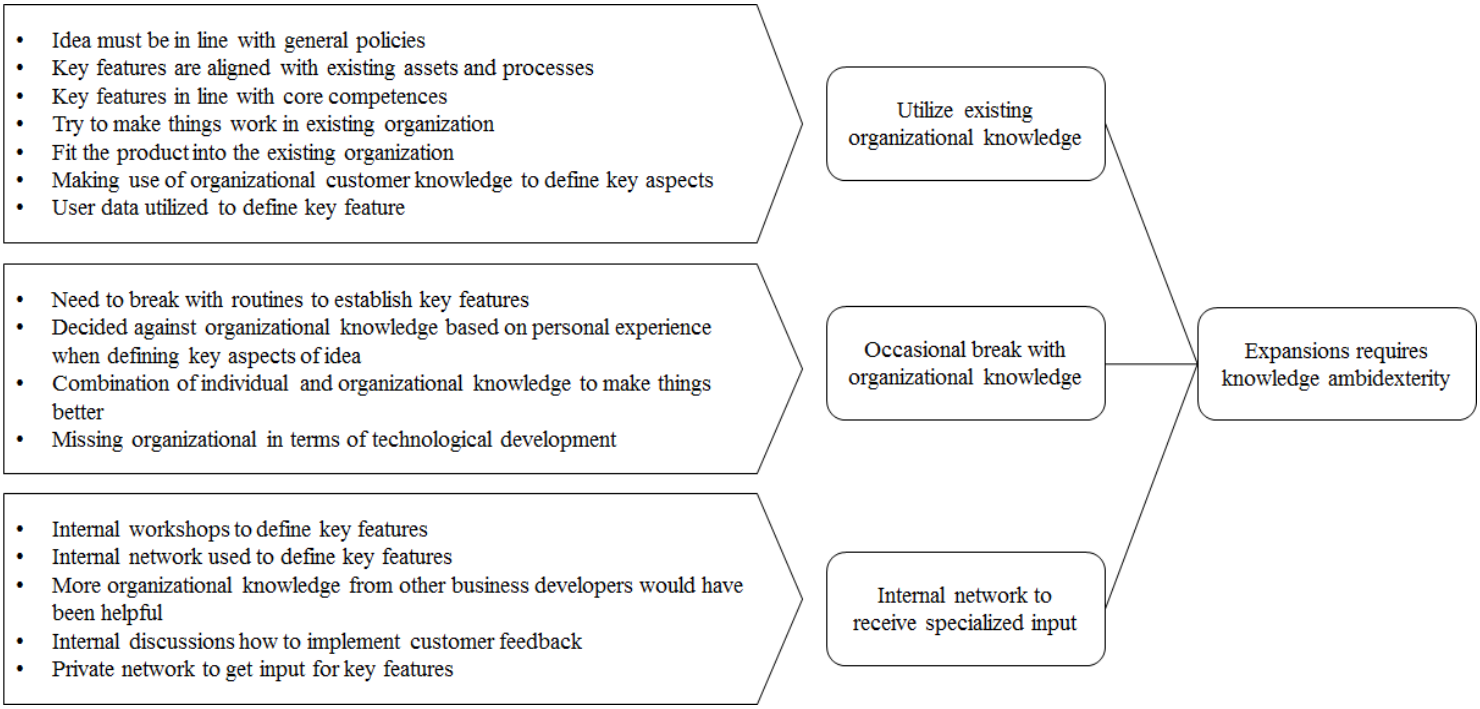

Figure 5: Data structure for "Expansions requires knowledge ambidexterity"

4.1.4 Refinement stage

Concept mainly directed by organizational knowledge, individual knowledge ensures novelty

Based on the interview data, it is observable that the refinement stage, i.e. the concept at the end of this stage, was driven by organisational knowledge. This was especially true for organisational knowledge regarding sales, customer, and journalistic knowledge (Table 6). All three idea concepts followed in their core organisational knowledge. However, also in this stage the interviewees described how they selectively ignored the organisational knowledge and *"best practices"*, since they felt, based on their individual experiences and insights, they knew better how to refine the idea into a workable concept. Lastly, it was an interesting observation based on the data that the interviewees spend considerably much time on educating and transferring knowledge to the organisation, i.e. trying to change or add to organisational knowledge. By doing

that they ensured their concept was accepted in the organisation the way they had it in mind. Moreover, this also impacted future operations.

2nd order concept	Representative quotes from data collection
Organizational knowledge to ensure a workable concept	"I mean the actual content journalism continued to be done very much the way we used to do it. They had more freedom to choose what they should write about, but the process was quite similar. " "The most help I had in terms of organizational knowledge was the help that I got from sales department. And the lesson learned is that when we have that kind of collaboration with someone from another department. It can be very, very useful in a project." "We needed to go with a standardized way of selling ads in positions formats stuff like that, technology of course. We also measured the traffic in the same way as the other sites."
Selective ignorance to organizational knowledge	"Building the product, the way to build products in a company like this is to plan a lot and to build a lot and then launch when it's done. We did the opposite." "So what we did was really to simplify the product and the purchase, because what you had to choose from before was so many formats in so many positions over several different devices for different target groups, but in the same environment." "In terms of not being held back by the old logic to some extent and large scale logic to another extent. It's hard for this company to appreciate a small highly profitable business in relation to a big not so profitable business."
Add knowledge not available in the organisation	"I spent a lot of time to go on meeting with salespeople and different constellations of people to inform about the product and what kind of ads should be sold on the platform. " "But the we found "name", who is a consultant for us for like a year and then we hired him. And he's the one that built almost all of it. So now we needed that. But he was like the key part of the puzzle"

Table 6: Representative quotes for 2nd order concepts in the refinement stage of the high organisational knowledge case

Organizational knowledge to ensure a workable concept

Based on the interview data the pattern can be identified that organisational knowledge directed the concept, e.g. in terms of journalistic routines, sales practices, or legal input ("*We have the channels here at the company which we use to market new product and services*" (Project 1); "*The most help I had in terms of organizational knowledge was the help that I got from the sales department*" (Project 2); "*The actual content journalism continue to be done very much the way we used to do it*" (Project 3). For *Project 2*, which was from a technological point more complex, also organisational knowledge about internal processes and technical platforms, ensured that the concept was actually workable in the organisation ("*technology of course*" (Project 2)).

Selective ignorance of organizational knowledge

However, similar to the previous stage the interviewees decided to ignore organisational knowledge in selective situations. The main reason for that was, that the interviewees felt that they could, based on their previous experience, take better decisions than the organisational knowledge would recommend ("*What we did was really to simplify the product and the purchase"* (Project 3); "*It was extremely, extremely difficult. We had a lot of workshops, confusing workshops where we just sort of tried to figure out how are we going to build this.*" (Project 2)). Another more secondary reason, for ignoring organisational knowledge, mentioned by the interviewee for *Project 1* was also that it was difficult at times to access the organisational knowledge ("*People are also very booked, so the process can get slow by just waiting for the time to meet with the right people. (Project 1)*"). In a similar notion, one interviewee described that his idea did not fit the dominant logic of the firm, which made it harder to receive organisational input for his idea ("*In terms of not being held back by the old logic to some extent and large scale logic to another extent. It's, it's hard for this company to appreciate a small highly profitable business in relation to a big not so profitable business.*" (Project 3))

Add knowledge not available in the organisation

Lastly, it was observable that the interviewees added knowledge to the organisation, either based on their individual knowledge or by hiring, for instance, consultants. This was always then the case, when the knowledge wasn't available in the organisation. This was mainly relevant for technological and technical issues, in which external consultants helped to develop the idea concept ("*But then we found "name", who is a consultant* [..] *he was like the key part of the puzzle*." (Project 2)). Furthermore, since the ideas were new to the company the business developers also spent considerable time on educating the organisation. The interviewee for *Project 1* for example described how she talked to the sales department about advertisement in social media channels ("*I spend a lot of time to go on meeting with salespeople and different constellations of people to inform about the product and what kind of ads got be sold on the platform.*" (Project 1), This helped the sales department on the other hand to contribute to the concept development. Worth mentioning, that this second order concept is slightly overlapping with the concept of "Selective ignorance of organisational knowledge", since the ignorance of organisational knowledge required

the individuals to add knowledge to the organisation to design a workable concept.

Figure 6: Data structure for "Concept mainly directed by organizational knowledge, individual knowledge ensures novelty"

4.2 Low organisational case

4.2.1 Generation stage

Organizational knowledge provides context, individual knowledge creates idea

The finding illustrated that organizational knowledge provides context in this initial stage of the idea generation process. The collected data showed that organizational knowledge limited the application of the individual`s tacit knowledge and forced it to put it into the context of the organisation. Additional knowledge to strengthen the individual tacit knowledge was provided by organizational insights and network.

2nd order concept	Representative quotes from data collection
Idea based on individual tacit knowledge	"It was me that generated the idea, and I did not involve that many other colleges in the process." "And then I actually meet with customer, B2B customers and started the discussion broad without presenting the idea" "I do not think that something from the company influenced the idea."
Corporate Environment	"I would probably not been working with news" "It would have been a totally different idea if I was not inside" "The whole process would have looked different because we would have tried to put it in a different context."
Organizational insights in operations and markets	"Mmhh, well I worked on a similar idea which was sort of connected because of the problem that we mentioned before with the ads and editorial being seperated. We worked with situations based information and the inspiration to do "Project 5" the way I did was influenced by that project" "Yeah, customer data is it that's been really important throughout the whole process really."
Network provides relevant expertise	"More like private network, friends and people within different organizations here in town." "Was the most valuable was to really talk to experts and call people within companies that didn't work a lot with CRM"

Table 7: Representative quotes for 2nd order concepts in the generation stage of the low organisational knowledge case

Idea based on individual tacit knowledge

The data shows that the idea primarily was generated through individual tacit knowledge. As one interviewee described it: "*I do not think that something from the company influenced the idea"* (Project 4). Previous experiences in operations were crucial for *Project 6*, since the interviewee had worked with CRM data for several years outside the company ("*I think the knowledge within CRM and how you should think about the end user*"). Furthermore, for *Project 5* the mindset gained from education, online and customer research was mentioned as crucial sources of knowledge to this stage, (*"Most of our concepts in the first stage was explored through internet or like already done stuff and talking to customers")*. For *Project 4*, experiences in journalistic business provided inspirations and insights to generate new ideas (*"We sort of, what is a cool way to get new editorial output and then I guess we just talked about it, should we do something with public, very unique to have the reach we have.")*. The pattern is, that although different sources of individual knowledge were important for the three projects, that the ideas eventually evolved from individual knowledge.

Corporate Environment

The collected data highlighted that the corporate environment is impacting the idea generation, mainly by providing inspiration and context. Even though, the individual tacit knowledge was the source of the idea, the corporate environment provided context to the idea for *Project 4*. (*"I would probably not been working with news, it would have been a totally different idea if I was not inside."*). In a similar notion, for *Project 5* the corporate environment acted as a source of inspiration (*"It was a lot of talks about we should do something with tickets"*). For *Project 6* it was the context of having a data bank in the organisation (*"I was thinking that advertisers they have a great data base and we have really good channel. So we have a good data base."*).

Organizational insights in operations and markets

Based on the interviews, the data showed that although individual tacit knowledge acted as the main source for exploring the idea, organizational insights and especially the insights based on customer data was considered valuable for *Project 4*. ("*It is not a knowledge we have in segments, it is more we know that specific individual people read the news."*). For *Project 5* it was organisational knowledge on data processing ("*We work with situation based information*"), which

helped the individuals to better understand the idea. For *Project 6* the insights on the different sales channels helped to generate the idea ("*..you don't have the channels to offer..*").

Network provides relevant expertise

Furthermore, the interviewees for *Project 4* and *Project 5* described, that knowledge gained from their network was helpful to understand the idea. This included the internal network, i.e. within the case company (*"I knew which people I should talk to and who I needed on board to back the idea. And also I think network, talking to people who knew stuff about this area."* (Project 4); *"people within the house to, like, how can we do this, they gave a lot of different aspects and perspectives."* (Project 5)). It can clearly be seen that they specifically looked for people who could be complementary to their individual knowledge, i.e. strengthen their individual knowledge. But also the external network was important to contact B2B partners to understand their problem. Overall, it was *"more like private network, friends and people within different organizations here in town"* (Project 4).

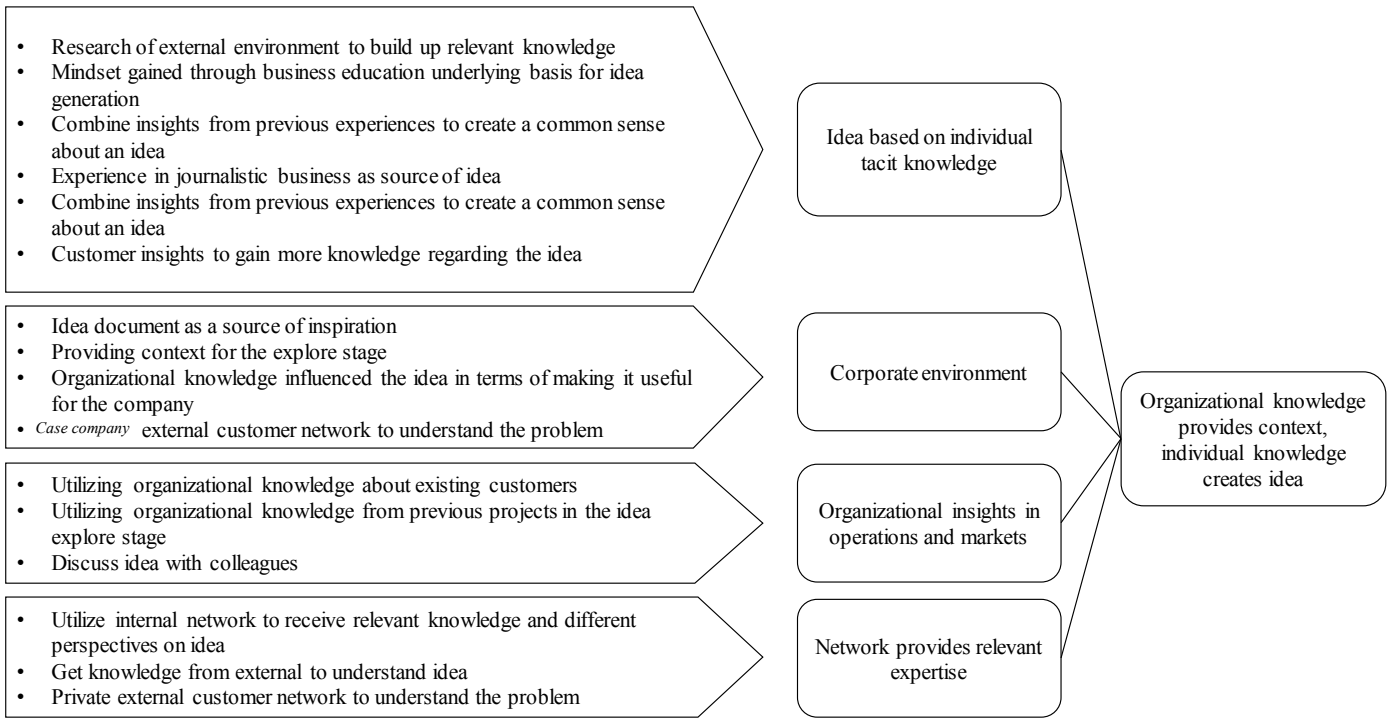

Figure 7: Data structure for "Organizational knowledge provides context, individual knowledge creates idea"

4.2.2 Evaluation stage

Organizational knowledge requires detailed business value assessment, individual knowledge enables assessment

Based on the interview data it can be seen, that the individuals have put a lot of effort in building up relevant and utilizing knowledge to assess their idea. This included testing operations, customer discussions and feedback, research, and lastly their intuition based on their experience. Organisational knowledge was used on the one hand to include organizational knowledge about customers (e.g. customer data and knowledge regarding relevant customers) and on the other hand, and more importantly, to determine the strategic fit and value of the idea to the company. The evaluation was further fertilized by an objective opinion the individuals received from their internal network.

2nd order concept	Representative quotes from data collection
Diligent assessment based on individual knowledge	"Talking to B2B partners if they are interested in this" "But also live testing, actually sending out tickets to customers." "Research when it comes to assessing the market, assessing the market potential, which percentage we can take of the market and the revenue share we can gain from B2B partners"
Objective opinion from internal network	"We had like a pitch meeting where we discuss all the ideas" "Or like talking to people within the organisation"
Organizational knowledge to screen strategic and market fit/needs	"And then the criteria that this should be an idea that fits the company" "It made us assess the project higher. It did influence in a way that we assessed it a bit higher. Because we would not have this platform to be used. " "It should bring gain to the company and it should not be super far off."

Table 8: Representative quotes for 2nd order concepts in the evaluation stage of the low organisational knowledge case

Diligent assessment based on individual knowledge

Based on the interview data it can be observed that the main evaluation of the idea was based on individual knowledge. There was intensive knowledge gathering to determine if the idea was of

value and if one could build a business around it. However, the main knowledge source differed amongst the projects. For *Project 4* this knowledge was mainly driven by intensive customer discussions ("*Talking to B2B partners if they are interested in this*"). *Project 5* and *Project 6* gained, next to customer discussions, a lot of knowledge by doing intensive market research ("*Research when it comes to assessing the market.*" (Project 5); "*Competitors. We don't really have in this area. If we do, then it's Facebook so it depends on how the advertiser looks upon Facebook*" (Project 6)). And lastly, the interviewees also stated that they evaluated the idea partially on individual experience ("*It doesn't seem to be done before, seems like a good idea*.").

Objective opinion from internal network

The interviewees also referred to their internal network as helpful input to evaluate their idea, since it provided them an objective view on their idea. The interviewee from *Project 6* described in detail how the different tacit knowledge domains of the single team members in the project helped to better understand the opportunity as well as the idea and its value ("*Because I think we would we had a very good mix of different knowledge is within the team*."). For *Project 4* and *Project 5* it was very helpful discussing the idea with a wider internal network of business developers to see their idea in comparison to other ideas in the company to assess the relative value of their idea ("*We had like a pitch meeting where we discuss all the ideas*" (Project 4); "*Talking to people within the organisation*" (Project 5)).

Organizational knowledge to screen strategic and market fit/needs

The organisational knowledge influenced the idea assessment in two ways. First of all, it determined for all three projects if an idea proved to have a strategic fit. Different criteria's given by the company helped to assess this strategic fit, e.g. by providing more details on the value to the company ("*It should bring gain to the company and it should not be super far off. That was like to only criteria from the company*." (Project 4)). However, these criteria were at the same time very broad and not too specific, which helped to let novel and outside the core ideas evolve. Furthermore, for *Project 5* based on the customer insights and especially the customer data they were able to assess if their idea is interesting to the existing customer base, and therefore also of interest to the company. Or as the interviewee responded to the question of how the evaluation

would have looked different: "*It would have looked different because then we would not have the user base*." (Project 5). Lastly, also here it can be observed that the organizational knowledge, just like in the previous stage, is giving more context to all three projects to ensure the idea fits and is feasible in the corporate environment, *"I think it would be much more hard because you don't have the channels to offer" (Project 6).*

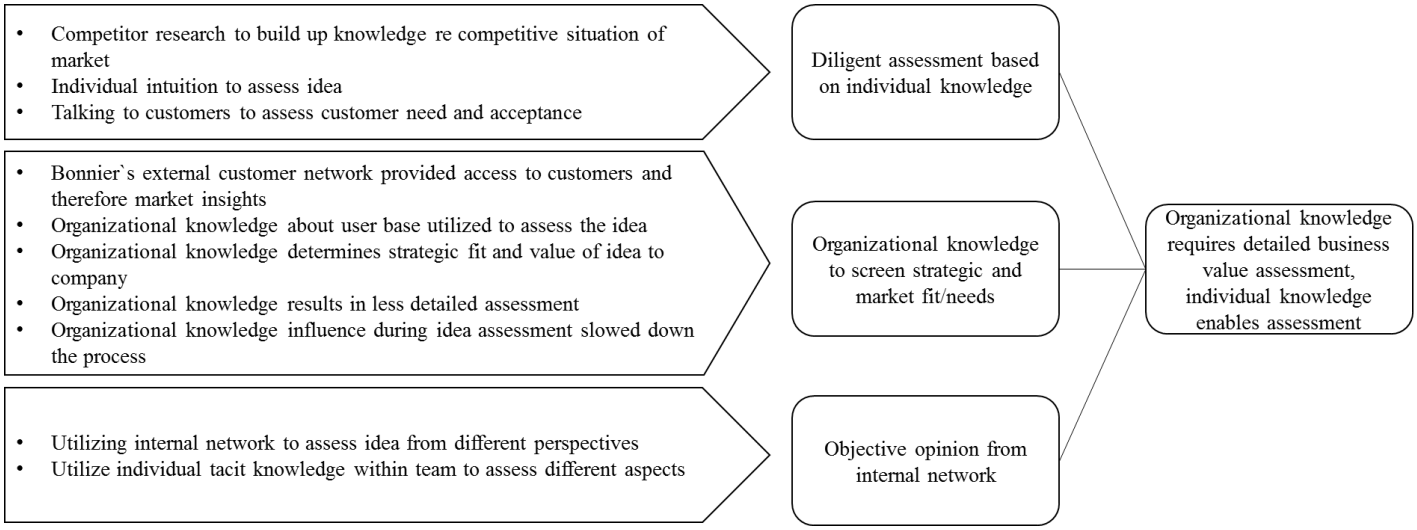

Figure 8: Data structure for "Organizational knowledge requires detailed business value assessment, individual knowledge enables assessment"

4.2.3. Expansion stage

Organizational knowledge leads to path dependency, individual knowledge defines key features

The data collected in the context of projects with low organisational knowledge showed that organisational knowledge leads to path dependency. This might be counter intuitive on the first sight, since these projects took place in an environment of low organisational knowledge. However, since these ideas in this case required the organisation to accept and develop new features and ideas, i.e. knowledge, the already existing knowledge created a path dependency in terms of they want *"to do things the old way"*. Therefore, the organisational knowledge in this stage had a negative impact on the development of the idea. This resulted for *Project 4* and *Project 5* even in a situation in which the idea developed mostly outside of the company, or in isolation from the rest of the organisation. Moreover, the data showed that the development was depending

on specialized knowledge from the internal network in combination with individual tacit and explicit knowledge.

2nd order concept	Representative quotes from data collection
Internal network to receive specialized knowledge	"The people within [case company] with knowledge background on data science and stuff. We used the network of the Bonnier employees but not any projects or operations." "I knew some of the journalists and I could talk to them.
Tacit and explicit individual knowledge to define key features of idea	"But we are talking to customers through our own individual knowledge, or experiences and logics and everything that makes us human or professionals in some sense. "So we went out to customers and ask them questions what they thought about different ideas within the area" "It was like a google sprint, so we took a bunch of steps back from the application and we still had sort of the goal with the project that we wanted to involve people with their sensors to create journalists. But we started with users, we want back a long way. It was a week workshop."
Idea developed mostly outside the company	"I think the input we got from [case company] or [case company] was more negative." "I think the idea growed most when we were outside the company." "Because it was something new, it was something that could hurt the thursworty or something like that, it affected Paxa. Since we had a hard time to go into the organization with paxa, and exploiting the users we have, we sort of anyways started it as a startup"
Align key features with existing operations and platforms	"Understanding about our knowledge in house. We needed to know our regional reach. And how we could mashup our data." "Maybe more like we wanted to work in the context of our different context of our brands. So this kind of limited us, but was also our final goal." "It would have probably looked different. Because we assumed we could be in a context where users were already. Otherwise we should have probably made the app or build a website, more like onboarding, experience, get the customers to actually download the app."

Table 9: Representative quotes for 2nd order concepts in the expansion stage of the low organisational knowledge case

Internal network to receive specialized knowledge

The interviews revealed that the internal network played an important role in acquiring specialized knowledge for the development of key features and applications. For instance, *"the internal legal department in Stockholm was really important to us*" (Project 6). The general, i.e. for all three

projects, view was that the internal network in terms of knowing who to talk to within the organisation was important as well as to use the network of others to receive specialized knowledge. ("*I knew some of the journalists and I could talk to them.*" (Project 4); "*We used the network of the* [case company] *employees but not any projects or operations.*" (Project 5); *"He had good contacts with customers"* (Project 6)).

Tacit and explicit individual knowledge to enhance key features of idea

Based on the interviewee´s answer a clear pattern could be seen that it was primarily the individual knowledge for all three projects which was the main driving force in this stage. (*"When it comes to specification of key features and applications it was more logic"* (Project 4);*"We are talking to customers through our own individual knowledge, or experiences and logic and everything that makes us human or professionals in some sense"* (Project 5) "*We all have different skills like we had a developer, so he was thinking more of what is relevant for us to do what is legal*" (Project 6)). Moreover, explicit knowledge in terms of development processes (e.g. *Google Sprint*) and internet sources were considered helpful to further develop the key features and applications (*"Not academic but practical work in some sense definitely helped us."* (Project 4)).

Idea developed mostly outside the company

The interviewees for *Project 4* and *Project 5* stated that the idea developed mostly outside the company, or in isolation from the organisation. Even though organisational knowledge could have had a positive impact in this stage. (*"We wanted to have their knowledge in like why and how we can do this, but the missing support from the top management made this difficult"* (Project 5)*; "So that was sort of an uphill thing"* (Project 4)). The interviewee for *Project 5* described the path dependency which forced the project to be developed outside the organisation as: *"..because it was something new, it was something that could hurt the trustworthy of the brand".* The Interviewee for *Project 5* explained the path dependency of the organisation as: *"Well, it is more like we haven't done this before problematics. Because we never had a product in house that is not editorial.*". For *Project 6* these highly negative influences of organisational in terms of path dependencies have not been mentioned.

Align key features with existing operations and platforms

For *Project 5* and *Project 6* the interviewees stated that it was important to align key features with the existing operations and platforms. However, due to the "w*e haven't done this before problematics"* (Project 5), the interviewee explained it as *"we could have products like "Project 5" visible in our channels without being in an ad"***,** but *""Project 5" would have lived more because it would have get a context to be in. Now we didn't do that project so that part, or success factor fell away".* One other interview described it as *"Maybe more like we wanted to work in the context of our different brands. So this kind of limited us, but was also our final goal."* (Project 6). For *Project 4* these problematics have not been mentioned.

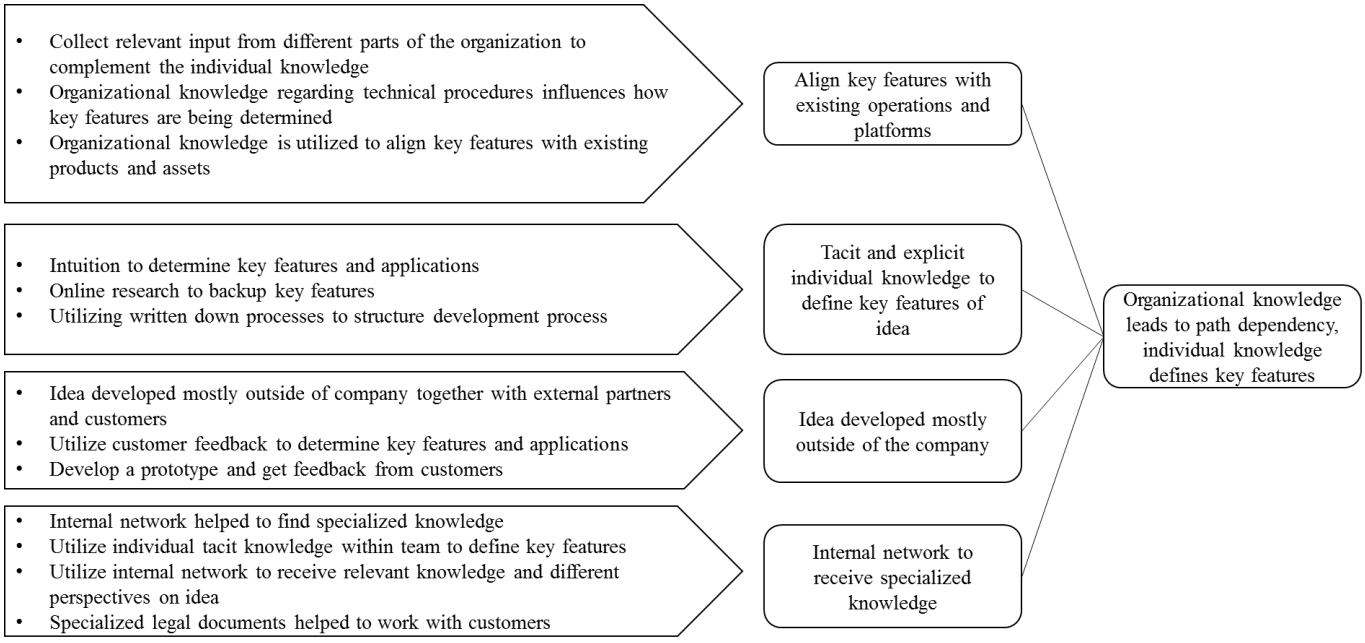

Figure 9: Data structure for "Organizational knowledge leads to path dependency, individual knowledge defines key features"

4.2.4 Refinement stage

Organizational knowledge detached from concept development based on individual knowledge

The aggregated dimension for the last stage is very similar to the previous stage and the interviewees described organisational knowledge was detached from the concept development as

a direct consequence of the path dependency in the previous stage. Due to the path dependency the individuals were forced to develop the idea with little to no organisational knowledge and support. Instead, they described how they mainly used individual knowledge gained through customer discussions to further develop the idea. This individual knowledge was further supported by the network of the individuals to gain additional knowledge necessary to develop the final concept of the idea.

2nd order concept	Representative quotes from data collection
Individual customer knowledge drives concept	"I think the user studies were the most important. Because we had an idea, we had workshops where we had ideas and then the user studies showed us something else" "I think the next step was like to take the learnings from the proof of concept and improve what we have to improve and then do it with another customers." "Again, I am going to say customers again and then you need to crunch it into your concept."
Network to add knowledge to the concept	"We had a team that were made out of the competences we really needed. But of course we needed consultants also." "No, because we did it here in this company and the people we needed and competences for like data scientist we couldn't reach out to them, that was more personal I know this guy who is a data scientist, we should just slack him"
Lack of support from organizational knowledge	"Well it was good. Because if we wouldn't isolate, or it wasnt that we wanted to isolate yourself, but we had the opportunity and we needed to because people weren't really supporting." "Since this idea or this concept doesn't exist anywhere else. So it was more like a teamwork and discussing we did this, the customer react this way, how can we change that. What do we have to think of next time we are in the same process or step of the process." "I think yes, because then we wouldn't have the missing support, it wasn't also only missing support it was also working against us. But also it would have been faster."

Table 10: Representative quotes for 2nd order concepts in the refinement stage of the low organisational knowledge case

Individual customer knowledge drives concept

The data shown that individual knowledge, and especially knowledge regarding customers was considered important at this stage for all three projects, for instance: "*I think the user studies were the most important*" (Project 4); *"I think with the concept development or final concept that we had were affected by taking to the customers"* (Project 5). On the one hand acquiring new

knowledge from customers, but on the other hand, as the respondent for *Project 6* explained it: *"I think we went through a phase where we more learned from the process itself"*. Meaning that all customer knowledge collected until this point helped to make the concept workable "*so it was more like a teamwork and discussing we did this, the customer react this way, how can we change that*" (Project 6). Lastly, the complexity of the product also impacted this stage and how much knowledge needed to be acquired "*the project/ concept/ product was so simple, that it was sort of already done in terms of the specifications of what it was supposed to do*" (Project 5).

Network to add knowledge to the concept

Based on the collected data, knowledge gained from a network was shown to influence the fourth stage significantly for all three projects. It was especially important to develop the technological aspects of the concept. The network would include internal specialists, but also, for instance, proven consultants. The network provided *Project 4*, for example, with specific knowledge on data science *"I know this guy who is a data scientist, we should just slack him"* (Project 4). Or as the interviewee for *Project 6* explained that they needed their consultancy network: *"We had a team that were made out of the competences we really needed. But of course we needed consultants also."*. Therefore, the external network and internal network was considered important, *"you have to know people within the company"* (Project 5).

Lack of support from organizational knowledge

The general view of the interviewee's for *Project 4* and *Project 5* was that they didn't make use of organisational knowledge at this stage, because there was a lack of willingness to share knowledge and provide input from the organization. *("But we didn't used any other like we didn't gain any knowledge from other departments because we are not that good at knowledge sharing."* (Project 4); *"It wasn't also only missing support it was also working against us"* (Project 5). However, they claim that if they would have the support from the organisation the process *"would have been faster"* (Project 5). On the other hand, the interviewee for *Project 4* had a different viewpoint on this, *"Well it was good. Because if we wouldn't isolate, or it wasn't that we wanted to isolate yourself, but we had the opportunity, and we needed to because people weren't really supporting*". The interviewee for Project 6 did not mention this kind of lack of support.

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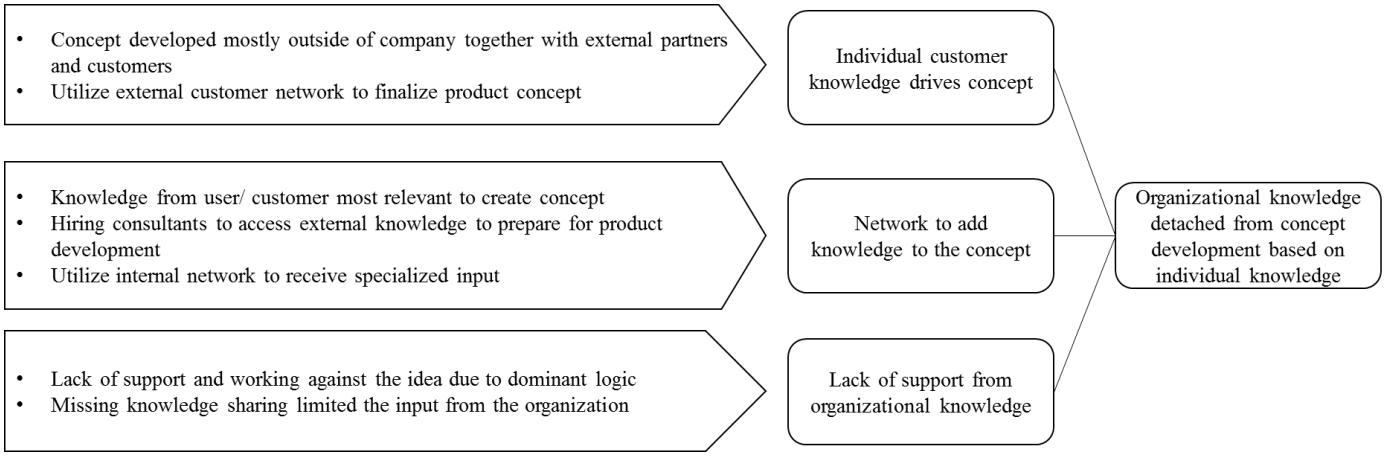

Figure 10: Data structure for "Organizational knowledge detached from concept development based on individual knowledge"

5.0 Analysis and discussion

In the following chapter the understanding of the empirical data will be analyzed under consideration of the literature review to answer the research question and provide the purpose of this study. Within this discussion the different cases of high and low organisational knowledge environments will be compared in accordance with the recommendations of Eisenhardt (1989).

5.1 Grounded theory framework of the impact of different levels of organisational knowledge

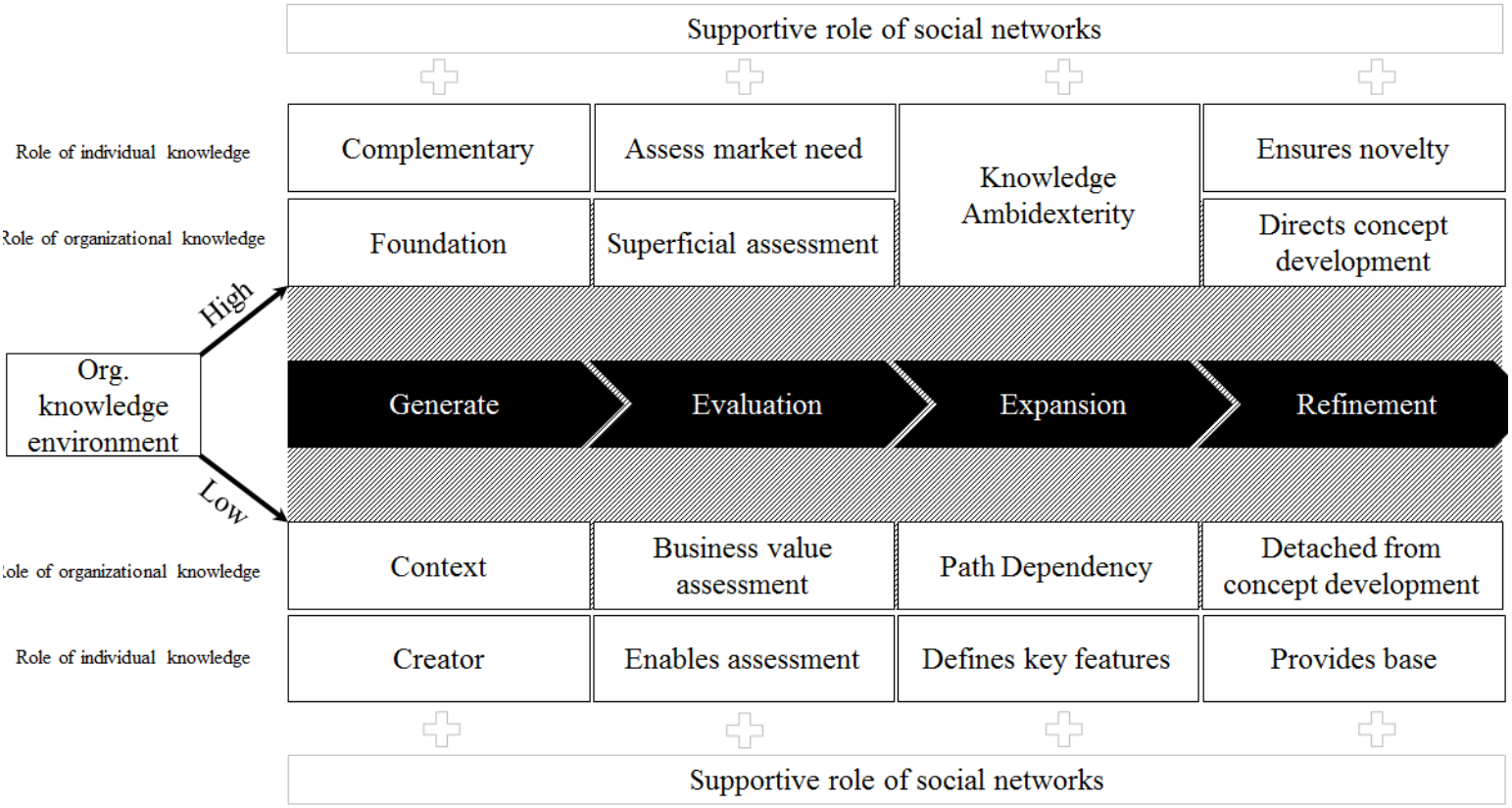

Figure 11: Grounded theory framework of the impact of different levels of organisational knowledge

The general structure of the framework (*Figure 11*) follows the idea generation process of Akbar and Tzokas (2013) and was further enhanced by the emergent patterns of the collected data. The data enabled the identification of the role of organisational and individual knowledge within each stage of high and low organisational knowledge environments, represented by each box.

Furthermore, the supportive role of social networks is represented and will be discussed in more detail in the following chapter.

5.2. The effect of different organisational knowledge environments levels per stage

5.2.1 Generation stage

This study made two different relations transparent how different levels of organizational knowledge impact the initial idea generation stage. In high organisational knowledge environments organisational knowledge is the foundation for the divergent thinking of the individual. In comparison to low organizational environments, organisational knowledge provides mainly only context. Furthermore, individual knowledge was an important complementary and necessary component to the organisational knowledge in the high organisational knowledge environment. The network added to this knowledge with relevant expertise input. However, in the low organisational knowledge environment, on the other hand, individual knowledge was the main source for new ideas, and the network took a similar role by providing relevant expertise. In the following we will discuss these findings in more detail.

In the context of high organisational knowledge environments, the divergent thinking of individuals evolved around organisational knowledge and assets ("*It started off in the editorial content.*"). Moreover, the data showed that the two projects (Project 1 and Project 3) identified as having the closest connection to organisational knowledge, evolved around the core competencies of journalism and editorial competences. *Project 2*, which is not as closely connected to organisational knowledge, on the other hand, evolved mainly around organisational customer knowledge, issues and relations ("*So we had a lot of experience with the technology and with user experience of that platform")*. This insight is in line with Lyles and Mitroff (1980) and Martin and Mitchell (1998), who argue that in high organisational knowledge environments the activities are closely linked to existing organisational knowledge based on previous experiences. Furthermore, the findings showed that this organisational knowledge was a deep and heterogeneous knowledge source as Leiponen (2006) describes it and represented a well-defined starting point for the divergent funnel. As a consequence, the findings show that the starting point of divergent thinking,

or refinement activities (Florén and Frishammar, 2012), was highly biased towards organisational knowledge, in other words it provided the foundation to this stage. However, after the raw idea based on organisational knowledge was created, the divergent thinking of the individuals was much more open, and they started to access their individual tacit knowledge. *Project 2*, less connected to organisational knowledge, was in this process step much more open to customer input and included this knowledge for the divergent thinking (*"But just having this discussion and meet with them* [customers] *early on.."*). *Project 1* and *Project 3*, on the other hand, relied more on their individual knowledge based on personal experiences in similar areas, such as journalism. Based on the fact that the two projects closest connected to organizational knowledge did not actively searched for new knowledge sources, such as customer input, confirm Roper and Hewitt-Dundas (2015) conclusion that too much organisational knowledge can lead to search myopia.

Moreover, for all three projects the network was used to gain more relevant expertise and information. This is because, the connections the individuals made through divergent thinking would not have been possible without linking organisational knowledge with their individual tacit knowledge gained through their network. This for example also includes customer and expert discussions. This insight is in line with Madjar (2008) who argues that individuals receive valuable input through their network in the early stages to further develop an idea and increase the novelty and usefulness of an idea.

Therefore, the findings demonstrated in this stage a more nuanced picture compared to other studies in the context of high organisational knowledge, i.e. exploitative idea generation. Individual knowledge, also gained through networks, did not play a secondary (or supportive) role as found by Lin et al. (2017), much more it had a complementary role ("*Those two insights combined..*"). This is a important distinction, since "complementary" implies that individual knowledge is critical, compared to the term "supportive" which does not imply the absolute necessity of individual knowledge. To conclude, this finding confirms Subramaniam and Youndt (2005) that individual knowledge alone may not lead to innovative ideas, but that it is about the combination of individual and organisational knowledge.

In comparison, in the context of low organizational knowledge the starting point for the divergent funnel for all three projects was tacit individual knowledge, i.e. the idea was created through individual knowledge. In more detail, the knowledge connection created through divergent thinking were mainly based on personal experiences ("*I think the knowledge within CRM and how you should think about the end user")*. The combination of previous (work) experiences from different areas proved to be of high importance in this stage, as described by Baron (2006) with "connecting the dots". These findings also confirm Akbar and Tzokas (2013) argument that the generation stage highly depends on individual knowledge, as well as the general conclusion by Lin et al. (2017) that individual knowledge is dominant in environments of low organizational knowledge. Furthermore, also the network of the individual had a greater impact on the initial stage compared to the influence in the high organisational knowledge environment - it provided additional expertise and knowledge to create novel links and served as a substitute to the missing organisational knowledge, also in line with Madjar (2008).

The organisational knowledge provided the individual on the one hand mainly with the context of their corporate environment. This is in line with the description of Gilson et al. (2005) who are arguing that organisational knowledge creates a focus on innovation areas. However, in the low organisational knowledge environment this focus was very broad, for example the idea should be in relation to news ("*I would probably not been working with news.*"). On the other hand, organisational knowledge (here corporate environment) unconsciously constraint the divergent thinking of the individual even in a low organizational knowledge context, which possibly avoided more disruptive or explorative ideas. This can be explained with Lin et al. (2017), who found that organisational knowledge makes it less likely to find promising channels to explore and acquire new knowledge and ideas. Lastly, although in the context of low organisational knowledge, the knowledge in the company regarding customers and market insights was still valuable for divergent thinking of the individual. This is on the first sight contrary to the last point of organisational knowledge limiting divergent thinking. However, within these limitations it provided insights which helped to understand the idea better and increased the quality of the idea in terms of market and customer needs match. These customer- and market insights can be considered as the supportive role of organisational knowledge Lin et al. (2017) are referring to.

5.2.2 Evaluation stage

High organisational knowledge influences the evaluation stage in a way that results in a superficial assessment, compared to low organisational knowledge environments which indirectly required a detailed business value assessment. Individual knowledge is crucial to assess ideas in low organisational knowledge environments, in comparison to high organisational knowledge environments it is solely used to assess the market need. Lastly, the internal network showed to play a similar role in both cases. In the following paragraphs these insights will be discussed in more detail.

In the context of high organisational knowledge, organisational knowledge impacts the evaluation in a way of leading to a superficial assessment of the idea. For *Project 1* and *Project 3* this superficial assessment was most apparent in terms of business assessment. Since both project took place so close to the core, the way how to do business, in terms of business models, was obvious and not different to the current way of doing business. Therefore the business aspect of the idea was only superficially assessed. This can be also explained with the concept of dominant logic of organisational knowledge (Huber, 1991). It was a dominant logic in the case company that with a product so close to the core (journalism, advertisement) the company will be eventually able to generate substantial revenue. For *Project 2* on the other hand, the assessment of the idea was superficial, because the business developer could clearly show how it could solve a problem in the organisation. By presenting a solution to a clearly described problem in the organisation, the value once again was obvious and let therefore to only a superficial assessment. Meaning in turn, that the high organisational knowledge level impacted the evaluation in a way that it was more based on intuition and less logical reasoning through convergent thinking as Akbar and Tzokas (2013) and Florén and Frishammar (2012) describe it. However, based on literature it can be argued that this impact of superficial assessment is negatively for the idea development. Firstly, since this evaluation is less dependent on logical reasoning, the scope of the idea will not be narrowed down to ensure detail and quality of the proposed idea (Cropley, 2006). Secondly, Cooper (2008) describes how this superficial assessment, i.e. not doing your "homework", in the early stages can cause serious problems (project failures) in later stages. This might be especially true for not assessing the most suitable business model (*"We would probably be looking for a supporting*

business model much more soon."), since the business model eventually determines the profitability of the product.

Furthermore, Akbar and Tzokas (2013) describe that explicit knowledge is dominantly used to evaluate ideas. However, in the context of high organisational knowledge intuition, i.e. tacit individual knowledge, proved to be the main source for evaluation for all three projects. Also this can be explained with the fact that the value contribution was obvious to the organisation and the individual, and therefore they didn't feel there was a need to screen the idea according to, for instance, organisational selection criteria. However, in the context of this case company it needs to be mentioned that there was in general very little organizational explicit knowledge, e.g. in terms of standardized selection criteria's. This might have reinforced the fact that the evaluation was mainly based on individual intuition. As an overall result the screening activities as described by Florén and Frishammar (2012) can't be considered as effective anymore, since the quality of screening was not sufficient anymore.

However, although the main assessment was based on intuition and rather superficially, there was still an actual need for the individual to assess the market need through convergent thinking, mainly by talking to customers and process their input. This is due to the fact, that the organisational knowledge is sufficient to prove, for instance, feasibility and value to the company of the idea, but not to assess the specific and detailed market and customer needs. Therefore, individual knowledge, mainly gained through customer discussions and feedback, was utilized to analyze the market need. This customer and market need knowledge possessed by individuals explains in more detail, how the supportive role of individual knowledge in high organisational knowledge environments described by Lin et al. (2017) looks like. This highly specific customer knowledge in context of a specific idea cannot exist in an organisation due to the specialization, therefore the individual knowledge "supports" with highly specialized or specific knowledge.

Lastly, the findings showed that the network of the individual was used to receive a second objective opinion about the idea ("*We had like a pitch meeting where we discuss all the ideas*.") The utilization of network to evaluate and validate an idea during screening activities is in with the findings of Binnewies et al. (2007). Furthermore, especially in the context of high

organisational knowledge, there is also valuable domain knowledge on an individual level that helps to receive input to validate the idea. The common understanding of each other's knowledge within these networks enabled complementary, synergetic knowledge-bases, relevant for the assessment of the idea (Leiponen, 2006).

Within the context of low organisation knowledge, the assessment is mainly based on and enabled by individual knowledge for all three projects. Which is contrary to Akbar and Tzokas (2013) and Gilson et al. (2005), who argue that idea screening and evaluation is mainly based on organisational knowledge. However, our findings showed that ideas not based on organisational knowledge in the previous stage have also only limited organisational knowledge to build up on in the evaluation stage. Moreover, an interesting finding has been that individual knowledge has been considered less credible to the organisation. This finding is in line with Katila and Ahuja (2002) who found that organisations focus on organisational knowledge and consider it as more reliable compared to individual knowledge, when it comes to structured activities, as which the screening activities described by Florén and Frishammar (2012) can be considered. The lower credibility of individual knowledge (and therefore a higher demand for objective prove within the organisation) and the missing organisational knowledge itself resulted in a much more detailed and diligent business value assessment ("*Research when it comes to assessing the market.*"). This assessment included market needs, technological feasibility, competitor research and more metrics and was highly characterized by convergent thinking, which is in line with the detailed metrics presented by Bacon et al. (1994) and Khyrana and Rosenthal (1998).

However, although in the context of low organisational knowledge, organizational knowledge still provided guidance in terms of strategic fit to the company for the evaluation, i.e. the business value of the idea to the company. This observation is in line with Lin et al. (2017) who argue that it is always necessary to tap into existing organisational knowledge to some extent to ensure successful screening of new ideas and knowledge. Furthermore, it describes the supportive role Line et al. (2017) mention in more detail, since our findings show that the supportive role mainly consists of providing guidance in terms of strategic fit ("*It should bring gain to the company and it should not be super far off")*.

Lastly, surprisingly the internal network played a similar role in high and low organisational knowledge environments as a objective second opinion, in line with Binnewies et al. (2007). This is surprising because one would assume that there are not many experts in the organisation to discuss an idea, which takes place outside the core, i.e. low organisational knowledge environment. However, there are two potential reasons why the internal network is as important as in high organisational knowledge environments. Firstly, the idea still takes place in the corporate context, therefore there are still valuable insights available on an individual level in the organisation. For example, although the sensor idea was highly technical and a new way of delivering news, inputs from journalists were still of value. Secondly, the internal network might also be used to gain initial support and acceptance in the organisation for more disruptive ideas (Ohly et al, 2010).

5.2.3 Expansion stage

The findings show that organisational knowledge in a high organisational knowledge environment ensures that key features and applications are aligned with existing operations. However, for individuals at times it was important, comparably to the previous stage, to break from operational knowledge to avoid path dependencies. In contrast, in low organisational knowledge environments the influence of organisational knowledge was mainly negative and forced the individual to develop the idea outside of the organisation with the help of individual knowledge and networks.

In the context of high organisational knowledge environments, organisational knowledge primarily influences the idea generation in this stage by pushing the individual divergent thinking in a direction, which ensures that key features and attributes of an idea are aligned with existing assets and operations. In other words, that the idea will be able to work in the existing organisation. This finding was observed for all three projects, therefore independent on how close they have been to the core business. Furthermore, this finding is in line with the study of Reed et al. (2006), which showed that organisational knowledge is needed to ensure that new ideas work in line with existing knowledge, e.g. routines and processes.

However, in line with studies from Roper and Hewitt-Dundas (2015) and Huber (1991) the findings showed that relying only on organisational knowledge would create negative path-

dependencies and core rigidities. Our study showed that all individuals in charge for the three projects reacted in the same way to avoid path-dependencies to negatively impact their idea, or at least minimize the negative impact. Always when they felt that going with the organisational knowledge, e.g. routines and processes, would harm the very core or novelty of their idea, they decided to break with the organisational knowledge. It was critical that the individuals, based on their own knowledge (especially experience) knew, when it was necessary to break with organisational knowledge and proceed "*my way*". It was always then when they would break with organisational knowledge, that the individual knowledge became a critical success factor. Only the combination of individual knowledge and organisational knowledge in these cases allowed ideas to further develop and prosper. Therefore we argue that organisational and individual knowledge play an equally important role in this stage, in a sense of being ambidextrous. This is contradictory to Lin et al. (2017) who argue that in the context of high organisational knowledge environments organisational knowledge should take a dominant role. A dominant role of organisational knowledge in this stage would result too many negative downsides as described, e.g. in terms of path dependencies.

Lastly, the individual knowledge is supported by the internal network to receive further specialized knowledge, this was especially true when the individual needed to break from organisational knowledge, i.e. a different knowledge source was needed. It can be clearly seen how the network is used to build up on existing individual and organisational knowledge to define key features. Ohly et al. (2010) also describe this finding in detail and argue that this specialized input can even result in a changed direction of the development, in this context for example by breaking with organisational knowledge.

In the context of the low organisational environment, the relation we saw in our findings was, that organisational knowledge impacted this stage mostly negatively, mainly in terms of path dependencies. This finding is on the first sight in line with Huber (1991) and Roper and Hewitt-Dundas (2015) in terms of path dependencies and dominant logic. However, our study is able to draw also here a more nuanced picture, since the findings on a project level showed differences in how significant this negative impact was. For *Project 4* and *Project 5*, which were most distant from the core business (and therefore also from organisational knowledge) the negative impacts

of organizational knowledge were more significant. Because although the ideas were novel, there was still a need to align key features with existing operations and platforms (Reed et al., 2006). However, the alignment, compared to the high organisational knowledge case, was here more about how the idea can benefit the most from existing assets ("*We wanted to work in the context of our different brands")*, less about making it work in the existing organisation. This goal resulted in organizational path dependencies and lack of support, since the organisation did not see the benefit of providing or adjusting organizational knowledge to the new idea. So the path dependency had in this stage more political reasons, compared to Roper and Hewitt-Dundas (2015), who argue that path dependencies are mainly caused by the biased nature of organizational knowledge towards existing knowledge.

This ultimately forced the individuals to further develop the idea for *Project 4* and *Project 5* from that point onwards outside the company or as an isolated start-up. The fact that the individuals had to develop the ideas outside the company has two implications. Firstly, the stage depends highly on individual knowledge and knowledge gained through networks to enable divergent thinking. Secondly, explicit individual knowledge in terms of development processes, e.g. *Google Sprint*, showed to be important due to the fact they couldn't rely on organisational development processes anymore. These two implications are in line with Akbar and Tzokas (2013) who argue that developing key features and applications is highly depending on individual knowledge. Furthermore, this study adds to this with our findings, that individuals are rather forced to rely mainly on individual knowledge than choosing to due to existing path dependencies in the organisation.

However, this study also shows that this is only true for ideas, which are far away from the core and try to utilize existing organisational knowledge and assets to the benefit of the idea. Because Project 6 in comparison, although the idea was also developed in the context of low organisational knowledge, tried in the expansion stage not only to benefit from existing knowledge and assets, but also utilize existing organisational knowledge to align the idea with the existing organisation and therefore create value for the rest of the existing organisation, e.g. the sales department. Compared to *Project 4* and *Project 5* the result was, that the idea was further developed in house with important support and input from organisational knowledge. Meaning for *Project 6* the

negative impacts identified by Huber (1991) and Roper and Hewitt-Dundas (2015) were not significant or even visible, solely based on the fact how Project 6 used organisational knowledge.

The network played in this stage a similar important role as in the high organisational knowledge. In line with Ohly et al. (2010) specialized input complemented and added to existing individual knowledge and therefore was considerably valuable in defining the key features. Furthermore, as *Project 6* was showing this network can also be utilized to gain support within the organisation (Ohly at al., 2010), which ensured to further development of the project within the organisation.

5.2.4 Refinement stage

In relation to the research question, organisational knowledge in high organisational knowledge context is clearly driving the concept, which ensures that the idea is workable and feasible within the organisation. In contrast, in low organisational environments organisational knowledge does not impact the concept development positively (the concept is detached from organisational knowledge), the findings showed no or even negative impacts due to the lack of support. Therefore, individual, especially customer knowledge, is more important in high organisational knowledge environments. Furthermore, this individual knowledge is then combined with network knowledge, which functions as a substitute for organisational knowledge.

In the context of high organisational knowledge it can be clearly seen that the concept for all three projects was driven by organisational knowledge (e.g. in terms of editorial input or sales processes). This is in line with Akbar and Tzokas (2013), who stress the importance that the idea is aligned with organisational resources and operations in this stage. Furthermore, this insight is also in line with literature on idea development in high organisational environments (March, 1991; Eisenhardt and Martin, 2000; Lin et al., 2017). By letting organizational knowledge having the leading role, it was automatically ensured, for instance, that routines of the organisation were considered (Reed et al., 2006). This kind of upside of organisational knowledge, in terms of efficient development, was also described by March (1991) who described advantages such as reduced costs of learning and avoidance of experimental failures.

However, although the concept was driven by organisational knowledge, this study was able to provide further details in this stage. It proved to be important again that the individuals of all three projects would selectively ignore organisational knowledge and question status quo based on their individual knowledge, for example by "*not being held back by the old logic and to some extent to large scale logic*". This is an interesting finding, because current literature argues that questioning status-quo and reconsidering past decision is mainly needed in explorative environments, thus low organisational environments (Mom et al., 2007). Our findings show that this behavior is also important in a high organisational knowledge environment, although to a lower extent. Because if this is not done by the individual the ideas will end up with a rather-short term value characteristic (Tushman and O`Reilly, 1996), since crucial customer benefits or the novelty of the idea are getting lost. For instance, going with the organisational knowledge of minimizing administrative efforts would have made the high-end service selling proposition of *Project 2* impossible. In other words, individual knowledge becomes critical to preserve the value of the idea within the concept.

Furthermore, our findings showed that it is not only about questioning status-quo, but also that individuals for all three projects had to change and add to the organisational knowledge, in line with Grant (1996) who argues that innovation does not only require the utilization of existing knowledge but also the acquisition and processing of new knowledge. The main reason for acquiring new knowledge was, that relevant knowledge for the concept development was simply not available in the organisation, especially in terms of technology development for *Project 2*. It is then up to the individual to find this knowledge, for instance by hiring consultants or acquiring the knowledge through their network. However, the findings showed that it was even more important to establish this new knowledge in the organisation. Moreover, this new knowledge enable individuals to solve complex problems in this stage and define the final concept as Hatch and Dyer (2004) describe it. This also required a high stock of individual knowledge in terms of political knowledge, to convince the organisation of the input, since organisational knowledge is by nature biased towards existing knowledge (Huber, 1991). For *Project 2* it was critical in the concept development, to combine new and old knowledge to end up with a workable concept, since it was from a technical point of view the most complex project in this case. For *Project 1* and *Project 3*, it was more about aligning sales strategies and editorial content to the new formats,

e.g. social media. Therefore, the pattern we were able to identify in these stages was, that the more distant the project was to organisational knowledge, the more the individual had to add and change organizational knowledge.

Lastly, it is an interesting finding that the internal network did not play a significant role in the last stage. It was more about the true organisational knowledge, for instance, found in the sales department. This is due to the described fact, that this stage was more about making it workable in the organisation, less developing it further based on expert input. Furthermore, literature argues that the network in this stage is frequently used to gain support and acceptance for the idea (Rost et al., 2007). However, since the ideas already had a broad support from the organisation due to the fact that it was value contributing to the core business and the internal network had been used intensively in the previous stages, there was no need to gain further support through the network.

In contrast, in low organisational knowledge environments the concept for all three projects was mainly driven by and based on individual customer knowledge. This knowledge was gained not only in this stage through user studies and customer feedback, but also included knowledge gained throughout the whole idea generation process. In line with the description of Akbar and Tzokas (2013) and Cropley (2006) convergent thinking was used to condense the main learnings, e.g. from the prove of concepts, to narrow down and define the final product idea. The fact that the concept was mainly developed based on customer feedback can be traced back to one main reason for *Project 4* and *Project 5*. Since the idea had to be developed in isolation from the company ever since the previous stage, the idea even further dissociated from the organisation in the refinement stage. This in turn resulted in an even greater lack of support, or even in a "*feeling of working against the idea*" for *Project 4* and *Project 5*. The lack of support has the main downside, that it becomes difficult or impossible to align the concept of an idea with the existing organisation. Considering the learnings and findings within high organisational environment, it can be argued that the influence of organisational knowledge was beneficial in this stage, for instance in terms of sales knowledge and editorial content. One can argue that this input would also be of benefit in low organizational knowledge environments, as this study was able to show for Project 6. This insight is in line with Lin et al. (2017) who argue that certain organisational knowledge is supportive in low organisational environments.

However, our findings showed for *Project 4* and *Project 5*, which were most distant from organisational knowledge, that this supportive role might be not available due to the lack of support. In this notion, Eisenhardt and Tabrizi (1995) argue that it is of importance to use the internal network in these later stages to gain support for more radical ideas. However, the individuals responsible for *Project 4* and *Project 5* were not able to utilize their network for this support, since the idea was already too far away from the organisation ("*It wasn't also only missing support it was also working against us")*. Instead, the findings showed that the individual needed to substitute this missing knowledge with network knowledge. This is contrary to what Ohly et al. (2010) states. They argue that in later stages of the development process networks have more the role of providing input for validating the idea and gaining political support, it is not so much about gaining new expert input anymore. This difference can be traced back to the missing input from organisational knowledge. The strong reliance on the network is a major differences in the two cases, since we have discussed that the network doesn`t play a significant role in this stage in high organisational knowledge environments.

6.0 Conclusion

This research is aimed at investigating the role and importance of organisational and individual knowledge in the idea generation process in the context of high and low organisational environments. This study described and discussed in detail that the role and importance of individual and organisational knowledge significantly differs amongst the different stages of idea generation depending on the organisational knowledge environment. In the following these insights and knowledge gains of this study will be concluded.

Firstly, the overarching contribution of this study to the area of FEI and idea generation literature is clearly the insight and prove, that research has to consider two dimensions to truly understand the idea generation process. These two dimensions are organisational knowledge environment and the specific idea generation stages. Only by considering both dimensions the complexity of this field can be reflected sufficiently. In more detail, the contribution to the literature of idea generation is, that this study was able to provide a much more nuanced picture of the influence of organisational and individual knowledge on the idea generation process. This picture, reflected in our grounded theory model, is also the main contribution of this study. Furthermore, this framework can be considered as a valuable progression of Akbar and Tzokas` (2013) idea generation framework, by providing more in depth and differentiated insights in each stage under the consideration of different organisational knowledge environments.

To point out one of the most interesting findings in terms of the more nuanced and detailed picture concerning the influence of organisational and individual knowledge on the idea generation process, we refer to the role of individual knowledge in high organisational knowledge environments. Whereas previous literature pointed out that organisational knowledge is dominant and individual knowledge only secondary in these environments (e.g. Lin et al. (2017)), we were able to show that individual knowledge plays a much more important and differentiated role. For instance, in the first two stages individual knowledge has a complementary role instead of a supportive role. This is a critical distinction, since a supportive role implies that it is not absolutely necessary, whereas the description “complementary” implies the opposite, i.e. individual knowledge is necessary to be successful. This is even more obvious in the expand stage, in which

we argue that individual knowledge and organisational knowledge are equally important ("knowledge ambidexterity") compared to a supportive role in previous literature. Furthermore, this study is able to describe the role of individual knowledge in these environments in much more detail, e.g. in which stages individual knowledge provides specialized customer insights.

Also for the low organisational knowledge environment this study was able to provide several new insights to previous literature. Most interestingly in terms of how low organisational knowledge environments, i.e. missing organisational knowledge and the resistance to change organisational knowledge, can force individuals to develop their ideas outside of the organisation during the expansion stage due to path dependencies and how this affects also the later refinement stage, in terms of organisational knowledge being detached from the concept development. Moreover, this study was able to investigate and discuss in detail, how missing organisational knowledge forces individual knowledge to be the base for a diligent idea evaluation. Furthermore, this discussion was enriched by considering the role of organisational knowledge in the previous stage (generation stage), which helped to explain why the evaluation stage had to be based on individual knowledge. The consideration of the interrelations between the single stages in combination with the different roles of organisational and individual knowledge provided further insights to current literature.

Furthermore, this study provided more operational details on how organisational and individual knowledge support or complement each other in the different stages of the idea generation process. For instance, organisational knowledge proved to be of great value by supporting with general consumer insights, market knowledge and customer relations. This study showed that the value of these organisational market/customer insights was independent of high and low organizational knowledge environments.

Moreover, since this study considered the fine differences and similarities of the single projects within each case, this study could provide an even more nuanced picture within the low and high organisational knowledge environments itself. This more nuanced picture, for example, enabled the insight that identified negative effects such as path dependencies were only true for two out of three projects. By giving an explanation why one project was not impacted by path dependencies,

this study showed that the differentiation between high and low organisational knowledge environments can not be black and white but must be fading.

Lastly, this research underlined the importance of considering networks concepts to fully understand the idea generation process and the influence of knowledge. Summarizing throughout all idea generation stages, the role of social networks in the context of this study was, that social networks have to be considered as a crucial knowledge source of the individual. Only through the individual, who collects and processes the knowledge gained through networks, networks can take this important supportive role. For instance, our research showed that these networks supply substitutes for missing organisational and therefore mitigate the effects of missing organizational knowledge

6.1 Managerial implications

We can conclude from this research, that the organisational knowledge environment impacts the role and importance of organisational and individual knowledge in the idea generation process very differently. Therefore, innovation management asks for focused attention towards differentiated knowledge utilization during the idea generation process. Based on these three specific implications for practitioners can be derived.

Firstly, this research demonstrates the importance of proactively managing how and when individual and organisational knowledge should impact the idea generation. Furthermore, this research is also providing the basis for this kind of management, since it describes how individual and organisational knowledge impact the idea generation. In more detail, the relative importance of organisational and individual knowledge needs to be pro-actively aligned with the strategic direction of the idea. For instance, the manager needs to ensure that organisational knowledge only provides context in the first stage, if the ultimate goal is an idea outside the core, which, however, will still work within the existing organisation. Another example would be, that in high organisational knowledge environments within the expansion stage the manager needs to ensure that organisational knowledge does not become dominant and individual knowledge plays an

equally important role. Otherwise, there is a significant risk, that novelty or value of the idea will diminish. Additionally, since organisational knowledge can lead to superficial assessment of ideas, empathizing the role of individual knowledge in the evaluation stage is of importance.

Secondly, organisational knowledge in terms of consumer relationships, market knowledge, and consumer insights have been of value and importance in both settings, high and low organisational knowledge environments. Therefore, this study implicates that investments in building up organisational knowledge in this area and spreading this knowledge in the organisation, for instance through a centralized user laboratory, will result in a high return of investment. This study clearly reduced the uncertainty of return in this organisational knowledge investment as Leiponen (2006) describes it. This is due to the fact that this study showed, that this knowledge will provide the basis (or context) to various novel and valuable ideas. Furthermore, this organisational customer knowledge will create a synergistic effect, since a broad customer or market research would not be needed for each idea individually. However, since this customer knowledge might not be available and hard to build up, the responsible manager should alternatively ensure that this knowledge can be easily accessed through existing networks in the organisation. These established customer relations make it easier and more efficient to gain relevant customer insights.

Thirdly, this research also provides implications for practitioners on how to staff and lead the individuals working on the idea generation process. In low organisational knowledge environments it is of importance that the individuals possess valuable and relevant domain knowledge, which can be combined with organisational knowledge in order to generate novel and valuable ideas. Furthermore, in low organisational knowledge environments the individuals require tangentially more guidance, since the organisation does not provide orientation and processes once the idea needs to be further developed outside the company. Moreover, in high organisational knowledge environments the manager must ensure, that the responsible individuals are able to think independently to recognize when they have to break with organisational knowledge. Furthermore, in both environments the manager has to ensure that the individuals possess as sufficient network or help them building it up to receive necessary input not available on an organizational or individual level.

6.2 Research Limitations

Case studies are always depended on the studied cases, which results in some general limitations. These limitations do not lessen the contribution of this study but are important to mention to accurately interpret the findings and identify future research areas (Bryman and Bell, 2011).

Firstly, this case study took place in the media industry. Therefore, this case shows several characteristics (e.g. advertisement-based business model) which are specific to this industry. This might impact the generalizability of this study in terms of being applicable to other industries.

Secondly, the case study organisation was characterized by a very limited amount of organisational explicit knowledge, in terms of policies, explicit processes and guidelines. Therefore, the impact of organisational explicit knowledge on the idea generation process was limited by default. However, previous research has shown that innovations depends to higher extent on tacit knowledge (Leonard and Sensiper, 1998), therefore this limitation is of limited significance.

Thirdly, since this research was conducted as a master thesis, the researcher had to consider the given time and resource constraints (Bryman and Bell, 2011). Therefore, the research was not able to capture a relevant indicator of individual knowledge, namely relevant professional experience. It can be argued that this is a limitation to this research, since this studied showed that experiences clearly impact the idea generation. However, the study did not further investigate in detail if this impact depends upon area and years of experience.

Lastly, networks proved to be of importance in this research field of idea generation, especially under consideration of individual and organisational knowledge. However, again due to time and resource constraints this study considered network more as a supportive aspect to our research. Therefore, the role if social network could not be studied in more detail.

6.3 Future research

Relating back to the limitations of this research and general findings, future research could be further enriched by considering the following points on individual knowledge, organisational knowledge and the social network part.

Firstly, since this research was limited to the media industry and was of qualitative exploratory nature, a longitudinal study of this framework in the context of different industries would further increase the reliability and generalizability of this model. Moreover, future research should include performance measures to identify which balance of individual and organisational knowledge under the considerations of high and low organizational environments is providing the best basis for success. This future research direction is also based on the insight, that this study found that only two out of three projects in the low organisational knowledge environment were affected from negative path dependencies. This implies that there might be a "perfect balance" of relative importance of organisational and individual knowledge for successful projects, which could be investigated with the proposed longitude study.

Secondly, future research would benefit from research in more depth on how the role of individual work experience impacts the idea development process, negative and positive wise. As mentioned in the limitations, this study was not able to address the complex interrelations between the degree of relevant personal experience and impact of individual knowledge on the idea generation process under consideration of organisational knowledge. However, based on the insights of this study there are indications, that the role of individual knowledge does not only depend upon the stage within the idea development process and the organizational knowledge environment, but also on the degree of personal experience. For instance, when individuals decide to break from organisational knowledge, how much does this decision depend upon the degree (e.g. years) of personal experience?

Thirdly, the way this research was structured it was mainly focused on social network as a supportive role within the idea generation process. However, the study showed indications that the network takes a more central role than initially anticipated. Future research on the idea generation

process should therefore be focused on treating this variable as equally important to deepen the understanding of how networks impact individual knowledge and therefore importance of individual knowledge within the idea generation process.

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8.0 Appendix

Appendix 1: Interview guide

Background

This interview will be done by one interviewer and one observer. The nature of this interview will be verbal and written. A transcript of the interview will be handed over to you after this interview is done for your confirmation. Participation in the interview and study is voluntary. You can withdraw your consent to participate in the study at any given time without stating any particular reason. The samples and data, we are collecting about you will only be used in accordance with the purpose of the study. The study is investigating the impact of different organizational knowledge levels on the idea generation process in the context of explorative innovation strategy. All these data and samples will be processed without name, ID or any other directly recognizable type of information to ensure the privacy. Only authorized project personnel will have access to it to be able to identify you. Data collected including the audio and transcript will be consolidated and deleted after the purpose of academic research is accomplished.

General personal information

1. In short what are your work tasks at the case company?
2. What is your educational background?
3. In which work tasks do you feel most competent and confident?
4. How many have you spent on developing new ideas new to the company and implement those over the course of your professional career?
5. If you would compare yourself to the person you were when you graduated from University, could you name the three most important skills that you have gained ever since?
    a. Give specific examples - e.g. identifying trends, understanding customers, understanding the process of developing a new idea
    b. What makes you better at this now?
6. Could you please shortly describe project x?

Generation stage

1. After you have discovered the opportunity for project x, can you explain step by step how you came up with options how to exploit this opportunity?
    a. How did you collect relevant information?
2. How would have your idea looked differently, assuming you have the same resources available, if you would have come up with the idea on your own and never have worked at the case company?
    a. Has dominant ways of thinking at the case company or routines pushed the idea in a certain direction?
    b. How has [case company] data, for instance, customer data and insights which are available to the organisation influenced these initial activities?
3. Which information and knowledge from your education, books, podcasts, internet research or other easily accessible sources helped you to perform the activities described earlier?
4. How did the experience that you have gained in your professional career helped you to perform the activities when you come up with the idea?
    a. Can you refer to specific skills or experiences?
5. Reflective question on the two last questions: what had the bigger impact on your activities?
6. Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the options to exploit the opportunity?
    a. How did this positively or negatively influence this phase?
7. How did experience from previous projects or operations, for instance in the organisation influenced the idea generation process?
    a. How did this positively or negatively influence this phase?
8. How did your internal and external network influence the idea generation process?

Evaluation stage

1. How did you, in terms of activities, assess the potential of the initial ideas?
    a. The question is referring to only the initial idea, or, if you had several ideas for the same opportunity to all of them.
    b. For instance in terms of strategic fit, market needs, competitive environments, technology feasibility and customer needs?

2. Would the outcome of the assessment have looked differently, assuming you have the same resources available, if you would have worked on your own and never have worked at the case company?
3. Which information and knowledge from your education, books, podcasts, internet research or other easily accessible sources helped you to perform the activities described earlier?
4. How did the experience that you have gained in your professional career helped you to perform the activities when you assessed the potential of the idea?
    a. Can you refer to specific skills or experiences?
5. Reflective question on the two last questions: what had the bigger impact on your activities?
6. How did, if you used any, written down processes, intellectual property, documents, knowledge-sharing systems, and patents influence the assessment process?
    a. How did this positively or negatively influence this phase?
7. How did experiences from previous projects or operations in the organisation influence the assessment process?
    a. How did this positively or negatively influence this phase?
8. How did your internal and external network influence the assessment?

Expansion stage

1. Based on the initial assessment of the idea, how did you further develop the idea in terms of defining key features and applications?
2. How would the development of the idea in terms of for example applications and features have looked differently, assuming you have the same resources available, if you would have come up with the idea on your own and never have worked at the case company?
    a. Has dominant ways of thinking at the case company or routines pushed the idea development in a certain direction?
    b. How has the case company's knowledge, for instance, customer data and insights which are available to the organisation influenced these activities?
3. Which information and knowledge from your education, books, podcasts, internet research or other easily accessible sources helped you to perform the activities described earlier?

4. How did the experience that you have gained in your professional career helped you to perform the activities when deciding on key applications and functionalities?
    a. Can you refer to specific skills or experiences?
5. Reflective question on the two last questions: what had the bigger impact on your activities?
6. Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the development of key features and applications?
    a. How did this positively or negatively influence this phase?
7. How did experiences from previous projects or operations in the organisation influenced, positive and negative wise, the further development of the idea?
    a. How did this positively or negatively influence this phase?
8. How did your internal and external network influenced the development of the idea?

Refinement stage

1. How did you specify the idea into a workable and practical concept? Which activities did you perform?
2. How would the development of the idea in terms of for example applications and features have looked differently, assuming you have the same resources available, if you would have come up with the idea on your own and never have worked at the case company? What we would like you to reflect on is, that the case company has specific ways of working and thinking, also has expertise and specific opinions about topics. How have they influenced the activities, negative and positive wise?
    a. Has dominant ways of thinking at the case company or routines pushed the idea concept in a certain direction?
    b. How has the case company's knowledge, for instance, customer data and insights which are available to the organisation influenced these concept activities?
3. Which information and knowledge from your education, books, podcasts, internet research or other easily accessible sources helped you to perform the activities described earlier?
4. How did the experience that you have gained in your professional career helped you to perform the activities when deciding on key applications and functionalities?
    a. Can you refer to specific skills or experiences?

5. Reflective question on the two last questions: what had the bigger impact on your activities?
6. Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the concept development?
    a. How did this positively or negatively influence this phase?
7. How did experiences from previous projects or operations in the organisation influenced, positive and negative wise, the concept development?
    a. How did this positively or negatively influence this phase?
8. How did your internal and external network influenced the concept development?

Closing questions

1. Do you feel we have missed anything important in the context of our questions?

Appendix 2: Quotes and 1st concepts for high organizational knowledge case

Code	Quote	1st order concept
Background	masters in ergonomic design and MBA administration business.	
Background	in general 12 years	
Background	More logic and more analytic skills. more diplomacy and more leadership skills in general.	
Background	I have been studied at the University of Lund, on a "Folkhögskola". I did four years in Lund, I didn't do a program but I studied literature, Swedish language, journalism and political science.	
Background	I like to be where I am now as a business developer. Not so much about economic tasks, more about the creative process.	
Background	3 years in total, but 27 years in the newspaper.	
Background	My new "eyes" without the business development perspective, since I didn't learn that from school. It could be very valuable because I have developed a very analytic way of thinking when I was a journalist	
Background	I see things from different perspectives, from my perspective I see business development as partly very traditional and slow	
Background	My background is as a journalist	
Background	So I sort of gradually transformed from being an editor and a journalist to to business developer and I've been with Sydsvenskan for, how long is it now maybe five years and I've had the role as a business developer here all time	
Background	Well, I think my strength as a business developer is I have a sort of a broad understanding of all the different aspects of our business both the editorial side the advertising side the consumer side and also the tech side I'm not I mean I could never be a developer. I don't have near the knowledge that that our developer has regarding the tech side but I consider myself to have a pretty good understanding of what technology can enable us to do and how we can use technology to better serve our customers.	
Background	So, I think my biggest strength is that I sort of a generalist and not a specialist,I believe. Okay.	
Background	So let's say that's for for six years I worked with product development and a few years later, I started working with business developer as well. So yeah, something like ten years give or take.	
Background	okay yeah well lots and lots of experience lots and lots of failures lots and lots of things that I thought was the best idea ever that didn't work out for various reasons.	

Individual explicit - 3rd stage	I built the website myself in one evening and bought a few plugins.	Hard skills from previous working experience utilized to build prototype
Individual explicit - 1st stage	Read in several books and blogs and stuff like that	Idea exploration was supported by information gathering through blogs, books, and other internet sources
Individual explicit - 1st stage	I also read a lot of blogs and online content that posted content in line with what we did we Himma, I had to be updated and follow the blog environment. I also keep myself updated with consultant reports, and what project they were working on.	Idea exploration was supported by information gathering through blogs, books, and other internet sources
Individual explicit - 1st stage	I can't say that I read a specific book or listen to specific podcast, but I was it when I was at this idea and concept development phase I was certainly paid a lot of attention if something came up in my news feed. That that this company has done this and this company is doing that just sort of looking at brands and new products or new companies in the job market,	Idea exploration was supported by information gathering through blogs, books, and other internet sources
Individual explicit - 2nd stage	which was in English like ahead of the game where every employee was sent to three days of training in sort of design thinking.	Knowledge gained from training was used to assess idea
Individual explicit - 2nd stage	I was missing knowledge in business and economics. And that was knowledge that I needed, for example business models. Therefore, I took a course in this to gain relevant knowledge.	Knowledge gained from training was used to assess idea
Individual explicit - 2nd stage	This matters of course, not podcasts so much, but blogs in innovation and business. It was helpful because it gave me a backup and validation that we are doing things in the right way. You are there to get inspiration, but also to get confirmation that this is a way that this is a way forward.	Blogs, industry articles to confirm assumptions regarding assessment
Individual explicit - 2nd stage	I did read a lot of like industry articles and stuff like that but it was stuff like that, that I found in my news feeds and social feed some colleagues found and emailed to me and so on.	Blogs, industry articles to confirm assumptions regarding assessment
Individual explicit - 3rd stage	We tried everything to see what would work, the startup way	Development process knolwedge was basis to define key features
Individual explicit - 3rd stage	So we it kind of a design thinking process, that we did research that was the foundations for this stage	Development process knolwedge was basis to define key features
Individual explicit - 4th stage	we needed to go with a standardized way of selling ads in positions formats stuff like that, technology of course. We aslo measured the traffic in the same way as the other siztes,	Utilizing organisational knowledge in terms of proven processes and best practice
Individual explicit - 4th stage	I was missing knowledge in business and economics. And that was knowledge that I needed, for example business models. Therefore, I took a course in this to gain relevant knowledge.	Taking training to get relevant business knowledge
Individual tacit - 1st stage	And the story written about me and I got so much back from that with new clients and appreciation and stuff like that and that made me look at Sydsvenskan in totally different way. I can do business with help of them and I haven't hadn't had that thought before because they were legacy and I was into digital.	Personal experience to see the potential of an idea
Individual tacit - 1st stage	So those two generally insights combined he wanted to do something he had a general idea and I saw a specific need based on my previous situation.	Combination of insights from internal network and personal experience resulted in initial idea
Individual tacit - 1st stage	but as I remembered it I had worked as a consultant for several media companies before and I saw general trends in when things become digital is much more clear logic to build things in with high relevance for a niche target group.	Personal experience to see the potential of an idea

Individual tacit - 1st stage	So that was a general insight that I arrived with	Personal experience to see the potential of an idea
Individual tacit - 1st stage	And to add to that really good insights into the target group we were aiming for - both from Tomas, what was the other guy's name as well and from Me. Me being a part of it and him being part of interviewing them every every day and every week.	Combination of insights from internal network and personal experience resulted in initial idea
Individual tacit - 1st stage	I realize that the material was coming back in the same form every year, for example on how to cut the grass. So why did we rewrite all content every year? You can read the same article repeatedly, so why not reuse the content?	Idea based on personal experience of working many years with the company
Individual tacit - 1st stage	I am convinced that I could have built the same number of followers, and to get them to subscribe to the newsletter.	The implementation of the idea was not influenced by organisational knolwedge
Individual tacit - 1st stage	I had to learn a lot in terms of social media, ads on Facebook and so on I would have could do it myself. It is kind of like a blog product, bloggers built up their product and we did the same.	Idea exploration required new skills and knoweldge, which did not exist in the firm
Individual tacit - 1st stage	When I started this, I came from the editorial side	Idea based on personal experience of working many years with the company
Individual tacit - 1st stage	The knowledge I get from over a long period see what kind of content is relevant and what is good content. This experiences must of course always be updated, since the world is changing fast now. Some experiences I gained 20 years ago, are no longer relevant. On the other hand I think it is important to believe and have trust in one experience to maintain the speed in development of new product and services.	Idea based on personal experience of working many years with the company
Individual tacit - 1st stage	The area of focus, home and garden was complete my idea	Idea based on personal experience of working many years with the company
Individual tacit - 1st stage	we we needed to do something very radical to stand out in the market because in a few years, we our recruitment to revenue was going to be zero	Combination of insights from internal network and personal experience resulted in initial idea
Individual tacit - 1st stage	But just having this discussion and meet with them early on, where we didn't have a product and we didn't have a fancy presentation, we just talked about ideas with them. I wanted to listen to them, that process has changed how they perceive us.	Idea exploration benefited from customer discussions
Individual tacit - 1st stage	the experience that I've gained has helped me... definitely helped me	Idea based on personal experience of working many years with the company
Individual tacit - 2nd stage	I remembered it as we did a few interviews, like met with people discussing the idea.	Assessment of idea based on customer input
Individual tacit - 2nd stage	was to go out and meet people	Assessment of idea based on customer input
Individual tacit - 2nd stage	So we interviewed people from different parts of the business and brought back that insight back to the party	Assessment of idea based on customer input
Individual tacit - 2nd stage	Okay. So to summarize, you have assessed idea according to customer insights, or mainly based on customer experience? Personal experience, I would say that's an important thing.	Assessed idea according to intuition and experience

Individual tacit - 2nd stage	It was much more intuition	Assessed idea according to intuition and experience
Individual tacit - 2nd stage	To me, it was my personal experience when I was written about.	Assessed idea according to intuition and experience
Individual tacit - 2nd stage	We communicated with users, all the time and asked for opinions about the product.	Assessment of idea based on customer input
Individual tacit - 2nd stage	Egen bakgrund eller komptensen. - The feeling for external environment. And taking in what kind of feeds in working and not working. Definitely.	Assessed idea according to intuition and experience
Individual tacit - 2nd stage	When I met with customers I gradually also started talking more and more about that. And the more I did that the more positive feedback. I got from those meetings	Assessment of idea based on customer input
Individual tacit - 2nd stage	got a lot of questions and I got the very good input, but I also got confirmation that we were on the right track.	Assessment of idea based on customer input
Individual tacit - 2nd stage	And also what we did also was to map out all of the big competitors in the job market in Sweden and we just saw that there's was like a gap.	Assessment of idea based on competitor research
Individual tacit - 2nd stage	But because there's no like input from the [redacted] organization that steered us in that direction. That was more like you looking at what the what are these people actually in need of. But there is another key part is that for smartajobb to work you need a place to host this product that has a lot of traffic and that has traffic that is not related to jobs.	Assessed the idea based on internal needs in the organisation
Individual tacit - 2nd stage	But generally, of course I've, I've had help with my background and my my experience. So just like, I don't think I can be very specific.	Assessed idea according to intuition and experience
Individual tacit - 3rd stage	which meant that we had decreasing amount of traffic that we could sell and while the mobile was exploding and no one wanted it so we decided from the beginning to sell 8till5 as a general product. You want to position and then you got that position in all devices. So we got rid of that problem. So that was one of the insights where we connected my knowledge with internal ways of doing things and made it better.	Combination of individual knowledge and organizational knowledge to make things better
Individual tacit - 3rd stage	I wouldn't say it was something that had been read more like experienced. How to build things and how make it work in functionality.	Hard skills from previous working experience utilized to build prototype
Individual tacit - 3rd stage	But we were the ones deciding that they couldn't sell in discount. That they should sell like a network with mobile and desktop in general. They weren't for that from the beginning. So that was a bit of a struggle.	Decided against organisational knowledge based on personal experience when defining key aspects of idea
Individual tacit - 3rd stage	We tested everything with customers, we release the app and got reaction from our customers.	Key features based on customer feedback
Individual tacit - 3rd stage	Both primary and secondary research. It was also to cluster all the knowledge we collected and ask ourselves how and what can we do to make this a process to satisfy the needs of the users.	Internal discussions how to implement customer feedback
Individual tacit - 3rd stage	Learning by doing, which is very important here. Maybe that is what it is all about. Maybe that is because of my background, and that I had the experiences with me from before. Also I am very brave to be honest, so I have the courage to do different stuff. You can get that courage from coaching or experiences. But a person doesn't need to be old to be bold, just need the right people to coach you.	Discussions with external and internal coaches to receive training

Individual tacit - 3rd stage	The material and areas of interest to customer, we had data on that which was helpful. However, I also had the skills to communicate this insights with users. We looked also a lot of what we should not do, for example, not starting a new instagram, we would never be able to do that. We set the direction based on what we should not do.	Key features based on customer feedback
Individual tacit - 3rd stage	My background as a journalist I think was important, because I knew people and I could ask them questions and get material.	Internal network used to define key features
Individual tacit - 3rd stage	It was key to focus on the core of the product and to sort of define that and to focus on that, rather than what we tend to do in a company in like this, we tend to look at workflow and processes and try to like integrate everything with everything else	Decided against organisational knowledge based on personal experience when defining key aspects of idea
Individual tacit - 3rd stage	We had two pilot customers	Key features based on customer feedback
Individual tacit - 4th stage	when we started the fashion blog, we we did that with the technology and a way of working, and that I really copied when we started to 8till5. look good in WordPress. For example, I could do it myself. Coming up with a name quite quickly registering Domain. I mean very specific and perhaps not highly interesting knowledge today but very helpful when you can n handle almost all of it yourself.	Personal experience helpful to define concept
Individual tacit - 4th stage	So yeah, I had been selling a lot of ideas to media companies before. So now I did again	Personal experience helpful to define concept
Individual tacit - 4th stage	So what we did was really to simplify the product and the purchase, because what you had to choose from before was so many formats in so many positions over several different devices for different target groups, but in the same environment, almost like.	Doing it you own way based on personal experience against organisational knowledge
Individual tacit - 4th stage	My skills to communicate with users, even though I don't know them. The knowledge how to talk to customers, which I have learned from being a journalist. Very valuable.	Personal experience helpful to define concept
Network external - 1st stage	But influencing the idea very much external networks.	Utilizing [redacted]s external network to receive relevant knowledge from customers and experts
Network external - 1st stage	It was of course very helpful that I could say that a came from one of Sweden's largest media houses, people did not say no to that and you are always welcome.	Utilizing [redacted]s external network to receive relevant knowledge from customers and experts
Network external - 1st stage	I also meet a lot of use of my network. I got material that we could use, for example I have been invited to many different events and fairs. My network was very important for me, and that is also what you can see that bloggers today need to fight for.	Utilizing personal external network to receive content and talk to potential customers
Network external - 1st stage	Mingel and seminars at consultancy firms was also important. I kept track of the startup sector. It was very helpful, I also talked to people experienced within this field. I gained a lof ot knowledge by just talking to other more experienced people.	Utilizing personal external network to receive input from experts
Network external - 1st stage	I met with a lot of lot of customers, a lot of advertisers. So within so so during a year. I spent talking with both advertisers here in Malmö and SKane.	Utilizing [redacted]s external network to receive relevant knowledge from customers and experts
Network external - 1st stage	We had had very close negotiations with a startup company based in Malmö that had some other ideas of how we can approach this using more like algorithms and some personalization	Utilizing [redacted]s external network to receive relevant knowledge from customers and experts
Network external - 1st stage	what I learned to talk with advertisers was that they had a very specific problem - all of them, when you talk about recruiting. Recruitment business and candidates, you often divide them into passive candidates and active candidates.	Utilizing [redacted]s external network to receive relevant knowledge from customers and experts

Network external - 1st stage	If I had started from like just my basement, so to speak. Yeah, I just I would have been probably, not I'm not gonna say impossible about very, very difficult because there is being from [redacted] and being from [redacted] means that when we send them an email to a recruiter or a head of a recruitment company and say, Hey, can we meet up for lunch and discuss this new product we're working on. You don't have to say much more than that. You get the appointment. If I'm calling him like, I'm from a company that you have never heard of and want to talk about something	Utilizing [redacted]s external network to receive relevant knowledge from customers and experts
Network external - 1st stage	that was mainly a process with in like meeting with clients and then discussing with colleagues, what to do with with input we got from from the customers.	Customer input used for discussions with colleagues to define idea
Network external - 2nd stage	nd we had the relations with the clients already.	External customer network helped a lot
Network external - 3rd stage	For the upcoming 14 days, I have this much money to spend, and then I talked to the developer and together with the developer we decided on the three most important things to do in relation with how much money I could spend.	Utilized knowledge from consultants to define key features in terms of technology
Network external - 3rd stage	We hired consultants to help us develop the product, and we learned a lot from them. Learning by doing kind of. The consultant introduced us to different development methods, like agile development.	Utilized knowledge from consultants to define key features in terms of technology
Network external - 3rd stage	My background as a journalist I think was important, because I knew people and I could ask them questions and get material.	Private network to get input for key features
Network external - 3rd stage	because what happened next was that, we had figured out what we wanted to do, so we had to find consultants who could do it. Because we have no one in house. So in that sense I had no one. Then it would almost be easier to be like a small startup now that started up as a technology company.	Utilized knowledge from consultants to define key features in terms of technology
Network external - 3rd stage	I think that that was probably very much in discussions with the Hans-Peter, who has done almost all of the back end development. We had weekly meetings just prioritizing and looking on what we needed to focus on.	Utilized knowledge from consultants to define key features in terms of technology
Network external - 4th stage	We sort of learned that it wasn't easy at all. It was extremely, extremely difficult. We had a lot of workshops, confusing workshops where we just sort of tried to figure out how are we going to build this.	Hired external consultants to access relevant technological knowledge
Network external - 4th stage	But first, why are you here. So, so, and it wasn't his fault it was the company that we hired, but the we found hans-peter, who is a consultant for us for like a year on that we hired him. And he's the one that built almost all of it. So now we needed that. But he was like the key part of the puzzle	Hired external consultants to access relevant technological knowledge
Network external - 4th stage	we did when Hans-Peter started working we talked a lot about what we wanted to do. He spent a few weeks, like designing the architecture and coming up with some rough expectations about how long different things will take and from that we together we sort of prioritized but yeah pretty much in that way.	Hired external consultants to access relevant technological knowledge
Network internal - 4th stage	Anyways, so it's not often that we get that sort of collaboration like I had with Pontus. I mean we work together on this project for like three years.	Internal network needed to access relevant sales knowledge
Network internal - 1st stage	One of the first who reached out to me was, was an older acquaintance one of journalists here who had been fighting for a project like this for several years, but with no attention and since I was responsible for business development team he saw his chance and when he reached out and said we should do something for for the business life of Skane	Initial idea came from internal network
Network internal - 1st stage	So those two generally insights combined he wanted to do something he had a general idea and I saw a specific need based on my previous situation.	Combination of insights from internal network and personal experience resulted in initial idea
Network internal - 1st stage	And to add to that really good insights into the target group we were aiming for - both from Tomas, what was the other guy's name as well and from Me. Me being a part of it and him being part of interviewing them every every day and every week.	Combination of insights from internal network and personal experience resulted in initial idea

Network internal - 1st stage	And seeing that we could do more for them and seeing a need for doing more and general need for being written about more. And also a personal interest of him, of course.	Initial idea came from internal network
Network internal - 1st stage	Pontus who was also working with the recruitment business; recruitment advertisers for many, many years and he knows many of the players in that market. So I teamed up with him	Combination of insights from internal network and personal experience resulted in initial idea
Network internal - 1st stage	nd also going up to Stockholm and meeting with [redacted] colleagues there. And we try to collaborate	Combination of insights from internal network and personal experience resulted in initial idea
Network internal - 1st stage	And related to your question I had my colleague Pontus who was of enormous use, specifically because he knew the business. He knew the people.	Receiving input from customers based on internal network
Network internal - 1st stage	Yeah he is a colleague and is now one of the people selling smartajobb. And he has been with Sydsvenska for like 30 years, I think. Yeah. So he is a very, very experienced salesperson, and he knows a lot of recruiters. He knows a lot of HR people at big companies, a lot of HR people's people in like Malmö City, Helsingborg City.	Receiving input from customers based on internal network
Network internal - 1st stage	So his connections and also his understanding of the business was crucial for us. Definitely I could not have done it without that, it would have been a lot more difficult.	Combination of insights from internal network and personal experience resulted in initial idea
Network internal - 1st stage	that was mainly a process with in like meeting with clients and then discussing with colleagues, what to do with with input we got from from the customers.	Customer input used for discussions with colleagues to define idea
Network internal - 2nd stage	To my boss back then, he had previously been working with IDG, which is another publisher in Sweden and they have more niche media niche magazines, they started with and have built a lot of new business from that conferences and so on. So he was with them before he got here and saw a huge opportunity in doing much more high relevance type of products and more vertical products.	Internal network provided insights to assess the idea by providing additional perspective
Network internal - 2nd stage	The internal network, or my group working with innovation was very important and very helpful.	Internal network provided insights to assess the idea by providing additional perspective
Network internal - 2nd stage	In that process I had a lot of help as abusiness developer from Tomas, Ferderik, and Karin who were at the time like the business development side. We're a lot more people now but at the time it was just like the four of us. So I got a lot of help from them to just sort of just think through everything and get them sort of external perspective on what we were working on. I got a lot of help from Pontus from the from the beginning with his understanding of the business.	Internal network provided insights to assess the idea by providing additional perspective
Network internal - 2nd stage	I didn't have much of a network when we started it in terms of clients and customers. But I got from Pontus a lot of help using his network. So his Network was very valuable because he just open the door to a lot of people I didn't know.	Internal network provided access to customers to get relevant insights for idea assessment
Network internal - 3rd stage	My background as a journalist I think was important, because I knew people and I could ask them questions and get material.	Private network to get input for key features
Network internal - 3rd stage	I can't really think of any specific way. I mean there was, I mean there's definitely like if I'm working on that. On one product and Karin working on another and we meet once a week and we discuss what we're doing. We definitely influenced each other. You could say that the way that we present the ads on the websites are influenced by Frederika who at the time run native advertising project to to create that that product.	Internal network used to define key features

Network internal - 3rd stage	That is definitely positive. I mean if we are a couple of business developers running different projects and we meet to discuss and sort of oh you build that. So then we can we can benefit from that or you know what I just had this idea. What do you think? I mean that that is definitely just positive. So that's sort of that's definitely possible.	Internal network used to define key features
Network internal - 3rd stage	the internal network is very important. Hans-Peter got a lot of input from Hugo and from the development team how to develop the the systems so that internal networks are very, very important.	Internal network used to define key features
Organisational explicit - 1st stage	there wasn't any documentation or policies supporting this idea	Documents and policies did not influence the idea explore stage
Organisational explicit - 1st stage	- Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the options to exploit the opportunity? - No, nothing.	Documents and policies did not influence the idea explore stage
Organisational explicit - 1st stage	Okay, understood. And now to the organizational knowledge. Have any insight you found in, for example, corporate documents The intranet, Customer Data Service influenced the options to exploit the idea. So in terms of how you got to the passive advertisement? No, no, I can't say that that was mainly a process with in like meeting with clients and then discussing with colleagues, what to do with with input we got from from the customers.	Documents and policies did not influence the idea explore stage
Organisational explicit - 2nd stage	We evaluated the idea continually based on data from the ads.	Initial idea based on data from ads
Organisational explicit - 2nd stage	How did, if you used any, written down processes, intellectual property, documents, knowledge-sharing systems, and patents influence the assessment process? - No, maybe I don't understand the question. For [redacted], this was a completely new product to [redacted] and the thought from the beginning was to do this in other areas as well as for example, family and feed. Policies, not really, it was a true startup	Policies and processes did not drive the idea
Organisational explicit - 3rd stage	And that's of course written down somewhere on policy level and how like ethics and stuff like that and also education.	Idea must be in line with general policies
Organisational explicit - 3rd stage	We had the editorial content since it was the starting point, we had a documentation what people read in the newspaper, and we checked that of course	User data was used to define key features
Organisational explicit - 3rd stage	But we didn't see it from a new point of view, for example we did use the date to consider how we could get payed from the material.	User data was used to define key features
Organisational explicit - 3rd stage	Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the development of key features and applications - No.	No written down processes influenced the development of key features
Organisational explicit - 3rd stage	Sometimes they are sometimes their own, but they they still believe that or that we have processes and structures within the organization that is focused on our legacy business everything from our big IT systems. I mean, we have IT systems for our ad with our biggest CRM and and advertising platform out-sales here at Sydsvenskan which is is completely absurd when we try to use that system for our conference business.	Try to make things work in existing organisation
Organisational explicit - 4th stage	Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the concept development? - No, maybe some document concerning the laws.	Specific legal input relevant for concept development
Organisational tacit - 1st stage	What we had was, of course, very good good knowledge in journalism in general and the good knowledge of how to publish online to reach the target group and a very high reach in this area strong brands and so on.	Idea exploration was based on utilizing core competences and knowledge
Organisational tacit - 1st stage	so that we could have a higher margin on ads in this product. For example, because we saw that advertisers were willing to pay more when there was a more specific target group that was of higher value to them. I wouldn't say it was written down anywhere but that was general knowledge in the organization.	Idea exploration was based on utilizing core competences and knowledge

Organisational tacit - 1st stage	It started off in the editorial content, and the home and interior content was published in the newspaper every week and then it was done	Idea exploration was based on utilizing core competences and knowledge
Organisational tacit - 1st stage	Our relation to the readers was very valuable to develop the product in its initial stages.	Established user realtions and knowledge were valuable in the early stages
Organisational tacit - 1st stage	I need the material, since it is the based on us reusing editorial content.	Initial idea based on existing editorial content
Organisational tacit - 1st stage	But [redacted] lifestyle was for example much better at getting out relevant content fast, they do content of Melodifestivalen when it is, and it is fast. It is incredible fascinated how they could be so fast and how they can catch a trend in such a short time of period.	Internal departments as inspiration for initial idea
Organisational tacit - 1st stage	how it how it started was basically we looked broadly at our different the different areas of our business and we we looked at where are the challenges and where are there opportunities and we look that recruitment ads job listings which historically have been enormous source of revenue for for every morning newspaper that was like where you've found the job offerings going through the morning paper on Sundays, but gradually it that way we the revenue has declined very rapidly.	Idea exploration was based on utilizing core competences and knowledge
Organisational tacit - 1st stage	ut it was old and there was no users on it and the advertisers weren't happy with it at all.	Established user realtions and knowledge were valuable in the early stages
Organisational tacit - 1st stage	So we started looking at it very broadly and we also spent a lot of time talking with the colleagues in [redacted] News about their plans and what to do and the initial idea was to just create like a new modern job the platform job board pretty standard but to do it in cooperation with the [redacted] industry.	Internal network helped to get an broad understanding of the idea
Organisational tacit - 1st stage	They have really cool ideas, but it's very difficult to get traction in that market. And I think that that that's the that's a big factor being [redacted]	Idea exploration was based on utilizing core competences and knowledge
Organisational tacit - 1st stage	And we got lots and lots of negative feedback from customers. Because that that Gothenborg based company, they manage the technology and they also did the sales.	Established user realtions and knowledge were valuable in the early stages
Organisational tacit - 1st stage	So we had a lot of experience with the technology with a user experience of that platform and also the sales tactics. That was definitely helpful in just we don't want to do that.	Previous experience with operations influenced the idea generation
Organisational tacit - 2nd stage	We would probably be looking for a supporting business model much more soon. We're doing that now, we started the conferences, a couple years ago	Organisational knowledge lead to less detailed business analysis
Organisational tacit - 4th stage	Because the way to do it before it was to make a business plan for several years and then do a big investment and perhaps three years later, have profitability. Now we can do it really cheap and really low key to start with and therefore have profitability much sooner.	Chose different approach to concept development
Organisational tacit - 2nd stage	This was during the period that we combined these two companies and 160 people were let go. So it was chaos in here, which was perhaps not the right thing to say it was a really good environment to do new things because no one had the time to care. So if everything was going well, we wouldn't have been able to do it in that way we did.	Lack of organisational control allowed new ways of working
Organisational tacit - 4th stage	I think it is affected the business side, not, not in development, but the business side in that it was really hard to to make the sales people argue for the higher price point that this product had. It's actually awful how he structure for rebates and discounts work here.	Working against organisational knowledge
Organisational tacit - 2nd stage	In the beginning, we were not so much on the business side, it was more a discussion in-house.	Organisational knowledge lead to less detailed business analysis

Organisational tacit - 2nd stage	We also had weekly meeting, which gave time for us to reflect on each other's projects	Team`s knowledge used to assess idea
Organisational tacit - 2nd stage	I can't remember, we used our colleagues to discuss more business potential. We talked about how ads have changes since the launch of Himma. We could see a trend from the day when we launched Himma, the ads increase within that segment.	Used internal network to discuss idea assessment
Organisational tacit - 2nd stage	We where own by Bonnier, but we did not operate in the busneiss development project as we do today. So of course, I could hang out with people from Bonnier Lifestyle when I started Himma is would have been good for me. But on the other hand I'm not sure we would have started Himma from the first place if we would have had more access to Bonnier Lifestyle.	Too much organisational knowledge would have resulted in a negative assessment of the idea, because similiar ideas existed
Organisational tacit - 2nd stage	I think that if I had a had access to the customers. In the same way, then I would probably have landed in the same solutions, the same conclusions.	Knowledge and access to [redacted]s customers was crucial during assessment
Organisational tacit - 2nd stage	But because there's no like input from the Bonnier organization that steered us in that direction. That was more like you looking at what the what are these people actually in need of. But there is another key part is that for smartajobb to work you need a place to host this product that has a lot of traffic and that has traffic that is not related to jobs.	Assessed the idea based on internal needs in the organisation
Organisational tacit - 2nd stage	I mean, it's one of the key that we have here. We have lots and lots of readers in this part of in western Skane. We are very dominant so that's not like rocket science.	Knowledge and access to [redacted]s customers was crucial during assessment
Organisational tacit - 3rd stage	which meant that we had decreasing amount of traffic that we could sell and while the mobile was exploding and no one wanted it so we decided from the beginning to sell 8till5 as a general product. You want to position and then you got that position in all devices. So we got rid of that problem. So that was one of the insights where we connected my knowledge with internal ways of doing things and made it better.	Combination of individual knowledge and organizational knowledge to make things better
Organisational tacit - 3rd stage	We didn't really need to build the brand as it was launched within our channels. So we would have to do that.	Key features are aligned with existing assets and processes
Organisational tacit - 3rd stage	One thing that made it harder in the beginning was that they coming from a part of the organization that wrote for consumers and the way you write for consumers about companies is very different to how you write to companies about companies. Business life want to hear about positive things that happens in business.	Need to break with routines to establish key features
Organisational tacit - 3rd stage	So it was their experience of doing journalism that lead the way to how we performed	Key features are aligned with existing assets and processes
Organisational tacit - 3rd stage	It is in in how we approach the potential and how we made it work in an organization that believes in something else.	Decided against organisational knowledge based on personal experience when defining key aspects of idea
Organisational tacit - 3rd stage	I don't think so. I think the fun part of that project was really that we did in every to the organization unfamiliar way. I did is in the way I would do it on my own.	Decided against organisational knowledge based on personal experience when defining key aspects of idea
Organisational tacit - 3rd stage	we could see signals in the sales department of what clients could be interested in this product and we've made them ambassadors by asking them how to develop it, and therefore buying it.	Making use of organisational customer knowledge to define key aspects
Organisational tacit - 3rd stage	Now they were part of putting in the actual price point, because they had done that before with a more defined target group and so on so they could do that.	Making use of organisational customer knowledge to define key aspects

Organisational tacit - 3rd stage	If it would have been, I think we would have showed much more different potential business models and add on products and a more clear future vision than we did. In this company was more important to show that we could just start things, look how easy it is to start things and see what happens. So different approaches in vision, or just getting it done.	Fit the core product into the existing organisation
Organisational tacit - 3rd stage	What happened was that the sales department was not really onboard, they did not understand how to sale in one specific area, it was in the digital ad sales and it was more about selling as much as possible to our sites. We did not sell on the smaller sites, as Himmas was at the time and therefore we didn't make money from it	You have to add to the organisational knowledge to make an idea work and understandable
Organisational tacit - 3rd stage	Now we where more dependent on the editorial content, and if we would have done it ourselves I'm sure we would have been able to ensure higher quality if terms of meeting the needs for our customers. It was due to the ethical consideration for editorial content.	Fit the core product into the existing organisation
Organisational tacit - 3rd stage	The strength in our brand is the high credibility. This matters.	Key features in line with core competences
Organisational tacit - 3rd stage	We had a workshop, it was kind of a workshop in the house.	Internal workshops and discussions to define key features
Organisational tacit - 3rd stage	I think a dialogue with [redacted] would have been helpful, especially input from other business developers. But again, if we would have been in that position from start that we are today, I don't think Himma would exist.	More organisationla knowledge in terms of input from other business developers would have been helpful
Organisational tacit - 3rd stage	I got help and support to get the material, and to digitilaze it. If I would not have gotten the support from the editorial part, we would not have been able to do it.	Key features in line with core competences
Organisational tacit - 3rd stage	I can't say that we had in terms of like the tech side what can be done with technology in in this part of the process. I had no help at all from [redacted]	Missing organisational in terms of technological development
Organisational tacit - 3rd stage	So, so that's that's a learning. Definitely. But as far as learnings that influenced smartajobb that,vmaybe more like learnings from from the sort of the declining old business that we had done; the whole platform that we had, that wasn't working. There were very clear conclusions you draw by just looking at how that business is not functioning.	Key features are aligned with existing assets and processes
Organisational tacit - 3rd stage	No, I can't really say that [redacted]s routines.. I mean if you look at [redacted]as a whole and Sy[redacted]n as a whole our routines are mainly an obstacle and a problem, it's the opposite. I think there is a lot of pressure from like sales support to to do everything in our power to reduce workload on the support staff. Whereas our priority was the opposite.	Decided against organisational knowledge based on personal experience when defining key aspects of idea
Organisational tacit - 3rd stage	But the way we're organized, we couldn't do that,	Decided against organisational knowledge based on personal experience when defining key aspects of idea
Organisational tacit - 3rd stage	I can't really think of any specific way. I mean there was, I mean there's definitely like if I'm working on that. On one product and Karin working on another and we meet once a week and we discuss what we're doing. We definitely influenced each other. You could say that the way that we present the ads on the websites are influenced by Frederika who at the time run native advertising project to to create that that product.	Internal network used to define key features
Organisational tacit - 4th stage	I think it has over time, to some extent, I think it would be much more successful if it hadn't been within our existing organization. In terms of? In terms of not being held back by the old logic to some extent and large scale logic to another extent. It's, it's hard for this company to appreciate a small highly profitable business in relation to a big not so profitable business. Large turnover is better than high margin. simplified but still	Idea concept was eventually hold back by dominant logic

Organisational tacit - 4th stage	But and building the product, the way to build products in a company like this is to plan a lot and to build a lot and then launch when it's done. We did the opposites.	Chose different approach to concept development
Organisational tacit - 4th stage	I mean the actual content journalism continue to be done very much the way we used to do it. They had more freedom to choose what they should write about, but the process was quite similar.	Concept relied on core competences and routines of journalism
Organisational tacit - 4th stage	So we made it from what we believed was the expectations from the internal networks in that way	Concept aligned with organisational expectations
Organisational tacit - 4th stage	The challenges were how to scale it.	
Organisational tacit - 4th stage	I spend a lot of time to go on meeting with salespeople and different constellations of people to inform about the product and what kind of ads got be sold on the platform.	To make the idea happen you have to add to organisational knowledge
Organisational tacit - 4th stage	we have the channels here a [redacted] which we use to market new product and services. It the most important resource we have at the [redacted]	Key features are aligned with existing assets and processes
Organisational tacit - 4th stage	Marketing is very fun, and to focus on the right marketing in terms of right customers, segments and targets. If the group is right,	Organisational knowledge about customers is beneficial
Organisational tacit - 4th stage	People are also very booked, so the process can get slow by just waiting for the time to meet with the right people	Access to organisational knowledge is at times difficualt
Organisational tacit - 4th stage	We sort of learned that it wasn't easy at all. It was extremely, extremely difficult. We had a lot of workshops, confusing workshops where we just sort of tried to figure out how are we going to build this.	Missing organisational in terms of technological development
Organisational tacit - 4th stage	[redacted] has done relatively well in a short time; in terms of revenue and that is mostly because of the attention we have from the sales department where we have two or two and a half, depending on how you count, sales reps that are entirely focused on recruitment adds and smartajobb as the most important part of their offering	Sales department provided valuable input for concept development
Organisational tacit - 4th stage	You know, I think as a general reflection. I think that I mean the most help I had in terms of Organizational knowledge was the help that I got from sales department. And the lesson learned is that when we have that kind of collaboration with someone from another department. It can be very, very useful in a project and we don't often have that because it's very different.	Sales department provided valuable input for concept development

Appendix 3: Quotes and 1st order for low organizational knowledge case

Code	Quote	1st order concepts
Background	I have a background in business administration and marketing. After that I took some extra courses in political science and technology management. I also have a master in corporate entrepreneurship and innovation management.	
Background	I have been working for one and a half year,	
Background	maybe confidence in my skills. Also, political skills within the company, definitely.	
Background	Internal political skills, maybe eh...practical knowledge in new types of models how to create or like move projects forward	
Background	I'm a project manager for inbound marketing within the next team. So I do work with marketing but also I'm part of the product development and I've been part of pinata since the start almost as we went to innovation program. So it's really different tasks within different innovation groups.	
Background	-Just this first year I started the march 1 last year.	
Background	I went to the University to what is called again, economics? Yeah, so I did study economics. So, I think that was like hundred and 40 points by them. So that was in mid 90s so it's changed. And I also went to Germany so that I did extra.	
Individual explicit - 1st stage	I did not look in any books, but maybe it is more the mindset. I can't really answerer if I used my educational background.	Mindset gained through business education underlying basis for idea generation
Individual explicit - 1st stage	we research what is out there, competitors and tried to find knowledge about other failed similar projects. We did this because we saw this was a good idea, but why didn't anyone do it before?	Online research to explore context of idea
Individual explicit - 1st stage	We didn't directly have Paxa, and we need to research it in these types. It was more online.	Online research to explore context of idea
Individual explicit - 1st stage	Because we research a lot online, on competitors and stuff. We didn't go into books and stuff and educational whatever, i think the online research we did more in the this phase.	Online research to explore context of idea
Individual explicit - 1st stage	But i am, most of our concept are in the first stage we explore through internet or like already done stuff and then we just all the time talk to customers.	Online research to explore context of idea
Individual explicit - 1st stage	Of course, internet is a great source of information.	Online research to explore context of idea
Individual explicit - 3rd stage	It was like a google sprint, so we took a bunch of steps back from the application and we still had sort of the goal with the project that we wanted to involve people with their sensors to create journalists. But we started with users, we want back a long way. IT was a week workshop.	Utilizing written down processes to structure development process

Individual explicit - 3rd stage	It is made of, let see, it's a week and it is made of two or three phases so the first two days are workshops with a lot of people where we started what is the problem, what is the needs, why would people want this, I don't know all the steps but I can show you later.	Utilizing written down processes to structure development process
Individual explicit - 3rd stage	Then, like we, did the google sprint we would have done the google sprint either way because it is the way you should do it.	Utilizing written down processes to structure development process
Individual explicit - 3rd stage	I guess the google sprint is of course a written down source. Not academic but practical work in some sense definitely helped us.	Utilizing written down processes to structure development process
Individual explicit - 3rd stage	And ofcourse internet again if it is in there, internet helped.	Online research to backup key features
Individual explicit - 3rd stage	I don't think, nothing really.	Low complexity did not require written down processes
Individual explicit - 4th stage	The concept development. Well it was more like, it is hard because the previous stages were affected by books bla bla bla bla and the concept was based on the previous steps. We didn't really use more books or things.	Knowledge gained throughout the process defines concept
Individual tacit - 1st stage	but of course everything you do and everything you read, podcast, trend analytics, i am reading break it, everything goes into my common sense and decision making.	Combine insights from previous experiences to create a common sense about an idea
Individual tacit - 1st stage	I was thinking that advertisers they have a great database and we have really good channel. So we have a good database.	Combine insights from previous experiences to create a common sense about an idea
Individual tacit - 1st stage	I think the knowledge within CRM and how you should think about the end user, but also the business to business customer and also doing marketing research and working with in different organizations, helped me to find a good process to work with, with the idea within the group.	Combine insights from previous experiences to create a common sense about an idea
Individual tacit - 1st stage	so we didn't present the idea but we sort of more ask questions like, how many unsold ticket do you have?	Customer insights to gain more knowledge regarding the idea
Individual tacit - 1st stage	And then we actually meet with customer, B2B customers and started the discussion broad without presenting paxa	Customer insights to gain more knowledge regarding the idea
Individual tacit - 1st stage	And talking to customer,	Customer insights to gain more knowledge regarding the idea
Individual tacit - 1st stage	We also also included with a lot of research where we actually contacted potential customers.	Customer insights to gain more knowledge regarding the idea
Individual tacit - 1st stage	We sort of, what is a cool way to get new editorial output and then I guess we just talked about it, should we do something with public, very unique to have the reach we have. We wanted to bring in the user generated context, people are talking about this. So we wanted something to bring in the users, but we didn't want to be fake so the only solution was to use senor which is raw data that could not be mixed with other data. So, we wanted to have user generated unbiased raw data.	Experience in journalistic business as source of idea
Individual tacit - 1st stage	Maybe a bit more when it comes to seeing eh like my previous work and also the practical parts in the master. See how people want to engage and so, in like journalism in the stuff that is good for society. That was sort of part of sensor stories. We could have done other things, we could have used statistics from like national (SCB) we want the people because we though that people want to engage themselves	Experience in journalistic business as source of idea

Individual tacit - 1st stage	we research what is out there, competitors and tried to find knowledge about other failed similar projects. We did this because we saw this was a good idea, but why didn't anyone do it before?	Research of external enviromnent to build up relevant knowledge
Individual tacit - 1st stage	We just felt like we cant be a new ticketmaster because we can't have it as, like a seperate idea and ticket master has it as it's core. So we wanted to do something else.	Research of external enviromnent to build up relevant knowledge
Individual tacit - 2nd stage	We would probably need to screen our own idea more. Also we have the company to back you up, but that is also what Google is looking for when they are investing, like room to experiments within a company. So I do not think that I would have start the idea on my own with my own money.	Organisational knowledge results in less detailed assessment
Individual tacit - 2nd stage	It doesn't seems to be done before, seems like a good idea.	Individual intuition to assess idea
Individual tacit - 2nd stage	research when it comes to assessing the market, assessing the market potential, which percentage we can take of the market and the revenue share we can gain from b2b partners	Competitor research to build up knowledge re competetive situation of market
Individual tacit - 2nd stage	Talking to B2B partners if they are interested in this, and now we are still evaluating, or more qualifying, they are different steps tho, but the idea towards the end customers.	Talking to customers to assess customer need and acceptence
Individual tacit - 2nd stage	But we also did live testing, actually sending out tickets to customers.	Talking to customers to assess customer need and acceptence
Individual tacit - 2nd stage	I would probably start by looking at the customer earlier, and not the business to business customer directly.	Organisational knowledge results in less detailed assessment
Individual tacit - 2nd stage	Competitors. We don't really have in this area. If we do, then it's Facebook so it depends on how the advertiser looks upon Facebook if they think it's valuable source if they trust Facebook. Sometimes you don't really know what they you give them all your customer data, but you really don't know where it ends up so and Facebook. Facebook is one type of channel and case companys channels are very different.	Competitor research to build up knowledge re competetive situation of market
Individual tacit - 2nd stage	Yeah, because I think we would we had a very good mix of different knowledge is within the team. So a lot of areas were very clear to that specific person, which was really good. So I think we did have a lot of help from each other.	Utilize individual tacit knowledge within team to assess different aspects
Individual tacit - 3rd stage	So more to go back to needs, who are the customers, why is this good for journalists?	Utilize customer feedback to determine key features and applications
Individual tacit - 3rd stage	And the phases two which was three days, one day, the first or the third day we sat down with the user designer to do more concepts and then the two last days we met with users and did user testing. So, one hour each, that we meet with customers.	Develop a prototype and get feedback from customers
Individual tacit - 3rd stage	I would say that äh political skills gaining after that punch äh helped me definitely and all the other skills.	Utilize political skills to get people onboard
Individual tacit - 3rd stage	And when we talked to users also. I think the idea growed most when we were outside the company.	Utilize customer feedback to determine key features and applications
Individual tacit - 3rd stage	Well again I knew how to network with right people, I knew who to talk to. Same as last stage.	Utilize internal network to receive relevant knowledge and different perspectives on idea

Individual tacit - 3rd stage	But that was already in the initial idea. Because the idea was so simple	Complexity of idea determine how much knowledge you need
Individual tacit - 3rd stage	So you sort of more a in app thing than a standalone app. We didn't want the user to download the paxa app if they have for example the sydsvenska app. They can get an offer from paxa within that app.	Align key features with existing products & assets
Individual tacit - 3rd stage	A bit. Understanding about our knowledge in house. We needed to know our regional reach. And how we could mashup our data.	Align key features with existing products & assets
Individual tacit - 3rd stage	-Reflective question on the two last questions: what had the bigger impact on your activities? -When it comes to specification it was more logic. -What did your base your logic on? -On my life. I mean i can't say how I think from practical and education.	Intuition to determine key features and applications
Individual tacit - 3rd stage	Well talking with customers, if this is in the customer part. Because I still miss the customer part and their feedback	Utilize customer feedback to determine key features and applications
Individual tacit - 3rd stage	But we are talking to customers through our own individual knowledge, or experiences and logics and everything that makes us human or professionals in some sense.	Utilize customer feedback to determine key features and applications
Individual tacit - 3rd stage	because we all have different skills like we had a developer, so he was thinking more of what is relevant for us to do what is legal. Like, what can we do to anonymize people, because we actually never see the people in our database, the matches is invisible we we can only see if someone did see the ad in the end if they bought, if they react.	Utilize individual tacit knowledge within team to define key features
Individual tacit - 3rd stage	So we went out to customers and ask them questions what they thought about different ideas within the area	Utilize customer feedback to determine key features and applications
Individual tacit - 4th stage	I think the user studies were the most important. Because we had an idea, we had workshops where we had ideas and then the user studies showed us something else	Knowledge from user/ customer input most relevant to create concept
Individual tacit - 4th stage	Like the purpose of the product, the project/ concept/ product was so simple. That it was sort of already done in terms of the specifications of what it was supposed to do	Complexity of idea determine how much knowledge you need
Individual tacit - 4th stage	They probably affected it in some way. Again, im going to say customers again and then you need to crunch it in to some of your concept.	Knowledge from user/ customer input most relevant to create concept
Individual tacit - 4th stage	I think with the concept development or final concept that we had were affected by taking to the customers which was found through our network. Or when i say customer, it was B2b customers.	Knowledge from user/ customer input most relevant to create concept
Individual tacit - 4th stage	I think we went through a phase where we more learned from the process itself.	Knowledge gained throughout the process defines concept
Individual tacit - 4th stage	Since this idea or this concept doesn't exist anywhere else. So it was more like a teamwork and discussing we did this, the customer react this way, how can we change that. What do we have to think of next time we are in the same process or step of the process.	Knowledge gained throughout the process defines concept
Individual tacit - 4th stage	I think that we use sources more in the beginning. So now when it's at this face. So I cannot speak for everyone, but I don't think that we like went back and start now starting to reading a lot about different things more electronic to improve the product from the knowledge we have now experience.	Knowledge gained throughout the process defines concept

Individual tacit - 4th stage	At this stage we focus more on three cases. So, so we didn't like gain any extra knowledge from somewhere else for doing this. Maybe we should because when you look at the case and stuff with it. Maybe they're not like the nicest thing team, but it's also like I think the team really lack time now and everyone tries to do little piece here and there.	Knowledge gained throughout the process defines concept
Network external - 1st stage	We contacted B2B partners to see what their problems were	case company`s external customer network to understand the problem
Network external - 1st stage	more like private network, friends and people within different organizations here in town.	Private external customer network to understand the problem
Network external - 1st stage	was the most valuable was to really talk to experts and call people within companies that didn't work a lot with CRM	Get knowledge from external to understand idea
Network external - 1st stage	It was important for us to get some more information from other sources than ourselves and experts	Get knowledge from external to understand idea
Network external - 2nd stage	I would not as easy to get meetings with all this different B2B companies.	case company`s external customer network provided access to customers and therefore market insights
Network external - 2nd stage	We got knowledge how the business, like malmö live and malmö opera and other B2B companies how they work. How their ticket technology look like. And how they work with ticket masters. We got market insights, we got insights from customers when they buy tickets. Market insights from actual customers. But B2B and B2C	case company`s external customer network provided access to customers and therefore market insights
Network external - 3rd stage	and then we had a workshop outside of the house with these people and some more people.	Idea developed mostly outside of company together with external partners and customers
Network external - 3rd stage	But I think definitely that the discussions outside of our company as in Sydsvenskan helped us to develop the idea. And also when we talked with external partners or external companies. Like we used us the design studio who held the workshop for us. It helped us to gain confidence in our idea.	Idea developed mostly outside of company together with external partners and customers
Network external - 3rd stage	I think the idea growed most when we were outside the company.	Idea developed mostly outside of company together with external partners and customers
Network external - 3rd stage	I guess we talked with our network which were customers and influenced it positively.	Idea developed mostly outside of company together with external partners and customers
Network external - 3rd stage	We have a lot of contact with different customers that could be potential customers to us and that are used to think in these directions. When I think of it. Now it's more like experts and links built within an outside organization.	Idea developed mostly outside of company together with external partners and customers
Network external - 3rd stage	Then we started to really go live and to contact our first potential customer and we call it the proof of concept which we did together with Eon, so we learned a lot from that because we were really transparent together with them. So we met them several times and we spoke about how everything went like from a technical perspective but also from more data base and how to segment. What type of ad. We should have and so on. So that was like the next step.	Idea developed mostly outside of company together with external partners and customers
Network external - 4th stage	I think more knowledge and people. Expertise in different, like we had the developers which made specifications for the app. And that we had the data scientists for the format and users for the UX. So it is more like practical knowledge, but I guess they got their knowledge from something. But for me it was more putting people together with different expertise and bring all their knowledge together to one.	Hiring of consultants to access external knowledge to prepare for product development
Network external - 4th stage	We had a team that were made out of the competences we really needed. But of course we needed consultants also.	Hiring of consultants to access external knowledge to prepare for product development

Network external - 4th stage	I think the next step was like to take the learnings from the proof of concept and improve what we have to improve and then do it with another customers. So then the next step was to work with. I think it was gents. It's a web shop from Helsingborg that is for a male shaving and those type of products so so then we try to refine and to improve the process, both the technical documentation and what we share with the customer and what in what way in which step to do first, and to be really clear to meet the right persons within the customer company because we learned that if we don't meet the people who know understands CRM. They don't see the value of this product. So, and they don't know how to help us but we have mutual have to share insights. So that was what we learn from the next process. We also met with Malmö opera also Medborgarskolan, so we'll learn new things along the way.	Utilize external customer network to finalize product concept
Network internal - 4th stage	knowing people within the company	Utilize internal network to receive specialized knowledge
Network internal - 4th stage	No, because we did it here in this company and the people we needed and competences for like data scientist we couldn't reach out to them, that was more personal I know this guy who is a data scientist, we should just slack him	Utilize internal network to receive specialized knowledge
Network internal - 1st stage	It as me and Emil that generated the idea, and we did not involve that many other colleges in the process.	Internal network didn`t have a relevant impact
Network internal - 1st stage	i knew which people i should talk to and who i needed on board to back the idea. And also i think network, talking to people who knew stuff about this area.	Utilize internal network to receive relevant knowledge and different perspectives on idea
Network internal - 1st stage	people within the house to, like, how can we do this, they gave a lot of different aspects and perspectives.	Utilize internal network to receive relevant knowledge and different perspectives on idea
Network internal - 2nd stage	We had our idea and a lot of other people had their ideas. And then we had like a pitch meeting where we discuss all the ideas. At the end Tomas chose I guess.	Utilizing internal network to assess idea from different perspectives
Network internal - 2nd stage	Or like talking to people within the organisation,	Utilizing internal network to assess idea from different perspectives
Network internal - 3rd stage	And also networking, that I knew some of the journalists and I could talk to them.	Internal network helped to find specialiced knowledge
Network internal - 3rd stage	but the people within case company with knowledge background in data science and stuff. We used the network of the case company employees but not any projects or	Internal network helped to find specialiced knowledge
Network internal - 3rd stage	So, you know, he could. He had good contacts with customers.	Idea developed mostly outside of company together with external partners and customers
Organisational explicit - 1st stage	It was more like, when i started here i got an documenten with 200 ideas.	Idea document as a source of inspiration
Organisational explicit - 1st stage	So the idea is based on that we have a coverage and reach in our region, we know which person is here, who is leaving and where they are levning.	Utilizing organisational knowledge about existing customers
Organisational explicit - 1st stage	So the idea, or the uniqueness of the idea, is sort of what do you say, avhängingt...yeah. It need to research and user bases that case company has, so that is one part.	Utilizing organisational knowledge about existing customers
Organisational explicit - 1st stage	It is not a knowledge we have in segments, it is more we know that specific individual people reads the news.	Utilizing organisational knowledge about existing customers

Organisational explicit - 1st stage	Well, the initial idea to go into the ticket market was from the idea document. But after that, no.	Idea document as a source of inspiration
Organisational explicit - 2nd stage	we had the knowledge about the customers in the data, which helped us evaluating and forming the idea. So in that sense, yes, the internal knowledge in what we knew about our customer in our ad context.	Organisational knowledge about user base utilized to assess the idea
Organisational explicit - 2nd stage	No written down, internal patents, no.	Written down processes or patents influences the idea assessment
Organisational explicit - 3rd stage	Ok, ähm when you further developed this did you had to follow any processes within in the company, documents stuff or used IP property, kind of knowledge that is available in knowledge sharing systems or datas? ● ●No, we used processes, but not for the company, but for our group for the team, it wasn't any mandatory thing. ●	No written down knowledge sources influenced development of key features
Organisational explicit - 3rd stage	-Have any insights you found in, for example, corporate documents, the intranet, customer data, surveys influenced the development of key features and applications? - -No	No written down knowledge sources influenced development of key features
Organisational explicit - 3rd stage	we have looked at GDP arehad like agreements and templates that we got from legal team to work with, to be able to work together with advertisers.	Specialized legal documents helped to work with customers
Organisational explicit - 4th stage	Ok, when writing this concept, I guess concepts have been done before at case company. Was it helpful to look at older concepts and make use of that? ● ●No, because there are no documentations of other concepts being done. And i don't know about any, I haven't seen any other concepts written down in any way.	Written down documents did not influence the concept development
Organisational explicit - 4th stage	You know we don't have any documents haha, you can just scrap that, we don't have any written down document.	Written down documents did not influence the concept development
Organisational explicit - 4th stage	Yeah, customer data is it that's been really important throughout the whole process really.	Existing customer data was important in the whole process
Organisational tacit - 1st stage	because this idea did not have a direct revenue coming from it I wouldn't persuade it outside of the company. This is more of backing up the business we already know, which is the newspaper.	Organisational knowledge infuenced the idea in terms of making it useful for the company
Organisational tacit - 1st stage	I do not think that something from the company influenced the idea.	Idea explore phase not influenced by organisational knolwedge
Organisational tacit - 1st stage	Well it was case company signing of the application, but it was more of a check.	Idea explore phase not influenced by organisational knolwedge
Organisational tacit - 1st stage	It was influenced by how the news room was working and we wanted to help, in the sense that people are spending a lot of time looking into stuff, if this could be something automatic into the news room, like an alarm.	Organisational knowledge infuenced the idea in terms of making it useful for the company
Organisational tacit - 1st stage	It as me and Emil that generated the idea, and we did not involve that many other colleges in the process.	Idea explore phase not influenced by organisational knolwedge
Organisational tacit - 1st stage	I would probably not been working with news so I wouldn't have screened it in the same way. It would have been a totally different idea if I was not inside.	Providing context for the explore stage

Organisational tacit - 1st stage	we started to look into the ticket market, because it has been talked alot about it, we should do something with tickets	Providing context for the explore stage
Organisational tacit - 1st stage	the project are came from within the company which affected it because it was a lot of talks about we should do something with tickets	Providing context for the explore stage
Organisational tacit - 1st stage	We are very local, have good reach, covers all the events.	Providing context for the explore stage
Organisational tacit - 1st stage	we discussed it and brainstormed. Not structured in some way.	Discuss idea with colleagues
Organisational tacit - 1st stage	It is not a knowledge we have in segments, it is more we know that specific individual people reads the news.	Utilizing organisational knowledge about existing customers
Organisational tacit - 1st stage	Mmhh, well we did work with a similar idea which was sort of connected bea use the problem that i mentioned before with the ads and editorial being seperated. We work with situations based information and the inspiration to do Paxa the way we did was influenced by that project.	Utilizing organisatonal knowledge from previous projects in the idea explore stage
Organisational tacit - 1st stage	Like a very big value is that we do have all these channels, so I could think of the idea and maybe I could try to sell it to someone, but never add any value to advertising customers like then I could try to convince them to go somewhere else with their ideas. So that would not be doable I think.	Utilizing organisational knowledge about existing customers
Organisational tacit - 1st stage	-Like Pinjata? I don't think so, everyone that we spoke to said that the this is totally new	Idea explore phase not influenced by organisational knolwedge
Organisational tacit - 2nd stage	We would probably need to screen our own idea more. Also we have the company to back you up, but that is also what Google is looking for when they are investing, like room to experiments within a company. So I do not think that I would have start the idea on my own with my own money.	Organisational knowledge results in less detailed assessment
Organisational tacit - 2nd stage	And then the criteria that this should be an idea that fits the company and that we, it would have the time ourselves, we would do this idea anyways. It should bring gain to the company and it should not be super far off. That was like to only criteria from the company.	Organisational knowledge determines strategic fit and value of idea to company
Organisational tacit - 2nd stage	it would have looked different because then we would not have the user base.	Organisational knowledge about user base utilized to assess the idea
Organisational tacit - 2nd stage	I would have evaluated it differently but then i would probably be in the stage I am now, but a year ago.	Organisational knowledge influence during idea assessment slowed down the process
Organisational tacit - 2nd stage	Not, again it is the same with the products that I mentioned before. It made us assess the project higher. I did influence in a way that we assessed it a bit higher. Because we would not have this platform to be used.	Organisational knowledge results in less detailed assessment
Organisational tacit - 2nd stage	but with someone else maybe if you have a little consultancy firm I think it would be much more hard because you don't have the channels to offer.	Organisational knowledge about user base utilized to assess the idea
Organisational tacit - 3rd stage	We put together a group with like three journalists, us two (Emil and me), and then two developers and one data scientist and then we first had an initial workshop	Collect relevant input from different parts of the organisation to complement the individual knowledge

Organisational tacit - 3rd stage	I think the input we got from Bonier or HD Sydsvenskan was more negative.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	but we noticed after summer that people did not like it, the journalists were not involved even though it was an open house thing there were not involved in the editorial idea which made us sort of worked more against after summer from the editorial part of the company. Even though we got the money, people weren't that happy.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	In terms of our, ofc, like our mental..mental stage, but also that we needed journalists to be thrilled out this idea because to be successful with this idea we need the editorial input.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	If they are the wants developing it then they will use it at the end because they will develop it into something this feel something about. Then ofc we wanted to have their knowledge in like why and how we can do this, and make this into a tool that is good for journalism, definitely.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	but the people within case company with knowledge background in data science and stuff. We used the network of the case company employees but not any projects or operations.	Collect relevant input from different parts of the organisation to complement the individual knowledge
Organisational tacit - 3rd stage	What influenced the process most was the missing support from the top management, or from parts of the top management I should better say	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	So that was sort of an uphill thing, to get people to be, because the top management of the journalism did not support the project. It is more hieratical.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	If we would have started it as a startup, we would have needed to come up with all the user yourself. That was the initial idea for paxa. But now, since we have a hard time to go into the organization with paxa, and exploiting the users we have, we sort of anyways started it as a startup.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	Well, both, like I think the turn we took was affected by dominant logic. Alot because Paxa was a new product and new to our channels, or we had like editorial all the way, 100% and add banners 100%. Paxa was something in between, it was like information value for the customer from and within a product that did not really fit into our distinct two part of our company.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	because it was something new, it was something that could hurt the thursworty or something like that, it affected Paxa.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	The first thing is more of like a new view for apps, where we could have procuts like Paxa be visible in our channels without being in an ad. So if we would have done that project, Paxa would have lived more because it would have get a context to be in. Now we didn't do that projet so that part, or success factor fell away. But it was more like Paxa could have been here, but not is here instead. So in that sense it was negatively influence, because we dinät do the first projects. I guess if it is a black or white answer you want.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	It would have probably looked different. Because we assumed we could be in a context where users were already. Otherwise we should have probably made the app or build a website, more like onboarding, experience, get the customers to actually download the app.	Organisational knowledge is utilized to align key features with existing products and assets
Organisational tacit - 3rd stage	Maybe more like we wanted to work in the context of our different context of our brands. So this kind of limited us, but was also our final goal.	Organisational knowledge is utilized to align key features with existing products and assets
Organisational tacit - 3rd stage	-No documentations, more people who had oppoinions.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	A bit positive, because I was already running to the people who were in charge of the app. And I had an initial understanding how the app work and how you could use the push engine. So positively.	Organisational knowledge regarding technical procedures influences how key features are being determined

Organisational tacit - 3rd stage	Well, it is more like we haven't done this before problematics. Because we never had a product in house that is not editorial.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	Paxa is something new, it doesn't fit into the editorial but also not into the ad. It had no home. We tried to create the home for it, which also were also too big to handle. I think the fear is always trustworthiness. Losing the trust for the brands.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	It is not really the brand it is more the trustworthiness of the company part that is not commercial. Like not being affected by commercial gains or revenue gains for the editorial parts of the company. Because our main product is editorial content. Of Course this is what we want to use. I think they are afraid that the customer not see the difference, that we want to sell them something and inform them in a very unfiltered way.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 3rd stage	we spoke to people within case company like legal department	Collect relevant input from different parts of the organisation to complement the individual knowledge
Organisational tacit - 3rd stage	Also internal like the legal department in Stockholm was really important to us,	Collect relevant input from different parts of the organisation to complement the individual knowledge
Organisational tacit - 4th stage	I think ja because then we wouldn't have the missing support, it wasn't also only missing support it was also working against us. But also it would have been faster.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 4th stage	But we didn't used any other like we didn't gain any knowledge from other departments because we are not that good at knowledge sharing.	Missing knolwedge sharing limited the input from the organisation for the concept
Organisational tacit - 4th stage	Well it was good. Because if we wouldn't isolate, or it wasnt that we wanted to isolate yourself, but we had the opportunity and we needed to because people weren't really supporting.	Lack of support and working against the idea due to dominant logic
Organisational tacit - 4th stage	Was there something outside the team but still in case company? ● ●Not really. We used our colleagues as user when it came to	Concept developed mostly outside of company together with external partners and customers
Organisational tacit - 4th stage	And now we need to actually start over again, and talk to customers what they want. We might end up with something that they would like a letter in their mail two days before they can process and post it.	Concept developed mostly outside of company together with external partners and customers
Organisational tacit - 1st stage	The whole process would have looked different because we would have tried to put in different context. We would have probably started with a simple website where we onboarded people try to get a user base and after a while when we had customers start an app. And adding features and taking away features. We would have never started with pushing it into an existing app. So of course it would have looked different. Not the idea, but they way it was carried out.	Providing context for the explore stage