

**Leaders facilitating innovation: leadership for innovation in
a Finnish university in time of change**

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ABSTRACT

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The thesis focuses on learning the experiences of leaders facilitating innovation in a Finnish university in the context of changes in the higher education sector.

The study was done with the planning and data collection under the guidelines of phenomenology. The data were collected via interviewing participants with open-ended questions with six leaders who worked at different leading positions at a faculty of a Finnish university. The data were then analyzed by content analysis.

The leaders were analyzed to facilitate time, communication and change to promote the innovation process at their institution. In addition, the internal factors of physical environment, collaborative leadership model, and the human factor as well as the stricter external environment were found to have impacts on the process of leadership for innovation.

Regarding the complex nature of innovation, the findings indicated that the top leaders mainly promote innovation by facilitating idea generation rather than idea implementation. Related to the changes in the higher education sector in Finland, the findings suggested that the reforms limited innovation process at university.

Further examinations of the results suggested the consistency of the findings to the literature of the innovation leaders' roles, the organization climate and the human factor that drive innovation. The findings also revealed that shared leadership is related to promoting idea generation.

Keywords: leadership for innovation, innovation leadership, innovation leaders, higher education, change, Finland.

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LIST OF ABBREVIATIONS

HEIs - Higher Education Institutions

1 INTRODUCTION

The thesis is concerned with understanding the ways leaders promote innovation process at their institution in the context change. The study took place at a faculty of a Finnish university and therefore, considered the unique features of the higher education institutions (HEIs) in general and the recent changes in the Finnish higher education system. From the working experience of the author, the innovation leaders are not necessary to be innovative themselves but lead the innovation process by creating the environment for innovation to thrive.

About innovation, it was known that when the environment becomes more uncertain, people tend to feel more need of innovation (Frambach & Schillewaert, 2002). Especially, in a fast-changing environment, innovation is strongly believed as an important factor for organizational survival and growth (Amabile, 1998; Drazin & Schoohoven, 1996). Even though it is exciting to embark on innovation, it is often known as an unstable and risky event (Rosing, Frese, & Bausch, 2011). Efforts to understand the leadership of innovation, therefore, are hardly enough. On the leadership for innovation, the literature has focused on the leadership as the main role in the relationship. The literature concentrated on the leadership characteristics or styles that facilitate or hinder innovation (Anderson & King, 1993) without looking at the nature of innovation. A recent review of the leadership-innovation relationship by Rosing et al., (2011) suggested that the nature of innovation is complex that makes the relationship more variant and inconsistent than linear. In other words, applying certain leadership styles could not lead to effective leadership for innovation. According to Rosing et al., (2011), innovation is complex in nature and innovation leaders must be flexible in changing leadership behaviors responding to the situation of innovation. The complex nature of innovation in the leadership-innovation relationship is a new perspective that will be considered in this study.

The changing environment is also noticeable in the context of the higher education sector in Finland. Regarding change, it occurs in various aspects, at

different levels and is a non-stop phenomenon. It is widely agreed that changes have come at a faster pace than ever and in “all shapes, forms and sizes” (Murthy, 2007, p. 3). In the context of Finland, changes in the education system have been a steady process at national level. The movement has been observed including key activities as the reforms in higher education sector in 2009 and 2015, and the curriculum reforms at different levels. (Ahola, Hedmo, Thomsen & Vabø, 2014). From the perspective of leaders of Higher Education Institutions, the evolving changes are factors that have strong impacts on their operations and possibly make them change accordingly to survive. In the steering system following the reforms, the autonomy that Finnish universities enjoy also means more challenges (Ahola et al., 2014). This also means that the leaders in Finnish higher education institutions are facing with increasing pressures that come from these changes. In this context, innovation can be part of the solution. However, leading innovation requires leaders to facilitate creativity, or making rooms for creative ideas to develop, assessing potential ideas for future innovations, and having disciplines to bring an idea to a useful application (Bel, 2010).

In this challenging context and with the complex nature of innovation, the author asked how leaders in universities promote the innovation process at their institutions. The over-arching research question is therefore: *What are the experiences of leaders facilitating innovation in times of changes?* As the results of this study, the author would like to understand the experiences of leaders who promote innovation process at their institution related to change. The author would like to learn from school leaders, their thoughts and actions while facing various challenges in this period. The original intents of this study are to (1) contribute to the understanding of leadership for innovation and its role in higher education sector, and (2) examine the relationship between innovation and leadership while considering the complex nature of innovation.

For the structure of this thesis, this paper is divided into six main sections. The introduction section presents the aim of the research, the significance of the study by presenting the complex nature of innovation and the context of changes in the Finnish higher education sector. It also introduces the main research

question, the author's rationale in doing this research, and the structure of the thesis.

The second section reviews the current literature of the topic of study. These include innovation and its most salient characteristics, the studies on the link between innovation and leadership, innovation leadership and the innovation leaders, and organizational factors that have influences on innovation leadership. This section also includes an overview on organizational change and the context of Finnish higher education sector in recent changes.

The third section will describe the research questions in details, and the fourth section presents the implementation of the research. In the fourth section, the research process will be reviewed in general. Then the author will present the process of data collection with the formation of interview questions, the method of data collection and the rationale for choosing the method, and the conduct of interviews. Data analysis will be introduced with the qualitative content analysis, and the details on the process of analyzing data.

The fifth section will present the findings with details on the experiences of leaders in promoting innovation process and the factors that have influences on the leadership for innovation. The experiences of leaders include the key themes are facilitating time, communication, and change. The influencing factors are physical environment, collaborative leadership model, the human factor, and the stricter external environment.

The final section summarizes the findings and discusses the findings related to the relevant literature. The final section also works on the discussion of the ethical aspect, the reliability, and the limitations of this study.

2 LITERATURE REVIEW

2.1 The concept of innovation

The literature on innovation are varied, and in order to understand innovation, researchers are recommended to read taking into account the context of where and why it occurs (Silver, 1999). Innovation is often viewed in two ways, as a product or as a process (David, Strand, Alexander, & Hussain, 1982).

As a product, OECD's definition of innovation in *Oslo Manual* for measuring innovation is "a good or service that is new or significantly improved". The concept is rather broad because it "includes significant improvements in technical specifications, components and materials, software in the product, user friendliness or other functional characteristics" ("*Oslo Manual*", 2005, p. 149).

As a process, a majority of literature on innovation suggests that innovation is formed of multiple phases (Amabile, 1988; Anderson & King, 1991; Bel, 2010; Van de Ven, 1986). In her study, Amabile (1988) asked people to tell their experiences of two events, one with high creativity, and one with low creativity, in which they describe the persons involved and the environment surrounding the events. Amabile (1998) concluded that "organizational innovation is the successful implementation of creative ideas within an organization" (p. 126). The creative ideas can be ideas for new products, processes, or services, or anything in the organization. Bel (2010) approached the concept from business perspective and looked at innovation as a marketable invention. The concept also included the act of generating new ideas and building them to useful applications in innovation process. However, Bel (2010, p. 47) added that the aspect that applications should be meaningful for business purpose: "the act of generating an idea and transforming it into a new product, service, solution, or business model that can be sold to customers".

In another study, King and Anderson (1991) examined the differences in perceiving innovation process between managers and staffs and proposed a model of innovation process that includes two main phases of idea initiation and idea implementation. The initiation phase includes all activities that lead to

the point of implementation, and the implementation phase is all the activities or conditions from the end point of initiation to the point where the innovation is routinized in the organization. In developing the detailed model of corresponding leadership styles, they expanded innovation phases into initiation, discussion, implementation, and routinization. Discussion phase belongs to idea generation, and routinization phase is part of idea implementation. The discussion on the leadership behaviors in responding to innovation phases will be included later in its own section.

Van de Ven (1986) suggested a general definition of innovation which also includes the development and implementation of new ideas. In this definition, he emphasized on the interactions between people in innovation process. Without people committed and collectively working towards implementation of ideas, innovation does not exist. Based on the program of Minnesota Innovation Research, Van de Ven and his colleagues found that the process can be applied to a variety of fields, for example, technologies, government, business, and non-profit organizations (Van de Ven, Angle, & Poole, 2000).

In conclusion, innovation is often viewed as a process or a product. The literature on innovation as a process supports the view that innovation process includes at least two phases of idea generation and idea implementation (Deschamps, 2005; Hoch, 2013). For the purpose of this thesis, the author describes innovation as a complex process of (1) idea generation which refers to the creation and discussion of ideas that results in a collection of potential new ideas for innovation, and (2) idea implementation which refers to all activities that brings the potential ideas into useful applications such as products, services, administrative procedures or improvements that are beneficial to the organizations.

2.2 Characteristics of innovation

In general, people often relate to innovation as laboratory or research outcomes, or only very smart people can come up with innovation. True innovation is often referred to as rare and unattainable (Swanger, 2016). Neely and Hii (1998) suggested that innovation has various dimensions that are complex and de-

pending on the context. The following part will describe the most salient characteristics of innovation that are mentioned in the literature. These include its general images of positiveness, risk, and uncertainty; and its relation to creativity.

Positive, risky, and uncertain. Positive, risky and uncertain are often first mental images people have when talking about innovation (Rosing et al., 2011; Van de Ven, 1986). Innovation is often viewed as good (Van de Ven, 1986) and desirable by organization (Drazin & Schoonhoven, 1996). For example, an experiment that results in an improvement is often regarded as an innovation than one that only consumes resources and fails. The improvement is referred to as an innovation while failure is only a mistake (Van de Ven, 1986). Innovation as such implies the creation of value (Ahmed, 1998). In addition, innovation is linked to uncertainty and risk because of its element of newness (Ahmed, 1998; Damanpour & Schneider, 2006). Uncertainty is a challenge while proceeding with innovation because it is difficult to predict and assess next steps (Rosing et al., 2011). Stevenson and Kaafarani (2013, p. 20) shared from their experience that “coming up with ideas has never been as a big challenge as knowing which to back” and ability to assess and manage risk is important in making innovation strategy. In other words, the leaders must make the best judgments based on the estimation of risks and uncertainty associated with innovation to invest in the right ideas with available resources. In short, even innovation is often considered as a good practice, establishing innovation is not easy because people have to leave all the known behind to step on risky and uncertain path of the unknown (Denti, 2013).

Innovation and creativity. It is convenient to think of creativity as an alternative word-choice of innovation. Because newness as a factor of course in both innovation and creativity, the two concepts are often used interchangeably. Amabile, Conti, Coon, Lazenby, and Herron (1996) suggested that creativity is “the production of novel and useful ideas in any domain” (p. 1155). Definition as such causes ambiguity and confusion in understanding innovation and the role of creativity in innovation process. However, the two concepts are distin-

guished in several dimensions. Firstly, in terms of newness, creativity can be purely novel, and innovation can be improvements of ideas based on previous experiences (Rank, Pace, & Frese, 2004). Furthermore, while innovation involves interactions, creativity can happen only in individual's mind (Anderson & King, 1993). With one's creativeness, an individual can come up with an ample of idea but cannot carry out one innovation without other's support. Lastly, in the innovation process, creativity, or idea generation is a basic condition but not enough to represent the process of innovation (Amabile et al., 1996; Axtell et al., 2000). Creativity is seen as the starting point and a part of innovation process and innovation includes of idea implementation that is more than mere idea generation as in creativity (Amabile et al., 1996; Rosing et al., 2011). As such, creativity is part of innovation but not vice versa.

2.3 Leadership and innovation

Palmer (1993) suggests that leadership is giving people with "pathways and permissions to do things they want to do but feel unable to do for themselves" (p. 9). In a broad sense, leadership is a dynamic process with changes in leaders and followers. The leadership varies according to place, time, and situation. (Paukkuri, 2015).

In its relations to innovation, leadership is known as one of the factors that have impact on the generation of innovative ideas and the implementation of innovation (Cummings & O'Connell, 1978; Mumford, Scott, Gaddis, & Strange, 2002). Leaders reinforce their influences on innovation in direct or indirect ways. In indirect way, leaders have impact on organizational culture, strategy, structure (Woodman, Sawyer, & Griffin, 1993) that have impact on creating a supporting environment to creativity (Amabile et al., 1996; Scott & Bruce, 1994), or directly impact on innovation such as sponsoring staffs' creativity (Olham & Cummings, 1996).

The following part explores the developments of studies on the link between innovation and leadership and the concept of innovation leadership as well as the roles and traits of innovation leaders.

2.3.1 The link between innovation and leadership

In their review of innovation in organization, Anderson and King (1993) pointed out that the focus of study in the relationship between leadership and innovation had shifted from emphasizing on leader characteristics to leadership styles at the time they conducted this review. Leadership characteristics of “values, motivation, tenure, educational level and professional allegiances” were studied on the topic of organizational innovation (Anderson & King, 1993, p. 8). However, no clear picture concluded on leader’s characteristics that have consistent influence on innovation.

Leadership styles like transformational leadership, transactional leadership, and charismatic leadership and shared leadership were studied in their relationships with innovation. Among these leadership styles, transformational leadership has repeatedly been proven to have a positive relationship with innovation (García-Morales, Matías-Reche, & Hurtado-Torres, 2008; Jung, Chow, & Wu, 2003; Matzler, Schwarz, Deutinger, & Harms, 2008). Transformational leadership is characterized by charismatic, inspirational, intellectually stimulating, and lead at individual levels (Bass, 1990). Another study by Matzler et al., (2008) on 300 innovative companies and by Garcia-Lorales et al., (2008) on 164 pharmaceutical firms reported the similar results on the positive relationship between transformational leadership and innovation. Gumusluoglu and Ilsev (2009) studied 43 companies in Turkey and found transformational leadership has a strong effect on innovation and creativity. Aarons and Sommerfeld (2012) also suggested transformational leadership stimulates motivation and intellectuality, and focuses on individuals that promote a climate for innovation.

Other examples of leadership styles were studied to have impacts on innovation process are transactional and charismatic leadership. Transactional leadership will keep the followers on task by providing constructive feedbacks, focus on setting goals and clarify the link between rewards and performance (Bass, 1990). Comparing to transformational leaders that foster more ideas with collectivists, transactional leaders facilitate idea generation with individualists (Jung & Avolio, 1999). Charismatic leadership facilitates innovation by stimulating communicating of vision and empowering (Bel, 2010).

Hoch (2013) described that shared leadership “reflects a situation where multiple team members engage in leadership and are characterized by collaborative decision-making and shared responsibility by collaborating decision-making and shared responsibility for outcomes” (p. 161). In his study, Hoch (2013) focused on team innovation and examined data from 43 teams including 184 team members and team leaders. The team members were found to engage in certain internal leadership behaviors of creating a supportive climate, providing feedbacks, resources, encouragement and so on. In other words, the shared leadership in which team members took turn to be leader facilitated the team innovation.

Regarding the relationship between innovation and different leadership styles, it seems that a leadership style does not always result in either positive or negative impacts on the innovation process as presented above. The study by Rosing et al., (2011) has shown that a leadership style can result in either positive or negative impacts on the innovation process. In other words, practicing a certain leadership style is not the answer for effectively leading innovation. In their study, Rosing et al., (2011) reported that the relationship is not linear but more complex and inconsistent because of the complex nature of innovation. Using meta-analytic tools to review the extant literature, they reported high variation in the relationship between leadership and innovation. The authors explained that previous studies on the relationship did not take into account the complex nature of innovation. They argued that because innovation is complex, a certain leadership style could both facilitate and impede innovation.

In other words, “a single leadership style cannot promote innovation effectively” (Rosing et al., 2011, p. 957). For example, transformation leadership was proven to have a positive influence on innovation but empowerment, as an attribute of transformational leadership, can impede innovation (Jung et al., 2003). Charismatic leaders were criticized for their unrealistic expectations that have negative impacts on innovation (Bel, 2010). While proving their idea that the relationship is more complicated, the study reported a similar phenomenon that different phases of innovation require different leadership skills as discussed in previous part. They reasoned that innovation depends on both explo-

ration and exploitation. Therefore, leaders need to develop a set of opposing leadership behaviors which can be called ambidextrous leadership.

In more details, ambidextrous leadership was suggested to be necessary for an effective innovation process because it performs complementary leadership behaviors that foster different aspects of innovation process (e.g. exploration and exploitation). Moreover, the innovation leaders must be able to switch between these behaviors when the situation requires on an ad hoc basis. (Rosling et al., 2011). The theory of ambidextrous leadership helps to explain the high variation in the relationship between leadership styles and innovation. Moreover, it agreed with previous theoretical models of leadership and innovation that leaders need to have opposing leadership behaviors but strongly emphasized on the temporal flexibility to switch between these leadership behaviors.

Earlier studies by Anderson and King (1991), Deschamps (2003), and Bel (2010) on the theory about the relationship have similar views on the changing leadership behaviors responding to the change in the phases of innovation. Anderson and King (1991) highlighted on the leadership behaviors of nurturing, developing, championing, and validating/ modifying in respectively responding to innovation phases of initiation, discussion, implementation, and routinization. The model includes four leadership behaviors of nurturing, developing, championing, and validating/ modifying that build up effective innovation supports. The nurturing behaviors are to create a supportive atmosphere that encourages ideas to flourish, then developing behaviors means evaluating the potentiality and the support needed for implementation. Championing behaviors are selling ideas to groups affected and ensure the commitment. And validating the innovation has to do with checking effectiveness and improving innovation. Even though the authors noted on the relationship between innovation phase and leadership behaviors, they did not develop further discussions on this issue.

Later on, Deschamps (2003) only focuses on the phases of front-end or idea generation and back-end innovation or idea implementation. Front-end innovation requires soft leadership qualities that facilitate creativeness while

back-end innovation demands leadership that delivers discipline. These leadership qualities of front-end and back-end leader are commented on complementary leadership behaviors by Rosing et al., (2011). With the same idea, Bel (2010) emphasizes that the first phase of innovation is uncertain that requires creativity and vision, while the second phase involves discipline and efficiency. Accordingly, leadership for innovation requires conflicting skills to facilitate creativity and keep discipline, or in his word, “a mixture of emotion and realism” (p. 48).

In short, with their studies’ result, Rosing et al., (2011) challenged current beliefs on the linear relationship between leadership and innovation and formed a theory of ambidextrous leadership in the literature of innovation leadership. In the scope of this thesis, the author agreed that studies on the relationship between innovation and leadership should recognize the complex nature of innovation that results in the inconsistency in the relationship and a certain leadership style is not associated to innovation in a straightforward way.

2.3.2 Innovation leadership and the innovation leaders

The concept of innovation leadership has been used in a more pragmatic rather than theoretical way. To a broad extent, Horth and Dan (2014) suggested that innovation leadership include two components: innovative leadership and leadership for innovation. Innovative leadership means bringing new thinking and applying new approaches to leading and managing. Leadership for innovation has to do with building a culture of innovation that encourages people to use innovative thinking at work.

Zuraik (2017) also argued on the differences between innovative leaders and innovation leaders. He commented that the concept of innovative leaders is about leaders’ traits and skills that make the leaders the source of new thinking, and innovation leaders, or leaders for innovation creates an environment that embraces innovation. This implies that innovation leaders are not necessarily innovative themselves. Several researchers have proposed on the roles and traits of innovation leaders. Bel (2010) provided an integrated view of innovation in which innovation can come from anywhere and anyone in the organiza-

tion. Bossink (2004) had the same idea but specifically identified that innovation leaders can be managers or employees. And Deschamps (2003, 2005) focuses on innovation leaders as senior executives.

According to Bel (2010), because innovation comes not only from the top but also anywhere in the organization, the roles of innovation leaders have varied accordingly. Innovation comes from the top need the roles of the leaders explained by IDEA which stands for inspiring, driving, enabling, and advising. Innovation that comes from any other places in organization is backed up by leaders' roles of ARMS which stands for advocating, rewarding, managing linkages, and supporting. Bossink (2004, p. 213) sees the roles of innovation leaders as "inventor, champion, entrepreneur, gatekeeper, and sponsor" that are performed by both managers and employees. According to these roles, he proposed four innovation leadership styles: charismatic, instrumental, strategic, and interactive innovation leadership. Firstly, charismatic innovation leaders emphasize on communicating visions and energizing people to advance innovation processes. Secondly, instrumental leaders are more about structuring and controlling innovation processes. Thirdly, strategic leaders use hierarchical power for organizational innovation. Lastly, interactive leaders focus on empowerment, cooperation, and modeling innovation leaders.

Deschamps, an innovation manager practitioner and researcher, gave a general picture of innovation leaders as senior executives who "spontaneously instigate, sponsor, and steer innovation in their organizations", or executive champions. They "always stand up for innovators and challengers of the status quo" (Deschamps, 2003, p. 815). Innovation leaders encourage their subordinates to make change by trying new things, make rooms for discussion of ideas, and allow subordinates to have a certain amount of freedom and necessary resources for innovation.

According to Deschamps (2003), innovation leaders take on a majority of responsibility in analyzing risks in innovation process. In Deschamps' (2005, p. 31 - 32), innovation leaders can be distinguished by following *traits*:

- An unusual combination of creativity and process discipline to bring new product/ service to market

- Accept risk and failures while making staffs learn from failures.
- Courage and discernment to stop projects
- Talent for building and steering winning teams, also attracting and retaining innovators
- Open to external technologies, and willing to experiment with them
- Strong passion for their mission and innovation, energy to share their passion with staffs.

A quick look at the opinions of Deschamps (2003, 2005) on the roles and traits of innovation leaders creates an impression that innovation leaders are rather powerful and influential in a holistic way. However, he also emphasized that a leader does not need to possess all of these attributes because leadership roles are varied to adapt to the complex organizational environment and innovation stage (Deschamps, 2005). Also, within organization, innovation leaders cannot make final decisions themselves, especially issues such as resource distribution. They must feel secure and need support from the top of the organization to foster innovation (Deschamps, 2003).

In conclusion, innovation leadership can mean both innovative leadership and leadership for innovation. Innovation leaders can be anyone from senior executives, to managers and employees working in the organization. Their roles are varied in facilitating innovation process depending on the position of the leader, the stage of innovation, and the situation where the innovation happens.

2.3.3 Organizational influencers to innovation leadership

A large amount of literature of organizational innovation focuses on identifying facilitators and inhibitors of innovation in organizational context (Anderson & King, 1993; Woodman et al., 1993). The following part includes the most remarkable aspects of organization in literature that have impacts on innovation from the perspective of leaders leading innovation.

Organization climate. Barsh, Capozzi, and Davidson (2008, p. 38) conducted a research based on a survey of *The McKinsey Quarterly* to executives on leadership and innovation and reported that 94% of executives indicated that the two

most important driving factors of innovation are people and climate. While people are at the center of their strategies, organizational climate is recognized as a surrounding factor that can promote or hinder innovation. Leaders facilitate innovation directly via creating a climate for idea development (Hoch, 2013).

According to Scott and Bruce (1994), organizational climate is formed of signals that members receive regarding expected behavior and potential outcomes resulted from these behaviors. It indicates the way things are done in the organization. Studies showed that a climate that facilitates innovation embraces various aspects depending on the context of organization. These aspects are suggested as trust that has positive on knowledge sharing (Hoch, 2013), or policies and practices that support innovation such as providing sufficient amount of resources (Scott & Bruce, 1994; Zuraik, 2017). On the other hand, a climate that hinders innovation is suggested as “rigid organizational arrangements and procedures, hierarchical and formal communication structures, conservatism, conformity and lack of vision, resistance to change, and lack of motivation and risk-avoiding attitudes” (Neely & Hii, 1998, p. 5).

Routines and innovation. It is suggested that organizations with more routines tend to have negative impact on innovation (Damanpour, 1991). This is suggested as the issue of attention management or the leaders must regard the psychological limitation of followers to pay attention to the non-routine issues in advancing innovation (Van de Ven, 1986).

The fact that humans are hesitant to move forward with new ideas because we are comfortable to stay in the safety net of routines. From psychological perspective, human tend to stick to what is already known and comfortable and deny what is new or similar-attraction effects by psychologists (Johansson, 2013; Van de Ven, 1986). Because innovation often means new, risky and uncertain, it seems to be something that breaks the safety net built on routines. In extreme cases when routines developed to inertia where individuals adapt to the environment that makes their awareness of need erodes, implementing innovation meets a tough barrier (Scott & Bruce, 1994). At a more stable organization,

people tend to feel more comfortable and therefore less pay attention to new ideas. A job that is more specific and stable also requires less creativity and therefore, recognition for change. Study also proved that the need for innovation is triggered as people experience problems, opportunities, or threats. (Van de Ven, 1986). Nevertheless, routines do not necessarily have negative impact on innovation as if the innovation is to promote innovative activities. Because when innovation becomes a routine (Anderson & King, 1991), it could facilitate more innovation. Therefore, routines are mostly likely to impede innovation when it develops to its extreme form of inertia.

Diversity and innovation. From a certain angle, in the relationship with innovation, diversity creates opposite outcomes compared to routines. At organizational level, Bel (2010) claimed that "diversity fuels innovation". A variety of functions, resources, and disciplines are required for an idea touch its reality (Deschamps, 2003; Van de Ven, 1986).

In passing his leadership experience with innovation, Johansson (2013) also raised the same view based on his experience. He expressed his view to innovation as the *intersection* across different fields and disciplines. In his sharing, Johansson gave examples of how the diversity pave the paths to innovations. He emphasized that innovation could be found at the connecting points of things and moving in between fields, projects, jobs, and so on is the way to find possibilities for innovation. Based on the observation, he creates possibilities for innovation by bringing people with different backgrounds, expertise, ages, races and so on together and emphasizes that leaders rarely use this technique even though this technique is widely agreed. The more diverse an organization is, the better chance that more ideas will be created. In the same book, Wheatley (2003) also stated that true diversity positively impacts on innovation process and therefore giving the organization more choices to adapt to changing conditions.

2.4 Organizational changes and the features of higher education institutions related to change

Before the literature on the Finnish higher education sector is represented, the following part will provide an overview of general issues of organizational change. In addition, these features suggesting how changes would occur in higher education institutions will be described.

2.4.1 An overview of organizational change

Literature has so far closely looked at organizational change from the perspective of organizational behavior (Buller, 2015; Mustafa, 2013). The concept, categories and the sources of change, as well as its features, have been examined in details. Murthy (2007, p. 3) points out that the concept of change refers to “an alternation in the ways things are done”. Organizational change is referred to as any alteration occurring in working environment (Mustafa, 2013) and an ongoing feature of organization (Kezar, 2001).

Instead of different comments on organizational change, researchers extensively agree that the sources that bring about the need for change are various and can be external or internal (Kezar, 2001; Murthy, 2007; Mustafa, 2013). External sources could be market places, government laws and regulations, technology, economic changes, and fluctuation in labor markets (Murthy, 2007). Internal sources can originate from internal operations or the impact of external changes including redesign of jobs, new equipment, changing strategy, and so on (Murthy, 2007) or sufficient preparation in terms of resources, willingness and readiness to bring change (Kezar, 2001). These organizational changes, along with other internal sources, fuel more changes. Firstly, it suggests that organizational change is complex and secondly, it is not imperative for each source to happen independently to cause change. Change can be the result of one force or the combinations of many forces together (Murthy, 2007).

In the context of organization, Buller (2015) states “All organizations resist change. The whole purpose of any organization is to act in ways that are regular, consistent, and predictable” (p. 2). Balogun and Haley (2008) report a high failure rate of 70% in change initiative programs in organizations. The source of

the high failure rate is usually referred to as resistance-to-change. In efforts to lead University of Massachusetts through organizational changes, Holub (2011) reflected that he faced with objections in direct forms such as meetings and emails as well as “unstated objections” (p. 107). These examples reflect on the fact that change is initially perceived as external negative activities. It is said that resistance-to-change tends to be rational and based on self-interest, and it is not necessarily harmful (Mustafa, 2013), but it slows down the change process (Holub, 2011). Learning about change and understanding resistance as its undeniable feature helps leaders better prepare and implement successful change.

2.4.2 Higher education’s features in relation to change

Kezar (2001) suggests that higher education institution needs to take into account its unique structure and values in approaching change. According to him, key features of higher education institutions that associate with changes include (1) independent organization, (2) relatively independent of environment; (3) unique culture of the academy, (4) institutional status, (5) values-driven, (6) multiple power and authority structures, (7) loosely coupled system, (8) organized anarchical decision-making, (9) professional and administrative values, (10) shared governance, (11) employee commitment and tenure, (12) goal ambiguity, and (13) image and success.

In the following table, the author will summarize these features and suggestions to change responding to each feature based on the article by Kezar (2001):

Table 1: Understanding HEIs’ features in relation to change

Items	Suggestions to change
Interdependent organization	HEIs receive multiple and mixed messages related to change. Change are more likely to occur in areas where more than one influencer focus.
Relatively independent of environment	Environmental factors are less significant in the change process. However, private institutions are vulnerable to market forces while public institutions are influenced by regulations and policies.

Unique organizational cultures of the Academy	Collegial culture suggests a shared and inclusive process of change would be successful. Political approach (groups work autonomously but depend on each other for power and influence) are likely to be prevalent.
Institutional Status	Long-standing missions and traditions made them less likely to change.
Values-driven: Complex and Contrasting	Few shared values and belief, distinctive values in one organization hint that change will be slow and difficult.
Multiple power and authority structures	Change involves a great number of people and political processes. Change happens slowly.
Loosely coupled structure	Change is more likely to happen at small-scale and be continuous, improvisational, accommodative, and local.
Organized anarchical decision making	Rapid and large-scale change is less likely to happen.
Professional and Administrative values	Change may occur in an environment of growing conflict between administrators and faculty.
Shared governance system	Slowing down change. However, abandoning the system might not facilitate change.
Employee Commitment and Tenure	Strong employee commitment might facilitate change but lengthy tenure might hinder change.
Goal Ambiguity	Might both enhance and inhibit change
Image and success	Change is closely related to identity modification in a shared governance system (image change requires identity change)

Note. Compiled from "Understanding and facilitating organizational change in the 21st century," by Adrianna J. Kezar, 2001, *ASHE-ERIC higher education report*, 28, 77 – 79. Copyright 2001 by John Wiley & Sons, Inc.

2.5 Finnish higher education and recent changes

The main functions of higher education are identified as providing education, conducting research, and serve societies or the activities related to "knowledge transmission, knowledge creation, and knowledge transfer" (Brennan et al., 2014, p. 37). In Finland, universities are responsible for most basic research that policies and innovations are based on (Tjeldvoll, 2008).

The current Higher Education system in Finland is the result of several major reforms. In the 1990s, the birth of polytechnics in the 1990s (Ahola et al., 2014; Heinonen, 1997) contributed to the creation of a dual system of two distinct sectors of university and polytechnics. In the 20th century, the system rapidly expanded from one university to 20 universities and 32 polytechnics (Välilmaa, 2004). At the time this thesis is written, the system was reduced to 14 universities and 24 polytechnics (Palonen & Halonen, 2015). The dual system accredits each sector with its own missions. While universities have missions of conducting scientific research and providing research-based education, polytechnics focus on training professions in contact with working life and promote regional development. Universities and polytechnics were both made independent legal persons in the reforms in 2009 and 2015 respectively (Melin et al., 2015). The reforms at higher education sectors aim at increasing the efficiency and effectiveness of the system, making faster transition to working life from schools, and increasing the transfer of research output from universities to businesses (“Education and Training Monitor: Finland”, 2016). The focuses of the study are in the sector of university and recent changes in the system that have influences on this sector.

Finland has kept educational reforms as consistent and continuous happenings in the society. Besides recent changes such as the reforms in the higher education sector that made universities and polytechnics legal persons with more economic responsibilities, curriculum reforms are the social phenomena that have influenced Finnish Higher Education. From the perspective of the Ministry of Education, the reform aims at greater autonomy, stronger financial and administrative status, broader latitude in finance. In addition, the reform does not affect the freedom of research and education, the aspects of self-government and academic decision-making and other dimensions that are basic tasks of universities (Halonen & Palonen, 2015).

In the university sector, universities in Finland have traditionally left strong impacts on social development. For this reason, the accountability of universities is the main concern of the government. An important move for the government to increase the accountability of universities is to adopt a new

steering system named “management by results” (Ahola et al., 2014; Välimaa, 2004). It means that the system used to be strictly controlled from the top is now about leading and providing support from the top and constructions made from bottoms (Heinonen, 1997). The system allows more institutional autonomy but also requires more professional leadership (Ahola et al., 2014). The Finnish universities now bear decision-making on internal administration issues guided by University Act (2009, s3). Enjoying autonomy in the steering system means that universities are still governed by government programme, their four-year development plans and performance agreements with the government. On the finance aspect, universities receive funds from the state but also raise supplementary funding on their own (Ahola et al., 2014). The steering system is a gift regarding autonomy and trust but also a challenge in term of budget. It brings a new challenge to HEIs that makes them do more with less (Heinonen, 1997).

Finland also progresses with the curriculum reform to modernize teaching and learning. The change in curriculum occurs at the national level, in pre-primary and basic education in 2014 and upper secondary schools in 2015. The change has been established via educating new pedagogies, implementing new learning environment and school culture, and called for the involvement of the society, or education providers. (“Education and Training Monitor: Finland,” 2016). In this context, universities as educational providers in the educational system are in charge of taking first steps in pulling the change.

In short, the Finnish system experienced significant changes so far and expected to implement more changes in the future (“Education and Training Monitor: Finland,” 2016). These external changes represent both opportunities and challenges create constant impetus to change in Finnish universities and polytechnics. The reforms in higher education sector g create a situation where higher education institutions must diversify their economic conditions (Ahola et al., 2014).

3 THE RESEARCH QUESTIONS

Before entering the next part of findings, for the purpose of transparency, it is necessary to present the research questions and also how they were decided. Focusing on learning of the experiences of leaders facilitating innovation in a Finnish university related to change, the over-arching question of this research is:

What are the experiences of leaders facilitating innovation in times of changes?

At the beginning of this study, the author was interested in comparing facilitating and sustaining innovation and thought that the sub-questions should focus on finding the factors that have influences on the leadership for facilitating and sustaining innovation. However, after a further understanding of the research question, the author realized that this direction was misleading because facilitating and sustaining innovation were difficult to distinguish and keeping the questions could lead to ambiguity in analyzing the data. Therefore, the author changed the research question by only focusing on the experiences and the factors that have impacts on the leadership for innovation. The sub-questions are followings:

1. How do leaders facilitate innovation process?
2. Which factors have impacts on leaders facilitating innovation process?
3. How do these factors influence leadership for innovation?

The first question identifies behaviors, acts, motivations or all the factors that reflect the process of leaders fostering the innovation process of idea generation and idea implementation. The second question aims at identifying the influencers on leaders when they lead innovation process. The third question examines how these factors impact leadership for innovation. The influencers can be enabling or impeding factors that respectively make the leading for innovation easier or become more difficult.

4 THE IMPLEMENTATION OF THE RESEARCH

In this part, the author will present an overview of the research process in the beginning, then the processes of data collection and data analysis will be introduced.

4.1 The research process

The research process was done for the purpose of finding the experiences of leaders facilitating innovation at their institution in the context change in the Finnish higher education sector. Initially, this study was guided by the ideas of phenomenology. Phenomenology has its roots in philosophy (Mayring, 2014) and focuses on the experiences as lived by the participants (Sanders, 1982). The literature for planning the data collection mainly came from phenomenological studies and therefore, followed the ideas of phenomenology.

During the process of data analysis, the use of phenomenological analysis to analyze the data showed that the data were limited to pure lived experience as required in phenomenology (van Manen, 1990). The lived experiences are regarded as individual experiences because the subject of study should live through or perform the experience (Smith, 2013). Phenomenological analysis that focuses on lived experience as individual experience was not suitable for the collected data because the participants often referred to their leadership experiences as a collective effort instead of individual activities. The participants often referred to themselves using the pronoun “we” instead of “I” while telling their leadership experiences. This was rather interesting but unexpected from the perspective of phenomenological analysis.

At this point, the use of phenomenological analysis as the method of analysis was considered. Considering that (1) initially, the author wanted to understand the experiences of the leaders, and (2) the phenomenological analysis concentrates on lived experience while the data for lived experience was limited, the author considered the uses of other methods of analysis. Thematic and content analysis were reviewed, and content analysis was chosen based on its

suitability to the present study at this phase. Content analysis is known to be applicable in a broad range of fields and does not belong to any particular fields (Bengtsson, 2016). This means that content analysis is a highly flexible method that can be adapted to analyzing the issues at hand (Insch, Moore, & Murphy, 1997). More importantly, Mayring (2014) asserted that data collected by open-ended questions could be exploited best with inductive content analysis.

4.2 The process of data collection

The data collection was processed according to the standards of qualitative interviews. Before the process of data collection, email interview was also considered because of potential time-arranging issues. This was thought to be necessary because the participants as leaders often had tight schedules (Slack, 2014). However, direct interview was proven as a better choice for roughly an hour of interview while email interview could take more time that was not suitable for a thesis at the master's level. Furthermore, direct interviews provide opportunities to ask follow-up questions during the interviews and help to reduce the gaps of misunderstandings and increase the credibility of the interviews (Lindseth & Norberg, 2004). Therefore, interview as a method for qualitative research was an appropriate choice for this study. Qualitative interviewing is similar to survey interview because it focused on researchers making questions and respondents answering (Warren, 2001); however, it views participants as meaning makers rather than information repertoires. Therefore, interviewing should produce meanings and both the researcher and participants are active agents in the interview (Holstein and Gubrium, 1995).

The interview questions were open-ended and created on the ground of the related literature. Aiming at understanding the experiences of leaders facilitating innovation in the context of their organization related to change, the literature included the aspects of innovation, innovation and leadership, organizational changes and the features of Higher Education Institutions in Finland related to change. Accordingly, the first questions asked the participants to describe innovation and an innovative person as well as leading in innovative

way to lead the participants into the topic of leadership for innovation as a natural flow. These questions also aimed at probing the thoughts of the participants on these aspects. Later on, the main questions concentrated on asking the participants of their leading experience with innovation, recent changes in their institutions. In addition, the features of their working environment in a higher education institution was also included because of the features of the higher education sector that would be possibly influencing to the leadership for innovation. A final question focused on summarizing the views of the leaders on the innovation leadership in their organization. The questions in details could be found in Appendix 1.

After the pilot interview, the interview questions were nailed. The author went ahead and conducted direct semi-structured interviews with six leaders who she got in contact with via the support of the supervisor guiding this thesis. The leaders worked in a faculty of a university in Finland. The author had chances to learn about the innovations of the faculty where the participants worked at and assumed that the leaders were potential candidates for the purpose of this study. The author asked for the potential candidates' permissions to taking part in the study. The leaders/ participants came from the same faculty and had varied years of experiences at the leadership position from two to more than ten years. The leaders were the head, deputy head of the faculty and the heads of different departments in the faculty. This meant that they shared the same working environment at the faculty level; however, they also worked at different departments so their working environments were slightly different. The participants included five women and one man.

Regarding the scheduling of the interview, the interviewees were at first contacted by email with an introducing letter from the supervisor. The first emails introduced the author herself, the research and its purpose. The interviewees also received an assurance of the ethical study conduct to help participants know what to expect in the interview (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008). The schedules for the interviews were arranged via email or by direct calls based on the availability of both participants and interviewer. The interviews were conducted at the working place of the interviewees with

the rooms chosen by the participants for the purpose of their convenience and comfortability. The interviews lasted from 45 minutes to more than 1 hour and were conducted in English. It is necessary to note that the participants and interviewer are both non-native English speakers with proven language skills for communication at academic level.

At the beginning of the interview, a social conversation helped to break the ice and created a relaxed atmosphere. The interviewer kept the questions open and supported the interviewees to stay oriented and open to the topic of the interview (van Manen, 1990). Several follow-up questions were planned before the interviews and formulated based on the purposes of "clarification or more details" (Mescht, 2004, p.6) but kept the topic open with questions such as "can you tell me more about that?". Interviews were recorded using a computer application named Voice Recorder and backed up by a mobile phone's application named QuickVoice. Later, files from the computer were manually transcribed into Words' files. Besides, notes on the contents of the interviews or special reactions of the participants were taken during interviews to support the data analysis later on.

In the next part, the author will review the method of content analysis as illustrated in the literature and describe how the process was done in this study.

4.3 Data Analysis

4.3.1 Qualitative content analysis

Content analysis is used to make "replicable and valid inferences from texts to the contexts of its use" (Krippendorff, 2004, p. 18). Moreover, content analysis is not limited to coding text (Stemler, 2001), but it also supports analyzing materials in various forms of written, verbal or visual. Content analysis is known as highly flexible in research design. This means that it can provide various ways to study the content of data. (Insch et al., 1997).

Among research methods, content analysis is unique in that it has both a quantitative and a qualitative methodology (Bengtsson, 2016; Hsieh & Shannon, 2005; Mayring, 2014). The quantitative content analysis was developed in com-

munication science to analyze large amounts of data while qualitative content analysis has roots in social research and has been used to work with a limited amount of materials (Bengtsson, 2016; Mayring, 2014). Qualitative content analysis is a subjective interpreting tool to the text data through "systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p. 1278). Qualitative content analysis presents data in words and themes and draws findings from the data. It aims at "a condensed and broad description of the phenomenon" in forms of concepts or categories (Elo & Kyngäs, 2007, p. 108).

Approaches to qualitative content analysis are varied. For example, Elo and Kyngäs (2007) used the categories of inductive and deductive approaches. In his book of content analysis, Krippendorff (2004) listed inductive, deductive, and abductive content analysis. Or Hsieh and Shannon (2005) named the approaches of conventional, directed and summative. These variations can be traced back to the two main approaches of inductive and deductive conventions. The conventional and directed approaches (Hsieh & Shannon, 2005) and inductive approach and deductive approaches (Elo & Kyngäs, 2007; Krippendorff, 2004) are respectively similar. While inductive content analysis is used for the analysis of data when the existing literature is limited, deductive content analysis is used to test or to extend existing theories (Hsieh & Shanon, 2005). The content analysis approach that was chosen was inductive content analysis. This was because inductive content analysis allowed the researcher to freely explore the data. Also, testing or extending the current theories as in deductive analysis was not intended in the initial plan of the research. Again, the data collected with open-ended questions could be explored at its best with inductive content analysis (Mayring, 2014).

4.3.2 The process of analyzing data

Krippendorff (2004, p. 87 – 88) worded the process of qualitative content analysis in a comprehensive manner:

"Avowedly qualitative scholars tend to find themselves in a hermeneutic circle, using known literature to contextualize their readings of given texts, rearticulating the meanings of those texts in view of the assumed contexts."

"Qualitative scholars resist being forced into a particular sequence of analytical steps, ... they settle for nothing less than interpretations that do justice to a whole body of texts"

The texts by Krippendorff described in depth the overview of the process that the author experienced. The process required time to go through data again and again, almost always with some breaks before the author could come back to the data with renewed eyes until she reached the final point of satisfaction. In short, the analyzing process came with many repetitions. The work was not done in a straightforward way as expected with step after step but more like a circle where the author always came back to make sure that she would understand the data in its assumed context.

The general navigators for the data analysis process were the inductive approach and manifest content. Guided by the inductive approach, the researcher emerged herself in the data and let the themes flow from the data (Elo & Kyngäs, 2007; Hsieh & Shannon, 2005; Krippendorff, 2004) to find meaningful subjects that answer the research questions (Bengtsson, 2006). The process was facilitated by comparing and contrasting the data to look for similarities and differences (Graneheim, Lingren, & Lundman, 2017). Inductive content analysis aimed at "an understanding of the material in terms of the material" (Mayring, 2014, p. 79).

The author also selected to code the manifest content of the text instead of the latent content (Marks & Yardley, 2011). The manifest content is the surface structure of the content which answers the question "what has been said?" while latent content covers a deep structure and asks the question "what intended to be said?" (Bengtsson, 2016, p. 9). Choosing manifest analysis let the researcher stay close to the text and often referred to the words used by the participants during the coding (Bengtsson, 2006). In practice, coding manifest content was a more practical choice for a study at master's level when the author was a learner with limited research skills and time limit. After all, latent content was more complex that required higher levels of abstraction and interpretations posing potential risks to credibility and authenticity (Graneheim et al., 2017).

In more details, the process could be illustrated with the open-coding process, the summarizing of transcripts, and the categorization process to form sub-themes and themes with the use of a computer program named Nvivo. In this thesis, the open-coding was important for the author to get familiar with the data and was used as an initial step to determine potential themes. The summarizing of transcripts was thought to be necessary because the author experienced lack of understanding the data in some parts and felt the needs of understanding the context. Briefly, the open-coding process and the summarization were to develop a certain level of understanding of the author to the text.

The open-coding process was the beginning of the research process where the researcher learned to be familiar with the data by reading through the transcripts to obtain a sense of the whole (Bengtsson, 2016; Elo & Kyngäs, 2007). During the open-coding process, headings were created on the margin of the text while the author read it (Elo & Kyngäs, 2008). The transcripts were read again and again in order to create as many headings as possible to describe different aspects of the content (Hsieh & Shannon, 2005). The headings were freely generated at line-by-line level and demonstrated different ways that the author understood the content. The headings came as first impressions of the text or based on suggestions from the notes after the interviews, or after several times of reading and thinking. Therefore, a text with one sentence or few sentences could have several headings. The following figure demonstrates how the open-coding process looks like:

Examples of meaning units	Headings
When I started at this position, it used to be like some people did very good research. But typically, not always, but typically, it was based on one researcher's work. It didn't have research groups.	Individual research
And as we still have education as our main focus, but research has very little relevant to many of our teachers' work.	Previous research culture
And we tried to, we started to change also this.	Actions towards change Change in research
We hired people, who had very good research, orientation and good research, L. And we created few, to be honest, one or two research groups, that are very bind-able	Research-oriented mind-set Change from their action
So it's part of teacher's work, even if he or she is not really a researcher but more or less teacher.	Change in research Change from their action

FIGURE 1: The illustration of the open-coding process

After getting acquainted with the data and having initial ideas of the potential themes via the open-coding process, the author was rather unsure about the meanings of some parts in the data. Even the open-coding was done at line-by-line level; the author thought that it was necessary to summarize each interview to follow the flows of the conversations. Summarizing the data could be thought of as a way the author confirmed in words the context that she assumed to be natural. This process helped the author to understand the thoughts of the participants in order to better understand the meaning units in their contexts. The summaries in a way also reflected how the author understood the answers. The summaries were created with bullet points for main ideas as in the example below:

Experience of leadership for innovation:

(*) Change in leadership model:

- Leaders worked individually before
- They have changed in leadership structure where leaders work as a team. The leader work closely together and often had helpful discussions to solve their problems.
- This leadership model has worked well, and it supports the development of research-based culture which encourages people to do research in team and do it differently
- The leaders try to be open and gather ideas from people to find better way to support them.
- The change in leadership model is an innovation to their organization though it might already happen somewhere else.

(*) Tuesday's morning:

- The Tuesdays' morning is saved for joint meeting, doing teamwork|and discussions.
- The innovation is not big in scale, but it strongly changes their way of thinking
- Leaders shared responsibilities to overcome uncertainty and make people believe in making Tuesday's morning.
- However, she thinks that while the leader teamwork still works, but people are not very committed in the Tuesday's morning like they did.

FIGURE 2: Example of summarized data

Then the data were imported into Nvivo for analyzing and grouping. The codes were typically called nodes in Nvivo; however, from here, the author will refer to them as codes for the purpose of consistency. In Nvivo, the meaning units were then formed and labeled with initial codes. Instead of continuing grouping and forming higher-level codes based on the headings immediately after the

open-coding (Elo & Kyngäs, 2008), the author developed initial codes based on the understandings developed from the headings and the summaries. This was recognized as the first level of coding to in order to form sub-themes and themes. The author tried to stay as close to the text as possible (Bengtsson, 2006) by preferably using the words used by the participant to label the codes. The headings form the open-coding process, and the summaries played important roles during this process because they were helpful in finalizing the codes. They helped to determine the direction in which the author would understand the meaning of each meaning unit and how she would word the codes. An example of the initial codes in Nvivo was extracted in the following table:

Initial codes	Meaning units
Leader rarely trusts on her viewpoint only but discusses with others to better understand the ideas	But I very seldom, if, if ever, I trust on my point of view only, because that, I think that, that, it might be that I don't understand something about this proposition that there are some angles, or some perspectives that I can't, can't see, or I can't grasp the idea
Leader discusses to analyse the suitability and implementation potential of new ideas	I always like to discuss, because I think that at the first time, some ideas seem odd, or too challenging, or not possible, or that they are not in our hands, or they are not the ones that we should put our resources on that, we should not concentrate on this issue,
Constant hear new, fresh ideas from people in their faculty	In my view, I think that I constantly hear, people here, the staffs here, in both of the department and, and the leaders, and the institute of educational leadership that people have, very fresh idea
Leader gets involved in innovation process by delivering information	Uhm, it might be that, for example, today, in the university board meeting, they told us that for example, the next year, we celebrate the Finland's hundred hear anniversary, so I was told to tell our faculty that we have the opportunities to create program for this year, how we make visible the work we are doing here.

FIGURE 3: Examples of meaning units and initial codes

Then the author continued to code higher levels. At the higher levels, sub-themes and then themes were formed by comparing and contrasting the initial labels to find the common themes. This process was repeated until a certain level of satisfaction was reached. During this process of assigning labels and grouping nodes, the author constantly asked herself if the themes response to

the aim to keep the sense of the logic (Graneheim et al., 2017). Continue the previous example, the sub-themes and themes were as in the table below:

Themes	Sub-themes	Initial codes
Facilitating communication	Analyse ideas	Leader rarely trusts on her viewpoint only but discusses with others to better understand the ideas
	Analyse ideas	Leader discusses to analyse the suitability and implementation potential of new ideas
	Listening to ideas	Constant hear new, fresh ideas from people in their faculty
	Communicating information	Leader gets involved in innovation process by delivering information

FIGURE 4: Examples of forming sub-themes and themes

After the final themes were formed, the leaders were found to facilitate time, communication and change to promote the innovation process. Also, the factors of physical environment, the collaborative leadership model, and the human factor, as well as the stricter external environment were found to have impacts on the leadership for innovation. For more details, each theme will be presented in the next section. Finally, it is necessary to note that the process of analyzing data was done with the main ideas from the inductive approach. The formations of sub-themes and themes were done in the inductive way with the open-coding process and the themes emerged from the text itself. However, the author developed her path by summarizing the data before the makings of sub-themes and themes. This was thought as a helpful practice to better understand the context for each meaning unit and the formations of themes.

5 FINDINGS

The study aims at learning the experiences of leaders leading innovation process in their faculty in the context of change in the Finnish higher education sector. The following part will present the findings responding to the research questions of this study:

5.1 The ways leaders facilitate innovation process

The first question focuses on finding the answers to the question of *how* or *the ways* the innovation leaders influence on others to facilitate innovation process. These include activities or factors that promote activities related to generating ideas or establishing new things or making improvements. The following part will present three themes of (1) facilitate time, (2) facilitate communication, (3) and facilitate change.

5.1.1 Facilitating time

During the innovation process at organization or team levels, time as a resource is an essential condition for facilitating activities of idea generation and idea implementation. Innovation leaders arrange time so that followers can be creative or work together for bringing a potential idea to something concrete. According to their experiences, the leaders in the present study realized the need for time in the innovation process and created time and structures for various innovative activities.

The leaders gave different examples of how they see the need of time. Participant 1 shared her experience on which she emphasized the need of time to make change in their teaching:

“our staffs have related to education and teaching, so, and when you think of innovation, of course, all innovation if it relates to teaching, how can I do this course differently, and how can I give more floor to the students, and how can I do this more together with the students, it’s all need time to plan it, and to do kind of out-of-box thinking”

The participants emphasized the needs of time for negotiations because of different people working together. One leader told from her experience that the innovation was big, “took a lot of leadership effort” and “negotiations” because it happened at the faculty level and had influences on many aspects of the faculty and had happened for two years. Another leader expressed the need of time for negotiations in the following excerpt:

“So, ah, we have a team where we have experts from the field of education, and from arts, and you know, math. And that was really interesting. But I think that, when, when the team is working on some, or trying to solve any problems, or find any innovative solutions, and when they are coming from different fields, you need a lot of time for negotiation. So it took very much time.” (P6)

On another experience, one participant said that they used to have developmental days one or two times a year in which the creative activities took place, but several times a year were not enough. She remembered the staffs’ reaction on the lack of time:

“they always say that ‘ok, we, yeah, we did that if we had time’. And it was always the same tape ‘if we have time’. ... When people want to make change, and improve what they are doing, they need time” (P3)

Regarding the facilitation of time, the leaders were united in the example of Tuesday’s morning as a way to set time for innovative activities. Tuesday’s morning was the fixed time for various innovative activities. The Tuesday’s morning was influential because many staffs had to adapt by arranging their busy teaching schedules so they could completely be free in one morning. According to the leaders, it is meaningful for innovation process because it created opportunities for staffs to work together, to discuss, to share ideas, to do something new or to experiment. Participant 2 and 3 shared the effects of Tuesday’s morning as followings:

“It would be free, for, I mean not free, but that would be space for common joint meetings, and coming together, and doing teamwork, and discussing things” (P2)

“So this is the time, every Tuesday, that you have time to share ideas, you have time to develop something new, you have time to do research, you have time to make new relationships with each other. ... if you have something, something experimental going on, you want to experiment something new, then you are allowed to use the Tuesday’s morning also” (P3)

The leaders shared their experiences that time was a necessary condition for innovative activities. Setting aside a free morning was an action that the leaders took to reserve time and create structures for staffs to work together, to share ideas, to discuss, and to experiment new things. Setting the Tuesday's morning was also a change in their working culture as the leaders tried to create time and structures for creative, innovative, and collaborative activities.

5.1.2 Facilitating communication

The main tasks of leadership often involve facilitating communications among members. Communication promotes the sharing of ideas so that new ideas are heard, refined, and reach its necessary resources and therefore, benefits the innovation process. The leaders in this study facilitated communication that benefited innovation process by openly listening to ideas and bringing information that was needed. Via communication, the leaders had chances to identify the supports that they could provide to back the new ideas and was able to analyze the ideas. These actions benefited to the innovation process.

According to the participants, direct communication was an effective way for staffs to propose new ideas and for leaders to listen to them. The faculty did not have a formal system in which the staffs could introduce new ideas but the leaders picked up new ideas via informal direct communication. To facilitate idea sharing, the leaders acted openly and took part in the discussion of new ideas and were active to find more ways so they could be more open and encouraged staffs to bring new ideas to them. Participant 1 shared that as a leader, she never ignored a new idea but always listened to the staffs:

"I think I never say no, definitely no, never, but I say tell me more. ... I think that everybody has a right, that if they have ideas, or if they have some issues, or, or, innovations in their minds. So it's my obligation to, to listen and, and give room, and give some opportunities to bring it forward"

It created an open relationship between the leader and the staffs in which people often came to her to share ideas or solutions:

"it is very often the procedure that people come to me that, they are willing to start a new project because they think that this is an, very important issue that has to be, uhm, kind of tangled, or we have to do something about it"(P1)

Besides picking up new ideas via discussions, one of the leaders also mentioned that discussing ideas is a way to refine the ideas and to promote the creation of more ideas because more people were involved.

“when we discuss it, it might evolve thinking in other people ... which flourish some new ideas and, and we get better ideas”

Communication was a means for leaders to provide information related to innovation. The information could be new information about innovative activities or missing information that the staffs needed to facilitate innovation. Participant 1 shared her experience of bringing news for creative and innovation opportunities to staffs:

“In the university board meeting, they told us that for example, the next year, we celebrate the Finland’s hundred-year anniversary, so I was told to tell our faculty that we have the opportunities to create programs for this year.”

Participant 1 shared that discussing the new ideas with staffs could help her to identify what she could do to support the idea. She said to the staffs:

“Who are the people that we have to gather together, and start processing it, and what is the role, how can I help this process? What is the support you are needing from my, from the role or position that I’m having?”

Discussion is helpful for leaders to analyze the potential of the ideas and make decisions if they would want to invest and implement the ideas. Participant 1 was rather rational in decision-making and shared that she rarely trusted on her viewpoints only but thought that discussing with other brought better understandings and she did not know all to make decision herself.

“I always like to discuss, because I think that at the first time, some ideas seem odd, or, too challenging, or not possible, or that they are not in our hands, or they are not the ones that we should put our resources on that, we should not concentrate on this issue. ... I decided when I started to be the leader that I never answer anything firmly in corridor discussion that can I do this one, yes or no, I always want to hear something more and then discuss with other people”

The leader also shared that if she estimated that the new idea was not suitable to be established at one department or the faculty, then she bought it to a different place, in this case, is to the Board of Academic Life where the idea could be grasped and used by someone else:

"I read it through and thought it through, my idea was that it's a great idea, but it's not in the core, in the centre of our faculty, but I think it's a suggestion that we should bring to Board of Academic Life, concept that and they should bring it forward. And this is right place for this innovation to move on and not faculty" (P1)

On the same issue of analyzing new ideas by staffs, Participant 5 suggested a more intuitive experience when the participant was convinced by the enthusiasm of staffs:

"Communication, and the way they talk. There is the difference when people are really, really enthusiastic. They believe in their ideas, and they have their heart within this idea."

The experiences shared by the leaders show that communication is an effective way to promote new ideas by sharing, refining and developing. Discussing and communicating new ideas were the ways that the staffs proposed new ideas and sold them to the leaders. On the other hand, the leaders took chances to get to know more ideas, see how they could provide support, analyzed their potential and decided their actions. Moreover, the innovation leaders played the role of delivering new information that was related to innovative opportunities to staffs. It is notable that the leadership was open and facilitated direct informal communications that contributed to the increased progress of idea sharing.

5.1.3 Facilitating change

Making change means doing things differently. Innovation leaders encourage followers to make changes by trying new things or doing things in new ways. The leaders in this study brought up actions on how they promoted change. They encouraged flexibility, agency, experimentation, and collaboration among staffs. An excerpt from Participant 2 gives a general view of the leadership that encouraged doing things in new ways:

"So, I think that we have done that a lot and at the faculty level, I think that there is strong, uhm, sort of strange in our way of leadership but also our (sort of) vision that we want to be (sort of) moving in the (sort of) frontline of doing things in, in new ways."

The leaders facilitated flexibility and agency and doing so made the staffs feel that they had room to take initiatives in making change. The following is a quote from Participant 5:

"I'm promoting the staffs to have a good agency, so that they can feel that they have a right to do things and they can do different kinds of thing. ... then we have more flexibility to try different things. And very important thing has been that when our teacher asked "Can I do this?" "Is this allowed?" I said: "Yes, you can try"."

Also about making rooms for staffs' agency, participant 3 suggested that they aimed at making their teachers feel that they could do various experiments with their teaching:

"And I think that we are going into the right direction that we allow our teacher to make very, many kinds of experiments that we think that, to become a teacher, you can become a teacher in many ways, so we try to inspire our teachers to make things in different ways."

In addition, the leader also aimed at enhancing collaboration among staffs in facilitating change. According to her, big changes happened when there were collaborations among people regardless of working positions. All in all, frequently working with different people would broaden and bring new perspectives that were necessary to make change:

"the biggest changes or innovation comes when people work together. No matter if they are head of department, or teachers, or researchers. Uhm, so I would like to promote cooperation even more. And different kinds of people working together. That's something that I have learned that if we work too long, like within this group or not changing ideas, you mind is really coming, not flexible, unflexible. And you just see the thing that you have used to see. But if you have worked with new colleges, some discussions may lead to like "wow, you think like this. I haven't thought about that. We can try!" (P5)

The leaders encouraged staffs to adapt new things or new ways of doing things and make changes. The leaders facilitated flexibility and agency among staffs; inspired and encouraged teachers to make experiments in teaching; and facilitated collaboration among staffs in order to broaden perspectives that brought more changes.

5.2 Influencing factors on leaders facilitating innovation process

The purpose of the questions 2 is to identify the factors that have influences on the leadership for innovation. The question 3 aims at examining how these factors impact on the innovation leadership. These can be enabling, impeding factors or factors that are potentially influential.

In the scale of this study, the leaders were interviewed on the factors presenting the features of the organization and the recent changes that happen inside or outside the organization and their influences on the leadership for innovation. Related to the research questions 2 and 3, the author found three factors that had impacts on the leaders leading innovation. The themes analyzed were related to the internal context of their working place and the external change in the higher education sector. The factors belong in the internal context were the physical environment, the collaborative leadership model, and the human factor. The external environment was also another theme found with more pressures and stricter controls. The following part will represent the factors and how they had influences on the leadership for innovation in the section for each factor.

5.2.1 The physical environment

The building where the faculty was located represented the physical environment of the faculty. The faculty moved to the new building, and this had influences on the innovation process and the leadership structure of the faculty. The leaders viewed the impacts of the physical environment on the innovation process as a positive thing. The change in the leadership structure was stated but not concluded as negative or positive to the innovation process. The following part will describe the previous working places and the meanings of the new physical environment.

Two leaders recalled their experiences in the old building where people used to socialize within the same groups, stayed in different places on the campus, rarely met others, and tended to work individually. The following extract can well reflect the situation:

“before this building, we were in 13 different places around the campus, so cooperating in this kind of situation when people are in 13 different, working 13 different places so it’s totally impossible for them to, or, it’s much much more difficult for people to work together, they don’t see each other, they might be whole year not seeing other people in the same faculty” (P1).

Compared to the previous working places, the new building was meaningful because it stimulated sharing of ideas, collaboration, and flexibility that posi-

tively contributed to the innovation process. The new building created an open place and more energy for people to share ideas:

“It is easy to say: “Hey, I have an idea”. I was just thinking that because we see others in the corridor, and in the hall so, so many people say that it’s now easier to share ideas and to start cooperating so, also this, and because, the air is clean here, and, and the building is beautiful, and it is, uhm, great to be here. So it gives you more energy to work and cooperate.” (P1)

Participant 1 suggested that the new place was meaningful because it also created an open and flexible atmosphere that had positive influences on the formation of innovative research groups:

“we are now almost all of the faculty in this building, so it made it possible to build a more, kind of cooperative faculty, and to work more together, and to build more innovative research groups, and things like that, so, so this kind of physical or environmental features that we now have, they were meaningful” (P1)

According to participant 4, there are more opportunities for collaboration among individuals and cooperation with other organizations in the same building. They were in the same building and shared the same facilities:

“We mixed people when we moved in here. So, then it doesn't matter so much from which department you are coming from. ... And beside of the departmental level, also the cooperation with (other organizations in the same building) is very much closer. And we have same experts, sharing the same experts, database, and they also take our students as their superiors, they act as supervisors of our students” (P4).

Lastly, one of the leaders suggested that there had been changes in the leadership structure when moving into the new building. According to Participant 2, their leadership in the old building emphasized on the open and democratic atmosphere in which everyone had chances to voice their opinions. However, moving to the new building with more people meant that the leadership structure was subjected to change. The leadership had to adapt to find its balance again:

“It’s not like the, one, two, three departments. It’s more like this big, bigger collective community. And then leadership becomes a little bit trickier because if you have sort of different structure, the hierarchy is sort of at different levels. It requests more negotiation and more sort of, it’s hard to set goals” (P2)

The leader also expressed the wish to keep the open and democratic leadership but did not give a conclusive suggestion on how this would impact the leadership for innovation process:

“No, at least I cannot see it yet cause we are still in the middle of that” (P2)

The move to the new building as a new physical working environment brought fresh and open air to the faculty. The faculty moved from different places on campus to one place and the moving increased idea sharing, collaboration, and flexibility that the leaders viewed it as beneficial to the innovation process. In addition, their previous open and democratic leadership had to adapt and change within a more complex leadership structure in the new building. Still, how the change in leadership would have effects on the innovation process was not concluded.

5.2.2 Collaborative leadership model

The leaders, as individuals, are influenced by their working environment that includes the leadership model. In other words, the leaders can only thrive and facilitate innovation if the leadership model allows them to. The change in leadership at the faculty represented a change in the leadership model towards a highly collaborative leadership that was favorable for the innovation process.

Two leaders worked at the faculty before the change in the leadership model, and had experience with the past leadership and one leader heard the story from others. On the previous leadership, the leaders commented that the leaders used to work individually with distances among themselves and with the followers. The following excerpts were shared by Participant 2 and Participant 5 on the individuality and hierarchy of the past leadership:

“I have heard about the history, then the leadership was more, sort of, uhm, there would be one person with budget responsibility, and then there would be people who have responsibilities for respected area, sort of like, ah, pedagogical leadership” (P2)

“It used to be that we have certain, our own fields of responsibilities, were very clear. And back in old days, like eight years ago, seven years ago, we rarely met each other because we were, each of us was very busy working on each’s field of responsibility. ... For example, the head of department always has a big room. Ah, he or she has secretaries, and if someone wanted to discuss with him, or her. He perhaps books an audience from secretary. And you know, there was certain distance between the head of department and staffs.” (P5)

The leaders were united on the ideas that the present leadership model was highly collaborative. The collaborativeness could be summed up in two sub-themes of working together and sharing responsibilities.

Firstly, the leaders suggested that they worked closely in teams along with other leaders. They recalled the experience as “work in team” and “do a lot of thinking together”, went to a different place for 2, or 3 days for working on strategic matter, open in discussing challenges and worked closely in formal and informal groups. Among their stories, there was a common phenomenon that the leaders often use the pronoun “we” instead of “I”. An excerpt from Participant 5 is as follows:

“we totally changed it, we start seeing regularly. And we have this kind of long workshop, even two, three days long workshops where we discuss important things. On the daily basis, it’s just like daily matters, but during workshop, we have time to really discuss on the strategic matters, and what are our big aims, and what we want to do and so on”

Secondly, the leaders suggested that the leadership emphasized on sharing responsibilities among the leaders and between the leaders and followers.

“So that the leadership style in the faculty is very like shared leadership so that we all carry the responsibilities, and we listen and we ask openly colleges.” (P4)

According to participant 1, the collaboration among leaders facilitated the innovation in the faculty that made them share resources if possible. The leaders respected each other:

“they certainly respected each other, and they, they are willing to cooperate. And if one has more resources this year, she is willing to look that we can give up on this resource in order that you have more resources”

Participant 2 commented that the collaboration among the leaders was necessary to overcome the difficulty in leading innovation. They had to model by changing their own way of working in order to make change in the department. The collaboration among leaders created strength to make change:

“And at that point I think that the leadership has to be certain kinds of, this kind of collective sharing of responsibility was important to sort of help each other to believe that: ‘Yes, this might work out’. ... Because we wanted to change the way our department work, so first of all, we change our own way of working. And, we have a strength coming from that cooperation. And that strength was needed to make the change happen in the department’s operational culture.” (P2)

The leadership model at the faculty had changed from emphasizing on individuality and hierarchy to a leadership model that embraced collaboration. In the collaborative leadership model, the leaders worked together and shared re-

sponsibilities. The collaboration between leaders made them share resources and overcome difficulties. The new leadership model was necessary to make change happen at the faculty.

5.2.3 The human factor

The community is an important part of the environment in which the leadership operates in and therefore, has a strong influence on the leadership for innovation. In the case of the faculty, the staffs were suggested to have a great potential for innovation that made the leadership much easier.

The leaders who worked at different levels and departments in the faculty were strongly united and positive in their opinions in the staffs. They shared a strong belief and confidence about the innovation potential of the staffs. They used positive words to describe the staffs such as clever, hard-working, devoted, bold, brave, courage, and open. In general, the leaders showed a proud attitude when talking about the staffs and their innovation potential. Their descriptions illustrated the innovation potential of the faculty in which the staffs were at the center:

"I'm not at all worried about that, that this faculty doesn't have a potential for innovations... I'm very sure when I announce this to our faculty that, that, this is the suggestion we, I have been given, I heard in the central administration, and when I talk with people or put it in the emails so then I'm very trusting that we get many many suggestions what can we do, and how, what kind of events we can organise and what kind of social media, kind of advertisements, or things, challenges or what kind, we can put there" (P1)

"I think that this, the department has been really bold and brave in sort of doing changes in the sort of traditional ways of teaching" (P2)

"the department is courage, open, I mean open in terms of feedback coming from society and coming from students. And listening all, so to different voices coming from society or student voices, and we are also ready to experiment" (P6)

The staffs always came up with new ideas, were innovative and brave to take initiatives to change and experiment. They had a good ground for innovation and what they needed were only resources of time and spaces:

"I think that our staff has really good ideas. They have this kind of mindset of being innovative. I have a trust that when people are given enough time, and spaces, perhaps they need some hint ideas. But still, they have all the knowledge and innovation potential needed." (P5)

The innovation potential of the staffs influenced the leaders in the way that they entrusted the staffs and gave more freedom to the followers. The innovation potential of staffs made the leadership for innovation much easier. Participant 5 and Participant 1 shared:

"I have given more and more freedom... They have a lot of agency, I would say. And I believe that this is quite a good ground for innovation" (P5)

"and our staff is highly innovative and they have ideas and they have that also Ministry knows that in (the city's name) they are doing a great research and they are innovative and critical teachers, so in one sense, I'm kind of very, it's easy to be a leader because the staff here is, the staff is so innovative, and, and they are doing a great job" (P1)

5.2.4 The external environment

Because the university is a part of the education system, the changes created by the main players in the system have impacts on the process of innovation in the university and so the innovation leadership. The external environment was regarded as "stricter" with more pressures and controls. The fast-changing external environment with the changes that it created was seen as making negative impacts on the innovation process and innovation leadership.

At the faculty of the study, the changes by the Ministry of Education and Culture and the government were compulsory and were mentioned as the pressures or controls from outside. The environment was described as "stricter", and they no longer gave soft suggestions but rather practical actions from the Ministry and the government. The following excerpts could illustrate the situation:

"I think all universities are somehow forced to react to the different situations" (P2)

"The changes they are coming maybe the threats and the pressures coming from outside" (P4)

"I think at the moment, the Ministry and the government are very tightly trying to dictate, (or what is that), how we should do the work we are doing. ... Now they no longer suggest that you should do it. They force us to do it. They have taken away money. And they give it only if we do this profiling action, so, so they're so much that the, kind of the money that is in the control of Ministry and the issue that they want us to study, or how they want us to make structural changes inside university." (P1)

According to Participant 1, the stricter environment had negatively impacted the innovation process at the faculty as limited room for innovation leadership. The limited research issue was taken as an example:

"The very big changes that many scientists say that, many times it is so that great innovations, they are long processes of some studies, part of them might be kind of side projects, side products of some longer processes and then we end up with the great innovation. And so, if they always kind of give us some concrete issues that research should, should show this issue so it becomes kind of, kind of ordered research that this is the problem to research on this matter, so this is not how innovative universities work"

The stricter boundary in research set by the Ministry was seen as a dangerous issue that was harmful to the university's autonomy and independence and hindered the innovation process in the long run. Participant 1 commented on innovation leadership under the control of the players in the external environment:

"if there are too many outside control what we can do and can't do and where we should focus and, and, so it gives quite small room for innovation leadership"

According to the participants, the environment was getting stricter and with more pressures and controls applied to the university in which the faculty belonged to. The changes created by the external environment were suggested as impeding the innovation process at the university in general and the faculty in specific. The controls from the main players in the educational system were also estimated as hindering innovation leadership.

6 DISCUSSIONS

6.1 Summary of the findings

The study's focus is to understand the experiences of leaders facilitating the innovation process. The experiences of leaders were explored via the ways that they promote innovation process in their faculty and the internal and external context of their organizations.

The themes that emerged from data came from four out of five participants and reflected how the leaders facilitated time, communication, and change to promote the innovation process. The leaders realized that reserving time and creating structures for innovative activities were necessary for the innovation process. In this case, they set a fixed morning so that the staffs could invest this time in creative and innovative activities. The leaders facilitated communication by being open and listening to ideas, and communicating new information related to innovation. Via communication, the leaders could identify supports needed for innovation process and analyzed the potential of new ideas that were meaningful to making decisions. Finally, the leaders encouraged staffs to do things in different ways by promoting flexibility and agency, experimentation, as well as collaboration.

The innovation process and the leadership for innovation were influenced by the factors of internal context and the external environment. The internal context was regarded as what happens inside the faculty, and the external environment was what happened in the university and the educational system that the faculty belonged to. The internal context included the factors of (1) the physical environment, (2) the leadership model, and (3) the human factor. The external environment included the environment in general and the changes that it created. The leaders had positive views on the physical environment, the leadership model and the human factor because they were supportive factors to the innovation process and made the leadership easier. In addition, the physical environment was also mentioned as having effects on changing the leadership structure. However, the direction of the impact was not concluded. On the oth-

er hand, the leaders had a negative view on the external environment because it was getting stricter with more controls and threatened the innovation process and leadership for innovation at the faculty.

In the following discussions, the author will examine the findings by relating them to different parts of the literature. The author will reflect the results to the literature on the aspects of the roles of innovation leaders, the phases of innovation process, the shared leadership style related to innovation, the reforms in Finland, and the organizational factors that drive innovation process. The suggestions for further studies will be commented if relevant while these points are discussed.

6.2 Result examinations

The results of this study suggested a consistency with the literature on the roles of innovation leaders. Based on the findings, the leaders promoted innovation by taking action towards facilitating time, facilitating communication, and facilitating change. These actions are similar to the roles of innovation leaders as described by Deschamps (2003) in the literature review. Deschamps studied innovation leaders as senior executives, and he suggested that the leaders facilitate innovation process by encouraging followers to try new things (facilitating change), and creating rooms for discussion (facilitate communication). The act of allowing a certain amount of freedom is also close to the facilitation of time and structures for innovative activities. In addition, the leaders in this study also commented that they were willing to listen to the staffs, showed confidence in the innovation potential of the staffs, and willing to give them more agency. These are very close to the enabling role of innovation leaders in the IDEA model by Bel (2010). According to Bel (2010), the IDEA model explained the roles of leaders as to inspire, drive, enable, and advise followers in the innovation process. The act of listening to followers and especially trust in them empower the followers to do what they think as necessary during the innovation process (Bel, 2010). In short, the findings reinforce the literature of the roles of innovation leaders in the innovation process.

Rosing et al., (2011) discussed the nature of innovation and suggested that the innovation process should be seen as more variant rather than linear in the relationship with leadership. Regarding the nature of innovation, the findings indicated that the leaders in this study mainly involved in idea generation than idea implementation in the innovation process. When being reflected on the changing leadership behaviors in the innovation process by King and Anderson (1991), the themes that emerged responding to question 1 showed that the leaders in the current study mainly performed the behaviors of nurturing and developing rather than championing and validating/ modifying. Specifically, creating an open environment in which it is safe to bring up new ideas (nurturing), as well as obtaining opinions and evaluating new ideas (developing) were performed by the leaders in this study. The leadership behaviors of nurturing and developing were connected to the innovation stages of initiation and discussion in the phase of idea generation as in King and Anderson (1991). In other words, the leaders in this study committed to the acts that promote the process of idea generation.

An extended point followed the previous discussions is related to the leadership level of the leaders. The leaders worked at the top positions in their faculty, and the findings suggested that they facilitated idea generation. In the literature, Deschamps (2003) concentrated on the leaders who worked in top positions and linked their roles with the generation of new ideas. Bel (2010) also suggested that the top leaders involved in the process of inspiring, driving, enabling, and advising that contribute to idea generation. The findings suggested a similar phenomenon in which top leaders involved in the process of idea generation rather than idea implementation in the innovation process. Thus, the findings were consistent with the literature in this aspect. More than that, this implies that studying top leaders might not be enough taking into account the complexity of the innovation process. The present study should have targeted leaders who work at various levels in the organization, for example, middle levels or team levels. Ideally, further studies with consideration of the complex nature of innovation should count multiple perspectives of leaders at different levels.

Regarding leadership styles, the leadership that focused on collaboration in the faculty of this study was close to the shared leadership in the description of Hoch (2013). As suggested by Hoch (2013), the shared leadership in which team members take turn to lead have positive effects on team innovation. The case of shared leadership at the faculty of study was slightly different because (1) this study was about the leadership at organizational level, and (2) the leaders worked collaboratively and shared responsibilities rather than each team member taking turn to lead as in Hoch's (2013). Compared to the shared leadership in the literature, the findings suggest that the shared leadership in which leaders lead together and share responsibilities also contribute to facilitating innovation. Further examinations of findings suggest that shared leadership could positively influence the phase of idea generation. However, it is necessary to note that shared leadership is not the main focus of this study. In addition, this study is limited by its scale which possibly leads to missing dimensions in order to come to a further conclusion on the relationship between a leadership style and innovation process. As noticed in advance by Rosing et al., (2011), the relationship between leadership behaviors and innovation process is more complicated. In short, further studies on the relationship between shared leadership and innovation process are needed.

Regarding the reforms in Finland, the findings of this study suggest a different view from the literature on the influence of the reforms. The faculty in this study belonged to a Finnish university and therefore, was in the situation of being impacted by the external systems. Finnish universities are affected by the steering system in which the government and the Ministry of Education and Culture have influential roles on the universities (Ahola et al., 2014). From the perspective of leadership for innovation, the findings suggested that the reforms limited the freedom of research issues and innovation at the faculty in this study. However, the literature pointed in the opposite direction. Halonen and Palonen (2005) claimed that the reforms in Higher Education sector in Finland did not aim at changing the aspect of research and therefore, innovation at the university. This could be the hidden consequence that was not seen at the start of the reforms. Even it was not meant in the aim, the recent reforms in the

higher education sector might generate negative impacts on the freedom of research and innovation at Finnish universities. Nevertheless, the author is aware that a general conclusion based on the sole findings of this study should be lacking. However, this raises the question of the reforms' impact on the freedom to change and innovation at Finnish universities and requests further study in longer time-span and broader scale.

According to the study by Barsh et al., (2008), organization climate and staffs are two important factors that drive the innovation process. Both of these themes were found in the factors that influence the innovation process in this study. The impact of the innovation potential of the staffs was rather apparent in the theme of the human factor and suggested a consistency to the literature. About the organization climate, the new building contributed to the organization climate as it signaled the accepted and unaccepted behaviors (Scott & Bruce, 1994). In this study, the new place created an open physical environment that signaled the open behaviors. The openness promoted less formality and hierarchy in communication that in turn promoted innovation and these were similar to the suggestions by Neely and Hii (1998). Briefly, the factor of the physical environment as a part of organizational climate and the staff's innovation potential were found as driving factors in innovation process. The findings on the roles of physical environment and human factors innovation process were consistent with the literature.

6.3 Ethical solution and reliability

6.3.1 Ethical solution

According to Orb, Eisenhauer, and Wynaden (2000), practicing ethics means "doing good and avoiding harm" (p. 93). From the view of participants, this means that the protection of participants is compulsory in any qualitative research. The ethical solutions of this study lie on the protection of participants' rights and identity during in the processes of data collection and analysis.

During the conduct of data collection, participants were provided with the purpose of the study, to decide if they want to participate in the study, and to

withdraw at any time if necessary (Orb et al., 2000). Before the interviews, potential interviewees were informed of the purpose of the study and guaranteed the confidentiality of their interviews. The potential participants were invited to participate in the research and chose to attend the study at their willingness (Orb et al., 2000). For those who agreed to participate, they were informed that they could withdraw the data from the study any time (Bengtsson, 2016). Informed consent was offered and signed by all the participants before the interviews took place (Orb et al., 2000). To protect the confidentiality of the participants, all information related to the participants was kept by the author and the supervisor of this study. During the study process, the transcripts were assigned with code names and were only accessed by the author. For the purpose of discussion during the research process, the summaries of the data were created with code names and accessed by both.

6.3.2 Reliability

The quality of reliability of the text is decided by *stability* meaning that the same coder gets the same results after many tries and *reproducibility* meaning that different coders produce the same categories on the same text selected by the coding schemes (Stemler, 2001). The following part will discuss different methods that the author used to increase the reliability of this study. These are believed to be proven tools such as thick descriptions (Tracy, 2010) for enhanced reproducibility and using software to increase the transparency (Graneheim et al., 2017); or adapting tools such as keeping time-gap during the analysis, or making the study open by revealing the sources of themes. The final paragraph also discusses further on the limitations of this study.

During the data analysis, the author learned that coding the data and giving a conclusion of themes within a short period of time might not be reliable in terms of stability. Thus, to increase the stability, the author had made efforts to come back to the data as many times as possible with some time for breaks so that she had time to refresh her mind to look at the data from new angles. Also, the author was aware that her experience and knowledge on the topic and also the chosen path of the literature review that the author had chosen influence on

shaping her thinking on choosing what were important and relevant to form sub-themes and themes. Therefore, to enhance the reproducibility and credibility, the author practiced thick descriptions in this study (Tracy, 2010). The practice was done by describing the literature review, the implementation of the study on the issues of the context, and the process of data collection about the participants, and data analysis with the open-coding process, the summarizing of data and the formations of themes in as much details as possible (Graneheim & Lundman, 2004).

Regarding the literature review and data analysis, it is important to note that the use of the software Nvivo also enhanced the transparency of the research process and contributed to the replicability of this study. The record and organization of literature review were supported by the software. Nvivo allowed importing files of articles and documents and made it possible to cite the quotes directly into a node and trace back the source when necessary. An example is a node named "the definition of innovation". The node was the collection of all the direct quotes that different scholars said related to this topic. Another use of Nvivo that was mentioned earlier is the coding process. The coding process was also recorded in the software and could be traced back when necessary. In this way, the research process was made more transparent and retraceable with the use of the software. (Graneheim et al., 2017). In addition, being open about the research process also contributed to the transparency and therefore, reliability of the study (Tracy, 2010).

Another aspect that the author noticed during the research process was that it was necessary to be as open as possible to build the reliability of this research. The author thought that revealing the source of data is a way to keep it open in this thesis. When analyzing the data, the author observed that the data for the question 1 primarily came from four participants and the data on the external environment mainly came from one participant. Firstly, the data for the question 1 mainly came from five out of six participants. In the answer from the sixth participant, the data for the question 1 was not found. This is because the participant answered the question while focusing on the aspect of innovativeness as a leader rather than the leadership for innovation. The author estimated

that the opinion could lead to a theme related to innovation leadership. However, when searching further for data to question 1, the author found that the participant mainly talked about the innovation as a result than a process. In other words, the data for facilitating activities related to innovation process of idea generation and implementation were not found.

Secondly, the data that the theme of external environment emerged from was raised by only one out of five participants. The other participants also mentioned the factors such as the changes of profiling action and the budget cut in their interview. However, they did not indicate how these issues would generate effects on the innovation process. This could be because the participants worked at different positions that made them focus on certain issues than others. In other words, different working perspectives had influence how they perceived the issues. The participant who raised the view on the influences of external environment had more interactions with administrative issues at the university level which possibly made her approach to information related to policies and regulations.

Regarding the limitation, this study was limited on some dimensions. Firstly, the study was guided by the ideas of phenomenology for planning and data collection in the beginning; then the author used content analysis for data analysis instead of phenomenological analysis as planned because the data were limited with pure lived experienced. Even though using content analysis to analyze data was practically based on the requirement of the data and suggested by the literature as a suitable choice, the author was aware that using phenomenological analysis could yield different findings (Tracy, 2010). In addition, the credibility of this study could be enhanced if practice such as triangulation could have been done (Tracy, 2010). Considering the scale of this study, triangulation was the most practical tool that could be used. Triangulation could have been done by using more sources of data, or collecting data from two or more faculties; or collaborating with other researchers during the research process (Tracy, 2010). In practice, such uses of triangulation might increase the workload in analyzing the data and therefore, the time for the study.

However, it could be the most practical way to increase the credibility of the study because it should not lead to major changes in the research design.

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APPENDIX

Appendix 1: Interview Questions:

Warm-up questions:

- What's your name?
- How long have you worked at the current leadership position?

Probing questions:

1. How would you describe innovation?
2. And how do you describe a person being innovative?
3. What does it mean to you if someone leads in an innovative way?

Main questions:

4. Could you tell me about your leadership experience with innovation in your working place?

Supplementary questions: Could you give examples of your experience? What did you do? What did you feel?

5. What are recent changes that you have experienced in your institution?

Follow-up: sources of changes? Features?

Supplementary questions: You mentioned external/ internal sources of change, then how's about internal/ external sources?

6. How do these changes influence the way you lead innovation?
7. How do you describe features of your organization as a higher education institution?
8. How do these features that you have stated hinder or facilitate changes?
9. Still in the context of change, can you tell me about how you see innovation leadership in your institution?