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The effect of leadership and organisational culture on organisational innovation

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Abstract: The purpose of the study is to explore the impact of company leadership and organisational culture in the development of organisational innovation. The qualitative approach is applied via 12 interviews from six different organisations, encompassing both service providers and product manufacturers, in Sweden and Sri Lanka. Leadership and organisational culture together influence the development of innovation. The findings suggest that process- and job-oriented culture, and transactional leadership, have both positive and negative impacts in developing innovation. Result-oriented, employee-oriented, pragmatic culture and an open system, together with transformational leadership, are found to be more effective. This study helps managers decide how to serve best within the organisational and national culture, while learning about the influential result of the culture and leadership on innovation. This study highlights the importance of leadership and organisational culture's effect on an organisation's innovation and showing how it improves the companies' ability to meet consumer expectations.

Keywords: well-being; organisational culture; transactional; transformative; leadership; innovation.

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Biographical notes: Ruzlin Akter holds an MBA degree from University of Gävle. Her passion for research has led me to publish a research paper already and has another one in the works.

Shashiprabha Rathnayaka is a Human Resource Management and Leadership Professional and her MBA is from University of Gävle. She contributes her knowledge and commitment to the field of study as a resourceful researcher.

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1 Introduction

To survive in global competition, maintain competitiveness, improve economic performance, and contribute to national economic development, it is essential that companies run with innovation (Dereli, 2015). To beat massive competition, suppliers have to put more effort into improving their innovativeness in an effective and efficient manner (Sundström et al., 2016).

Companies' innovative performance can be affected by various factors, such as environment, climate, culture, organisational structure, networks, resources, internal capabilities, governmental support, and knowledge (Chang and Lin, 2015; Naranjo-Valencia et al., 2016; Pamfilie et al., 2012; Waldman et al., 2001). Although many factors may affect innovation, this study focuses on the effect of organisational culture and leadership on innovation. Organisational culture is defined as a complex set of values, convictions, assumptions, and symbols that reveal how an organisation conducts its business (Barney, 1986). Nacinovic et al. (2009) suggest that successful companies have just a few basic beliefs or values, one of which is that most members of the organisation should be innovators.

To attain innovation, firms may invest in different sectors. However, the desire for innovation at all levels of an organisation is often found in a firm's organisational culture (Nacinovic et al., 2009). Moreover, organisational culture has multifaceted dimensions. These include an orientation toward results, processes, jobs, or employees; an open versus closed system; tight versus loose control; parochial versus professional attitude; and pragmatic versus normative approach (Hofstede et al., 2010). At the same time, the innovativeness of a firm is highly dependent on its culture (Nacinovic et al., 2009). Therefore, it is essential to understand which type of culture is appropriate for an organisation and how the firm can encourage its leaders and employees to develop organisational innovation (Alvesson, 2012).

Leadership is a set of beliefs and values that influence people to cooperate in achieving specific goals; gradually, those beliefs and values will be absorbed by the organisational culture. The most important characteristic of leadership is the ability to influence others (Pamfilie et al., 2012). To date, few studies (e.g., Chang and Lin, 2015) have been conducted to discuss the impact of organisational culture according to Hofstede's organisational cultural dimensions in developing organisational innovation. Most of the studies have been conducted to recognise the impact of a transformational leadership style in developing innovation (Bass, 1985; Bass and Riggio, 2006; Howell and Avolio, 1993; Ricard et al., 2017). Their findings are contradictory; some studies show a positive impact (Elenkov and Maney, 2005; Oke et al., 2009; Vaccaro et al., 2012). Other studies show a negative impact (Basu and Green, 1997; Pieterse et al., 2010), and some studies show no relationship between transactional leadership and developing organisational innovation (Boerner et al., 2007; Moss and Ritossa, 2007). Thus, few studies have paid attention to how both leadership and organisational culture together influence organisational innovation. Yet these two factors are connected to each other for any kind of organisational performance. Therefore, the purpose of study is to explore the impact of organisational culture and leadership in the development of organisational innovation. The study focuses on four organisations in Sweden and two organisations in Sri Lanka. Four are service providers and two are product manufacturers who are focusing on improving their organisational performance in the market through innovation.

2 Literature review

2.1 Innovation and organisational culture

According to Martins and Terblanche (2003), the determinants of organisational culture that support innovation include flexible authority structure with fewer levels in the hierarchy, the free exchange of information, readiness for competitive situations, and risk-taking behaviour.

Khazanchi et al. (2007) argue that flexibility in organisational practices encourages empowerment and creativity. Chandler et al. (2000) found that organisational cultural factors such as supervisory support and reward systems have positive impact on innovation. In a culture where employees are given the opportunity to participate in making decisions about innovation-related issues, a company can get better results, since employees have hidden abilities for innovation. Though employee involvement is necessary in innovation-related activities and decisions, most ordinary employees are still excluded from such activities (Kesting and Ulhøi, 2010).

2.1.1 Organisational cultural dimensions

The organisational cultural dimensions provided by Hofstede et al. (2010) are insightful to understand an organisational culture in depth. The dimensions can be helpful to give insight about how organisational culture affects innovation. The dimensions are as follows: process oriented versus result oriented, employee oriented versus job oriented, open system versus closed system, and normative versus pragmatic.

2.1.1.1 Process-oriented versus result-oriented cultures

In a process-oriented culture, people tend to be risk averse, put limited effort into their jobs, and take every day as pretty much the same, whereas individuals in a result-oriented culture are comfortable in unfamiliar situations and embrace challenging situations (Hofstede et al., 2010). In a process-oriented culture, individuals focus on the 'methods' and 'processes' of their work for achieving a particular goal (Ajmal and Koskinen, 2008).

2.1.1.2 Employee-oriented versus job-oriented cultures

An organisation with an employee-oriented culture offers concern for the employees, whereas a job-oriented culture is concerned with getting a job done. An employee-oriented culture assumes a broad responsibility for the well-being of its members; the important decisions are usually made by the group or committee members. In a job-oriented culture, employees feel strong pressure to complete their tasks, and the organisational concern for employee welfare is limited (Hofstede et al., 2010).

2.1.1.3 Open system versus closed system

This dimension refers to the basic style of internal and external communication, as well as to the ease with which outsiders and newcomers are accepted (Hofstede, 1994). In an open-system culture, the organisation and its people are open to newcomers and outsiders, and these newcomers and outsiders feel the organisation to be their home (Hofstede et al., 2010). In a closed system, a new employee takes more than one year to fit into an organisation since the organisation and its people remain secretive and closed, even among the insiders (Hofstede et al., 2010).

2.1.1.4 Pragmatic versus normative approach

Pragmatic organisations are market oriented, emphasising meeting the customers' needs and focusing on the results rather than correct procedures. A normative organisation puts major emphasis on correctly following organisational procedures, which are more important than results. Since pragmatic organisations are market oriented, they do not need to adapt in response to competitive situations as much as normative organisations do (Hofstede et al., 2010).

2.1.2 Organisational cultural dimensions and innovation

In a *result-oriented culture*, individuals are willing to be innovative and to face challenges (Chang and Lin, 2015). According to Hofstede et al. (2010), in a *result-oriented culture* people tend to embrace challenges and take risks. An organisation with high propensity to take risks is very willing to undertake innovation (Chrisman et al., 2015). On the other hand, process-oriented organisations are risk averse, which is the fundamental hindrance to retraining leadership, obtaining funding, and carrying out the experimentation necessary to generate, select, implement, and disseminate ideas (Bommert, 2010; Hofstede et al., 2010). Chang and Lin (2015) state that due to the presence of considerable risk aversion in process-oriented cultures, individuals avoid innovative methods for resolving problems. A negative relation is expected to exist between risk-averse organisations and innovation (Nieto et al., 2015).

According to Hofstede et al. (2010), a *job-oriented culture* centres around employees' work performance, with emphasis being placed on work flow optimisation and employee productivity. Due to the focus on work performance in a *job-oriented culture*, employees have a greater commitment to their organisation, being more willing to share their own knowledge to create new knowledge (Chang and Lin, 2015). *Employee-oriented cultures* focus on the employees' well-being and welfare. Zhang (2010) found that employee orientation has a significant and positive relationship with innovation. The researchers suggest that companies could achieve success in new product development while being socially responsible toward their employees. In addition, a warm and supportive working environment is by all accounts more conducive to fast innovation (Zhang, 2010).

According to Hofstede et al. (2010), open system cultures are flexible and create an ease of adaptation for newcomers. Organisational culture encourages innovation by way of co-operation, flexibility, and adaptation (Parthasarathy and Sethi, 1993). Chenhall et al. (2011) argue that employees are likely to respond to strategies related to innovation if they are encouraged to debate ideas and cooperate with each other and management. An organisation can achieve this best if there are few barriers to communication, plenty

of idea sharing, and a management that supports and tolerates mistakes (Chenhall et al., 2011). On the other hand, a *closed system* has a negative impact on knowledge development, which limits room for innovation (Chang and Lin, 2015).

According to Hofstede et al. (2010), a *pragmatic culture* is externally driven or market oriented, whereas a *normative culture* is internally driven. Market orientation is integral to a firm's ability to compete with superior value (Sundström et al., 2016). Pragmatic culture emphasises meeting the customers' needs (Hofstede et al., 2010). Sundström et al. (2016) argue that understanding customer needs is essential for innovation to be successful. Naranjo-Valencia et al. (2016) found that an externally oriented culture is expected to foster innovation more than an internally oriented culture. Ogbonna and Harris (2000) suggest that internally oriented cultures weakly and indirectly link with organisational performance.

2.2 Impact of leadership on innovation

Organisation can be defined as a system of human beings who work toward achieving the organisational goals and plans they have developed [Mayo et al., (1989), p.131]. Therefore human behaviour (attitudes, expectations, and values) has a greater impact on their own productivity, adaptability, cohesion, and morale, which naturally affect organisational performance (Denti and Hemlin, 2012; Dereli, 2015). According to Forsyth (2010, p.247), leadership can be defined as a structure of the power and the relationship between leader and followers, with mutual understanding.

According to Fregidou-Malama (2017, p.99), leaders can motivate employees by empowering them with responsibilities that result in recognition for them within the organisation, showing that they and their ideas are important and valuable. This granting of responsibility increases employee self-confidence; providing the feedback, open communication, and teamwork that motivate empowerment (Fregidou-Malama, 2017). Leadership is the influencing factor for innovative performance by encouraging, protecting, managing, and directing employees in an effective manner (De Jong and Den Hartog, 2007). There are two main reasons identified for the importance of leadership in innovative organisational performances:

- leaders encourage innovative thinking by problem solving and making a positive environment for effective teamwork
- 2 leaders set goals and achieve them by maintaining resources, time, and other facilities (Denti and Hemlin, 2012; Dereli, 2015).

2.2.1 Types of leadership

The three main leadership styles are transformational, transactional, and laissez-faire (Aragón-Correa et al., 2007). Bass (1985) describes a set of *transformational leadership* behaviours to present the role of leader in four dimensions.

- 1 Intellectual stimulation means transformational leaders motivate their followers to solve problems and try new approaches by challenging their current beliefs and methods.
- 2 Idealised influence explains the charismatic behaviour of transformational leaders who inspire and attract their followers.

- 3 *Inspirational motivation* refers to leaders encouraging followers to perform by engaging them and communicating the organisational vision.
- 4 *Individualised consideration* expresses the mentoring and coaching behaviour of transformational leaders to support and develop followers' performance (Eisenbeiss et al., 2008). Researchers argue that transformational leadership closely influences both individual performance (Liu et al., 2010) and team performance.

Bass and Riggio (2006) mention that among the three leadership styles, transformational leadership focuses more on change and innovation. Transformational leaders play a role model for innovation, modelling different and creative behaviour (Howell and Higgins, 1990), and they encourage followers to think outside the box, accepting the challenge to do things in new ways (Jung et al., 2003). Transformational leaders are effective in communication, which leads to achieving organisational goals through their ability to influence followers (Egri and Herman, 2000). They encourage followers to accept change and adopt to the change environment effectively (Vera and Crossan, 2004). Transformational leaders create an organisational environment to share employee ideas among top management and employees, appreciating each others' opinions (Howell and Higgins, 1990).

Transactional leadership refers to "the leaders who lead primarily by using social exchanges for transactions" [Robbins et al., (2007), p.475]. Transactional leaders try to strengthen the organisation's culture, strategies, and structure (Vera and Crossan, 2004), and they put considerable effort into control, standardisation, formalisation, and efficiency, which indicates a task orientation (Bass, 1985). These leaders update existing practices in the organisation rather than thinking of doing those practices in a new and more efficient way (Vera and Crossan, 2004). Transactional leaders encourage employees to use and be efficient through the existing organisational culture, structure, strategies, procedures, and systems rather establishing new behaviours (Waldman et al., 2001). This type of leader likes to see employee reports frequently, believing it helps to track or streamline employee performance (Bass, 1997).

Transactional leadership is systematic and individualistic, and this leadership style offers rewards for employees' good achievement and punishment for lesser commitment (Aragón-Correa et al., 2007). Transactional leaders use social behaviour exchanges to gain higher benefits at a minimum cost by explaining to employees the rewards and punishments they will get (Chaudhry and Javed, 2012).

The *laissez-faire* leadership style can be described as "abdicates responsibilities to avoid making decisions" [Robbins et al., (2007), p.475]. Laissez-faire leaders allow employees to work independently according to their own methods by making relevant decisions on their own, while making sure to achieve the goals (Chaudhry and Javed, 2012). To have this kind of leadership style, employees have to be experts (Chaudhry and Javed, 2012). In laissez-faire leadership, there are no agreements between followers; when there is a need to involve leaders in the decision-making process they usually delay; and laissez-faire leaders neither try to encourage followers by rewarding or giving feedback, nor to identify employee needs for job satisfaction (Bass and Stogdill, 1990).

2.2.2 Leadership styles and innovation

2.2.2.1 Transformational leadership and innovation

This combination has been discussed as a vital theme in research analyses (Bass, 1985; Bass and Riggio, 2006; Eisenbeiss et al., 2008). Researchers (Aragón-Correa et al., 2007; Howell and Avolio, 1993; Jung et al., 2003) have explained the positive connection of transformational leadership to innovations. Transformational leaders participate to develop a good internal environment for their employees (Aragón-Correa et al., 2007). Transformational leadership can strategically change the organisation while creating a communicative culture, showing employee development, and accepting mistakes in perceptions of the job role. Therefore, organisations encourage the capabilities of this type of leadership style (Dess and Picken, 2000). Researchers (Howell and Higgins, 1990) have shown that transformational leaders put greater effort into innovation than transactional leaders. Compared to transactional leaders' followers, transformational leaders' followers are creative in idea generation, according to experimental studies (Pieterse et al., 2010).

Managers have been given priorities for seeking new opportunities for the company, developing an organisational aim rather than short-term objectives, and motivating employees rather than controlling. Transformational leaders do not control and coordinate employees on job performance (Aragón-Correa et al., 2007). They work for long-term goals, trying to develop vision and motivate employees to achieve the vision, pursue new and different processes, and take responsibility for their own development as well as that of other employees (Howell and Avolio, 1993).

Transformational leaders are concerned about sharing values, proper communication, organisational learning, trust between leaders and followers, and a productive environment for organisational innovations (Aragón-Correa et al., 2007). Therefore, they provide focus, motivation, and links to promote and succeed with organisational innovations (Dess and Picken, 2000). Compared to transactional leadership, transformational leaders effectively contribute to increasing innovative employee behaviour (Basu and Green, 1997). According to the empirical findings of Pieterse et al. (2010), transformational leaders' behaviour increases their followers' innovative behaviour mainly by empowering them psychologically.

2.2.2.2 Transactional leadership and innovation

Research findings such as those of Basu and Green (1997) provide limited and inconsistent evidence to identify the impact of transformational versus transactional leadership in innovation. Some show positive impact, others negative impact (Pieterse et al., 2010). Transactional leadership roles have been identified as controlling, motivating individual ideas, and preferring to direct followers to achieve the leaders' ideas. These characteristics have not been a cause of innovative behaviour (Pieterse et al., 2010). Boerner et al. (2007) and Moss and Ritossa (2007) argue that transactional leadership is not associated with follower innovative behaviour. It can be argued that transactional leadership negatively impacts organisational innovation since it focuses more on followers' performance than encouraging them to accomplish innovative activities (Pieterse et al., 2010). To maintain an effective organisational culture, transactional leaders are needed because they enhance institutional learning. Transformational and transactional leadership depend on each other (Vera and Crossan,

2004). Transformational leadership is effective to encourage innovations, while transactional leadership is more effective for implementing innovation (Oke et al., 2009). Since transactional leadership actively participates in lowering the complexity of an organisation through setting goals with rewards and developing processes and structures, it may help to establish innovative behaviour within the organisation (Jung, 2001). The influence of the contingent reward system can establish a positive relationship between transactional leaders and innovation (Elenkov and Manev, 2005). Findings by Vaccaro et al. (2012) show that transactional leadership contributes more to innovation in small organisations, whereas transformational leadership contributes more to innovation in large organisations, solving management issues and developing their innovativeness.

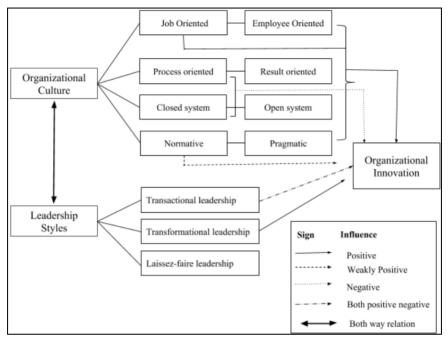
2.3 Influence of organisational culture and leadership on innovation

Bass and Avolio (1993) argue that organisational culture may influence leadership as much as the leadership influences the organisational culture. As an organisation develops, the formed culture of the organisation exerts an influence on leaders and moulds their actions and styles (Ogbonna and Harris, 2000). Through this ongoing process, the leader creates and is in turn shaped by the organisational culture (Ogbonna and Harris, 2000). According to Bass and Avolio (1993), the culture of an organisation can affect the development of its leadership. For instance, transactional leaders work within their organisational culture following existing rules, procedures, and norms; transformational leaders change their culture by first understanding it and then realigning it with a new vision and amending its common assumptions, values, and norms (Bass and Avolio, 1993).

Madu (2012) argues that when an organisation's culture is established and acknowledged, it turns into a strong leadership tool to communicate the leaders' beliefs and values to the members of the organisation. Findings by Ke and Wei (2008) indicate that leadership is the most important factor to influence organisational culture and achieve the proper fit between the culture and an adopted innovation. Oke et al. (2009) conclude that transformational leadership is more effective to encourage innovations and transactional leadership is more effective for implementation of innovation. Transformational leadership motivates the organisational culture to take risks, worry about employees, and focus on goal achievement to encourage innovation (Vaccaro et al., 2012). Transactional leadership, on the other hand, influences organisational culture by designing systems and structures for the implementation of innovation and for rewarding and punishing employees (Chaudhry and Javed, 2012). Sarros et al. (2008) proposed that organisational culture builds the relationship between transformational leadership and organisational innovation.

Figure 1 presents the theoretical framework developed based on the theoretical discussion in this section. The framework reflects the influence that organisational culture and leadership have on each other. Job-oriented, employee-oriented, result-oriented, open system, and pragmatic cultures have a positive influence on innovation, whereas process-oriented and closed system cultures have a negative influence on innovation.

Figure 1 Theoretical framework: the impact of organisational culture and leadership styles on organisational innovation (diagram by the authors)



3 Method

3.1 Data collection

The data collection strategy in qualitative research includes collecting a large amount of data through small, purposive samples using techniques such as in-depth interview, participant observation, or focus group (Hox and Boeije, 2005). We have used both primary and secondary sources. The primary data was collected through interviews (Wahyuni, 2012), using open-ended questions. Open-ended questions are clear to understand, impartial, and sensitive in nature (Doody and Noonan, 2013). We collected the primary data through face-to-face interviews, conference calls, and e-mail. We obtained the secondary data from annual reports and official websites of the organisations (Wahyuni, 2012).

3.2 Validity and reliability

Bryman and Bell (2012) state that reliability and validity are divided into internal and external concepts: internal and external validity, and internal and external reliability. Internal validity mainly concerns the congruence of the research findings with reality (Zohrabi, 2013). To make the study internally valid, the interview questions were developed based on existing literature, which enables authors to obtain answers that are congruent with real-life situations. All the questions are open ended, which helps to obtain proper explanation of the real organisational situations from the answers given by

interviewees. In order to increase the internal validity and decrease our own elucidation of the data, we recorded the interview answers and transcribed all the interview answers completely. All the participants were allowed to speak the language they prefer, which was efficient to collect their honest answers to the questions. The transcription of the answers is not presented in this work since few of the respondents requested that we not record their answers. External validity is concerned with the applicability of findings in other settings or with other subjects (Bryman, 2016; Zohrabi, 2013). This study is based on six organisations in Sweden and Sri Lanka. We have found that, despite having a huge difference in innovation ranking, the organisations of these two countries provide a similar opinion regarding developing innovation. However, we cannot fully confirm the external validity of the study since some results differ from those of previous studies.

 Table 1
 Interviews and durations

Organisation	Country		Interviewee	Years of experience	Interview method	Duration of interview (minutes)	Date of interview (in 2018)
Org. A	Sweden	1	International relations manager	18 years	Face to face	45	30 November
		2	Marketing trainee	3 years	Face to Face	35	30 November
Org. B	Sweden	1	Venture manager	2 years	E-mail	N/A	3 December
		2	Venture manager	3 years	E-mail	N/A	6 December
Org. C	Sweden	1	General manager, Linköping	17 years	Conference call	45	5 December
		2	Breakfast host, Uppsala	1 year	Face to face	40	7 December
Org. D	Sweden	1	Head of collaboration and workplace services	20 years	Face to face	60	6 December
Org. E	Sri Lanka	1	Group managing director	2.5 years	Conference call	30	7 December
		2	Consultant, human resource management	1.5 years	Conference call	40	7 December
Org. F	Sri Lanka	1	Assistant manager, planning	5 years	Conference call	40	10 December
		2	Executive in HR	2.5 years	E-mail	N/A	10 December
		3	Executive, planning	2 years	E-mail	N/A	10 December

Internal reliability refers to the consistency of collecting, analysing, and interpreting the data (Zohrabi, 2013), and it also refers to whether there is more than one researcher within the study group and whether members of the group agree about what they see and hear (Bryman, 2016). To maintain consistency within the study, we collected data

through interviews and then analysed the data to obtain the conclusion based on interpretation. To conduct this study, two researchers were involved in every step and agreed on the results found. External reliability refers to the extent a research can be replicated (Zohrabi, 2013; Bryman, 2016). It might be difficult to achieve external reliability since the scene and setting are likely to change from the time of the original research to the time of a second one (Bryman, 2016). However, if a qualitative researcher were to conduct the research in a similar way as the original researcher, then it would be possible to replicate the initial research (Bryman, 2016). The external reliability of this study is enhanced by developing questions based on existing theories and involving employees from different hierarchical levels in every organisation. To achieve external reliability in the study, this Section 3 describes in detail the process of gathering data as well as how interviews have been conducted. In addition, all the interview questions are given in Appendix. This detailed description builds the capacity for other researchers to replicate this study under the same conditions with comparable results.

3.3 Interview structure

We conducted this study by taking interviews from 12 participants of six different organisations in two countries. Four organisations are in Sweden, two in Sri Lanka. This study mainly relied on the semi-structured interview because this structure enabled us to ask further questions beyond the pre-planned ones. For the purpose of the study, we asked further questions to some participants at the time of the conversation depending on their reaction to a particular question, giving the participants the opportunity to clarify their answers.

The study was conducted with a non-probability sampling technique because our target population is large: almost every organisation is innovative in their own way of providing their product or service or their internal organisational activities. We selected the countries and the interviewees according to a purposive sampling technique (Etikan et al., 2016). The technique is known as judgment sampling, where participants are sampled due to the characteristics or qualities the participants possess (Etikan et al., 2016). We selected these six companies according to a convenience sampling method (Etikan et al., 2016); these six organisations were convenient for us to conduct the interviews. Though organisations were selected based on accessibility, we kept in mind whether they are known to be innovative in their respective fields or not.

4 Results

4.1 Cultural dimensions

4.1.1 Process oriented versus result oriented

Chang and Lin (2015) point out that in a result-oriented culture, the individuals are willing to be innovative. This study found that the result-oriented culture creates more opportunity for the employees to take on challenges, which may force them to think in a new way. According to Hofstede et al. (2010), in a result-oriented culture individuals are open for taking challenges and risks. Taking risks and embracing challenges has a positive impact in the development of innovation. Chrisman et al. (2015) suggest that an

organisational culture that encourages risk taking and is open to challenges fosters innovation. One of the organisations in that study fully practices a result-oriented culture; two of them practice both process- and result-oriented cultures. Respondents at organisations B, D, E, and F suggested that the result-oriented culture has a positive impact in developing innovation. Though organisation B does not have such a culture, they asserted that fear of taking risks and making mistakes hinders the development of innovation. It can be said that the finding tentatively confirms the theory that a result-oriented culture has a positive impact in developing innovation. Hofstede et al. (2010) assert that a process-oriented culture provides more focus on regular processes and avoids risk-taking behaviour. Supporting that finding, Chang and Lin (2015) state that a process-oriented culture avoids innovative methods of resolving problems due to the presence of considerable risk aversion; Bommert (2010) finds that a process-oriented culture hinders disseminating ideas.

All the theories suggest that process-oriented cultures negatively affect the development of innovation. This study found that three of the organisations fully practice process-oriented culture; two organisations follow both cultures. Organisations B, C, and E have suggested that process-oriented cultures have a negative impact in developing innovation. For example, in a process-oriented culture, employees do the same thing every day, which prevents them from thinking outside the boundaries. Organisations A, D, and F have found instead that the process-oriented culture has a positive impact on innovation. For example, following the same processes provides the opportunity to develop the process in novel ways. In this case, the study's findings added a new aspect of process-oriented culture.

4.1.2 Employee oriented versus job oriented

Chang and Lin's (2015) study found that job-oriented culture has a positive impact in developing innovation since employees show greater commitment to the work and greater willingness to share knowledge. This study found that organisations A, C, and D are practicing both cultures and organisations, whereas B and F fully practice job-oriented culture. Organisations A, C, D, and E confirmed that the job-oriented culture has a positive impact on innovation. Only one organisation experienced a negative impact of job-oriented culture on innovation.

The statement of the venture manager from organisation B that practices job-oriented culture strongly goes against this culture in developing innovation. The venture manager stated, "focusing on performance may hinder innovation because you are scared of making mistakes; you start to focus on things that you can measure like patents. You lose long-term vision, and management gets impatient, wants results here and now. You then start to lie or take shortcuts to reach the result only to show management, and the organisation's innovation gets filled with air (nothing really good)." This statement suggests that a job-oriented culture restricts innovative performance. The findings do not fully support the theory, since the study found both positive and negative impacts of this culture.

The study found that organisation E is following a fully employee-oriented culture. Including this organisation and those that follow, both cultures (A, C, and D) assured that employee culture has a positive impact in developing innovation. The findings related to the impact of employee-oriented culture entirely support the theory provided by Zhang

(2010), who asserts that for obtaining fast innovation, employees have to believe that their organisation is socially responsible for them.

4.1.3 Open system versus closed system

All except one organisation maintain an open system culture. No theory supports the closed system culture for developing innovation. All the organisations have the same view that an open system culture is crucial for developing innovation. Studies suggest that for developing innovation, an open system culture is necessary since it is flexible, has supportive management, shares ideas, information is transparent, and employees are encouraged to debate ideas (Chandler et al., 2000; Chenhall et al., 2011; Khazanchi et al., 2007; Martins and Terblanche, 2003; Parthasarathy and Sethi, 1993). Kesting and Ulhøi (2010) and Chenhall et al. (2011) suggest that employee participation is necessary for innovation.

For developing innovation, most of the interviewees suggested a culture with more opportunity for the employees to engage with innovative projects, fewer communication barriers, and short distances between management and employees. Chang and Lin (2015) found that closed system culture has a negative impact on developing innovation. Organisation B practices a more closed system culture, and the venture managers confirmed that following this culture is one of the reasons that is negatively affecting the development of innovation in their organisation. It can be expressed that the findings of the study support all the theories related to the impact of open versus closed systems in developing innovation.

4.1.4 Normative versus pragmatic culture

This study finds that organisation A practices both normative and pragmatic culture, while other organisations are following mainly pragmatic culture. Naranjo-Valencia et al. (2016) suggests that pragmatic culture is expected to foster innovation more than normative culture. Sundström et al. (2016) state that in developing innovation, understanding customers' needs is imperative. For developing innovation, all of the six organisations reach toward the market. Organisation A suggested that external factors such as forming international relationships and growing more networks are essential for developing innovation, since these actions help to understand others' views, perspectives, and ideas about innovation, as well as to assimilate others' innovative ideas to develop innovation. For example, the recycling vehicles at organisation A use biogas. Although the organisation does not produce its own biogas, they assimilated the idea from their international partner for using this in the vehicle. Thus, they develop innovation by being pragmatic. They use ideas from their customers in terms of developing their service system. This study suggests that developing innovation is dependent on pragmatic culture; normative culture plays just a supportive role. Therefore, it can be claimed that the findings of the study in all respects confirm the theory related to the impact of normative versus pragmatic culture in developing innovation.

4.2 Leadership styles and innovation

The study identified that all but organisation B have more influence from transformational leadership, which has a strong ability to motivate employees toward

organisational innovation. The four transformational leadership roles introduced by Bass (1985) are practiced by all organisations except organisation B. The roles of intellectual stimulation, idealised influence, and individualised consideration are practiced by the managers of all organisations except organisation B. The inspirational motivation role is practiced only by the managers of organisation A and both Sri Lankan organisations, encouraging performance in aligning the organisational vision.

Jung et al. (2003) state that transformational leaders encourage followers to think outside the box and accept challenges to do things in new ways. This is confirmed by the findings of Vera and Crossan (2004) and Bass and Riggio (2006), who state that transformational leadership is effective in promoting change and focusing on innovation within the organisation. The interviewees of organisation A and both Sri Lankan organisations said their managers are flexible and positive toward change management in developing innovation. But the interviewees of organisation B experience the opposite of this, and the other two Swedish organisations' interviewees mentioned that the size of the company strongly affects the innovation process and innovative leadership behaviour. Therefore, the level of acceptance of change can vary according to the reasons for the change.

Dess and Picken (2000) conclude that transformational leaders accept mistakes while understanding the perceptions of the job role. Our findings about organisations A, B, C, and E confirmed this theory, explaining that they learn new things through the mistakes that occur in developing innovation. Interviewees of organisations D and F said that the level of acceptance and tolerance for mistakes can be dependent on how serious the impact is and which person made the mistake.

Howell and Avolio (1993) argue that this type of leader always tries to allocate responsibilities among followers for the development of their performance. Empirical findings by Pieterse et al. (2010) confirm that transformational leadership behaviour increases followers' innovative behaviour mainly through empowering them. Organisations A, C, and E strongly practice this in developing innovation, while organisation B has a more limited experience with this. The interviewee of organisation D said allocation of responsibilities depends on the project; organisation F's interviewees said this mainly depends on the capabilities of employees. Therefore, the interviewees of three organisations confirm the theory by their experience with management.

The findings of the study confirmed that organisation B (of Sweden) management's practice of *transactional leadership* has a negative impact on innovation. Organisations A, C, and D (of Sweden) and F (of Sri Lanka) showed a positive impact from using transactional leadership for innovation, while organisation E (of Sri Lanka) showed very limited positive impact in developing innovation. According to Waldman et al. (2001) and Vera and Crossan (2004), transactional leaders attempt to strengthen the existing organisational culture, strategies, and structures by refreshing them rather than making any real change.

Findings at organisation B confirmed these factors; they only take risks to do new things on one very special project. Employees have been advised and encouraged to follow the old processes, which have a negative effect on innovation and growth of speed to market. They identify that the reason behind this is the fear of making mistakes. Findings of all the other three organisations excluding organisation B and D confirmed that following established processes makes it easy to see the steps and connections between processes, as well as establish creating open communication and enhancing

service quality, but those processes keep employee ideas inside the box. Organisation E raised a new finding: focusing on processes does not encourage innovative ideas but is effective in their implementation.

Bass (1985) concludes that transactional leaders are task oriented, being very much into control, standardisation, formalisation, and efficiency. Organisations B and F provided information to support this statement, mentioning that task-oriented behaviour discourages innovative employee ideas. Organisations A, B, C, and E mentioned concern for both performance and employee well-being, which positively affects innovative employee behaviour. Organisations D and E specifically mentioned that being more task oriented can negatively affect innovation, and organisations B and C said that leaders need to maintain the balance between performance and employee well-being to gain effective results from innovations.

Therefore, findings of these two organisations confirm the theory because they practice a task-oriented leadership style. Bass (1997) states that transactional leaders expect to use reporting systems often to see how employees perform and streamline their performance. Organisation B confirmed that they use frequent formal reporting systems rather than actions, which does not encourage innovativeness. The other five companies have formal reporting systems, but they are flexible and not particularly frequent, basically monthly. As Elenkov and Manev (2005), Aragón-Correa et al. (2007) and Chaudhry and Javed (2012) explain, transactional leadership offers rewards for good achievement and punishments for employee mistakes, to make them understand their responsibilities and the goals to be achieved.

None of the organisations practice any punishment system other than providing negative feedback. At organisation A, they do not practice negative feedback at all. They encourage employees by providing positive feedback and guiding them to overcome mistakes. According to Elenkov and Manev (2005), a contingent reward system can establish a positive relationship between transactional leaders and innovation. All six organisations confirmed that a performance evaluation system based on effective KPIs improves employee performance and ideas about innovative behaviour.

Boerner et al. (2007), Moss and Ritossa (2007) and Pieterse et al. (2010) have found that transactional leaders have a negative impact on developing innovation in organisations. This study's findings confirmed this with the information gathered from organisations B and D. Transactional leaders actively participate in lowering the complexity of the organisation through setting goals with rewards and developing processes and structures (Jung, 2001); all six organisations agreed that these activities positively encourage innovative behaviour. Oke et al. (2009) states that transformational leadership is more effective for encouraging innovations, and transactional leadership is more effective for implementation of innovation; this was confirmed by the statements of organisation E. Vaccaro et al. (2012) conclude that transformational leadership contributes more to innovation in large organisations and transactional leadership contributes more to innovation in small organisations, but organisations D and F showed that transactional leadership contributes more to innovation within larger organisations. Laissez-faire leaders allow employees to work independently according to their own methods, making their own decisions without any interruption (Chaudhry and Javed, 2012). Bass and Stogdill (1990) state that such leaders delay their involvement in the decision-making process, and that laissez-faire leaders do not try to encourage their followers by rewards, positive feedback, or efforts to improve employee job satisfaction. Organisation B mentioned they have limited freedom to make decisions on their own, but

managers pay attention when they need any help in decision making. Though they do not have specific reward systems, managers do provide feedback. The other five organisations give their employees the opportunity to make decisions, while managers make sure employees are working in the right direction. Managers of organisations A, C, D, E, and F encourage their employees to perform better in the organisation, unlike the management of organisation B. Therefore, this study's findings did not identify any organisation practicing laissez-faire leadership.

4.3 Influence of organisational culture and leadership on innovation

Howell and Avolio (1993) argue that organisational culture can affect the development of an organisation's leadership. This study found that a supportive culture for innovation enables leaders to be innovative. For example, in one of the Swedish organisations, a short distance between leaders in the department enables them to share their ideas. A culture of open communication creates an opportunity for the leaders to contribute to innovation through sharing ideas. Our findings suggest that the culture that allows us to make mistakes and break rules inspires leaders to be innovative. According to Ke and Wei (2008), leadership is the most important factor to develop a strong connection between the adaptability of organisational culture and innovation. According to Vaccaro et al. (2012) and Sarros et al. (2008), transformational leadership motivates the organisational culture to take risks, be concerned about employees, and focus on goal achievement to encourage innovation. Interviewees from organisations A, C (Sweden), and E (Sri Lanka) showed support for both these statements, stating that their managers have a strong ability to influence the organisational culture toward innovation. Organisations D (Sweden) and F (Sri Lanka) found that their managers have limited possibilities to influence the culture of the organisation due to the size of the company. Though organisation B (Sweden) practices transactional leadership, interviewees proposed that having transformational leadership characteristics can encourage the organisational culture toward innovation.

4.3.1 Summary of the findings

 Table 2
 Summary of the findings of Swedish organisations

Themes	Findings of Swedish organisations	Impact on innovations				
		Positive	Weakly positive	Negative	No impact	
Process oriented	 Following processes makes things easier and lower the hurdles to innovation. 	X		X		
	 Process orientation forces employees to do the same thing, which may hinder innovation. 					
Result oriented	 Result-oriented culture enables leaders to think outside boundaries, which is crucial to develop innovation. 	X				

 Table 2
 Summary of the findings of Swedish organisations (continued)

	Eindings of Smedials	Impact on innovations				
Themes	Findings of Swedish organisations	Positive	Weakly positive	Negative	No impact	
Job oriented	Job-oriented culture enhances the fear of making mistakes, which hinders doing something new.	X		X		
	• Focusing on performance may enable improvements that can help to make an organisation financially stable, thus it can increase the chances to invest more in new projects, a prerequisite to doing something new.					
Employee oriented	• The behaviour of showing concern for employees' well-being motivates employees to generate new ideas.	X				
Open system	 An open system culture provides employees with a working environment that decreases employees' stress level and increases the freedom to exchange ideas and produce more ideas. 	X				
Closed system	• A closed system culture restricts employees from sharing knowledge and information, which hampers innovation.		X			
Normative culture	• A normative culture can be supportive for developing innovation, but a pragmatic culture contributes more.			X		
Pragmatic culture	• For developing innovation, market orientation is an effective culture.	X				
Types of leadership						
Transformational leadership	• Encourage employee toward innovativeness while following organisational processes.	X				
	Make room for followers to share innovative ideas.					

 Table 2
 Summary of the findings of Swedish organisations (continued)

		Impact on innovations				
Themes	Findings of Swedish organisations	Positive	Weakly positive	Negative	No impact	
Transformational leadership	 Allow followers to be independent in their innovative behaviour. 					
	• Flexibility of leaders to change the process according to the situation is very important for innovations.					
Transactional leadership	 Following processes shows steps of the innovation process clearly. 	X				
	 A proper performance evaluation system encourages employees' innovative behaviour. 					
	• Frequent work reporting system for the management discourages employees from innovativeness.			X		
	 Refusal to consider employee opinions in the development of innovations demotivates employee behaviour toward innovativeness. 					
Laissez-faire leadership	• Did not find any practice of this leadership style				X	
Combined impact of organisational culture and leadership in developing innovation	• Leaders make the culture and the culture of the organisation shapes leaders' actions.		Organisational culture and leadership, after affecting each other, influence innovation.			

4.4 Revised theoretical framework to encompass the impact of organisational culture and leadership styles on innovation

Figure 2 shows that an employee-oriented, result-oriented, open system and pragmatic culture has a positive impact on organisational innovation. Job-oriented and process-oriented cultures have both positive and negative impacts on organisational innovation. Closed system cultures negatively affect the development of innovation. Normative culture is considered only a supportive culture that does not strongly affect the development of innovation. Thus, it is considered to have a weakly positive affect on innovation. Transactional leadership has both positive and negative effects on innovation,

whereas transformational leadership positively impacts innovation. Finally, laissez-faire leadership is not associated with innovation.

 Table 3
 Summary of the findings of Sri Lankan organisations

Themes	Findings of Sri Lankan organisations	Impact on innovations				
		Positive	Weakly positive	Negative	No impact	
Process oriented	• Process orientation provides the opportunity to develop a new process, which is an innovation.	X		X		
	• Process orientation cannot be as effective in building innovation as result orientation.					
Result oriented	 Mindset for taking challenges provides opportunity to think differently, which is a good sign for innovation. 	X				
Job oriented	• A job-oriented culture increases employees' confidence and commitment toward work and organisation, which is necessary for innovation.	X				
Employee oriented	• Concern for employees' well-being motivates employees to show how they can shine.	X				
Open system	• Flexible working environment enables employees to share their knowledge fearlessly.	X				
Closed system	 An inflexible working environment restricts innovation. 		X			
Normative	• A normative culture can be supportive for developing innovation, but for developing innovation a pragmatic culture contributes more.			X		
Pragmatic	 For developing innovation, market orientation is an effective culture. 	X				

 Table 3
 Summary of the findings of Sri Lankan organisations (continued)

	Eindings of Sui Laukan	Impact on innovations				
Themes	Findings of Sri Lankan organisations	Positive	Weakly positive	Negative	No impact	
Types of leadershi	p					
Transformational leadership	• Encourage employees to take risks and meet challenges.	X				
	• Open communication allows followers to share innovative ideas and implement them.					
	• Make followers independent in their innovative behaviour while allocating authority.					
Transformational leadership	• Flexibility of leaders for changes in processes and their innovative ideas according to the situation drive organisations toward innovations.					
Transactional leadership	 Following processes makes it easy to see organisational performance and to solve problems in the innovation process. 	X				
	• A proper performance evaluation system encourages employees' innovative behaviour.					
	 A frequent work reporting system is necessary for large organisations to see daily organisational performance. 					
	 It is not practical to consider all employee opinions, therefore collect ideas by department through managers. 					
Laissez-faire leadership	• Did not find any practice of this leadership style.				X	
Combined impact of organisational culture and leadership in developing innovation	• Leaders influence the organisational culture and the culture of the organisation shapes leaders' actions.	combin	ed have a g	ture and lead greater influe al innovation	ence on	

Job oriented Employee oriented Process oriented Result oriented Organizational Culture Closed system Open system Normative Pragmatic Organizational Innovation Transactional leadership Leadership Styles Transformational leadership Sign Influence Positive Laissez-faire leadership Weakly Positive Negative Both positive negative Both way relation

Figure 2 Revised theoretical framework: impact of organisational culture and leadership styles on organisational innovation (by authors)

5 Discussion of the research questions

The purpose of the study was to explore the impact of leadership and organisational culture on the development of organisational innovation. An additional question was about the combined effect of organisational culture and leadership on organisational innovation.

Importantly, we found that the leadership style of the managers has a great impact on employee behaviour in every organisation. Findings of this study show there are impacts of transactional leadership in innovation considered positive mainly because of monitoring processes, following up on employee performance, close guidance for employees, and an effective evaluation system (rewards for good performance) by transactional leaders. Findings show a negative impact of transactional leadership style on innovation because punishment systems, strict reporting systems and processes, and limited space for employees to share their new ideas and actions impede motivation among employees. Our study found that transactional leadership has impacts that are negative, positive or both in influencing innovation.

We found two new factors about the transactional leadership style: it can be effective in the process of implementing innovation rather than establishing/building innovation, and it is more effective in large/multinational organisations. These findings can add more empirical evidence to the literature indicating that transformational leadership encourages innovation through

- a concern for both employee well-being and performance
- b allocating authority among employees via trust
- c less formal reporting systems
- d opportunities to be creative
- e respect for employee ideas
- f flexibility with change management.

As the group managing director from organisation E said, "we really cannot expect employees to change as soon as their leaders change, but we have to make the change faster by monitoring them very closely." Waldman et al. (2001) and Vera and Crossan (2004) discussed transactional leaders' attempt to strengthen the existing organisational culture, strategies, and structures by refreshing them rather than making any real change. Thus, we can see in Table 2 that the impact of itransactional leadership for innovation is negative in Swedish organisations yet positive in most of the Sri Lankan organisations.

An important conclusion of this study is that transformational leaders working closely with employees and believing in the competencies of each other help to increase the confidence of employees to perform in innovative ways. As Tables 2 and 3 show, the four transformational leadership roles introduced by Bass (1985) are practiced by all organisations except organisation B. The roles of intellectual stimulation, idealised influence, and individualised consideration are practiced by the managers of all organisations. As the assistant manager for planning of organisation F said, "it's very easy to communicate and get the work done if you have transformational leadership characteristics. It makes a win-win situation between both you and the employees."

To address the second part of purpose of the study, findings indicate that a result-oriented, open system, pragmatic, employee-oriented culture positively affects the development of organisational innovation. For organisations that focus on developing innovation, we recommend that they follow these cultural dimensions within their organisations. Risks and challenges, fewer communications barriers, market orientation, and caring for employees all influence innovation positively. Barriers to communication and fewer opportunities to share ideas, which are situations mostly seen in the closed system culture, have negative impacts on innovation. The positive impact of process-oriented culture is a new contribution of the study that shows that this culture can be positive for innovation if there is right allocation of resources, the right KPI system, ease in obtaining answers, and opportunities to change and develop processes. It can have a negative impact if there is only strict maintenance of the process. Under process orientation, discussed by Hofstede et al. (2010), people mostly repeat a similar kind of tasks, which may hinder innovation. Yet there can be an opportunity to develop a new process, which may lead to innovation. The head of collaboration from organisation D mentioned that "process orientation keeps people inside the box, which impedes innovation." Thus, this orientation cannot be considered as strong, which can positively impact on innovation. A job-oriented culture can have a positive impact on innovation if employees are committed to their job and willing to share ideas. The negative impact of a job-oriented culture is another new finding of the study: employees may not be motivated to do something new with their performance and may be fearful of making mistakes while doing their jobs. Normative culture is found to support innovation, but it does not

have a direct impact on innovation. A pragmatic culture that is market driven gives organisations more opportunities to contribute to innovation because a market-oriented culture opens the path to understanding the outside world and getting new ideas from it. Our findings support the theory provided by Naranjo-Valencia et al. (2016) regarding pragmatic culture (see Tables 2 and 3). For example, an interviewee from organisation C said: "for us, external factors are key for innovation. We film customers and take their reviews to do something innovative." Theories and findings both explain that pragmatic culture is innovation oriented. Thus, this culture is considered to have a positive impact on innovation. Findings show that organisational cultures can be created by the leaders of the organisation (Ogbonna and Harris, 2000). Changing a culture is a long-term process; new leaders follow the same culture to a great extent. An organisation with an innovation-oriented culture may influence the leadership style of new leaders to drive the employees toward innovation. For example, if a more employee-oriented culture, where the organisation's leaders care about the well-being of their employee, is practiced for a long time, and the new leaders follow the same culture, then the leaders can become influenced by the culture to be more employee oriented. The culture of sharing ideas with other leaders and employees of another department enables leaders to create room for innovation.

Through our discussions conducted with employees and managers, we identified managers as leaders who have influence in innovative employee behaviour through creating open communication and flexibility with understanding within the organisational culture. According to both previous researchers and our study, the organisations that practice transformational leadership have greater influence on organisational culture toward innovation compared to the organisations that practice transactional leadership. Organisations with a transactional leadership style influence their organisational culture to be innovative effectively when they are large companies, because they value innovative employee behaviours, appreciating and providing recognition through proper evaluation systems and reducing complications and mistakes.

6 Conclusions

This study illustrates that organisational culture and leadership have opposite effects and work together to influence the development of innovation. Previous studies (Bommert, 2010; Chang and Lin, 2015; Nieto et al., 2015) have suggested that process-oriented cultures have a negative impact on innovation. This study found both positive and negative impacts of this cultural dimension in developing innovation. In terms of job-oriented culture, previous studies suggest it has a positive impact, but for this dimension, this study found both positive and negative impacts. For the impact of transactional leadership, researchers provide contradictory results. Some researchers suggest a positive relationship, some suggest a negative one, and some suggest these leadership styles do not associate with innovation. Through this study, we found that transactional leadership has both positive and negative impacts on innovation. Our findings suggest that transformational leadership is more effective than the transactional leadership style for developing innovation. Laissez-faire leadership is not associated with innovation. Although Sweden and Sri Lanka differ in terms of economy and culture, the opinions are similar when it comes to developing innovation, and both countries'

organisations mostly prefer to practice result-oriented, employee-oriented, open system, pragmatic culture and transformational leadership.

Since we found both positive and negative impacts of other cultures and leadership styles (process oriented, job oriented and transactional leadership) and weakly positive impact of the normative culture, we cannot suggest that managers follow these cultures and leadership style to develop innovation. Rather, we suggest that managers aim for a result-oriented, open system, employee-oriented, and pragmatic culture with transformational leadership as the most successful organisational cultures and leadership style in developing organisational innovation.

In this study, we found that one of the Swedish organisations practices a culture and leadership style that differs from those of other companies. This suggests that the culture and leadership style they are following has a negative impact on innovation. While the other five studied companies move forward in the industry developing their organisational strategies, cultures, and leadership styles focusing on effective employee performance toward innovation, this organisation maintains its own traditional way of doing business and managing employees, which negatively affects the innovativeness of their organisational behaviour.

6.1 Implications of the study

This study has made a theoretical contribution in connecting the concept of the four cross-dimensions of organisational culture and three leadership styles with innovation. We confirmed that Hofstede's organisational cultural dimensions – process oriented versus result oriented, employee oriented versus job oriented, open system versus closed system, and normative versus pragmatic – are essential for understanding how to develop innovation. This study adds new reflections on process-oriented and job-oriented culture. The study provides an understanding of how transactional and transformational leadership work in developing innovation.

This study contributes to managerial practice in several respects. The study illustrates that there are several aspects of organisational culture (openness, flexibility, and appreciation of ideas) and leadership (encouraging employee creativity and empowerment) that have a positive impact on building organisational innovation. Managers must serve as role models to identify the positive and negative factors of organisational culture and leadership style, as well as the extent of to which they help in developing innovation. Managers must lead in the way that motivates employees to produce ideas that help to foster innovation.

This study has uncovered areas where the managers can focus to help a firm create an innovative-oriented culture: flexible management, employee participation in making decisions, continuously following up on KPIs, reward systems, etc. With the help of this study, an organisation will be able to identify what factors (strict process, communication barriers, transparency of information, fear of change and mistakes) need to be changed within the organisation to foster innovation. This identification can enable them to be innovative and competitive in the market. Ultimately, the organisation will be able to contribute to the national economy of its country.

6.2 Limitations and suggestions for future research

There are a few limitations we identified while conducting the study. First, we studied only four organisational culture dimensions of the six. Second, we found no theory to analyse the impact of laissez-faire leadership in developing innovation, and we did not identify any organisations that practice this leadership style. Third, the numbers of participants were low for each company due to unavailability. Fourth, we believe that focusing on a specific industry could have yielded more insights about innovation through learning more about the innovativeness of a particular industry and collecting more in-depth information from interviewees. Last of all, though we studied two different countries, the national culture itself was ignored in this study.

For future research, we suggest including more participants and focusing more on a specific industry, which would enable researchers to obtain more answers for comparison and to explore the innovativeness of particular industries. Researchers could go into more depth to identify which particular factors lead to the failure or success of innovativeness in a particular industry through comparing the national cultures.

References

- Ajmal, M.M. and Koskinen, K.U. (2008) 'Knowledge transfer in project-based organizations: an organizational culture perspective', *Project Management Journal*, Vol. 3, No. 1, pp.7–15.
- Alvesson, M. (2012) *Understanding Organizational Culture*, Sage Publications, Thousand Oaks, CA, USA.
- Aragón-Correa, J.A., García-Morales, V.J. and Cordón-Pozo, E. (2007) 'Leadership and organizational learning's role on innovation and performance: lessons from Spain', *Industrial Marketing Management*, Vol. 36, No. 3, pp.349–359.
- Barney, J.B. (1986) 'Organizational culture: can it be a source of sustained competitive advantage?', *Academy of Management Review*, Vol. 11, No. 3, pp.656–665.
- Bass, B.M. (1985) Leadership and Performance beyond Expectations, Collier Macmillan, New York.
- Bass, B.M. (1997) 'Personal selling and transactional/transformational leadership', *Journal of Personal Selling and Sales Management*, Vol. 17, No. 3, pp.19–28.
- Bass, B.M. and Avolio, B.J. (1993) 'Transformational leadership and organizational culture', *Public Administration Quarterly*, Vol. 17, No. 1, pp.112–121.
- Bass, B.M. and Riggio, R.E. (2006) Transformational Leadership, Psychology Press, London.
- Bass, B.M. and Stogdill, R.M. (1990) Bass and Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications, Simon and Schuster, New York.
- Basu, R. and Green, S.G. (1997) 'Leader-member exchange and transformational leadership: an empirical examination of innovative behaviors in leader-member dyads', *Journal of Applied Social Psychology*, Vol. 27, No. 6, pp.477–499.
- Boerner, S., Eisenbeiss, S.A. and Griesser, D. (2007) 'Follower behavior and organizational performance: the impact of transformational leaders', *Journal of Leadership and Organizational Studies*, Vol. 13, No. 3, pp.15–26.
- Bommert, B. (2010) 'Collaborative innovation in the public sector', *International Public Management Review*, Vol. 11, No. 1, pp.15–33.
- Bryman, A. (2016) Social Research Methods, 5th ed., Oxford University Press, New York.
- Bryman, A. and Bell, E. (2012) Social Research Methods, 4th ed., Oxford University, New York.

- Chandler, G.N., Keller, C. and Lyon, D.W. (2000) 'Unraveling the determinants and consequences of an innovation-supportive organizational culture', *Entrepreneurship Theory and Practice*, Vol. 25, No. 1, pp.59–76.
- Chang, C.L.H. and Lin, T.C. (2015) 'The role of organizational culture in the knowledge management process', *Journal of Knowledge Management*, Vol. 19, No. 3, pp.433–455.
- Chaudhry, A.Q. and Javed, H. (2012) 'Impact of transactional and laissez faire leadership style on motivation', *International Journal of Business and Social Science*, Vol. 3, No. 7, pp.258–264.
- Chenhall, R.H., Kallunki, J.P., and Silvola, H. (2011) 'Exploring the relationships between strategy, innovation, and management control systems: the roles of social networking, organic innovative culture, and formal controls', *Journal of Management Accounting Research*, Vol. 23, No. 1, pp.99–128.
- Chrisman, J.J., Chua, J.H., De Massis, A., Frattini, F. and Wright, M. (2015) 'The ability and willingness paradox in family firm innovation', *Journal of Product Innovation Management*, Vol. 32, No. 3, pp.310–318.
- De Jong, J.P. and Den Hartog, D.N. (2007) 'How leaders influence employees' innovative behaviour', *European Journal of Innovation Management*, Vol. 10, No. 1, pp.41–64.
- Denti, L. and Hemlin, S. (2012) 'Leadership and innovation in organizations: a systematic review of factors that mediate or moderate the relationship', *International Journal of Innovation Management*, Vol. 16, No. 3, pp.1–20.
- Dereli, D.D. (2015) 'Innovation management in global competition and competitive advantage', *Procedia Social and Behavioral Sciences*, Vol. 195, pp.1365–1370.
- Dess, G.G. and Picken, J.C. (2000) 'Changing roles: leadership in the 21st century', *Organizational Dynamics*, Vol. 28, No. 3, pp.18–34.
- Doody, O. and Noonan, M. (2013) 'Preparing and conducting interviews to collect data', *Nurse Researcher*, Vol. 20, No. 5, pp.28–32.
- Egri, C.P. and Herman, S. (2000) 'Leadership in the North American environmental sector: values, leadership styles, and contexts of environmental leaders and their organizations', *Academy of Management Journal*, Vol. 43, No. 4, pp.571–604.
- Eisenbeiss, S.A., van Knippenberg, D. and Boerner, S. (2008) 'Transformational leadership and team innovation: integrating team climate principles', *Journal of Applied Psychology*, Vol. 93, No. 6, pp.1438–1446.
- Elenkov, D.S. and Manev, I.M. (2005) 'Top management leadership and influence on innovation: the role of sociocultural context', *Journal of Management*, Vol. 31, No. 3, pp.381–402.
- Etikan, I., Musa, S.A. and Alkassim, R.S. (2016) 'Comparison of convenience sampling and purposive sampling', *American Journal of Theoretical and Applied Statistics*, Vol. 5, No. 1, pp.1–4.
- Forsyth, D.R. (2010) Group Dynamics, 5th ed., Cengage Learning, Boston.
- Fregidou-Malama, M. (2017) 'Leadership and empowerment in social enterprises', Paper presented at the *Democracy and Participation in the 21st Century Conference*, Universidade de Lisboa, Portugal, 12–15 July [online] http://urn.kb.se/resolve?urn=urn:nbn:se:hig:diva24742.
- Hofstede, G. (1994) 'The business of international business is culture', *International Business Review*, Vol. 3, No. 1, pp.1–14.
- Hofstede, G., Hofstede, G. and Minkov, M. (2010) *Cultures and Organizations: Software of the Mind; Intercultural Cooperation and Its Importance for Survival*, 3rd ed., McGraw-Hill, New York.
- Howell, J.M. and Avolio, B.J. (1993) 'Transformational leadership, transactional leadership, locus of control, and support for innovation: key predictors of consolidated-business-unit performance', *Journal of Applied Psychology*, Vol. 78, No. 6, pp.891–902.
- Howell, J.M. and Higgins, C.A. (1990) 'Leadership behaviors, influence tactics, and career experiences of champions of technological innovation', *The Leadership Quarterly*, Vol. 1, No. 4, pp.249–264.

- Hox, J.J. and Boeije, H.R. (2005) 'Data collection, primary versus secondary', in Leonard, K.K. (Ed.): *Encyclopedia of Social Measurement*, Academic, San Diego.
- Jung, D.I. (2001) 'Transformational and transactional leadership and their effects on creativity in groups', *Creativity Research Journal*, Vol. 13, No. 2, pp.185–195.
- Jung, D.I., Chow, C. and Wu, A. (2003) 'The role of transformational leadership in enhancing organizational innovation: hypotheses and some preliminary findings', *The Leadership Quarterly*, Vol. 14, Nos. 4–5, pp.525–544.
- Ke, W. and Wei, K.K. (2008) 'Organizational culture and leadership in ERP implementation', Decision Support Systems, Vol. 45, No. 2, pp.208–218.
- Kesting, P. and Ulhøi, J. (2010) 'Employee-driven innovation: extending the license to foster innovation', *Management Decision*, Vol. 48, No. 1, pp.65–84.
- Khazanchi, S., Lewis, M.W. and Boyer, K.K. (2007) 'Innovation-supportive culture: the impact of organizational values on process innovation', *Journal of Operations Management*, Vol. 25, No. 4, pp.871–884.
- Liu, J. Siu, O.L. and Shi, K. (2010) 'Transformational leadership and employee well-being: the mediating role of trust in the leader and self-efficacy', *Applied Psychology*, Vol. 59, No. 3, pp.454–479.
- Madu, B.C. (2012) 'Organization culture as driver of competitive advantage', *Journal of Academic and Business Ethics*, Vol. 5, pp.1–9 [online] http://www.aabri.com/manuscripts/11791.pdf.
- Martins, E.C. and Terblanche, F. (2003) 'Building organisational culture that stimulates creativity and innovation', *European Journal of Innovation Management*, Vol. 6, No. 1, pp.64–74.
- Mayo, E., Likert, R., McGregor, D. and Schein, E.H. (1989) 'People in organizations', *Great Writers on Organizations*, Vol. 215, pp.129–161 [online] https://us.corwin.com/sites/default/files/upm-binaries/15501 Chapter 4.pdf.
- Moss, S.A. and Ritossa, D.A. (2007) 'The impact of goal orientation on the association between leadership style and follower performance, creativity and work attitudes', *Leadership*, Vol. 3, No. 4, pp.433–456.
- Nacinovic, I., Galetic, L. and Cavlek, N. (2009) 'Corporate culture and innovation: implications for reward systems', World Academy of Science, Engineering and Technology, Vol. 53, No. 2, pp.397–402.
- Naranjo-Valencia, J.C., Jiménez-Jiménez, D. and Sanz-Valle, R. (2016) 'Studying the links between organizational culture, innovation, and performance in Spanish companies', *Revista Latinoamericana de Psicología*, Vol. 48, No. 1, pp.30–41.
- Nieto, M.J., Santamaria, L. and Fernandez, Z. (2015) 'Understanding the innovation behavior of family firms', *Journal of Small Business Management*, Vol. 53, No. 2, pp.382–399.
- Ogbonna, E. and Harris, L.C. (2000) 'Leadership style, organizational culture and performance: empirical evidence from UK companies', *International Journal of Human Resource Management*, Vol. 11, No. 4, pp.766–788.
- Oke, A., Munshi, N. and Walumbwa, F.O. (2009) 'The influence of leadership on innovation processes and activities', *Organizational Dynamics*, Vol. 38, No. 1, pp.64–72.
- Pamfilie, R. Petcu, A.J. and Draghici, M. (2012) 'The importance of leadership in driving a strategic Lean Six Sigma management', *Procedia Social and Behavioral Sciences*, Vol. 58, pp.187–196.
- Parthasarathy, R. and Sethi, S.P. (1993) 'Relating strategy and structure to flexible automation: a test of fit and performance implications', *Strategic Management Journal*, Vol. 14, No. 7, pp.529–549.
- Pieterse, A.N., Van Knippenberg, D., Schippers, M. and Stam, D. (2010) 'Transformational and transactional leadership and innovative behavior: the moderating role of psychological empowerment', *Journal of Organizational Behavior*, Vol. 31, No. 4, pp.609–623.
- Ricard, L.M., Klijn, E.H., Lewis, J.M. and Ysa, T. (2017) 'Assessing public leadership styles for innovation: a comparison of Copenhagen, Rotterdam and Barcelona', *Public Management Review*, Vol. 19, No. 2, pp.134–156.

- Robbins, S.P., Judge, T.A. and Sanghi, S. (2007) *Organizational Behavior*, 12th ed., Pearson Prentice Hall, India.
- Sarros, J.C., Cooper, B.K. and Santora, J.C. (2008) 'Building a climate for innovation through transformational leadership and organizational culture', *Journal of Leadership and Organizational Studies*, Vol. 15, No. 2, pp.145–158.
- Sundström, A. Ahmadi, Z. and Hyder, A.S. (2016) 'Market and innovation orientation typology: proposition and illustrations', *Marketing Intelligence and Planning*, Vol. 34, No. 3, pp.376–393.
- Vaccaro, I.G., Jansen, J.J., Van Den Bosch, F.A. and Volberda, H.W. (2012) 'Management innovation and leadership: the moderating role of organizational size', *Journal of Management Studies*, Vol. 49, No. 1, pp.28–51.
- Vera, D. and Crossan, M. (2004) 'Strategic leadership and organizational learning', *Academy of Management Review*, Vol. 29, No. 2, pp.222–240.
- Wahyuni, D. (2012) 'The research design maze: understanding paradigms, cases, methods and methodologies', *Journal of Applied Management Accounting Research*, Vol. 10, No. 1, pp.69–80.
- Waldman, D.A., Ramirez, G.G., House, R.J. and Puranam, P. (2001) 'Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty', *Academy of Management Journal*, Vol. 44, No. 1, pp.134–143.
- Zhang, J. (2010) 'Employee orientation and performance: an exploration of the mediating role of customer orientation', *Journal of Business Ethics*, Vol. 91, No. 1, pp.111–121.
- Zohrabi, M. (2013) 'Mixed method research: instruments, validity, reliability and reporting findings', *Theory & Practice in Language Studies*, Vol. 3, No. 2, pp.254–262.

Appendix

Interview questions

- 1 What is your position in this organisation and for how long you are working with this organisation?
- 2 How do you describe innovation in your organisation and how do you measure it here? (Any example of innovation that you did or do?)
- 3 Does your organisation strict with following processes and procedures or encouraging achievements through risk taking and embracing challenges?
- 4 If you give for on processes, how do you think it can support innovation?
- 5 Do the management concern mainly about employee performances or their well being most? How this behaviour can impact innovation?
- 6 How do you behave with newcomers/ outsiders? Do you think your organisation is adaptable and flexible for newcomers and outsiders? How this can impact innovation?
- 7 Do you think your management is supportive and tolerate mistakes?
- 8 What kind of factors your organisation research to contribute for innovation? Do you focus on external factors? For example, customers' needs? Or do you focus on internal procedure more?
- 9 Are you supposed to provide many reports to the senior very frequently based on every task you do?
- 10 When making organisational decisions does the management welcome other employees ideas as well or only the management makes decisions in organisational innovations?
- 11 How do you evaluate the results of employees innovative performance? Is there any reward or punishment system?
- 12 How this evaluation process support for the development of innovation?

- 13 How leaders react when there is a need for change in processes to develop innovations?
- 14 How does your managers provide guidance and allocate authority for making decisions in the process of development of innovations? 15. How the management encourage employees to be innovative?
- 16 How managers influence the culture of your organisation for developing innovation?
- 17 How the culture of your organisation supports the manager to create room for innovation?
- 18 What cultural fact(s) in your organisation do you think is or are barriers for developing innovation in your organisation? If nothing existing may be from past experience you can add something.
- 19 What are your suggestions to develop innovativeness of your organisation in the future?