



MSc Human Resource Management and
Organizational Psychology

**Defining and increasing employee efficiency:
The Case of Icelandair**

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Abstract

The purpose of this single case study on Icelandair, an internationally operating airline from Iceland, is to analyze the key factors defining efficiency and how efficiency of their employees can be increased. This thesis works with a conceptual framework supporting that as a prospector in a competitive environment, Icelandair should pursue a strategy of efficiency (i.e. exploitation) as opposed to effectiveness (i.e. exploration) to gain sustained competitive advantage. Thus, both non-crew and crew employees completed an employee survey on efficiency. A factor analysis shows that for the non-crew employees, efficiency at work is defined by three factors; Management, Company support (direct and indirect) and Personal skills and group support. For the crew employees, efficiency at work is defined by two factors; Company support (direct and indirect) and Personal skills and group support. The difference between them lies primarily in the difference in management. The results from an independent samples t-test shows that, for most questions, non-crew employees scored significantly lower than the crew employees. This emphasizes the importance of Icelandair first improving the non-crew employees' efficiency, by focusing on improved cooperation between different departments, making efficient use of its resources and using employees' ideas and suggestions to do better. Following this, Icelandair can then improve the crew employees' efficiency, by focusing on improving cooperation between departments, clarifying the Icelandair Group's strategy and objectives and making efficient use of its resources. Icelandair now has a clear view of the factors defining efficiency for its non-crew and crew, as well as managerial propositions on how to more efficiently be able to use its resources and capabilities to compete in the airline industry.

Key words: efficiency, strategy, competitive advantage, resources, organizational learning, Icelandair

Declaration of Research Work Integrity

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature of any degree. This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by giving explicit references. A bibliography is appended.

By signing the present document, I confirm and agree that I have read RU's ethics code of conduct and fully understand the consequences of violating these rules in regards of my thesis.

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Signature

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I. Introduction

The competitive landscape in which today's companies operate is continually evolving, where businesses need to remain proactive and aware of their surroundings to stay competitive. Companies work towards wealth creation and business expansion, where successful growth oftentimes leads to wealth via increased share of the market. This allows companies to have further resources and capabilities, to feed into its competitive advantage and develop further (Ireland, Hitt, & Sirmon, 2003). In any industry, having a sustainable or long-term competitive advantage is crucial for survival (Ho & Wu, 2019).

Porter (1996) argued this competitive advantage can be obtained when companies differentiate themselves from competitors in a way that lasts, by focusing on delivering improved value, the same value but cheaper or both. It is all about how the value chain of a company is set up, or the way in which it creates, sells and provides its product or service to customers (Porter & Kramer, 2011). According to the resource-based view, coined initially by Wernerfelt (1984, p. 172), companies have various internal resources, or tangible or intangible assets, which can be considered as "strength or weaknesses." These resources a company has can in fact be exploited, or new resources can be recognized (Wernerfelt, 1984). In line with this view, Barney (1991) argued sustainable competitive advantage is achieved where a product or service is not only valuable and rare, but also difficult to understand and imitate by competitors. How companies orient themselves facing increasing competition can be helped by organizational learning. This ability of companies to "create, disseminate, and act upon generated knowledge" is indeed a key resource to create sustainable competitive advantage (Auh & Menguc, 2005, p. 1652; Smith, Vasudevan, & Tanniru, 1996). Knowledge acquisition and transfer of learning is indeed crucial to gaining increased performance (Argote & Ingram, 2000; Lubit, 2001).

Efficiency can be considered a key component of performance; to receive the maximum rewards, with the minimum costs associated in attaining this (Addicott, Pearson, Sweitzer, Barack, & Platt, 2017; Tabassi, Ramli, & Bakar, 2012). The concept of efficiency gained popularity as early as in the 18th century and has been looked into from various dimensions since then (Higgs, 1904). Evidently, companies have a large incentive to stay efficient and produce its goods and/or services at low cost, to not risk lost profit or even running bankrupt (Kaufman, 2014). Examples of costs may be time, effort and money (Addicott et al., 2017). As argued by Prahalad and Hamel (1990, p.

81), “the real source of advantage are to be found in a management’s ability to consolidate corporatewide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities.” Indeed, economic and technological developments have not only made it a requirement, but also enabled companies to more efficiently create its goods and/or services (Bunner, Prem, & Korunka, 2018).

Since the late 20th century, research has not only been focused on efficiency, but also how companies can adopt new methods to create its goods and/or services. This is the consideration between exploitation and exploration, or of exploiting known opportunities or exploring for better opportunities elsewhere (March, 1991). While exploration is about searching for new methods and possibilities and taking risks, exploitation has to do with efficiency of current resources and capabilities, making the most with what one has (March, 1991). The intensity of the competition a company is facing as well as the type of strategy in terms of product range it offers, has an influence on which strategy; explorative or exploitative, it should opt for (Hitt, Ireland, Simon, & Trahms, 2017; Auh & Menguc, 2005; Jansen, Van den Bosch, & Volberda, 2006). Literature supports the fact that companies with a large product range (i.e. prospectors) in competitive markets should pursue an exploitative strategy and adhere more on the side of efficiency, rather than focusing on new opportunities and methods. On the other hand, companies with a narrower product range (i.e. defenders) in less competitive markets should abstain from exploitative strategies, focusing on efficiency, and focus on exploration, adhering on the side of effectiveness (Auh & Menguc, 2005; Jansen et al., 2006; Hitt et al., 2017). Deciding between the strategies, while operating in changing environment, is helped with the process of organizational learning (Levinthal & March, 1993).

The airline industry is a relevant field into which to analyze such effectiveness (i.e. exploration) or efficiency (i.e. exploitation) of resources in terms of performance. The industry is a highly competitive one, with plenty of low-cost rivals entering the market. Demand in the field is subject to various changes, where factors in the environment such as seasons, security, and foreign affairs all have an influence (Cobeña, Gallego, & Casanueva, 2019). As aforementioned, companies have aspects of its external environment and internal environment to compete with (Porter, 1996; Wernerfelt, 1984; Barney, 1991). Both environments will differ according to the airline, where they do not have the same resources and capabilities to base their

strategies on and ensure they are successful. In regard to sustainable competitive advantage in the airline industry, service quality has been argued as the primary concern, since it has implications on customer loyalty, purchase and revisit intention (Ho & Wu, 2019). Furthermore, economies of scale are of crucial importance as well as the airline alliances the company has, which is when different carriers collaborate with the goal in mind to be more competitive and increase performance (Barros & Peypoch, 2009; Cobeña et al., 2019; Morrish & Hamilton, 2002). Ultimately, whichever the strategy chosen, the company in the industry that manages resources and capabilities the best will be the one with the sustainable competitive advantage (Barros & Peypoch, 2009).

More specifically, the airline industry in Iceland is noteworthy with Icelandair, at the time of the thesis, being the only national airline offering flights within, to and from Iceland. Despite the company being located in a small country, its competition is high. There are plenty of non-national airlines flying to and from Iceland, including low-cost options such as Wizz Air, easy Jet and Norwegian as well as others operating non-stop trans-Atlantic flights such as Lufthansa, Delta, and British Airways. Icelandair additionally faces high fuel and carbon prices as well as high salary costs. These factors all hamper Icelandair's performance and have done so especially in 2018. Thus, operating an airline with reliable flights and exceptional service, which is what Icelandair aims to do, on profit is a considerable challenge (Icelandair, 2019-a; Icelandair Group, 2019-a).

As will be further developed in Section II "Icelandair" and Section III "Literature Review", Icelandair can currently be considered as a prospector in a highly competitive environment (Auh & Menguc, 2005; Jansen et al., 2006; Hitt et al., 2017). It can thus, be recommended to focus on efficiency (i.e. exploitation), to gain competitive advantage. Therefore, by using Icelandair as a case study, this thesis will firstly, look into how efficiency is defined at Icelandair by comparing two samples of data: non-crew employees and crew employees. Within a firm, especially when its size is as large as at Icelandair, different types of employees may be operating differently in terms of efficiency. Thus, what may compose efficiency in one area may not in another and as will become clear in Section III "Literature Review", although definitions of efficiency exist in dictionaries, the literature refers to a whole array of aspects contributing to it. This thesis secondly, aims to give clarity to Icelandair, as to how it

can increase efficiency of its non-crew and crew employees to gain competitive advantage.

The need to manage its resources and capabilities in an improved way to compete in its industry, gave rise to the collaboration of this thesis with Icelandair, following an internship the researcher had in their People and Culture Department. Hence, in an attempt at thorough introspection of the efficiency of Icelandair the first research question is “How is efficiency defined concerning non-crew and crew employees at Icelandair?” Having defined efficiency with respect to non-crew and crew employees, this thesis will analyze how it can be increased. Therefore, the second research question is “How can Icelandair increase the efficiency of their employees at work?”

1.1 Structure of the thesis

This thesis is composed of eleven sections, where the first one is the current section, Section I, including the introduction and structure of this thesis. The following section, Section II will give further information on the company itself, Icelandair, before delving into the literature review, which is Section III. This section leads onto Section IV on the Conceptual Framework used for this thesis, to analyze the strategy a company should opt for considering a company’s competitive environment and strategy type. Possible results are further explained in Section V, leading to Section VI composed of the methodology. Subsequently, in Section VII the results are presented, followed by further detail proposed in the greater context of previous research in the discussion section, Section VIII. Managerial implications are proposed in Section IX, while limitations and further research are proposed in Section X. Lastly, Section IX is composed of the conclusion. References are listed thereafter, followed by Appendices at the end of this thesis.

II. Icelandair

The following section gives a short overview of Icelandair, to allow for a deeper understanding and help for the scope of the research.

2.1 Overview of Icelandair and its operations

Icelandair is a leading airline in Iceland, offering flights to and from Iceland, using its convenient geographical location to its competitive advantage. Icelandair, a part of Icelandair Group, has a history dating back more than 80 years, continuously

providing its customers with an introduction and authentic taste of Iceland. Icelandair Group's employees are close to 5,000 and it is thus, the largest private employer in Iceland. Nonetheless, this thesis will focus on the flight operations, or Icelandair, composed of over 3,000 of its employees. Since February 2019 Icelandair has been divided into eight divisions, which is a more simplified structure than before. There are four core business of four core business divisions (Sales and Customer Experience, Operation, Air Freight and Logistics, Aircraft Leasing and Consulting) and four supporting functions (Finance, People and Culture, Digital Development and IT, Fleet and Network) (Icelandair, 2019-a; Icelandair, 2019-b. The main offices are located in three key areas of operation in Iceland (Reykjavík, Hafnafjörður and Keflavík). However, a large proportion of its employees also operate inside the aircrafts up in the air too, and also locations outside of Iceland including Copenhagen, London, Frankfurt and Boston. A variety of nationalities work for Icelandair, where although a majority are from Iceland, the company focuses on diversity (Icelandair, 2019-c.).

2.2 Icelandair's human resource strategy

Icelandair's human resource strategy focuses amongst others, on the fact that its employees are the company's key source of wealth. Equality and non-discrimination are of utmost importance, and diversity is encouraged. Emphasis is on selecting the right people into their team with the right talent and qualifications, encouraging, training and developing them, offering a workplace with health and safety at the core. A key part of its People and Culture Department is to ensure all employee matters run smoothly and to take care of all employees. As an example of its efforts, it regularly conducts employee surveys to gauge employee well-being and to find ways to improve its operations (Icelandair Group, 2019-b).

2.3 Competitive analysis

Icelandair is the only national airline offering flights within, to and from Iceland, with currently 23 gateways in Europe, and 19 in North America via its home base, Iceland. Important to note, is that the network is one of 24-hour rotation of flights, which Icelandair operates with its Boeing 767, 757 and 737 MAX 8 (n.b. at the time of the thesis, the Boeing 737 MAX 8 aircrafts have been suspended since March 2019, resulting in Icelandair leasing aircrafts from other airlines to minimize disruption) (Icelandair, 2019-d). This range offers the company flexibility regarding its destinations

and time schedule of flights (Icelandair, 2019-a.; Icelandair, 2019-f; Icelandair Group, 2019-a).

In addition to focusing on safe and reliable flights, Icelandair emphasizes its exceptional service and an Icelandic experience with the company, even offering to stop over in Iceland without any additional airfare. As opposed to other airlines, especially low-cost airlines which operate in the same market, Icelandair focuses on customers' experience on board being as enjoyable as the destination they are flying to (Icelandair, 2019-e). While offering entertainment on board, they also focus on serving local food on board and complimentary refreshments, and items onboard including cups and napkins, pillows and blankets have little sayings in Icelandic, to introduce passengers to the country. Icelandair offers Economy fares for those travelers who seek comfort when on leisure travels as well as budget business passengers and also Saga Premium with additional comfort and services. Consequently, this is where Icelandair's competitive strategy is at today.

Icelandair faces plenty of competition with the several non-national airlines flying to and from Iceland, with a different competitive strategy including low-cost, no frills options such as Wizz Air, easy Jet and Norwegian. In addition, others operate non-stop trans-Atlantic flights with more service on board, more in line with what Icelandair offers such as Lufthansa, Delta, and British Airways. Consequently, the competition Icelandair faces can be categorized as monopolistic competition, where there are indeed competitors, offering flights, but the service offering is different. The airline industry is a dynamic environment, with new entrants at the same time as others leaving, facing seasonal changes too.

III. Literature review

The following section will delve into key research in the field of human resource management when it comes to efficiency in the sphere of performance. After defining efficiency, a brief overview of the history of efficiency will be given. Following this, more recent developments in the field will be explored. Due to Icelandair being in the airline industry, research in the field will also be looked at. The section ends with a brief overview of the literature review in light of Icelandair.

3.1 Definition of efficiency

According to Oxford Learner's Dictionary ("Efficiency", 2019-a), efficiency is "the quality of doing something well with no waste of time or money." Similarly, Merriam-Webster ("Efficiency", 2019-b; "Efficient", 2019) define efficiency as "the quality or degree of being efficient", where they clarify being efficient as being "capable of producing desired results with little or no waste (as of time or materials)."

Literature has referred to different aspects of efficiency. When efficiency is applied to labor, it can be seen as the productivity created per unit of cost paid for the labor and concerns the labor resource utilization (Stuebs & Sun, 2010). Indeed, labor costs are a large part of the operations cost for companies and targeting efforts at improving efficiency is vital (Stuebs & Sun, 2010). This is as opposed to cutting costs, where the reason for expensive costs may be due to the extra services and skills, which deliver higher profits for the company and attracts talent by showing the company appreciates its employees (Pfeffer, 1995).

Amongst labor resources, it is important to further delve into, what the other resources of the company may be, where it can range from technological knowledge, skills of an employee, machines, capital, and procedures in place (Wernerfelt, 1984). As argued by Wernerfelt (1984), the question with each resource becomes about which of them renders the highest returns for a company over time. Porter (1996) has put forth that some companies can achieve efficiency by reducing any wasted resources, use better technology, increased motivation or better management of tasks. Meanwhile, Auh and Menguc (2005) propose some ideas such as focusing on profitability, return-on-investments, sales and assets. Large company changes to increase efficiency also include mergers and acquisitions, downsizing, as well as economies of scale all by reducing costs (Rezitis, 2008; Farndale, Van Ruiten, Kelliher, & Hope-Hailey, 2011).

According to the current research aims and goals, efficiency will be considered as the resources a company has and the way they are being utilized and allocated in the best possible way to remain competitive (Kaufman, 2014). As for Icelandair, however, this thesis aims to define efficiency for both non-crew and crew employees, and from there, see how it can be increased.

3.2 Efficiency: Brief history

A high focus on efficiency and competition was put forward by the Scottish economist Adam Smith in 1776, in his book *The Wealth of Nations*. It emphasized

division of labor and production of goods and services at low prices, with maximized productivity. He argued, that with greater employee specialization or being more skilled at the task one is doing; efficiency would increase and thereby productivity. Employees would also be more motivated by finding more efficient methods of doing their tasks (Higgs, 1904). Later, in the early 20th century, efficiency as a term gained popularity in the United States. To Taylor (1909) efficiency meant lowering costs and increasing benefits by responding to incentives of employees and focusing on teamwork. Furthermore, Taylor (1909) emphasized the need to work towards goals, prioritize, get rid of tasks that no longer were needed, understanding the work, steps and tools needed to make it happen. Around this time, Gantt (1910-a) and Purinton (1914) argued efficiency was a condition in which reliability, predictability, and regularity were ensured. Gantt (1910-b) further created Gantt charts of employees' efficiency with the goal of increased stability, increased production and improved scheduling. From the chart, one can see, the tasks which need to be completed, and in which time frame.

Efficiency as a concept was noticeable in the period leading up to the Great Depression, where industrialization and urbanization was taking place, as "efficiency became a tool of reform" (Alexander, 2008, p. 326). The term was touching every aspect, from technical features of machinery to creation of roads to family and to governmental policies. In general, it became the conclusion, that additional revenue was not needed, but increased efficiency (Alexander, 2008). Polakov (1909) along with Emerson (1908), found that as arbitrary efficiency became introduced, or so-called bonuses linked to efficiency, productivity was found to increase. Bonuses became associated with the efficiency of each employee. Employees were efficient if they could be depended on, followed the tasks they were supposed to do, as opposed to their skills or pace of doing the task (Alexander, 2008). Efficiency also had an improvement on the payment of employees via a differential piece rate. This meant, employees were paid a higher rate for every item produced, if they achieved their daily goal, which would increase production while keeping it at a rate that could be predicted by managers (exerting managerial control) (Gantt, 1910-a). This tendency for incentives in form of compensation is indeed the traditional form of increasing labor efficiency and performance (Stuebs & Sun, 2010; Bonner & Sprinkle, 2002).

Purinton (1914) further introduced a different angle on efficiency with the focus of self-management and self-control, thriving on autonomy and the employees'

aspirations. This is high in relation to the later literature on efficient management of employees, focusing on high performance cultures. Such cultures are where employees support the norms and values of the company, where human resources practices allow for employees' abilities and decision-making input to shine, and/ or when there is a good incentive set up (Boselie, 2014; Hartog & Verburg, 2004). Indeed, it has been argued that workplaces that aim for high performance, focus on their human resources and how their technical and innovative abilities can be supported and invested in (Tabassi et al., 2012). Gaining efficiency has also strongly been associated with a human resource management strategy of pairing skills and abilities of individuals with what the company needs (Hayton, 2003).

It is also important to point out the increase in strategic thinking during World War II, where resources needed to be allocated the most efficiently. Especially in the United States, plenty of advancements were made in terms of management science and learning curves were introduced. The learning curves suggested a decrease in cost of labor with every doubling of airplanes being produced. Re-organizing the American military in the most efficient way also became a concern, and allocation of competencies became an important factor in strategic management thereafter (Ghemawat, 2000). Later in 1978, Abernathy put forward the need to not only be efficient, but also compete by being innovative at the same time. This was following a study in the automobile industry, where a firm was less successful due to lack of efficiency and productivity. Since then, the balance between efficiency via exploitation and new advancements via exploration has been studied as will be delved into in more detail in the current section. In either case, an innovative spirit, of learning, improving and adopting new knowledge are associated with both. Exploration is just where innovation is applied in a new direction, whereas exploitation is where it is applied in the current one (Gupta, Smith, & Shalley, 2006).

3.3 Efficiency: More recent developments

Different companies will allocate resources and capabilities differently, but in general, it is considered that companies have four factors of production to produce its goods and/or services, which are land, labor, capital and entrepreneurship (Parkin, 2015). How efficiently these are allocated, will have an impact on a company's competitive advantage (Parkin, 2015; Bunner et al., 2018). The greatest benefit will be from goods and/or services produced at the lowest cost that they can be produced at and

at quantities that provide the most value (Parkin, 2015). Management plays a key role here, where efficiency can be focused on minimizing input, and maximizing output, thus, a greater sense of productivity leading to increased profit, something managers in general try to achieve (Roach, 1998). This is where the importance of high managerial competence and decision making comes in. The resources and capabilities of a company to reach these goals need to be defined and structures and processes will also be set up to support the strategy and will naturally differ between companies and within companies depending on business areas (Armstrong, 2018; Henry, 2018).

Along these notes, it is important to delve further into the resource-based view of strategy, which has been a key explanation as to why some companies are more successful than others since the late 1980s (Halkos & Tzeremes, 2007). This strategy focuses on a company's internal environment or its internal resources, which allows it to create a strategy for sustainable competitive advantage in its field (Wernerfelt, 1984). Thus, it is the company's resources and capabilities, which allow for the use of the resources for its intended purpose. This is then what influences the choices companies make when competing in external markets (Henry, 2018). Barney (1991) developed the resource-based view further, especially along with competitive advantage, arguing that companies need to take advantage of their internal strengths, to take onboard opportunities in the external environment or fight against threats that come up. According to him, resources are split into three groups; physical (e.g. equipment, location), human (e.g. employees, training) and organizational (e.g. culture). The resources, or internal strengths, may thus, be tangible or intangible. Examples of the tangible and intangible resources as put forth by Halkos and Tzeremes (2007) are systems for production, technology and machines as well as brands or property rights respectively. It is the activities that a company takes to change resources acting as input, to create the output (Wernerfelt, 1984). Naturally, output will depend on whether the retailer is one of goods or services, and this industry, which this thesis focuses on concerns the latter (Mehta, Lalwani, & Han, 2000).

3.4 Increasing human resource efficiency to gain competitive advantage

Drucker (1986) pointed out that efficiency is crucial to focus on costs by making the most of the effectiveness of employees in the right positions, since "even the healthiest business, the business with the greatest effectiveness, can well die of poor efficiency" (p. 36). Labor, or a company's employees are thought to be invaluable

assets in a company, contributing to its competitive advantage by being the foundation of success (Boselie, 2014; Phillips & Gully, 2015). How employees are managed, motivated, arranged in a company and engaged all play a role in the implementation and success of the business strategy and goals set by the organization (Jhajharia & Kaur, 2015). This view, of individuals, including their behavior being at the core of a company's success, with high strategic importance, has significant implications in the field of human resource management, especially with respect to strategic human resource management (Barney, Wright, & Ketchen, 2001). Pfeffer (1995) further supports this, arguing employees as key to strategic advantage, and not an expensive cost which should be lowered. He further argues for thirteen practices for managing people, including aspects such as providing employment security, selecting the right employees, sharing information on how to be successful, encourage participation and empowerment and ensuring training and development. As one can imagine, being more efficient at work, leads to higher employee engagement, which is when employees have a positive mindset about the work they are doing, approaching it with a lot of energy, enthusiasm and identification (Landy & Conte, 2017). This is because if employees are running into more barriers when doing their tasks, their frustration may rise and their energy may get depleted, decreasing engagement, which in fact has been found to be directly related to task and performance (Christian, Garza, & Slaughter, 2011)

Especially when using employees to create or maintain competitive advantage, managers must be cautious of the pressure they are under from stakeholders. The needs and rights of their employees need to be considered, as well as occupational safety and health risks that may arise should they be placed under increased demand or pressure (Bunner et al., 2018). For example, although work intensification, or the amount of effort an employee places into their work during working hours can be increased to gain increased efficiency and profit, managers need to exert careful control (Beer, Spector, Lawrence, Mills, & Walton, 1984; Green, 2004). At the same time, as companies grow, they often face the situation of inefficient division of resources, for example, if the company's resources either go unused or are not allocated correctly (i.e., resources are used for tasks where they are not best fit for), or both of these (Parkin, 2015). It is important to get rid of such inefficiencies since unused resources of a company can create the difference between a company surviving or not (Mouzas, 2006). Thus, it is an art of careful craft that needs to be continually renewed via organizational learning (Kaufman, 2014). In any case, as Beer et al. (1984, p. 185)

argue, it is important to stay ahead of the competition by being “leaders in efficiency, innovation and quality of work-life.”

3.5 Efficiency (i.e. exploitation) vs. Effectiveness (i.e. exploration)

As aforementioned, the resources a company has can be exploited or new resources can be recognized via exploration (Wernerfelt, 1984). To recap, while exploration is linked to advancement, opting for new methods and possibilities, exploitation is associated with efficient use of current resources and capabilities (March, 1991). Innovation can be associated with both. Effectiveness (i.e. exploration) is more concerned with new knowledge, products and services in new markets and is more rapid and drastic in nature, being more long-term oriented. However, efficiency (i.e. exploitation) is more concerned with the same knowledge, products and services in current markets, and the type of innovation is more incremental in nature, while being more short-term oriented (Jansen et al., 2006; Benner & Tushman, 2001; March, 1991). While the former initiates a remodeling how things are done with new technology and resources, the latter focuses on the current technology and resources to be used more efficiently to create benefit (Benner & Tushman, 2001).

A strategy of ambidexterity can also be pursued to combat competition, where both efficiency (i.e. exploitation) and effectiveness (i.e. exploration) are pursued simultaneously. Thus, using resources in the most careful way to produce its goods and services, while at the same time, using innovation to meet future requirements of the customer base (Sarkees & Hulland, 2009; Mouzas, 2006; Leventhal & March, 1993). This has also been coined strategic entrepreneurship, where companies balance between being “opportunity-seeking (i.e., exploration) and advantage-seeking (i.e., exploitation)” to gain sustainable competitive advantage (Ireland & Webb, 2007, p. 50). Nonetheless, with the limited resources companies have at hand pursuing ambidexterity can be tricky. It has also been argued to frequently cause tension within companies, which leads companies to often make choices between the two (e.g. Simsek, Heavey, Veiga, & Souder, 2009; Peng, Lin, Peng, & Chen, 2019).

Whether to opt for effectiveness (i.e. exploration), efficiency (i.e. exploitation) or both, is the dilemma that managers face in companies worldwide. This is where organizational learning comes in as an important resource to help evaluate which strategy to opt for (Auh & Menguc, 2005). In doing this, companies use resources to see from its experience, what it should keep on doing or try to improve. This can be

done by for example analyzing any mistakes that has been made or look at repetitive actions from the past (Eisenhardt & Martin, 2000). Thus, it can be considered, that firstly, companies need to acquire the learning, secondly, spread the knowledge around the company and thirdly, use the knowledge to improve upon current processes. Important to note, is that organizational learning is not always a planned action, such as for example the thesis here, where it may occur unintentionally (Nevis, DiBella, & Gould, 1995). In any case, relevant knowledge, both the creation and transfer of it, via organizational learning is a true key to competitive advantage (Nonaka, 1994; Argote & Ingram, 2000). Companies must do what they can to create a culture of knowledge sharing, communicate openly amongst it, encourage employees to make use of information, and keep a database or track on knowledge acquired to make the best decisions to improve (Lubit, 2001). This is often where collection of knowledge (e.g. via survey, questionnaires) comes in use, to for example gain information and see if it has been used to make changes that delivered successful results (Pfeffer, 1995).

3.6 Influence of strategy type and competitive environment

When choosing the strategy to most optimally deal with a company's competition, the external environment a company is in has an influence (Zahra, 1996; Porter, 1979). Indeed, competition varies between companies and industries. As Auh and Menguc (2005) outline it, it can on the one hand be a situation where there is plenty of competitors in the market and not much room for the company to grow. In this case, the actions of the company itself will not come from them, but instead, from what the competitors do. On the other hand, competition can be less fierce, and companies can gain from their own actions in the market.

Miles, Snow, Meyer and Coleman (1978) introduced four types of strategy; prospectors, analyzers, defenders and reactors. Arguably the two most distinct of those are prospectors and defenders, which are the two that Auh and Menguc (2005) chose for the purpose of their quantitative study on manufacturing companies. They studied the two types of organizational learning, efficiency (i.e. exploration) and effectiveness (i.e. exploitation), and those two types of strategies, prospectors and defenders. Prospectors have a large product-market range and are those that effectiveness (i.e. exploration) is generally more in relation to, looking for ways to grow and innovate in the market. Defenders have a narrower product-market range and are those that efficiency (i.e. exploitation) is generally more in relation to, with increased resource

utilization and often decrease in prices, helping to tighten margins (Miles et al., 1978; Auh & Menguc, 2005; Jansen et al., 2006).

It is important to note, that just as competition varies between companies and industry, competition also varies over time as the environmental conditions the company moves through are constantly changing (Auh & Menguc, 2005). They found, that for prospectors, effectiveness (i.e. exploration) was more positively related to performance than efficiency (i.e. exploitation), but when faced with greater competition, the latter was more positively related to performance. As for defenders, efficiency (i.e. exploitation) was more positively related to performance than effectiveness (i.e. exploration), but when faced with greater competition, further efficiency or exploitative measures was less successful.

As pointed out in Jansen et al. (2006) in their quantitative study on financial services firms, it has faced several new entrants throughout the past decades. They conclude that in a competitive environment, it is more beneficial with respect to competitive advantage to opt for efficient (i.e. exploitative) innovation than effective (i.e. exploratory) innovation. Thus, adding to “existing knowledge and reinforce existing skills, processes, and structures” (Jansen et al., 2006, “Literature Review and Hypothesis,” para. 1). Alternatively, this means for companies to do current activities in a more efficient way, working on improving current resources and skills (Porter, 1996; Auh & Menguc, 2005).

3.7 Literature review taken together with the case of Icelandair

Consequently, efficiency as a term has been around since the 18th century, shifting focus in different directions since then (Higgs, 1904). Since the late 20th and early 21st century, the literature has focused a lot on explorative and/or exploitative means to gain competitive advantage (e.g. March, 1991; Auh & Menguc, 2005; Jansen et al., 2006; Sarkees & Hulland, 2009). Companies must be continually scanning their competitive environment to be able to adapt and balance between the two means accordingly, in the ever-changing, gradually globalized environment they face (Ireland & Webb, 2007). Literature supports, that companies which can be classified as prospectors and those in markets where competitive intensity is high, should pursue an efficiency (i.e. exploitative) strategy to gain or maintain competitive advantage. An effectiveness (i.e. explorative) strategy should be pursued should the company be

classified as a defender, and those in markets where competitive intensity is low (Auh & Menguc, 2005; Jansen et al., 2006).

The aforementioned study by Jansen et al. (2006) on financial services firms can be extended to the airline industry, which has been reported as the fastest growing mode of transport (Parsa, Nookabadi, Flapper, & Atan, 2019). Icelandair's operations have not been an exception, transporting more passengers in 2019 than ever before (Icelandair Group, 2019-a). When considering an Icelandair's competitive position, the market structure it operates in is one of monopolistic competition. There are many airlines operating in the market, but the level of service offering is not identical to its competitors.

In relation to the prospectors or defenders, Icelandair can be argued as more aligned with the prospectors; of offering its large product range in terms of trans-Atlantic flights, thus from Iceland, to and from all over the United States or Canada as well as to and from all over Europe. They continually adapt to customer needs by changing its destinations and time schedule, both seasonally and year upon year. This is in an attempt to increase its competitiveness and overcome the challenges it faces such as expensive fuel, high salary costs, and issues in becoming more energy efficient (Icelandair Group, 2019-a; Parsa et al., 2019; Icelandair, 2019-f).

Icelandair can thus, be recommended to focus on efficiency (i.e. exploitation), or more wisely using its resources to gain competitive advantage, as opposed to new processes and structures throughout the company (Ireland & Webb, 2007). Due to the current strategy type and competition in the environment of Icelandair, the exploitative strategy focusing on efficiency to improve Icelandair's competitiveness is analyzed, rather than the explorative strategy focusing on effectiveness. As aforementioned, companies must continually adapt and reevaluate however, where the competitive environment is ever-changing (Ireland & Webb, 2007). Thus, while a focus on efficiency (i.e. exploitation) may be recommended now, it may not be in the long-term future, which is where the need for constant organizational learning comes in (Eisenhardt & Martin, 2000; Auh & Menguc, 2005).

Therefore, this thesis, aims to firstly, analyze how efficiency is defined at Icelandair, by both its non-crew employees and crew employees, and secondly, to see how it can be increased to gain sustainable competitive advantage to compete with.

IV. Conceptual framework

Consequently, literature supports, that companies which can be classified as prospectors and those in markets where competition is high, should pursue a strategy focusing on efficiency (i.e. exploitation) to gain, or maintain, competitive advantage. At the same time, literature also supports, that companies which can be classified as defenders and those in markets where competitive intensity is low, should pursue an effectiveness (i.e. explorative) strategy to gain or maintain competitive advantage (Auh & Menguc, 2005; Jansen et al., 2006).

Figure 1 is a framework adapted from the research of both Auh and Menguc (2005) and Jansen et al. (2006) discussed in the previous Section “Literature Review.” It is a general framework, which has not yet been applied to any company. A company should insert its name at the top, and thereafter, analyze its current environment. It will consider whether its strategy type is the one of a prospector or a defender, and whether its competition intensity is one which is high or low. As aforementioned, if it has classified itself as a prospector, where the competitive intensity is high, it should pursue a strategy of efficiency (i.e. exploitation) to gain sustained competitive advantage. On the other hand, if it has classified itself as a defender, where the competitive intensity is low, it should pursue a strategy of effectiveness (i.e. exploration) to gain sustained competitive advantage. Please note, at the time of writing the thesis, literature does not suggest which organizational learning will help achieve sustained competitive advantage, should a company be a prospector in an environment where the competitive intensity is low, nor should a company be a defender in an environment where the competitive intensity is high. This will be further discussed in Section X “Limitations and further research.”

Once the strategic path has been found, it is important to analyze how the two strategies, of either efficiency (i.e. exploitation) or effectiveness (i.e. exploration) are defined for the company’s employees. This can be performed by analyzing the data via a factor analysis. Secondly, it is important to analyze how the company will improve upon its efficiency or effectiveness of their employees at work. This can be performed by analyzing the data via an independent samples t-test. It is important to point out the use of arrows, suggesting that to increase efficiency (i.e. exploitation) it first needs to be defined, and thereafter, ways to improve it are identified, which feeds back into this increased efficiency (i.e. exploitation). This should be a continual organizational learning process, while also keeping in mind, that the current environment can change.

Thus, the company may need to change its way to sustained competitive advantage over time, which again is where the need for constant organizational learning comes in (Eisenhardt & Martin, 2000; Auh & Menguc, 2005).

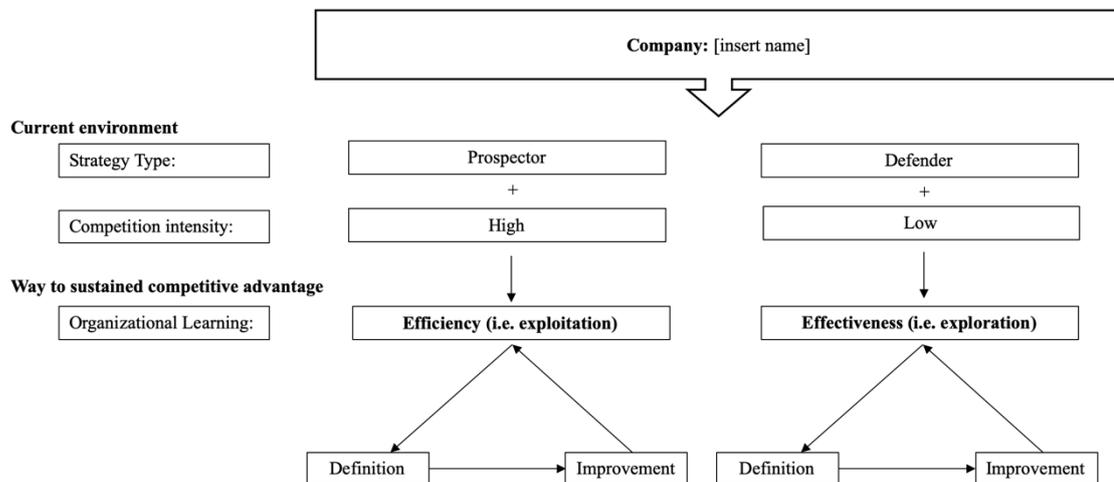


Figure 1. Conceptual framework adapted to the research by Auh and Menguc (2005) and Jansen et al. (2006)

Figure 2 is the same framework as Figure 1, adapted to the research of both Auh and Menguc (2005) and Jansen et al. (2006), but applied to the case of Icelandair. Looking at Icelandair's competitive environment, between the two strategy types, of a prospector and a defender, it can be classified as a prospector. Between the intensity of competition, in the aviation industry Icelandair is in, it can be classified as high. Therefore, the strategy Icelandair should pursue for sustained competitive advantage is one of efficiency (i.e. exploitation). This leaves a strategy of effectiveness (i.e. exploration) out of the scope of the current thesis.

As aforementioned, it is firstly important to define efficiency (i.e. exploitation) for Icelandair's employees. For the current thesis, the employees' are divided in two groups, both non-crew employees and crew employees. Indeed, it is difficult to improve upon efficiency and carry out an exploitative strategy, without knowing how it is defined within its non-crew and crew employees. As indicated in Figure 2 by "RQ #1", the definition of efficiency (i.e. exploitation) is the first research question of this thesis, where the aim is to fill in the question marks for both employee groups via a factor analysis. Secondly, it is important to analyze how Icelandair will improve the efficiency (i.e. exploitation) of its employees via an independent samples t-test. As also indicated in Figure 2 by "RQ #2", the improvement of efficiency (i.e. exploitation) is

the second research question of this thesis, and the aim is to fill in the question marks for both employee groups.

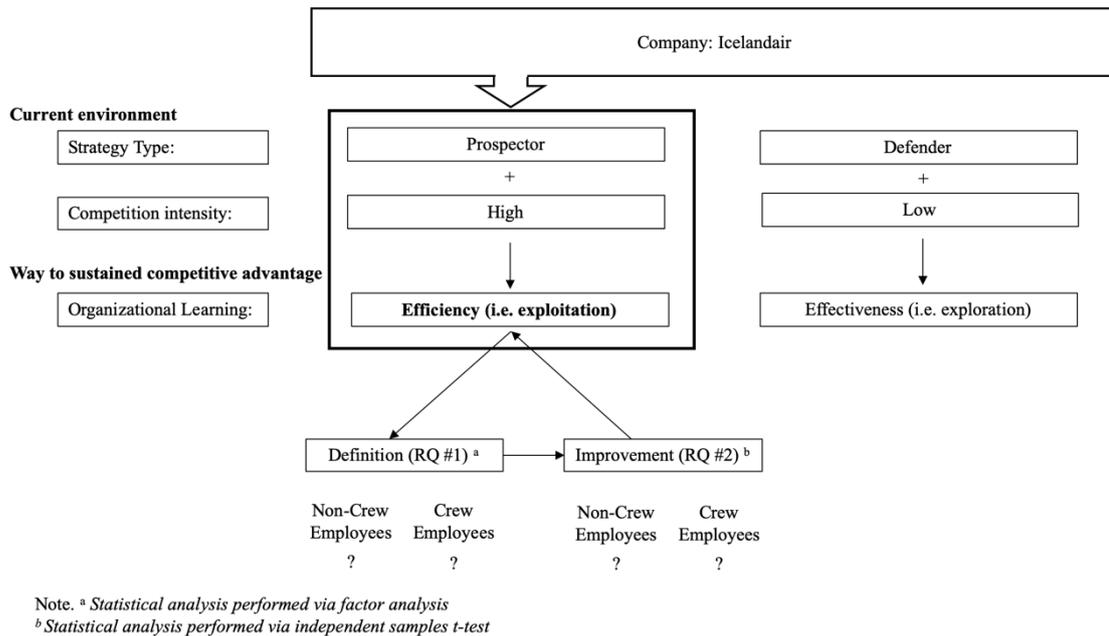


Figure 2. Incomplete conceptual framework adapted to the research by Auh and Menguc (2005) and Jansen et al. (2006) applied to non-crew and crew employees of Icelandair

Both knowledge creation and improvements accordingly contribute to increased company performance. Thus, deeper understanding of efficiency (via the first research question on the definition) and clear points of action (via the second research question on the improvement) for both non-crew and crew employees will help Icelandair increase their competitive advantage and compete better in their challenging playing field (Nonaka, 1994; Argote & Ingram, 2000; Lubit, 2001). This is on top of the differing views on the definition of efficiency as well as which resources to focus on to improve it, which is why it is important for Icelandair to analyze both for its own employees (e.g. “Efficiency”, 2019-a; “Efficiency”, 2019-b; “Efficient”, 2019; Wernerfelt, 1984; Porter, 1996; Auh & Menguc, 2005). The definition and improvement of efficiency (i.e. exploitation) for both non-crew and crew employees need to continuously be revisited, as well as the current environment Icelandair finds itself in. The completed conceptual framework for the case of Icelandair, with respect to both its non-crew and crew employees, will be presented at the end of Section VIII “Results.” A further discussion of it and application to other companies will be presented in Section VIII “Discussion”, Chapter 8.3 “Review of the Conceptual Framework.”

V. Possible results

The current section outlines the possible results that may come out of the research on the efficiency of non-crew and crew employees. When considering the nature of the work of crew employees, where strict guidelines, laws and regulations, and procedures on both national and international levels apply for the safety of the passengers on board, one may anticipate efficiency being higher than for non-crew employees, whose work may be less pinned down. For crew employees, operational manuals exist, which all crew employees need to adhere to, and regular training and assessments are carried out. Strict hierarchy exists on board in relation to decision making, which is especially crucial when in an emergency (e.g., emergency landing, smoke-filled cabin, disruptive passenger). Regarding non-crew employees, employee manuals, guidelines, and procedures of course exist, and the range of jobs does vary, but in general, this may be less strict than for crew employees. At the same time, individual managers imply greater efficiency of their non-crew employees if they are performing well because they will genuinely get to know their subordinates. This is different onboard, where crew employees work with a different crew daily, only receiving support from Cabin Operations or the Chief Pilot Office.

VI. Methodology

The following section will outline the methodology for this research. It will give justifications for both the quantitative nature of it as well as the fact that it is a case study, delving into the case selection, participants, and lastly the procedure. Finally, it will delve into background for the data collection and data analysis.

6.1 Methodological Approach/ Research Design

6.1.1 Quantitative research

Two strategies to approach research are quantitative and qualitative, and this thesis focuses on the former. Within quantitative research, precise findings come out of analyzing data collected via several different means, which will differ depending on the research purpose (Scott, 2010; Brannen, 2005; Runeson & Höst, 2008). Some form of measurement is involved, which firstly can distinguish between groups, gives a measurement device to distinguish between them in a consistent manner, and lastly, the extent of the relationship and patterns between different concepts can be analyzed (Hyde, 2000; Scott, 2010; McCusker & Gunaydin, 2014). On the other hand,

qualitative research is more concerned with richer data with for example, analyzing words, descriptions, pictures through categorization and sorting of the data (Runeson & Höst, 2008). As opposed to qualitative research, quantitative research generally has a deductive approach, of testing theory as opposed to creating it, has a focus on the scientific model and positivism and lastly, takes an objective reality of the world to name a few distinctions (Hyde, 2000; Bryman & Bell, 2015). Nonetheless, of course quantitative research has its criticisms, where for example, it has been argued, that using instruments, such as a survey, may create a distance as to what respondents answer and their behavior and thoughts in real life (Schwarz, 1999).

6.1.2 Case Study

Case study research is where one single case is analyzed in great detail, though may sometimes be taken to further lengths to be able to compare with other cases and thus, be a multiple case study (Eisenhardt, 1989). Case studies can be based on various sources of data (e.g. company, persons, locations) and can be of qualitative or quantitative nature (Yin, 2003; Eisenhardt & Graebner, 2007; Eisenhardt, 1989). Methods of collecting data include interviews, observation, and surveys (Eisenhardt, 1989; Runeson & Höst, 2008). The thesis at hand is looking into a single company and studies how it can use efficiency to gain competitive advantage by using a survey.

Case studies allow the study of real-life or every-day situations in detail (Gibbert & Ruigrok, 2010; Ridder, 2017). Concerns about external validity or generalizability though exist, where findings from the single case study are not representative of other cases (Runeson & Höst, 2008). This applies for this thesis, even to other cases in the airline industry. However, theoretical generalizability may exist and give rise to further research, either the same but for different cases or as research extensions (Eisenhardt, 1989; Yin, 2003; Ridder, 2017). As argued by Eisenhardt (1989), quantitative case study research may illuminate findings which are not obvious and can help the researcher stay away from subjective findings, which may be false.

6.1.3 Case Selection

As aforementioned, Icelandair regularly conducts employee surveys to gauge employee well-being and how to grow as a company (Icelandair Group, 2019-b). Employee surveys usually have the purpose of ensuring communication in companies, measuring employees' opinions on work matters, and gauge engagement (Sanchez, 2007). Thus, they help companies adjust themselves in a way that will get them to

perform successfully and often lend itself to competitive advantage (Sanchez, 2007). Measuring process is critical to give feedback when implementing a policy, giving attention to what is being measured by the employees, and allows the company to see if practices and changes that have been applied had successful results (Pfeffer, 1995). How a company is doing financially is indeed not sufficient to measure employee performance or the success of human resources initiatives (Colakoglu, Lepak, & Hong, 2006).

Aware of its benefits, in 2019, Icelandair collaborated with a consultancy for employee surveys, Effectory. Effectory is a Dutch company with over 20 years of worldwide experience in doing employee surveys and providing solutions (Effectory, 2019). Such employee surveys are indeed useful in giving companies information which can help reduce turnover, by making amendments that improve job satisfaction (Heneman, Judge & Kammeyer, 2014). Doing them online is especially efficient at gathering data from employees who are located in different places (Heneman et al., 2015). This is the case of Icelandair, having three key areas of operation in Iceland and many of its employees working in the air or in locations elsewhere in Europe or the United States.

To reiterate, the research objective is to look into the efficiency at Icelandair. More specifically, how efficiency is defined concerning non-crew and crew employees at Icelandair as well as how Icelandair can increase the efficiency of their employees at work. A quantitative research method is conducted with a cross-sectional, case study of one company, Icelandair.

6.2 Participants

The participants in this research are the employees of Icelandair that participated in answering the employee survey. The number of participants was a total of 2,702, 1,596 non-crew and 1,106 crew employees (cabin crew and pilots). Thus, proportionally 59 percent of the sample were non-crew employees and 41 percentage were crew employees. Information on age and gender was not collected due to irrelevance to the research questions. The sampling method chosen was purposive sampling, so that the company the case study was based on truly and strategically represented the situation (Kelley, Clark, Brown, & Sitzia, 2003; O’Gorman, Bourke, & Murray, 2005). The employees of Icelandair were selected to gain insight into the employees’ efficiency, to fit the research questions. The limitations of this sampling

method are, as with single case studies, it does not allow generalizability to the rest of the population beyond the company, since it is not a random sample (Kelley et al., 2003; Bryman & Bell, 2015). This is despite its relevance to the research question and understanding efficiency for Icelandair, operating in the airline industry in Iceland.

As discussed in Section II “Icelandair”, regarding the company set up, Icelandair is divided into eight divisions, four core business divisions and four supporting functions. The non-crew employees operate in all of the eight divisions Icelandair consists of, and thus have a range of occupations within it. This is while the crew employees, cabin crew and pilots, operate in one core business division only: Operation. The division between these two, non-crew and crew employees, not only allows for a comparison, but it also attempts to control to some extent the variation in the environment of the two groups that may influence the results (Eisenhardt, 1989).

6.3 Procedure

6.3.1 Data Collection

The employee survey was administered in 2019 to all employees of Icelandair, who had worked there for over three months, by the People and Culture Department of Icelandair with the researcher included. The employees who were on a long-term leave were excluded from participating due to their absence. The survey was offered in Icelandic, English and Polish to allow all employees to answer in a language they prefer, with the design and order of questions being the same for all versions. Bilingual employees translated the survey, originally created in English. The survey was sent to all employees either with a link via their work e-mail (if they work in front of a computer) or via text message (if they are not working in front of a computer). iPads were also handed out at selected locations for employees to fill in the survey during their breaks. Participation was constantly encouraged via Workplace (n.b. Facebook’s online collaboration tool for work purposes, which Icelandair makes use of), repeated e-mails or text messages should the employee not have responded, as well as motivation by managers and by the People and Culture Department. This encouragement for a higher response rate, was of course to gain a clearer picture of how to improve and would help avoid non-response bias and a sample that would not represent the population being studied (Johnson & Wislar, 2012).

Non-crew employees and crew employees received different sets of questions in the survey, with the amount of questions asked being twenty and thirteen respectively.

Please note, the variation is due to the different set up of supervisors or managers the employees have. Non-crew employees report to an immediate manager, so eight questions concerned immediate managers, whereas crew employees report to Cabin Operations or the Chief Pilot Office, and work with different people in their crew on a daily basis. Data from Cabin Crew and Pilots were merged together as crew employees to compare with non-crew employees.

All employees received questions in the same order and were informed the time of answering would take five minutes, with answers saved in the interim, in case the entire survey could not be completed in one session. The questions were closed-ended and administered with a five-point Likert scale format, producing ordinal data (Likert, 1932; Bryman & Bell, 2015). The Likert scale was created due to the challenge of gauging an idea of a person's attitude and a desire to have it on a metric scale (Likert, 1932). When using such measures, as in this thesis, respondents are asked the extent to which they agree or disagree with statements, forming a multiple indicator measure (Likert, 1932). This scale has been found to generate high coefficient of reliability, at least in comparison to the Thurstone method, a method also evaluating the attitudes of individuals (Likert, Roslow, & Murphy, 1934). In the scale presented to participants, they could choose on a range from one representing "strongly agree" and five representing "strongly disagree." The advantages of such closed answer questions are in general, higher response rates, easier processing of answers and easier to compare between groups such as the non-crew and crew employees. Nonetheless, it is important to be aware of the fact that the range of answering is limited, and questions may be interpreted differently by different respondents (Vincente & Reis, 2010; Bryman & Bell, 2015). It must be noted regarding the questions, that employees had the possibility of skipping questions or clicking "don't know/no experience." That is, all questions were not mandatory. Indeed, when questions are not salient to a respondent, they may become tired of answering questions that they think are boring (Altschuld & Lower, 1984). All efforts were made to avoid this happening however, administering different surveys to crew and non-crew employees as appropriate.

Each answer was coded with an answer code, matching an identification number of the question, which would ease the analysis following data collection. The questions can be found in the appendix (See Appendix A for non-crew employee survey, and Appendix B for crew employee survey). It is further important to note, that the data had already been cleaned of any outliers or non-finalized surveys by Efectory.

All surveys were pre-tested by consultants at Effactory, who evaluated the content of the questions asked to the employees. Modifications were made as necessary. Indeed, this process is of utmost importance in research to identify any issues, for example in the way questions are worded (Van Teijlingen, Rennie, Hundley, & Graham, 2001).

6.3.2 Ethical Issues

All employees were made aware of the fact that feedback would be confidential, not traceable back to any individual person and processed as averages. This was honored by the researcher, an important step when employees are informed with such information and employees answered the survey with this in mind (Wiles, Crow, Heath, & Charles, 2008). Employees' responses are only identifiable via a respondent ID number, not a name and thus, data from the employee survey could not be traced back to any individual or analyzed individually as promised and was entirely anonymous. The results were grouped by non-crew and crew, and nowhere could individuals be traced back to their departments. It is important to point out the online disinhibition effect, where Suler (2004) outlines two versions; one which is benign disinhibition, where individuals will share truly personal aspects of themselves due to being online versus face-to-face, and the other which is toxic disinhibition, where individuals may be more aggressive and ruder than face-to-face. Due to this as well as the importance of anonymity, the survey was sent out via the web not as an e-mail survey.

6.4 Data Analysis: Factor Analysis and Independent Samples T-test

IBM SPSS Statistics Version 25 was used as a tool to conduct both a factor analysis and an independent samples t-test of the data collected. The use of such a statistical package to analyze the data via the tools it offers, saves the researcher both energy and resources (Connolly, 2007; Uprichard, Burrows, & Byrne, 2008).

Amongst other uses, a factor analysis can help in understanding the structure of a latent variable (one which cannot directly be measured) (Field, 2018; Velicer & Fava, 1998). From multiple-indicator measures (such as the Likert scale), it is determined if a group of variables come together to create separate clusters from the characteristics (Flora & Curran, 2004; Velicer & Fava, 1998; Bryman & Cramer, 2008). Thus, the researcher has fewer variables at hand than originally, which the researcher allocates names to (Velicer & Fava, 1998; Bryman & Bell, 2015). Two uses of factor analysis exist; an exploratory factor analysis where relationships between variables are looked into, without having a model in mind before the analysis, or secondly, a confirmatory

factor analysis, where the solution of the analysis is explored by testing it against a hypothetical model (Bryman & Cramer, 2008). More specifically the factor analysis here will take the answers to several questions asked to participants with respect to efficiency, to see if they do load together for the term; if they capture the construct. This process of defining efficiency will be exploratory in nature. Regarding the sample size for a factor analysis, while Velicer and Fava (1998) argue that the most common suggestion for a sufficient sample size is no less than ten participants per variable or question, they also argue to obtain the maximum sample size feasible. This is important, since the larger the sample size, the lower the sampling bias (Lakens, 2013). Consequently, according to this, given the aforementioned sample size or number of participants, this does not hamper the thesis to be done reliably. Indeed, a small sample size can limit generalizability as well as creating difficulties in seeing causality (Chetty, 1996).

Independent samples t-tests are used to explore differences between groups, and it is known for its ease in use as well as robustness. The t-statistic implies that if the two means that have been obtained from independent samples, they are significantly different from another (Sawilowsky & Blair, 1992; Field, 2018). In this thesis, the two groups that are used are the non-crew employees and crew employees. The differences between the answers to the questions asked will be compared, to find out what are the key aspects Icelandair can improve upon for the two groups of employees, non-crew and crew.

Conducting both statistical analyses are crucial to answer the two research questions. While the factor analysis supports with the definition of efficiency for non-crew and crew employees and delivers a deeper understanding of the concept to help with organizational learning, the independent samples t-test gives managerial implications of what actions to take and prioritize to improve efficiency for its non-crew and crew employees. Thus, the factor analysis and independent samples t-test help answer the first and the second research questions respectively.

VII. Results

This section will put forward the findings of the research with the data collected from the employee survey. Two statistical analyses were performed, firstly, a factor analysis and secondly, independent samples t-test. As delved into in the previous section “Methodology”, the factor analysis was performed to assess which of the

variables could be measuring efficiency for non-crew and crew employees and the independent samples t-test was performed to assess the importance of the variables questioned for each group (non-crew and crew employees). The section terminates with a discussion of the results of the two statistical analyses, as well as presenting a completed conceptual framework, initially presented in Section IV “Conceptual Framework.”

7.1 Factor Analysis

IBM SPSS Statistics Version 25 was used to conduct an exploratory factor analysis to reduce the variables from the survey into several factors, for the sample size of a total of 2,702, 1596 non-crew and 1,106 crew employees. They received twenty and thirteen questions respectively, with the differences in the number of questions received being due to the difference in management. The factor analysis for the two were generated separately to allow for a comparison. As mentioned earlier, considering the number of participants for the per variable or question at hand, and thus, the large sample size an issue with the significance levels was not present (Velicer & Fava, 1998; Bryman & Cramer, 2008). Since employees could skip questions or click “don’t know/no experience”, non-zero values were considered, and non-response, or of a value of 0, were omitted from the analysis. This was since otherwise the zeros would obstruct the statistics reported on below. Again, the factor analysis was exploratory, not confirmatory in nature, due to the researchers’ lack of knowledge as to how many factors will be presented.

All Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy were above $>.5$ and coefficients with an absolute value below $.50$ were suppressed. As for the Eigenvalues, the ones above 1 are the selected ones as factors, which was the cutoff point. This is one of the two main criteria for deciding how to exclude factors, since after all, the goal of a factor analysis is to reduce the set of variables (Flora & Curran, 2004; Velicer & Fava, 1998; Bryman & Cramer, 2008). It has been argued, that this is recommended for cases, where the variables are less than thirty, the average communality is above $.70$, with a sample of greater than 250 participants (Stevens, 1996; MacCallum, Widaman, Zhang, & Hong, 1999; Bryman & Cramer, 2008). The second method, which will not be consulted is using a scree test, where a graph is drawn of the variance and factors determined from there, from looking at which of them are on the graph at a point before the Eigenvalues start to level off (Cattell, 1966;

Bryman & Cramer, 2008). Cronbach's alpha was further considered, which is an indication of internal reliability, looking at whether all the items tested are measuring the same concept. It ranges from 0, suggesting no internal reliability at all to 1, suggesting perfect internal reliability (Tavakol & Dennick, 2011). It has been argued that for this measure of error in the test, 0.80 is usually used as depicting sufficient internal reliability (Lakens, 2013; Bryman & Bell, 2015).

Results will hereafter be presented for the non-crew and crew employees separately. Following the assessment via orthogonal rotation and then varimax, a process of trial and error was carried out to evaluate which questions should be left out if any, which may happen due to the low number or that it loads on several or none of the factors presented. No questions needed to be left out purposively, but as will become evident, under non-crew, several questions got omitted themselves since their absolute values were below .50.

7.1.1 Non-Crew employees

Regarding the non-crew employees, the KMO is above $>.5$, at .938 and Bartlett's test of sphericity of 15468.85, $p = .000$ (df 190) suggesting a factor analysis is appropriate, and a relationship between the variables exists. The ones with an Eigenvalue of 1 are selected as factors. There were three factors with a cumulative percentage of variance for the three factors of 61.00 percentage.

The below table (Table 1) indicates the factor loadings after a rotation using the significant factor criterion of .5. The Cronbach's alpha values are above the cut-off chosen of 0.80 for both Factor 1 (0.94) and Factor 2 (0.85), and just under 0.8 for Factor 3 (0.785). Thus, the internal consistency is high for the first two, and just under for the third. It is important to note, that some researchers do choose a lower number. For example, Schutte et al. (2000) as well as Spanos and Lioukas (2001) used a cut of 0.70 and not 0.80. The naming of the factors is a subjective process, finding something that best suits the variables listed. The ones chosen are presented in the table as Factor 1: Management, Factor 2: Company support (direct and indirect) and Factor 3: Personal skills and group support. No complex variables appeared (variables appearing twice). However, as can be seen in the table below, both Question 4: "I have sufficient resources (materials, tools, equipment etc.) to do my job well" and Question 7: "I experience good cooperation between different" were suppressed due to their coefficients being below .5. Factor 1 had eight questions associated with it, and both Factor 2 and Factor 3 had five questions each.

Table 1

Results of factor loadings, eigenvalues, percentage variance and reliability in terms of Cronbach's alpha following a varimax rotation of questions on efficiency with regards to non-crew employees

	Factor 1	Factor 2	Factor 3
Question/ Variable	Management	Company support (direct and indirect)	Personal skills and group support
1. I know what results are expected of me			0.678
2. I am able to work efficiently			0.698
3. I receive sufficient information in order to do my work well			0.540
4. I have sufficient resources (materials, tools, equipment etc.) to do my job well			
5. My direct colleagues and I work well together			0.642
6. My team works efficiently			0.699
7. I experience good cooperation between different departments			
8. I feel appreciated by Icelandair		0.586	
9. Icelandair uses employees' ideas and suggestions to do better		0.700	
10. Icelandair makes efficient use of its resources (e.g. Human resources, tools, financial resources)		0.746	
11. Icelandair Group's strategy and objectives are clear to me		0.807	
12. I support Icelandair Group strategy and objectives		0.794	
13. I have a good working relationship with my immediate manager	0.775		
14. My immediate manager motivates me in my work	0.848		
15. My immediate manager encourages my development	0.816		
16. My immediate manager gives me frequent feedback on my performance	0.761		
17. My immediate manager keeps me informed of important matters	0.791		
18. My immediate manager clearly communicates the direction/goals of our department	0.767		
19. My immediate manager gets the job done	0.803		
20. My immediate manager sets a good example with regard to safety and following the rules	0.720		
Eigenvalues	5.594	3.607	2.998
% of variance	27.972	18.036	14.990
Reliability: Cronbach's alpha	0.937	0.847	0.785

Regarding which questions loaded for which factor, the questions loading on Factor 1: Management are all regarding the immediate manager of the employee, specifically on the working relationship, motivation, encouragement of development, feedback, communicating direction or goals of the department, getting the job done, and setting a good example regarding safety and following rules. As for Factor 2: Company support (direct and indirect) are questions on the employee feeling appreciated by Icelandair, the company using employees' ideas and suggestions to do better, the company making efficient use of its resources, and the employee both being clear on the company's strategy and objectives as well as supporting them. Lastly, the questions loading on Factor 3: Personal skills and group support it is questions on knowing what results are expected of the employee, being able to work efficiently, receiving sufficient information, direct colleagues and the employee working well together, and the team working efficiently.

7.1.2 Crew employees

Regarding the crew employees, as aforementioned, the KMO is above $>.5$, at $.920$ and Bartlett's test of sphericity of 5474.65 , $p = .000$ (df 78) suggesting a factor analysis is appropriate, and a relationship between the variables exists. As for the Eigenvalues, the ones above 1 are the selected ones as factors, which was the cut-off point. There were two factors with a cumulative percentage of variance for the two factors of 57.60 percentage.

The below table (Table 2) indicates the factor loadings after a rotation using the significant factor criterion of $.5$ as aforementioned. The Cronbach's alpha values are above the cut-off chosen of 0.80 for both Factor 1 (0.89) and Factor 2 (0.81), denoting a high internal consistency. Again, the naming of the factors is a subjective process, finding something that best suits the variables listed. The ones chosen are presented in the table as Factor 1: Company support (direct and indirect) and Factor 2: Personal skills and group support. No complex variables appeared (variables appearing twice) and no questions were removed from the analysis due to being not significant in the model. Factor 1 had eight questions associated with it while Factor 2 had five questions.

Table 2

Results of factor loadings, eigenvalues, percentage variance and reliability in terms of Cronbach's alpha following a varimax rotation of questions on efficiency with regards to crew employees

	Factor 1	Factor 2
Question/Variable	Company support (direct and indirect)	Personal skills and group support
1. I know what results are expected of me		0.786
2. I am able to work efficiently		0.670
3. I receive sufficient information in order to do my work well		0.564
4. I have sufficient resources (materials, tools, equipment etc.) to do my job well	0.514	
5. My direct colleagues and I work well together		0.749
6. My team works efficiently		0.700
7. I experience good cooperation between different	0.662	
8. I feel appreciated by Icelandair	0.685	
9. Icelandair uses employees' ideas and suggestions to do better	0.706	
10. Icelandair makes efficient use of its resources (e.g. Human resources, tools, financial resources)	0.800	
11. Icelandair Group's strategy and objectives are clear to me	0.799	
12. I support Icelandair Group strategy and objectives	0.719	
13. I receive good support from Cabin Operations or Chief Pilot Office	0.625	
Eigenvalues	4.327	3.161
% of variance	33.317	24.317
Reliability: Cronbach's alpha	0.889	0.808

Regarding which questions loaded for which factor, the questions loading on Factor 1: Company support (direct and indirect) are questions on having sufficient resources, good cooperation between departments, feeling appreciated by the company, the company using employees' ideas and suggestions to do better, the company making

efficient use of its resources, the strategy and objectives of the company being both clear and supported and lastly and receiving good support from Cabin Operations or the Chief Pilot Office. As for Factor 2: Personal skills and team support it is questions on knowing what results are expected of the employee, being able to work efficiently, receiving sufficient information, direct colleagues and the employee working well together, and the team working efficiently.

7.2 Independent samples t-test

An independent samples t-test was conducted in IBM SPSS Statistics Version 25 to compare the questions related to efficiency for both non-crew and crew employees, and give an idea of whether the employees considered a specific variable to be rated higher, and to see how the different employee groups rated the questions. This was for the sample size of a total of 2,702, 1,596 non-crew and 1,106 crew employees, who received twenty and thirteen questions respectively. However, the independent samples t-test compared only the answers to twelve questions, since the ones related to management were not the same for both groups. As with the factor analysis, the non-zero values were considered, and non-responses or “don’t know/no experience” of a value of zero, were omitted from the analysis since otherwise it would obstruct the statistics reported on.

Table 3 depicts the results of the descriptive statistics and independent samples t-test for both non-crew and crew employees regarding the questions on efficiency asked. The number of employees for each group and every question is shown, as well as the mean for each question including the standard deviation. The significance level was set at 95% confidence interval (CI), which is according to the usual risk levels, and suggests that “if this procedure were to be repeated 100 times, the interval that is generated would capture the population value 95 times” (Greenfield, Kuhn, & Wojtys, 1998, p. 146). The *p*-value is indicated with an asterisk, as shown in the table itself. Important to note, is that in general, *p*-values under than 0.05 are those considered statistically significant (e.g., Greenfield et al., 1998; Lakens, 2013). Non-crew and crew employees’ results of the descriptive statistics and independent samples t-test are combined in one table at first, to allow for a comparison of each question asked.

Table 3

Results of Descriptive Statistics and Independent Samples T-Test for Non-Crew and Crew employees on the questions on efficiency

Questions	Non-Crew			Crew			95% CI for Mean		df	t
	n	Mean	Std. Dev.	n	Mean	Std. Dev.	Difference			
1. I know what results are expected of me	1579	1.75	0.85	1102	1.27	0.58	-0.53 -0.42		2676.86	-17.27*
2. I am able to work efficiently	1585	1.89	0.86	1100	1.55	0.72	-0.40 -0.28		2683.00	-10.78
3. I receive sufficient information in order to do my work well	1584	2.35	0.99	1102	1.72	0.78	-0.70 -0.56		2642.22	-18.34*
4. I have sufficient resources (materials, tools, equipment etc.) to do my job well	1590	2.12	1.00	1103	1.88	0.85	-0.31 -0.16		2583.32	-6.558*
5. My direct colleagues and I work well together	1587	1.59	0.72	1099	1.46	0.60	-0.19 -0.08		2597.73	-5.341*
6. My team works efficiently	1588	1.87	0.82	1100	1.61	0.65	-0.31 -0.20		2639.38	-9.066*
7. I experience good cooperation between different departments	1572	2.50	1.04	1034	2.36	0.91	-0.21 -0.06		2395.15	-3.441*
8. I feel appreciated by Icelandair	1575	2.34	1.06	1089	2.01	1.02	-0.41 -0.25		2390.99	-8.088*
9. Icelandair uses employees' ideas and suggestions to do better	1500	2.36	0.96	1034	2.04	0.91	-0.40 -0.25		2291.70	-8.659*
10. Icelandair makes efficient use of its resources ^a	1485	2.44	0.95	1026	2.22	0.92	-0.29 -0.14		2254.99	-5.752*
11. Icelandair Group's strategy and objectives are clear to me	1554	2.31	0.96	1069	2.28	0.98	-0.10 0.05		2621.00	-0.717
12. I support Icelandair Group's strategy and objectives	1510	1.96	0.78	1054	1.92	0.82	-0.11 0.02		2194.43	-1.342*

* $p < .001$

Note. ^a (e.g. Human resources, tools, financial resources)

The results of the independent samples t-test show a statistically significant mean difference in the answers of all questions regarding efficiency between non-crew and crew employees, except for Question 2, asking directly about efficiency “I am able to work efficiently” and Question 11, asking about the clarity of Icelandair Group’s strategy and objectives “Icelandair Group’s strategy and objectives are clear to me.” The results show that for all questions except for the last two questions, do crew employees give a significantly higher rating, suggesting greater efficiency, and for the last two questions, crew employees give a higher rating, though not significant.

The below tables represent the questions asked in order of mean answers as well as their standard deviations, going from highest to lowest for non-crew employees (Table 3) and crew employees (Table 4) separately. This representation gives a clearer depiction on what questions scored the highest for each employee group. These questions are the ones Icelandair can consider as achieving the best at. The representation also gives a clearer depiction therefore, on what questions scored the lowest for each employee group. These questions are the ones Icelandair can consider as those most needing improvement. Furthermore, the table also shows the percentage of unanswered or “don’t know/ no experience” answers per question asked. Perhaps there is a trend towards the fact that the lowest scoring questions, have higher percentages of unanswered or “don’t know/ no experience” than the highest scoring questions, which have a lower percentage of unanswered or “don’t know/ no experience.” Indeed, item non-response bias is important to analyze as it can have an influence on the quality of the reported statistics and a reason may be found to be associated with the item (Fulton, 2018; Tomaskovic-Devey, Leiter, & Thompson, 1994).

Table 4

Results of Descriptive Statistics for Non-Crew employees on the questions on efficiency in the order of mean, going from highest to lowest along with the percentage of unanswered or “don’t know/ no experience” answers per question asked.

Questions	<i>n</i>	% of N/A^a	Mean	Std. Dev
5. My direct colleagues and I work well together	1587	1.07	1.59	0.72
1. I know what results are expected of me	1579	0.69	1.75	0.85
6. My team works efficiently	1588	0.75	1.87	0.82
2. I am able to work efficiently	1585	0.38	1.89	0.86
12. I support Icelandair Group's strategy and objectives	1510	0.56	1.96	0.78
4. I have sufficient resources (materials, tools, equipment) to do my job well	1590	0.50	2.12	1.00
11. Icelandair Group's strategy and objectives are clear to me	1554	1.50	2.31	0.96
8. I feel appreciated by Icelandair	1575	1.32	2.34	1.06
3. I receive sufficient information in order to do my work well	1584	6.02	2.35	0.99
9. Icelandair uses employees' ideas and suggestions to do better	1500	6.95	2.36	0.96
10. Icelandair makes efficient use of its resources^b	1485	2.63	2.44	0.95
7. I experience good cooperation between different departments	1572	5.39	2.50	1.04

Note. ^a Percentage of unanswered or “don't know/ no experience” in the sample

^b (e.g. Human resources, tools, financial resources)

Table 5

Results of Descriptive Statistics for Crew employees on the questions on efficiency in the order of mean, going from highest to lowest along with the percentage of unanswered or “don’t know/ no experience” answers per question asked.

Questions	<i>n</i>	% of N/A^a	Mean	Std. Dev
1. I know what results are expected of me	1102	0.36	1.27	0.58
5. My direct colleagues and I work well together	1099	0.54	1.46	0.6
2. I am able to work efficiently	1100	0.36	1.55	0.72
6. My team works efficiently	1100	0.27	1.61	0.65
3. I receive sufficient information in order to do my work well	1102	0.63	1.72	0.78
4. I have sufficient resources (materials, tools, equipment) to do my job well	1103	0.54	1.88	0.85
12. I support Icelandair Group's strategy and objectives	1054	6.51	1.92	0.82
8. I feel appreciated by Icelandair	1089	1.54	2.01	1.02
9. Icelandair uses employees' ideas and suggestions to do better	1034	6.51	2.04	0.91
10. Icelandair makes efficient use of its resources^b	1026	7.23	2.22	0.92
11. Icelandair Group's strategy and objectives are clear to me	1069	3.35	2.28	0.98
7. I experience good cooperation between different departments	1034	4.7	2.36	0.91

Note. ^a Percentage of unanswered or “don't know/ no experience” in the sample

^b (e.g. Human resources, tools, financial resources)

The questions that received the highest rating for non-crew employees were firstly the rating of the direct colleagues working well together with them (Question 5), followed by knowing what results are expected of them (Question 1), and thirdly, the team working efficiently (Question 6). As for the crew employees, the questions that received the highest rating were firstly knowing what results are expected of them (Question 1), followed by the rating of the direct colleagues working well together with them (Question 5), and thirdly, the person him or herself being able to work efficiently (Question 2). As for the question that received the lowest rating for non-crew employees and crew employees, it was the rating of the cooperation between different departments (Question 7). For the non-crew employees, the ones that followed as the lowest rated were Icelandair making efficient use of its resources and using employees' ideas and suggestions to do better. For the crew employees, the ones that followed as the lowest rated were Icelandair Group's strategy and objectives being clear to the employee and Icelandair making efficient use of its resources.

When looking at the percentage of unanswered or "don't know/ no experience", in general, for both non-crew and crew employees, there is a trend towards the fact that the lowest scoring questions, have higher percentages of unanswered or "don't know/ no experience" than the highest scoring questions, which have a lower percentage. Please note, this is only a trend, where there are some exceptions. Furthermore, the percentage of these unanswered or "don't know/ no experience" between non-crew and crew employees is more or less the same or ranging from .04 percent to .71 percent for all questions. This is except for Question 7, "I experience good cooperation between different departments", where the difference is 5.01 percent, with 6.51 percent of the crew leaving this question unanswered or "don't know/ no experience" whereas 1.5 percent of the non-crew employees. The reason for this could be that crew employees work mostly within their group of employees within Operations, whereas non-crew employees have a greater tendency to work with different departments. In any case, this was the question that scored the lowest for both non-crew and crew and is something Icelandair needs to tackle.

Regarding the standard deviation, for questions 4, "I have sufficient resources (materials, tools, equipment) to do my job well", 8, "I feel appreciated by Icelandair", and 7 "I experience good cooperation between different departments" for non-crew and for question 8, "I feel appreciated by Icelandair", for crew employees, the standard deviation is 1.0 or above. This suggests large distributions of the answers around the mean, or a high variance as opposed to the ones which have a lower standard deviation.

Generally, these findings suggest in which respect efficiency is rated higher, and which areas it is rated lower, for the non-crew and crew employees at Icelandair. It gives implications as to which aspects of efficiency for both employee groups Icelandair needs to improve to increase its competitive advantage and where its strong points lie. This will be further discussed in the next chapter “Discussion of results” as well as in Section VIII “Discussion.”

7.3 Discussion of results

When answering the two research questions on both defining and improving efficiency for non-crew and crew employees at Icelandair, it is important to view the two employee groups separately to begin with. Consequently, for the non-crew employees, efficiency can be defined by three main factors; Management, Company support (direct and indirect) and Personal skills and group support. The results indicate that with regards to the questions on efficiency, on average for ten of the questions, the non-crew employees scored significantly lower than crew employees (still less for the other two questions, but not significantly so). Thus, Icelandair can be advised to begin with efforts to improve the non-crew employees’ efficiency. While keeping in mind the three main factors identified with the factor analysis which help with the understanding of efficiency for non-crew, Icelandair should consider the three questions which scored the lowest mean. These are cooperation between different departments, making efficient use of its resources and using employees’ ideas and suggestions to do better.

Regarding the crew employees, efficiency can be defined by two main factors; Company support (direct and indirect) and Personal skills and group support. After dedicating time on the non-crew employees, Icelandair can be advised to tackle the crew employees, where it can also be done in the same way, as for the non-crew employees. While keeping in mind the two main factors identified by the factor analysis which help with the understanding of efficiency for crew, Icelandair should consider the three questions with the lowest score; improving cooperation between departments, clarifying the Group’s strategy and objectives and making efficient use of its resources.

From the results presented in this section, the conceptual framework adapted from the research of both Auh and Menguc (2005) and Janssen et al. (2006) as discussed in Section IV “Conceptual framework”, can be completed. As can be seen in Figure 3, definitions of efficiency (i.e. exploitation) for both non-crew and crew employees is clearly outlined according to the results of the factor analysis, answering the first research question.

Furthermore, steps to increase efficiency (i.e. exploitation) for both non-crew and crew employees are also clearly outlined according to the results of the independent samples t-test. All this information has now replaced the question marks from Figure 2. Again, for this thesis, only efficiency (i.e. exploitation) was focused on following an evaluation of Icelandair’s current environment. Thus, the figure only depicts the use of efficiency (i.e. exploitation) to influence Icelandair’s sustained competitive advantage, with a distinction of how it differs between non-crew and crew employees at Icelandair.

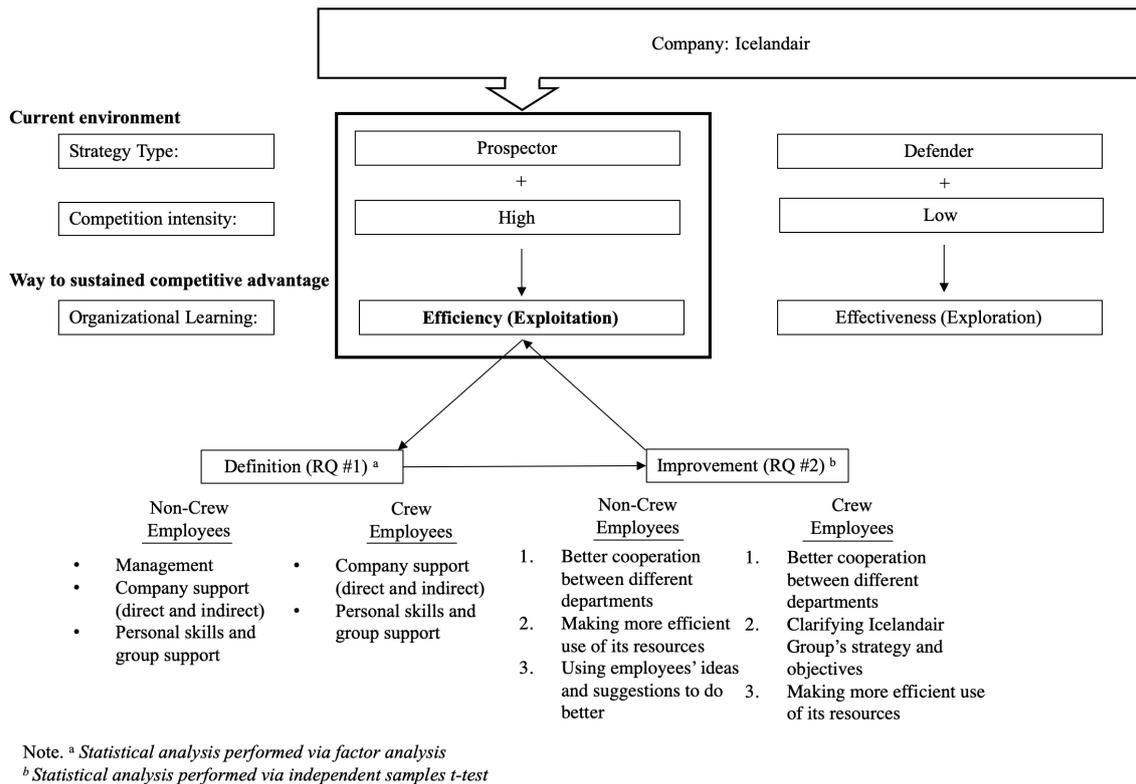


Figure 3. Completed conceptual framework adapted to the research by Auh and Menguc (2005) and Jansen et al. (2006) applied to non-crew and crew employees of Icelandair

As will be further touched upon in Section VIII “Discussion”, Icelandair now has a clear way to sustained competitive advantage via efficiency (i.e. exploitation). This thesis has not only defined efficiency for both its non-crew and crew employees, but also evaluated how both employee groups can best increase its efficiency. Although the non-crew and crew employees operate very distinct jobs, the factor analyses nonetheless, suggest that efficiency is defined in similar ways, with the similar grouping and naming of variables, though with one less for crew employees. Furthermore, the independent samples t-test and descriptive statistics show similar questions scoring the highest and the lowest, suggesting where the

employees' strengths lie in terms of efficiency, and where it should concentrate its efforts on improving it.

VIII. Discussion

The current section discusses the results presented in the aforementioned Section VII "Results", given the aim of the research, to explore the efficiency at Icelandair for both non-crew and crew employees. More specifically, the purpose was to firstly, explore how efficiency is defined concerning non-crew and crew employees at Icelandair and secondly, how Icelandair can increase the efficiency of their employees at work. As with many other industries, the airline industry is one facing high levels of competition and rapid changes (Cobeña et al., 2019). This is no exception for Icelandair, offering trans-Atlantic flights via Iceland. It has plenty of low-cost rivals entering their market while facing high salary and fuel costs recently, causing turbulent times with respect to revenue (Icelandair, 2019-a; Icelandair Group, 2019-a). The company in the industry managing its resources the best way, will be the one with sustained competitive advantage (Barrros & Peypoch, 2009; Wernerfelt, 1984). This is what this thesis aims to get at, to see how Icelandair can better compete in its current market, and thus, maintain a sustained competitive advantage.

Literature has put forward arguments for efficiency versus effectiveness, connected to organizational learning of exploitation versus exploration respectively (e.g. March, 1991; Hitt et al., 2017; Auh & Menguc, 2005; Jansen et al., 2006). It has been argued that companies which can be classified as prospectors and those in markets where competitive intensity is high, which is the case of Icelandair, should pursue an efficiency (i.e. exploitative) strategy to gain or maintain competitive advantage (Auh & Menguc, 2005; Jansen et al., 2006). Thus, to the current strategy type and competition in the environment of Icelandair, a strategy focusing on efficiency (i.e. exploitation) to improve Icelandair's competitiveness has been analyzed. The contribution of this thesis is therefore an analysis into how efficiency is defined at a company which has received this classification and how it can increase the efficiency of its employees. This has been with the help of a conceptual framework adapted from the research of both Auh and Menguc (2005) and Jansen et al. (2006) (n.b. initially presented in Section IV "Conceptual framework"). The conceptual framework shows how Icelandair, considering its current strategy type and intensity of competition, can make use of efficiency (i.e. exploitation) to battle this competition.

Two statistical analyses were crucial to both support with finding a definition of efficiency for non-crew and crew employees and also, to give managerial implications on

what actions to take to increase efficiency at Icelandair. A factor analysis was performed to answer the first research question of how non-crew and crew employees at Icelandair define efficiency. For the non-crew employees, three factors were identified out of the twenty questions the non-crew received and for the crew employees, two factors were identified out of the thirteen questions the crew received. Furthermore, an independent samples t-test was performed to answer the second research question of where the strengths of Icelandair's employees, both non-crew employees and crew employees, as well weaknesses lie in terms of efficiency. The non-crew employees scored significantly less than the crew employees for all questions except for two where they still scored less but not significantly so. Similarities were found in the aspects of efficiency which scored the highest and lowest for non-crew and crew. The results will be restated and discussed in-depth hereafter in separate sections according to the research questions.

8.1 Discussion Research Question 1

How is efficiency defined concerning non-crew and crew employees at Icelandair?

The factor analysis following the employee survey, helping to answer the first research question on the definition of efficiency for non-crew and crew employees, identified three factors for the non-crew employees and two factors for the crew employees. For the non-crew employees, efficiency can be defined via three main factors; Management, Company support (direct and indirect) and Personal skills and group support. Regarding the crew employees, efficiency can be defined via two main factors; Company support (direct and indirect) and Personal skills and group support. The key difference between the two groups of employees is Factor 1: Management for non-crew employees, which is missing for crew employees. This can be explained by the difference in questions asked for the two groups, where indeed, non-crew employees have a dedicated immediate manager as opposed to the crew employees. For the latter, the support from the Office they can reach is important, but it loaded up with the other factors of Company support (direct and indirect); with respect to the resources they have, working with other teams (i.e. direct) as well as the influence of the company via employee appreciation, using ideas and suggestions, and strategy and objectives (i.e. indirect). These factors also loaded together for the non-crew employees, but without the Management. For both non-crew and crew employees, the factor Personal skills and group support summed up the variables that loaded together. This one consists of the individual employee and its skills as well as the ability and efficiency of working with the team.

This step, of defining efficiency, gives Icelandair important knowledge to work on, when pursuing its strategy of efficiency (i.e. exploitation). As discussed in Section III “Literature review”, various definitions exist in the dictionaries and the literature also refers to different aspects of efficiency. While the dictionaries focus on efficiency as doing tasks without wasting time, money or materials, literature has focused on improving efficiency via technology, training and development of employees, and reducing waste (e.g. “Efficiency”, 2019-a; “Efficiency”, 2019-b; “Efficient”, 2019; Wernerfelt, 1984; Porter, 1996; Auh & Menguc, 2005). This thesis thus highlights the importance of analyzing one’s own definition of efficiency for a company, rather than applying a definition from dictionaries or previous literature. Here, Icelandair has a definition of efficiency applying to its own employees, both non-crew and crew employees. In comparison to the literature, the definitions shed more light on where efficiency comes from. For the non-crew employees, it originates from the management, the company, and the individual while for the crew employees, it originates from the company and the individual. It highlights the differences between the non-crew and crew employees, where here it is the managerial structure between non-crew and crew employees. It thus, points out the fact that although sharing of knowledge and organizational learning can occur across departments, there are still elements that differ. This does not come as a surprise due to the difference in the type of work performed by each as well as different reporting structure, as discussed in Section V “Possible results.” An understanding as such, places important groundwork for the actions that came out of the independent samples t-test, answering the second research question, aiming to increase efficiency and thereby the competitive advantage of Icelandair.

8.2 Discussion Research Question 2

How can Icelandair increase the efficiency of their employees at work?

To answer the second research question on how Icelandair can improve efficiency of their employees, an independent samples t-test was performed following the employee survey. This was to evaluate where the strengths and weaknesses in terms of efficiency lie for Icelandair’s non-crew and crew employees. The non-crew employees scored significantly less than the crew employees for all questions except for two, where they still scored less but not significantly so. Accordingly, Icelandair can be advised to first tackle and try to improve the non-crew employees. The steps in which it can be recommended to do so are presented below, supported by relevant research.

The question scoring the lowest mean in terms of efficiency for non-crew employees was the one about cooperation between different departments. Teamwork, or “a collection of individuals who are interdependent in their tasks ... manag[ing] their relationships across organizational boundaries” has been found to increase efficiency, create a more positive work environment, enable growth and productivity (Cohen & Bailey, 1997, p. 241; Jiang, 2010). Furthermore, Beal, Cohen, Burke, and McLendon (2003), found that when efficiency is an important goal of a company, as opposed to just completing a task, cohesive groups or teams motivated to perform are more successful in reaching it. Indeed, teams have better decision-making capability than individuals, being able to assimilate information in a better way (Deeter-Schmelz & Ramsey, 2003). Thus, efforts should go into improving cooperation between different departments, for example by teaching employees about the benefits of teamwork, both to the advantage of Icelandair and also personally to the employees. From the employee survey, the primary strength in terms of the question scoring the highest mean was the one about Icelandair’s employees working efficiently with their direct colleagues. This can be used as a motivator to do the same with other departments. When educating employees about the advantages of cooperation, they can also be trained on how best to cooperate between different departments. Such trainings can, for example, present to them how to best contribute to other departments, what information may be useful, how to present themselves as well as how to gain information efficiently from other departments (Cabrera & Cabrera, 2002). In addition to this is the solution of cross-utilization and cross-training which can be initiated at Icelandair. This has the benefit of more interesting and varied tasks for the employee and tasks become transparent across teams and departments. Furthermore, employees new to a task may see aspects of it that can be improved, which those who are experienced in it do not see (Pfeffer, 1995). This will in turn increase the skill levels of employees and increase their employment security (Pfeffer, 1995). The question on cooperation between different departments also scored the lowest for the crew employees, as will be discussed later.

The second factor that needs to be improved in terms of efficiency for non-crew employees is Icelandair making better use of its resources such as human resources, tools and financial resources. Indeed, these are the core competencies of Icelandair, and “need to be nurtured and protected” (Prahalad & Hamel, 1990, p. 81). As aforementioned, through increased cooperation between departments, for example via cross-training or insight across departments, resources may be better utilized. This is since employees may see potential for

them to help in other positions than the one they are in and may see improved ways of doing the task (Pfeffer, 1995). Thus, greater resource flexibility will exist, of alternating resources to fit the current strategy the best. This is especially appropriate in being able to better respond to the environment changing (Sanchez & Mahoney, 1996). It is important for Icelandair to not only allocate financial resources, but also physical, human and organizational resources in a careful manner, working with managers as well as employees to identify ways to improve (Crittenden & Crittenden, 2008). This factor is closely related to the third factor Icelandair can be recommended to improve for its non-crew employees, of using employees' ideas and suggestions to do better. Indeed, collaboration with its employees may render Icelandair crucial information to improve upon, such as this resource allocation (e.g. Morrison, 2014; Pfeffer, 1995).

The third factor that needs to be improved in terms of efficiency for non-crew employees is Icelandair using employees' ideas and suggestions to do better. The term for such behavior of employees, where amongst other positive actions they give feedback outside of their set tasks without the expectation of explicit reward, has been coined organizational citizenship behavior (Organ, 1988; Deckop, Mangel, & Cirka, 1999). It is desirable to a company's operation if such feedback (e.g. ideas, suggestions, worries) is used, where via increased productivity and performance, it has been found to increase efficiency (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). By not encouraging or using employee input for increased competitive advantage, Icelandair may be missing out on useful information and chances to improve upon problems they are facing internally (Morrison, 2014). Feedback has been found to support efficiency via increased engagement, employee satisfaction and productivity. It is also, frequently the lower-level employees themselves who possess the best information about how work processes can be redesigned for the better (Pfeffer, 1995). It additionally suggests to employees that those higher up in the hierarchy appreciate their knowledge (Edmondson, 2003). The danger of allowing employees to suggest ideas and suggestions, such as in employee surveys, is frustration and discouragement by employees, if actions are not be taken in response to what was answered (Sanchez, 2007). Thus, Icelandair should, encourage employees' voice via all mechanisms (e.g. continuous employee surveys, between colleagues, with immediate managers) while also informing the employees' of how their ideas and suggestions are making a difference, especially to efficiency (Farndale et al., 2011). This will further encourage them to share valuable feedback to increase competitive advantage.

Thereafter, the focus of Icelandair improving its efficiency to gain competitive advantage can shift to its crew employees. As aforementioned, the question scoring the lowest for both non-crew and crew employees was regarding cooperation between different departments. At the same time, employees working well with their direct colleagues came up as the second strong point on the employee survey, when considering the ranking of the means. As with the non-crew employees, crew employees can be informed about the benefits of increased cooperation with other departments (Deeter-Schmelz & Ramsey, 2003; Beal et al., 2003; Jiang, 2010). It can only be reinforced to employees, that exchanging ideas and knowledge throughout the company can only be considered as a crucial organizational asset within the resource-based view, contributing to sustained competitive advantage (Wernerfelt, 1984; Barney, 1991). Not only can the crew employees be given cross-training or insight across departments, and as suggested before for the non-crew employees, trainings can be set up to show employees how to best cooperate between different departments (Pfeffer, 1995; Cabrera & Cabrera, 2002).

Secondly, Icelandair Group needs to clarify its strategy and objectives to its Icelandair crew employees. As argued by Pfeffer (1995, p. 67), "it is hard to get somewhere if you don't know where you are going." Without a clear strategy group-wide, both time and resources are likely to be wasted and lack of organizational commitment and resistance may arise (Hambrick & Fredrickson, 2001; Kotter & Schlesinger, 2008). It is crucial that a company-wide strategy is developed, with a clear view of the future and how the company will get there with their skills and resources. However, it must also be communicated across all employees as well as customers and those investing in the company to achieve the performance level desired (Prahalad & Hamel, 1990; Crittenden & Crittenden, 2008). The strategy and objectives act as a guide for employees to make decisions in their tasks to support the company (Porter, 1996). Icelandair can for example integrate its strategy and objectives in a simple way in all its communication to the crew employees as well as advertise it in unexpected areas (e.g. restrooms, staircases, mobile phones). Icelandair can mention its strategy and objectives in its trainings as well as initiate sessions with small groups of employees where they can discuss and contribute how they will carry them out (Everse, 2011). Since crew employees' schedules vary, one-hour audiovisual presentations for them to watch during their own time explaining Icelandair Group's strategy and objectives may prove useful (Kotter & Schlesinger, 2008). Continuous monitoring and follow-up strategies such as performance feedback in line with the proposed objectives helps in redirecting employees if needed and gives them an awareness of achievement levels

(Brenes, Mena, & Molina, 2008). Undeniably, employees must clearly understand what the strategy and objectives are to be motivated, determined and able to act accordingly, to create the competitive advantage needed (Brenes et al., 2008). The role of middle managers of Icelandair cannot be underestimated, where they have been argued as a critical element to lead the strategy and create change with improved cooperation of their employees, and their vast influence (Wooldridge, Schmidt, & Floyd, 2008). When considering the crew employees, this can thus, be extended to the department of Cabin Operations or Chief Pilot Office, or even to the highest level of hierarchy on board of the aircraft; the Commander and Supervisor on-board.

Thirdly, Icelandair needs to make better use of its resources such as human resources, tools and financial resources. It is important to work with Cabin Operations and Chief Pilot Office to identify ways to improve allocation of financial, physical, human and organizational resources. Cross-training and insight across departments will also help identify improved resource allocation (Prahalad & Hamel, 1990; Pfeffer, 1995; Crittenden & Crittenden, 2008). It is crucial to receive input from the crew employees themselves, who are often the ones with the most useful information about how work processes can be redesigned for the better (Pfeffer, 1995).

As the results indicated, Icelandair can be advised to first tackle and try to improve the non-crew employees, followed by the crew employees' efficiency. The steps in which it can be recommended to do so have been presented and will be put in further context in the next chapter of Managerial Implications.

8.3 Review of the conceptual framework

The conceptual framework used for this thesis was adapted from the research of both Auh and Menguc (2005) and Jansen et al. (2006) and was initially presented in Section IV "Conceptual framework" (Figure 1). It was used to both help analyze the current environment Icelandair is in with respect to strategy type as well as competition intensity, and from there, to guide its way to sustained competitive advantage. The conceptual framework proved to be an important tool in combining the two research questions for this thesis on Icelandair. While the factor analysis supported with the definition of efficiency for non-crew and crew employees and delivered a deeper understanding of the concept to help with organizational learning, the independent samples t-test gave managerial implications of what actions and priorities to take to improve efficiency for its non-crew and crew employees. The completed conceptual framework for the case of Icelandair with respect to both its non-crew and crew

employees was presented in Section VIII “Results” (Figure 3). It is important to both delve deeper into the use of the conceptual framework, not only for Icelandair, but also how it can be used for other companies.

Firstly, it is important for Icelandair, to continually re-visit the definition of efficiency (i.e. exploitation) for both its non-crew and crew employees as well as its efforts at improving it to gain sustained competitive advantage. This is suggested by the continuous arrows in the triangle, indicating a non-stop review circle (Figures 1, 2 and 3). Icelandair can do this, by administering the employee survey on efficiency on a regular basis, to both gain new information and also see if it has been successful in making the changes necessary to increase efficiency (Pfeffer, 1995). It is secondly, important for Icelandair to continually re-assess its strategy type and competition intensity to see if it should change its way to sustained competitive advantage via efficiency (i.e. exploitation) or effectiveness (i.e. exploration) (Ireland & Webb, 2007). It can do this, by placing itself at the top of the original conceptual framework presented in Figure 1 again, reevaluate its strategy type (i.e. prospector or defender) as well as its competition intensity (i.e. high or low). The path it takes will then inform Icelandair if it should continue a strategy of efficiency (i.e. exploitation) and continue to analyze the definition and steps to improve it, or to change the strategy to one of effectiveness (i.e. exploration) and analyze the definition and steps to improve it.

Other companies than Icelandair, can do this second step as well, or place itself at the top of the original conceptual framework presented in Figure 1 in Section IV “Conceptual framework”, to evaluate its strategy type and competition intensity. From there, it will be informed, whether to initiate a strategy of efficiency (i.e. exploitation) or one of effectiveness (i.e. exploration) for sustained competitive advantage and analyze both the definition for it in light of the company and steps to improve it. Should it be one of efficiency (i.e. exploitation), the questions administered to both the non-crew and crew employees can be used for inspiration. However, should it be on effectiveness (i.e. exploration) inspiration can be gained for example from Mom, van den Bosch and Volberda (2009) who surveyed managers in five large firms in different industries by looking at both exploration and exploitation and He and Wong (2004) who surveyed CEOs in manufacturing firms in Singapore and Penang on eight items regarding explorative versus exploitative objectives.

IX. Managerial Implications

The current section contains managerial implications for Icelandair and the steps it is recommended to take following the results of this thesis. To secure its sustained competitive

advantage, the management of Icelandair can be encouraged to continue to deliver its customers its safe and reliable flights, with exceptional service and authentic taste of Iceland (Icelandair, 2019-b). The findings suggest that considering that Icelandair can be classified as a prospector in a highly competitive environment, it will likely perform better and pursue its offering in an improved way however, by increasing its efficiency (i.e. exploitation) and focusing on making the most of its current resources. This is as opposed to working on increasing its effectiveness (i.e. explorative) nature by finding new methods and possibilities (Auh & Menguc, 2005; Jansen et al., 2006; Hitt et al., 2017; March, 1991). Developing the efficiency of its non-crew and crew employees, will especially help gain competitive advantage in the difficult times it has been and currently is facing with regards to increased fuel costs, salary expenses and also issues in becoming more energy efficient (Icelandair Group, 2019-a; Parsa et al., 2019).

This thesis firstly provides the management of Icelandair with a definition of efficiency in its current state, and secondly, provides prioritization on which improvements with respect to efficiency it should take. Regarding the definition, it is important the management has a deeper understanding of efficiency to improve upon for increased competitive advantage with the range of definitions and angles exist on the word. For the non-crew employees of Icelandair, the management can appreciate that efficiency can be defined via three main factors; Management, Company support (direct and indirect) and Personal skills and group support. Regarding the crew employees of Icelandair, efficiency can be defined via two main factors; Company support (direct and indirect) and Personal skills and group support.

Regarding the improvements with respect to efficiency, the management of Icelandair is advised to start by focusing on improving the non-crew employees' efficiency. This is due to their lower score on the employee survey regarding efficiency. The following steps, in order of priority, are recommended for the management to work on:

1. Improving cooperation between different departments by informing employees of the benefits of teamwork to Icelandair as well as themselves and provide them with training on how to collaborate. Initiating cross-utilization and cross-training of employees will further help improve cooperation (Cohen & Bailey, 1997; Jiang, 2010; Beal et al., 2003; Deeter-Schmelz & Ramsey, 2003; Cabrera & Cabrera, 2002; Pfeffer, 1995).
2. Making more efficient use of its resources by working with managers to identify ways to improve allocation of financial, physical, human and organizational

resources. Cross-training and insight across departments will help identify improved resource allocation (Prahalad & Hamel, 1990; Pfeffer, 1995; Crittenden & Crittenden, 2008).

3. Using employees' ideas and suggestions to do better by conducting continuous employee surveys, encouraging employee voice. Act upon and display improvements to efficiency following their input to avoid frustration or discouragement (Morrison, 2014; Pfeffer, 1995; Edmondson, 2003; Sanchez, 2007; Farndale et al., 2011).

Thereafter, the management of Icelandair is recommended to focus on improving the crew employees' efficiency by taking the following steps, also in order of priority:

1. Improving cooperation between different departments by informing employees of the benefits of teamwork to Icelandair as well as themselves and provide them with training on how to collaborate. Initiating cross-training or insight across departments will further help improve cooperation (Cohen & Bailey, 1997; Jiang, 2010; Beal et al., 2003; Deeter-Schmelz & Ramsey, 2003; Cabrera & Cabrera, 2002; Pfeffer, 1995).
2. Clarifying Icelandair Group's strategy and objectives by Icelandair integrating strategy and objectives in all communication, training, performance reviews, focus groups and advertisement (Everse, 2011; Brenes et al., 2008). Middle-managers' influence should be taken advantage of to gain highest level of influence (Woolridge et al., 2008).
3. Making more efficient use of its resources by working with Cabin Operations and Chief Pilot Office to identify ways to improve allocation of financial, physical, human and organizational resources. Cross-training and insight across departments will help identify improved resource allocation (Prahalad & Hamel, 1990; Pfeffer, 1995; Crittenden & Crittenden, 2008).

Similarities exist, where in both groups, cooperation between different departments needs to be improved and use of resources needs to be more efficient. Thus, the management strategies used to first tackle non-crew in these manners, can, if successful, be extended to the crew employees. It is though, important to highlight, that as explained in Section V "Possible results", the nature of work of the two groups are different, so what may work for one group, may not necessarily for another (Kotter & Schlesinger, 2008).

The management of Icelandair is proposed to follow up via regular employee surveys such as this one, exploring efficiency. This is especially important to see if the practices and changes that have been applied had successful results (Pfeffer, 1995). More in-depth

measurements can be done as well, where for example, with respect to the cooperation between departments, the efficiency of teams can be evaluated on performance, attitudes and behavioral outcomes (Cohen & Baily, 1997).

Consequently, this thesis has demonstrated that by the management improving the efficiency of their non-crew and crew employees, the benefit to Icelandair will be an increased competitive advantage, and thereby, increased profit. The increased profit will allow Icelandair greater prosperity to develop further, and constantly feed into its sustained competitive advantage (Ireland et al., 2003). At the same time, the management of Icelandair must be encouraged to continuously re-evaluate its environment, to see whether the competitive intensity or its strategic type has changed. Although as a current prospector and in a market where competition intensity is high, it is currently recommended to pursue a strategy focusing on efficiency (i.e. exploitation) to improve its competitiveness, this may change. To help in this process, the management of Icelandair can always return to the conceptual framework used in this thesis (Figure 1, 2 and 3), to see if changes in its environment may perhaps lead it to an explorative strategy instead. In addition, as the management continues to re-evaluate its efficiency, the definition and aspects needing improvement may change as well, as delved into deeper in the aforementioned Section VIII “Discussion”, more specifically in Chapter C “Review of the Conceptual Framework.”

X. Limitations and further research

This thesis is not without limitations, which can only give rise to further research. This section, firstly, outlines the limitations with this thesis, and secondly, delves into further research this thesis can lend itself to.

10.1 Limitations

Firstly, on a methodological level, the survey allowed participants to skip answers or place a “don’t know/ no experience” answer. Unfortunately, all these were grouped together, whereas it would be interesting to see which one of the two the participants opted for. A potential improvement would be to simply make all the questions mandatory, and thus, receive a complete survey out of each employee.

Secondly, also concerning the methodology, a Likert scale was used, which has its benefits as explained in Section VI “Methodology”, also has its limitations. Respondents of surveys may be under a response bias when answering, where other factors than what the question is asking, may lead the respondents to answer in a different way (Paulhus, 1991).

One of these biases is the social desirability bias, which is when respondents answer in a way that enhances an outsiders' view of them (Paulhus, 1991). One way to combat this error is to anonymize all responses, which is what this thesis aimed to do, but self-reports are still prone to the bias nonetheless. On the same note, research has found and argued for evidence to support acquiescence, or the tendency that respondents provide positive answers in surveys and surveys, without the question mattering (Harzing, 2006; Hinz, Michalski, Schwartz, & Herzberg, 2007). Thus, the internal consistency of the scale at hand is in general reduced, and a remedy for a survey such as the one administered here, could be to use a larger scale than a five-point Likert scale, for example a ten-point Likert scale (Harzing, 2006; Hinz et al., 2007).

Thirdly, regarding response styles, Harzing (2006) found that there are differences depending on where individuals come from as well. For example, from her study of 26 countries, it was found that English-language surveys have a high degree of middle responses, whereas those in a participant's language where they come from have higher degree responses from either extremity. This is important when considering the responses of such an international company as Icelandair. For the most part crew employees all speak Icelandic and most likely chose this option to complete their survey, the non-crew employees had more foreigners, who must have either chosen the English or Polish versions. Future research could distinguish between these employees and look into their patterns of answering.

Fourthly, when analyzing the results, it came to light that it would be useful to target efficiency (i.e. exploitation) within each division and function. Icelandair has its eight divisions, of four core business divisions and four supporting functions, and thus a more detailed breakdown of the results than non-crew and crew employees, could allow more focused improvement in terms of efficiency. Instead, Icelandair can now be recommended to take the results further and do more surveys. Icelandair can also approach its further analysis in a qualitative way with focus groups, interviews, workshops and open-ended surveys, to understand more in depth how the weaknesses can be addressed (Runeson & Höst, 2008).

Lastly, as this is a single case study of Icelandair, there may only be slight theoretical generalizability but not more (Eisenhardt, 1989; Yin, 2003; Ridder, 2017; Bryman & Bell, 2015). Indeed, the purpose of this study was to provide insight into the efficiency at Icelandair, but future research could analyze other companies in the airline industry or extend the research to other sectors for a comparative analysis. Indeed, companies are truly heterogeneous. Within companies, employees vary due to their different roles supporting the

business and also externally, they contribute to different stakeholders. Consequently, different companies cannot be tackled with the exact same approach (Colakoglu et al., 2006).

10.2 Further Research

The results of this thesis as well as its limitations bring about considerations for further research. Some suggestions of further research have already been mentioned in the previous chapter and include not allowing participants of the employee survey to leave out questions or at least be able to identify if participants left the question out or put “don’t know/no experience.” As previously mentioned, future research can also be suggested to use a larger than a five-point Likert scale, distinguish between the employees that answered in different languages, and targeting efficiency to improve competitive advantage in a narrower way focusing on different divisions and sections (not only a differentiation between non-crew and crew employees). Efficiency can also be investigated in other airlines in the industry or extending it to other industries completely to compare.

The second last point, of analyzing efficiency in other airlines in the industry would be particularly interesting to give Icelandair ideas to improve on from other companies. Although Icelandair cannot study and compare itself to different airlines in Iceland, it can for example compare itself to others in the Nordic market. These may include competitors such as Finnair, focusing on connecting Europe to Asia through a Nordic experience or SAS, with its high frequency flights to and from Scandinavia and beyond with its Star Alliance (Finnair, 2019; SAS, 2019). It can even compare itself to low-cost business model airlines such as Norwegian, aiming to offer affordable fares on its flight along with friendly service and on time operations (Norwegian, 2019).

Furthermore, the thesis of improving efficiency at Icelandair can give rise to a longitudinal research project. By regularly conducting such an employee survey as in this thesis, Icelandair can keep track on its work and the change on efficiency it is implementing. Thus, to both track progress as well as support causal inference or change over time (Ployhart & Vandenberg, 2010; Pfeffer, 1995). However, it must be aware of the fact that when undertaking longitudinal studies, they have their disadvantages too. For example, issues may include internal validity such as carryover effects or respondents may drop out due to factors such as changing companies or not being interested anymore (Hogan, Roy, & Korkontzelou, 2004; Twisk & de Vente, 2002; Ployhart & Vandenberg, 2010; Bryman & Bell, 2015).

When considering the conceptual framework adapted from the research of both Auh and Menguc (2005) and Jansen et al. (2006) used for this thesis, future research can both

analyze Icelandair's application of it as well as how it can be of use for other companies. It is truly vital for Icelandair to revisit its competitive environment and strategy type over time, and therefore, its use of the conceptual framework can be tested (Ireland & Webb, 2007). Furthermore, how other companies use the conceptual framework can be analyzed. This is especially those evaluate themselves as a defender in low competitive environments, which can be recommended a strategy of effectiveness (i.e. exploration) to achieve sustained competitive advantage. Indeed, this is what this this thesis did not look into due to the strategy type and competitive environment of Icelandair. Additionally, as mentioned in Section IV "Conceptual framework" at the time of writing the thesis, literature does not suggest which organizational learning will help achieve sustained competitive advantage, should a company be a prospector in an environment where the competitive intensity is low, nor should a company be a defender in an environment where the competitive intensity is high. This is a further proposal for future research to delve into as well as the potential of the conceptual framework to also include the option of ambidexterity for companies to pursue. To recap, this is a simultaneous approach of both efficiency (i.e. exploitation) and effectiveness (i.e. exploration) (Sarkees & Hulland, 2009; Mouzas, 2006; Leventhal & March, 1993; Ireland & Webb, 2007).

This thesis contributes to a greater understanding of efficiency for Icelandair as a means to increase its competitive advantage in the competitive field it is operating in. As has become evident in this section future research can take this thesis further, by amending some of the limitations, analyzing the case of Icelandair in more depth and/or continue research on the proposed conceptual framework.

XI. Conclusion

Following this single case study on non-crew and crew employees of Icelandair, Icelandair can currently be considered as a prospector in a highly competitive environment. It is thus, recommended to apply a strategy of increased efficiency (i.e. exploitation) of its current resources and capabilities. This is as opposed to increased effectiveness (i.e. exploration), or developing new possibilities and risk taking (March, 1991; Auh & Menguc, 2005; Jansen et al., 2006; Hitt et al., 2017). In doing so, Icelandair will feed into its competitive advantage, and help combat competition in its trans-Atlantic market (Ireland et al., 2003; Prahalad & Hamel, 1990). Efficiency has been defined in different ways with different focus in the literature. Thus, the aim of this research was to provide Icelandair with not only its own definition of efficiency, but also a view on how it can improve it. Two

research questions were addressed, firstly, “How is efficiency defined concerning non-crew and crew employees at Icelandair?” and secondly, “How can Icelandair increase the efficiency of their employees at work?” A conceptual framework adapted from the research of Auh and Menguc (2005) and Jansen et al. (2006) was used as a tool in combining the two research questions and placing the definition and increase of efficiency in a greater context considering the literature.

From the results of the employee survey on efficiency, the factor analysis highlighted that efficiency can be defined via three main factors; Management, Company support (direct and indirect) and Personal skills and group support for non-crew employees. Regarding the crew employees, efficiency can be defined via two main factors; Company support (direct and indirect) and Personal skills and group support. The difference between them lies primarily in the difference in management, creating an additional factor.

Regarding the improvement of efficiency towards competitive advantage, the independent samples t-test of the same employee survey, highlighted that Icelandair is recommended to first work with the non-crew employees concerning improving efficiency. This is due to their lower mean score in comparison to the crew employees. This is by focusing on the key weaknesses found, by firstly, improving cooperation between departments, secondly, making more efficient use of the resources it has at hand and thirdly, using employees’ ideas and suggestions better. After working firstly with their non-crew employees, Icelandair is recommended to work with their crew employees, especially focusing on the key weaknesses with respect to efficiency found for this group, by firstly, improving cooperation between departments as with the non-crew, secondly, clarifying Icelandair Group’s strategy and objectives, and lastly, making more efficient use of the resources it has at hand. The key strengths of both non-crew and crew employees, are the employees arguing their direct colleagues and themselves work well together, as well as knowing what results are expected of the employee.

By taking onboard the definitions of efficiency and carrying out the proposed actions presented in this thesis, Icelandair will more efficiently be able to use its talents and resources to compete in the airline industry for sustained competitive advantage. As Icelandair progresses in increasing the efficiency of its non-crew and crew members, the competitive environment and strategy type may change over time. Therefore, Icelandair must continuously devote time to re-evaluate its position to conclude the best strategy to take at each point in time. Here, Icelandair can refer to the conceptual framework used for this thesis, which further research can only be encouraged to test and build upon.

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Appendix A

Survey for the Non-Crew Employees of Icelandair (Version in English)

“Thank you for participating in this survey. We greatly appreciate your feedback! 20 questions of approximately 5 minutes, answers saved in the interim, and confidentiality is guaranteed.

1. I know what results are expected of me
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
2. I am able to work efficiently
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
3. I receive sufficient information in order to do my work well
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
4. I have sufficient resources (materials, tools, equipment etc.) to do my job well
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
5. My direct colleagues and I work well together
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
6. My team works efficiently
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
7. I experience good cooperation between different departments
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
8. I feel appreciated by Icelandair

- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
9. Icelandair uses employees' ideas and suggestions to do better
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
10. Icelandair makes efficient use of its resources (e.g. Human resources, tools, financial resources)
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
11. Icelandair Group's strategy and objectives are clear to me
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
12. I support Icelandair Group strategy and objectives
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
13. I have a good working relationship with my immediate manager
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
14. My immediate manager motivates me in my work
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
15. My immediate manager encourages my development
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
16. My immediate manager gives me frequent feedback on my performance
- a. Strongly disagree

- b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
17. My immediate manager keeps me informed of important matters
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
18. My immediate manager clearly communicates the direction/goals of our department
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
19. My immediate manager gets the job done
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
20. My immediate manager sets a good example with regard to safety and following the rules
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree

Thank you! Your answers are submitted. You can close the survey.”

Appendix B
Survey for the Non-Crew Employees of Icelandair (Version in English)

“Thank you for participating in this survey. We greatly appreciate your feedback! 13 questions of approximately 5 minutes, answers saved in the interim, and confidentiality is guaranteed.

1. I know what results are expected of me
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
2. I am able to work efficiently
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
3. I receive sufficient information in order to do my work well
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
4. I have sufficient resources (materials, tools, equipment etc.) to do my job well
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
5. My direct colleagues and I work well together
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
6. My team works efficiently
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
7. I experience good cooperation between different departments
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
8. I feel appreciated by Icelandair
 - a. Strongly disagree

- b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
9. Icelandair uses employees' ideas and suggestions to do better
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
10. Icelandair makes efficient use of its resources (e.g. Human resources, tools, financial resources)
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
11. Icelandair Group's strategy and objectives are clear to me
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
12. I support Icelandair Group strategy and objectives
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
13. I receive good support from Cabin Operations or Chief Pilot Office
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree

Thank you! Your answers are submitted. You can close the survey.”