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**Analysing the impact of digital transformation on  
corporate travel management**

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**ABSTRACT:**

The research field in digital transformation has increased empirical study concentrating on value creation to customers. Rather, few attentions have contributed on digital transformation on internal services. Digital transformation has been defined as a series of actions in digital and strategic changes to rethink use of technologies and capability development to bring efficiency and effectivity. A standalone digital transformation strategy prioritizes business decisions and requires managers to capture digital opportunities and minimize threats in implementation. Therefore, the corresponding development of managerial capabilities contributes to better understanding of strategic changes on individuals who could affect or be affected. Corporate travel expense as the second controllable expense after salaries gains attentions from enterprise about travel cost control and expenditure management. The use of technology could automatize and monitor travel expenditures and analysis. Travel management activities are composed as different steps. This study only focuses on activities in travel reporting step and aims to study the impact of digital transformation on travel reporting process and managerial capabilities.

The study was conducted as a single-case study. The empirical data was collected by semi structured interviews, secondary data received from case company, and participant observation. The research design is based on systematic combining approach which allows an explorative understanding on theory and empirical phenomena. The study has identified that the objects of digital transformation in travel reporting activities are maximizing technology capability, improving travel policy compliance and controlling cost. The completion of strategic objectives not only require use of advanced technologies, also managerial capabilities to sense, seize and transform possible opportunities. Drawing from the single case study, the contributions are twofold. Firstly, strategic and operational changes associated with travel policy compliance of travel reporting workflow are identified. Secondly, the changes in business culture, leadership, commitment and triadic relationship enable development of managerial capabilities in digital transformation: the guidance of executives' strategic belief is essential to shape right managerial cognition; right belief on business and business environment yields assumptions and behaviors in managers, teams and individuals; corresponding managerial skills shapes managerial human capital and develop capacity of social capital; adaptive managerial skills allow managers to perceive and evaluate relationship priorities about paths of firm development to concur strategic changes. The further research recommendation is to explore the impact of digital transformation in other corporate travel management activities apart from the reporting process, and to deeply study the importance of triadic relationship development to enhance managerial social capital to implement digital transformation.

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**KEYWORDS:** Digital transformation, dynamic capabilities, travel policy compliance

# **1 Introduction**

The business environment is becoming more and more disruptive as new digital innovation and new value offering. Many public and private organizations are convinced that digital technologies or products could be a powerful and beneficial component to survive and thrive in the networked digital economy. (Telegescu, 2018; Reddy & Reinartz, 2017.) Therefore, digital transformation is expected to undergo in enterprises and in various industries. From a study of Oxford economics (Oxford Economics, 2011), it is identified that many traditional, non-IT relevant industries would have irreversible changes by Digital transformation. Banking industry and financial services are seen to take a large step into digital transformation (Telegescu, 2018). Travel management companies offer digital solutions to organizations to manage corporate travel expense which is the second largest controllable expense behind salaries (Gustafson, 2012). The study focuses on how the digital transformation decision impact on corporate travel reporting in organization.

## **1.1 Background of the study**

Digital transformation refers to a value creation process changing how we operate, interact and configure by using digital technology. Digital technology “serves as a facilitator, catalyst, motivator” in financial services (Kramer, 2014). The integration of digital technologies has impact on labour routine works and work behaviours, probably the work responsibilities have slight changes, as some repetitive works are taken by digital intelligence. Studies on the impacts of digital transformation has positive outcomes in improving operational efficiencies, expenditure redundancy and public engagement (Kramer, 2014; Telegescu, 2018). Warner and Wäger (2019) mention that it shortens new product launches, maximizes customer centricity, and rapidly scales at a marginally negligible cost. New digital technologies such as cloud computing and social media are changing the very nature of seizing capabilities (Reddy & Reinartz, 2017).

Corporate travel expenditure is an increasing cost section in corporate balance sheet as communication and face-to-face interaction are demanded due to global market expand, networking projects and other managerial activities (Gustafson, 2012; McGraw, 2011). In the past decades, it is witnessed that business travel expenditure takes a significant cost section in financial report. Over USD 800 billion have spent on the value of business travel (Metcalf, 2017). Travel managers are hired to control travel cost and organize compliant travel behaviours (McGraw, 2011). Companies are looking for practices and digital solutions to control or reduce overall expenses, while maintaining, even upgrading the corporate travel service. The key aspect for digital optimization is to simultaneously capture value for companies who want a cost reduction and efficiency in managing travel, and internal travellers who expect satisfaction and easy to use. (Gustafson, 2012; Marino, 2018.)

Gustafson (2012) has made great efforts on understanding the internal travel management obstacles among stakeholders in travel management who include travel managers, travellers and external authorities such as clients, travel agencies and third payment parties. It's observed that travel managers not only response to monitor and forge travel behaviours in compliance with strict company travel policy, also interact and communicate with other parties to cut down unknown and unforeseen events from pre-trip to post-trip (Gustafson, 2012). Holma et al. (2015) have conducted an in-deep study which reveals that ensuring business travel compliance needs services with high quality interacting and working with traveller, travel agency and technology provider, a "triadic travel supply chain setting". Holma (2012) has highlighted that the key to testify the applicability of travel policy is technology supplier alliance, also continuous interaction and efficient communication with travellers and external partners. The advancements of technologies are efficient to control and monitor purchase process and outcome. To answer the needs in corporate travel management, a travel-centric expense management software business is emerged to offers sizes of companies a great and centralized resource pool to manage traveller behaviours and travel expenditure control (Kramer, 2014).

## 1.2 Research motivation and research questions

Corporate A is a well-known energy solution worldwide with clients in various countries and continents. The corporation A performs digital transformation in corporate level seeking for business opportunities with technology integration. Externally, the technology embedded products and services expand customer base and business units. Internally, new technology promotes value creation process and strength cooperation between departments by efficient information and resource exchange. The author started training as a travel accountant in summer 2018 and has participated in the project of transforming corporate travel management by integrating a new travel expense management tool. Encouraged by the travel manager, the author would like to discuss the impact of digital transformation on corporate travel management.

There is also growing research in Human resource management to investigate the influence of business travel on travellers “with regard to their work situation, their family relation and private life, and their personal identification and orientations” (Gustafson, 2012, p. 276). But corporate travel also reveals impact on organizational and economic consequence in company management, which results to implement and standardize travel routine and management in professional basis (Lubbe, 2003). Recent researches on corporate travel management have emphasized the importance of technology integration to minimize the value conflicts between internal stakeholders and external partners, to enhance corporate travel compliance, to increase expenses transparent for operational and strategic business needs (Gustafson, 2012, p. 282; Douglas & Lubbe, 2006 p.1135). Practical cases of digital transformation have described the benefits from corporation perception in primary value activities ((Telegescu, 2018; Kramer, 2014). Yet there are few detailed case studies to describe how digital transformation impact on functional activities, such as managing corporate travel activities.

The essence of digital transformation to stimulate efficient economic impact on travel management process (Lubbe, 2003; Gustafson, 2012), while to confront travellers’

needs and acknowledgement (Douglas & Lubbe, 2006) needs not only the technology implementation, but also managerial inputs to define the digital path. The aim of the study is to assess how digital transformation impact on corporate travel management. The purpose of the study is not to give consolidated and holistic understanding about how digital transformation is developed in corporate travel management in history, but to have perspective how could digital transformation affect corporate travel management in the light of case study. Corporate travel management is composed of different steps of activities and responsibilities, such as travel purchasing, travel reporting and travel payment. Our focus will narrow down to the activities in reporting step. The in-deep case study provides accessible information about digital transformation in company level and consequential managerial decisions on managing corporate travel reporting, in which the core stakeholders are travel manager, travel accountant, local key users, travellers, business support director and travel agencies. Therefore, the research objectives are in twofold: to understand the impact of digital transformation on travel reporting process and core stakeholder perspectives. Hence, the research question is formed as:

How digital transformation impacts on travel management reporting process?

The challenges and risks concealed in the transformation process, provoke discussion about the core factors matters in digital transformation. Singh and Hess (2017, p. 124) emphasize the “comprehensive of action” should be carried out by organizations who decide to bring digital transformation on their business agenda. The question aims to seek answers what and how changes are resulted from the digital transformation in travel reporting workflow. It would be interested to know if digital reporting process also would benefit the travel compliance and traveller loyalty.

How digital transformation impacts on core stakeholders in reporting process?

Advanced technologies are embraced as a core aspect of transformation process to reduce workflow complexity, improve efficiency and increase standardization (Kramer, 2014). However, suspense about occupational replacement is raised, due to the technology involvement (Singh & Hess, 2017). The question is not designed to understand what types of occupational replacement happened, but to understand what capabilities development are addressed to reduce uncertainty and threats on stakeholders.

## **2 Digital transformation**

In this section, the digital transformation in diverse perspective is firstly introduced, following the definitions of digital transformation are reviewed. Thirdly, the reasons for calling digital transformation are summarised. Lastly, digital transformation strategy and framework are explained.

### **2.1 Digital transformation perspectives and definitions**

The growing adoption of information technology in all industrial areas is changing how we interact, commute and perceive. The digital transforming phenomenon started being approached after the revolution of information and communication technology (ICT), “no company has yet reached the end state nor definitively defined it.” (Kane, Palmer, Phillips, Kiron & Buckley, 2015, p. 3). There is none already matured and completed digital transformation path found, companies are still seeking to learn about digital transformation (Kane et al., 2015, p. 14). Therefore, the concrete and reliable definition for digital transformation is still under exploration. Digitalization, digitation and other terms has been advanced to label the concept of digital transformation alternatively in previous literature review (Amorim et al., 2018, p. 412). In order to keep the research topic consistent without biased understanding, the research will only focus on digital transformation as keyword in finding its definitions from previous literature

#### **2.1.1 Digital transformation in history**

Transformation in business firstly was captured in the 1990s which refers to “A fundamental change in organizational logic which resulted in or was caused by a fundamental shift in behaviours” (Mckeown & Philip, 2003, p. 4). The business

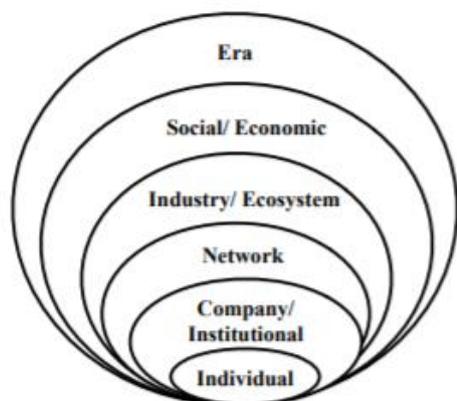
transformation perception needs the invention of dedicated strategy and managerial involvement to seize the opportunities and innovation for sustainable business (Prahalad & Oosterveld, 1999; Ismail et al., 2017; Muzykal et al., 1995). The role of information and communication technologies are recognized in the process of recapturing competitive advantage and maintaining business relationship with customer, supplier and partners (Ismail et al., 2017). It enables IT integration in business transformation process, which called IT-enable business transformation. The criteria of a transformational information technology are if the use of IT change the traditional business process to “redefine capabilities, processes and relationship”, such as automation and internal business integration (Venkatraman 1994: 74-75) ; if could launch strategic changes to alter organizational boundary and, or explore blue ocean markets; if modify the organizational workflow and resource relocation. (Ismail et al., 2017.)

Digital transformation viewed as an advanced degree of IT-enabled business transformation, as the complexity of digital economy and the emergence of advanced digital technologies, such as mobile, social, data analytics, cloud and The Internet of Things. Digital transformation requires companies inspect their business model, operational management process, customer experience and value system and address the strategic roles of chosen digital technology and digital capabilities in those dimensions. (Ismail et al., 2017, p.3.)

### **2.1.2 Digital transformation perspectives**

Ismail (2017: 2) examined and described the digital transformation in diverse and distinct perspectives, as grouped in Figure 1. Firstly, digital transformation from the perspective of Era stress that the fundamental changes occurred by integrating digital technology with “full force”, characterized with fast innovation development, intensive technology competitive and productive economy system. It is an era of digital innovation

and digital savvy who make prompt digital response will remain on the new competitive landscape. (Anderson et al., 2010, p.2; Ismail et al., 2017). Governmental digital transformation is one promising topic to develop, healthcare and bank industries gain increased interest on digital transformation (Amorim et al., 2018). From economy perspective, digital transformation characterizes the developing and succeeding technology-embedded services and productions with novel shared economy model. The technology disruption makes it possible that shift economy from “take-make-dispose model” to “shared model” in which resources can be used and shared with technology-enabled ability to increase social interaction and asset utilization rate. (Ismail et al., 2017, p. 3; Schwab, 2016, p. 144). Thirdly, from industry perspective, the introduce of digital transformation would disrupt and redefine the boundaries of traditional industries. Digital transformation in industry perspective has various terms. For instance, industrial internet is referred alternatively as a term in North America, which alike to Industrial 4.0 in German industries. Smart industry is introduced in Japan for the phenomena of integrating digitalization in end-product, production process, customer experience, supplier management and organization management. (Ismail et al., 2017, p.3; Liere-netheler et al., 2018.) Technologies becomes one new entry barrier to benchmark and analyse industry attractiveness and company positioning, also a succeeding driver attaining competitive advantage (Porter, 1985, 1991).



**Figure 1.** Digital transformation Perspectives (Ismail et al., 2017, p. 2).

Fourthly, digital transformation from network perspective highlights the value creation process with the participants of consumers and communities are becoming more efficient by the strength of digital technologies. Fifthly, from company perspective, digital transformation in business is changes committing to high digital maturity level with transformative digital strategy “supported by collaborative cultures that are open to taking risk” (Kane et al., 2015, p. 4). Study of Hess et al. (2016, p.123) manifested that “90% of business leaders in the US and U.K. are expecting IT and digital technologies to make an increasing strategic contribution to their overall business in the coming decade.” It is perceived that digital transformation is not just about integrating information technology into business procedure, also about business opportunities interplaying technologies and capabilities (Ismail et al., 2017, p. 3). Lastly, from individual perspective, digital transformation eventually changes the ways of communicating, interacting and living taking advantage of mobility, connectivity and flexibility (Kane et al., 2015, p. 1; Ismail et al., 2017, p.3). In this article, digital transformation in company perspective is focused, based in the research purpose on case company.

### 2.1.3 Digital transformation definitions

As mentioned, the research will only use the term of digital transformation, despite similar concepts such as digitalization, digitation could be referred alternatively (Nambisan, 2017). The definitions of digital transformation in previous research are summarised in the Table 1. The idea of digital transformation arises from the blending use of technology, such as mobile, artificial intelligence and cloud, in personal life and business.

(Fitzgerald et al., 2013; Hess et al., 2016; Ismail et al., 2017)	Enables the business improvements such as enhancing customer experience, operation
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	<p>effectiveness and creating digital business model by the impact of digital technologies.</p> <p>The use of advanced digital technologies to radically improve business performance and their used of traditional technologies to enhance customer experience, value creation activities and value propositions.</p>
(Gimpel & Röglinger, 2015: Matt et al., 2015 )	<p>corresponding the digital disruption in society and business environment, changes in dimensions of customer, value proposition, operations, data, organization and operational management are adapted driven by the huge variety of digital technologies.</p>
(Kane et al., 2015)	<p>Enables company to integrate the strength of digital technologies with clear digital strategy with support of risk-taking business culture and digital fluency leadership.</p>
(Westerman et al., 2011, p.5) (Liu et al., 2011, p.1730)	<p>“the use of technology to radically improve performance or reach of enterprises.”</p> <p>“as an organizational transformation that integrates digital technologies and business processes in a digital economy.”</p>
(Warner & Wäger, 2018, p.326) (Amorim et al.,2018, p.418)	<p>“the use of new digital technologies, such as mobile, artificial intelligence, cloud, blockchain, and the Internet of things (IoT) technologies, to enable major business improvements to augment customer experience, streamline operations, or create new business models.”</p>

	<p>“the use of new digital technologies that enables major business improvements and influences all aspects of customers’ life.”</p>
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**Table 1.** Digital transformation definitions in company perspective.

Westerman et al. (2014, p.5) provide board view to define digital transformation as “the use of technology to radically improve performance or reach of enterprises.” Similarly, Liu et al. (2011, p.1720) regard it as “the integration of digital technologies and business process in a digital economy.” Amorim et al. (2018, p.418) view digital transformation bringing changes to all customers’ life. Moreover, a detailed perception viewed digital transformation having impacts on three organizational dimensions of customer, business operation and business model by the use of technologies (Ismail et al., 2017; Warner & Wäger, 2018; Fitzgerald et al., 2013; Hess et al., 2016). It is argued that the disruptive power from use of technology challenges traditional business model and promote new niche players and micro-business. Therefore, for traditional companies, digital transformation is about making strategic changes to adapt advanced technologies. Strategic changes are formed to govern transformational process. (Gimpel & Röglinger, 2015; Matt, 2015).

These definitions are formed to understand the use of digital transformation to meet customer satisfaction and to proliferate transactions in products and services. Singh and Hess (2017) and Kane et al. (2015) suggest that digital transformation changes should include far beyond the use of technologies to improve customer satisfaction, performance and business value proposition. Digital transformation is not all about technology, but also strategic imperative on capability development, such as culture and leadership changes to capitalize employee needs and experiences. (Kane et al., 2015; Rogers, 2016). Because the study is to explore the digital transformation on corporate

travel management in process and core stakeholders. Therefore, the researcher adapt digital transformation definition as a series of actions in digital and strategic changes to rethink use of technologies and capability development to bring efficiency and effectivity in operation (Kane et al., 2015; Rogers, 2016; Singh & Hess, 2017; Gimpel & Röglinger, 2015).

## **2.2 Drivers of digital transformation**

Executives bring technologies into their business or operational scope, as a result that recognize the efficiency and effectiveness of technologies in business. The drivers of determining technology role are discussed by internal and external dimensions, which are dependent and connected with each other (Matt et al., 2015, p. 339–341; Hess et al., 2016; Ismail et al., 2017, p.14–21). Internally, traditional companies were facing sale decrease, financial pressure because of market saturation and competitive business units. Digital solutions are proposed to strengthen workforce efficiency and customer relationship. For instance, by the age of internet, traditional way of reading news is not popular and efficient, the downturn of newspaper sale triggers newspaper company seeking deliberate path towards digital channel. (Hess et al., 2016, p.104.) Secondly, employees are surrounded by smart technologies such as mobile, cloud, social and analytics in their social and private life, individuals recognize the digital opportunities of productivity improvements and possibility of working mobility (Kane et al., 2015, p.4; Ismail et al., 2017, p.8). Therefore, companies concern the integration of technology in core business to attain employee satisfaction and attract digital talents. Thirdly, companies are seeking for differentiation or cost leadership to take advantageous positioning in industry. A technological change embodied in value creation activities could have significant effect on cost saving or differentiation (Porter, 1991, 1985). Porter (1985) explains that technology itself cannot be competitive advantage, but “technology affects competitive advantage through changing or influencing the other drivers of cost or uniqueness”. For instance, technologies could improve scale of economy, bring

interrelationship opportunities, strengthen operational efficiency, hence company can recognize competitive advantages by the position of technology and perform activities differently or cost efficiently. (Porter, 1985, p.61-62.)

Internal pressure	External pressure
Sales decrease, financial pressure	The speed of IT development
Digital appealing from employee	Changes of customer behaviour, demands of digital solution development
Seeking for differentiation/ cost leadership	Competition from incumbents
Creating efficient and profitable customer experience	Competition and challenges from digital start-up
	Networking and globalization

**Table 2.** Summary of internal and external drivers of digital transformation.

Concurrently, companies cannot deny or ignore the needs of digital transformation to leverage their business because of external pressure, otherwise, the ignorance might “left them behind” (Gimpel & Röglinger, 2015, p.7). By the revolution of computing hardware, digital devices become more sophisticated, smart, powerful. Digital system such as Cyber-physical system and cyber-human system enable the connection with digital world and physical world. “All kinds of computing technologies, ranging from traditional computers, mobile devices, wearables, to person-embedded sensors, are constantly merging with human lives”. (Gimpel & Röglinger, 2015, p.7.) Consequently, the customers’ behaviours are changed in terms of preferred communication channel, purchasing methods and evaluation criteria because of digital disruption (Gimpel & Röglinger, 2015, p. 7; Ismail et al., 2017, p.9; Leipzig et al., 2017, p.518). Furthermore,

“Customers today no longer only expect companies to respond to their expressed demands, but implicitly expect companies to anticipate and address their future needs before themselves have realised them” (Leipzig et al., 2017, p.2). Thus, companies need to gain thorough customer insight to provide targeted customer experience. By leveraging the power of digit customer data, it’s possible to understand customer “mindset, moods, motivation, desires and aspiration that trigger novel actions and expectations” (Gimpel & Röglinger, 2015, p.10). The adaptation of digital technology not only applies in customer, also in incumbent competitors and digital niche players. The huge variety of technology equips niche players and small business with opportunities and infrastructure access to challenge the market position of well-established companies, even more redefine the market boundaries. (Gimpel & Röglinger, 2015, p.5.) Because of customer novel behaviours, the significant business performance of niche players who natively start digital business activities may arise crisis and competition pressure among well-established incumbents who are following traditional customer interaction and business models (Gimpel & Röglinger, 2015, p.10). Additionally, due to the network effect and increased social interactions, globalization not only requires operation excellence, also forces long-dominated companies go digital to improve their business model and competitive advantages (Amorim et al., 2018, p. 412). The drivers for digital transformation found in literature, summarised in Table 2, demands company to embrace digital transformation to meet employee satisfaction, to reach customer expectation and to respond changes in digital economy and competitions.

### **2.3 Digital transformation strategy**

Mill et al. (1995) proposed a strategy hierarchy composed of corporate strategy, business strategy and functional strategy. The corporate strategy is to answer, “what set of business should we be in”. Accordingly, companies need to assess their current industrial attractiveness and visualise their positioning in the industry. The means of Porter’s five forces framework analyse the competitiveness of industry and implies

whether companies should compete on differentiation or cost leadership to serve its customers and make profits over average. (Porter, 1979.) Business strategy is the following strategy to answer, “how should we compete in this business”. Business strategy is a course of deliberate decisions aligning with corporate scope to govern capabilities and explore potential opportunities for gaining competitive advantages and innovating value creation in perspective of customers and stakeholders. Business Strategy statement is composed of objectives, scope and advantage should be crystal clear. Functional strategy is the bottom-line level to answer, “How this function contributes to the competitive advantage of the business”. Functional strategy interprets how each department operational objectives meet the alignment with business strategy. Functional decisions include Finance allocation, human resource, supports etc. (Ismail et al., 2017).

The call for strategy is required because of unpredictable digital transformation challenges and diverse industrial context and company background. Additionally, workforce needs dedicated guideline to adapt new technologies into their workflow and future tasks. (David & Michael, 2008; Kane et al., 2015; Ismail et al., 2017) Some argues the digital transformation strategy is viewed as a firm’s IT strategy which has been “subordinate to business, to an organizational strategy that leverage a firm’s digital resource to create differential value” (Hess et al., 2016, p. 5). Others debate that concerning the challenges and uncertainty in strategic issues, the digital transformation decision requires a standalone strategy apart from corporate, business and functional strategy, but sharing same corporate scope and objectives (McDonald, 2012; Kane et al., 2015; Ismail et al., 2017).

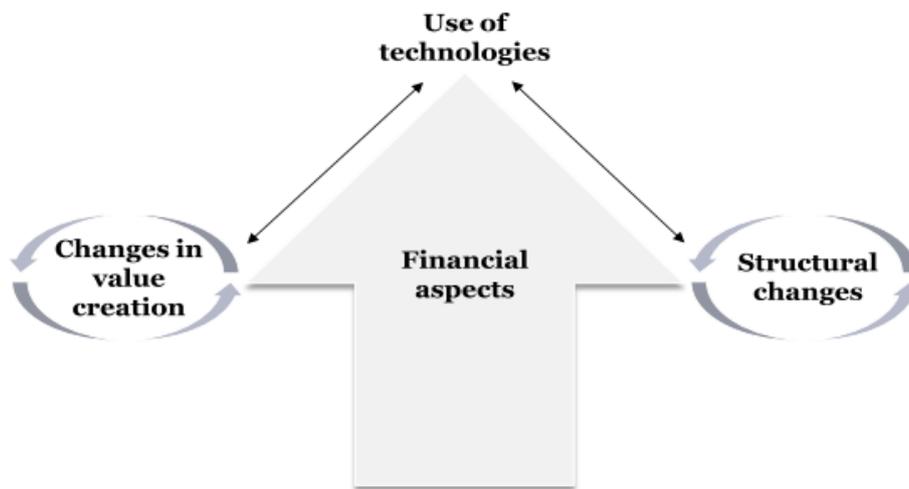
In the cross-case digital transformation analysis by Hess et al. (2015), a digital transformation strategy is defined as “signposts the way toward digital transformation and guides managers through the transformation process resulting from the integration and use of digital technologies.” Unlike IT strategy which concentrates on the IT infrastructure management and view technology as an isolated tool for business support, digital transformation strategy provides specified guidelines for executives about how

to approach transformation success, also fully explore and exploit the valuable effects on customer experience, operational process and business model by the power of digital options. (Westerman et al., 2011, p.22; Hess et al., 2016, p.6.) Additionally, the digital based transformation influences the capability development. Because the introduce of digital technology, such as cloud-based system, Internet of Thing, companies need to consider what to scale down budget or resources in business activities. Therefore, a specialized digital transformation strategy should be mapped out. (Warner & Wäger, 2018, p.2.)

Like any strategy formation, digital transformation strategy demands the formation of clear digital objectives, missions and recognize digital activities and competitive advantages (David & Michael, 2008). The clear digital transformation strategy should help executives in concern of balancing the exploitation of existing resources and building of new capabilities to accelerate transformational endeavours (Hess et al., 2016, p.3; Warner & Wäger, 2018, p.2). Matt et al. (2015) define digital transformation strategy is comprised of the use of technology, changes in value creation, structural changes and financial decisions from procedure perspective. The procedure aspects govern the development, implementation and evaluation in transforming business as one first step.

## **2.4 Strategic transformation framework**

It is approved that company in high digital maturity knows transforming business by the integration of technologies, rather than focusing on improving operational targets or management of IT infrastructure (Fitzgerald et al., 2013; Kane et al., 2015; Matt et al., 2015). Despite of industrial or company type, Matt et al. (2015) describes four strategic business decisions matters in digital transformation strategy in Figure 2, which includes the use of technologies, changes in value creation, structural changes and financial aspects.



**Figure 2.** The elements in digital transformation strategy (Matt et al., 2015, p.5).

Firstly, the use of technologies is determined by company's attitude towards new technology possibilities which address the technology impact in future business operation. The decision on use of technologies fits companies into two broad positioning: market follower or market leader. (Matt et al., 2015, p. 3; Hess et al., 2016.) By imitating endeavours of matured digital companies or applying established digital solution into own value chain to achieve business target is referred to market follower. Differently, market leaders who seek for new technology solutions becomes a digital pioneer with innovative solutions and distinct technology standards. The role of digital technology is significantly apparent in the form of digital artifacts, digital platforms and digital infrastructures, which is summarised in the table 3. Accordingly, companies need to assess how they want technology to perform to achieve strategic objectives. Hess et al. (2016, p.19) suggest that decision makers could ask: "How significant is your firm's IT to achieve strategic goals; How ambitious is your firm's approach to new digital technologies." Hence, companies can make strategic choices at what layer of forms to compete and develop.

The role of digital technology in different forms
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Digital artifacts	A digital component, application, or media content that is part of a new product (or service) and offers a specific functionality or value to the end-user” (Nambisan, 2017, p.1031)
Digital platforms	“A digital product platform typically encompasses a particular range of layers (e.g., content and service layers) that can function as a new product, but simultaneously enable others to innovate upon using firm-controlled platform resources (e.g., SDKs and APIs)” (Yoo et al., 2010, p. 729).
Digital infrastructures	“Digital technology tools and systems (e.g., cloud computing, data analytics, online communities, social media, 3D printing, digital makerspaces, etc.) that offer communication, collaboration, and/or computing capabilities to support innovation and entrepreneurship” (Nambisan, 2017, p. 1032).

**Figure 3.** The Role of digital technology in different forms (Nambisan, 2017; Yoo et al., 2010).

Secondly, the changes of value creation are affected by the choice of technology role. The strategic changes of digital transformation are occurred on the basis that “how advances in digital technologies can bring about changes in a company’s business model, organizational structures and process.” (Matt et al., 2015.) Specifically, the changes in value creation refer to the digital impacts on primary and functional business activities. The digital changes in primary activities examine the value creation and value delivery in presence of customer to enable the profit growth and enhance customer experience, while the digital changes in functional activities assert internal operation efficiency to gain employee satisfaction and commitment. By the choice of digital technology and forms of technologies, companies can transform customer experience, digitalize

operational process and present digital-oriental core business.(Westerman et al., 2011, p.17.) For example, companies invest on the digital analytics and gain insight of customer needs and demands by big data, hence, to support the decision on production activities, modify existing product and services with advanced technologies or march to new production scope. The automation on production and R&D process spares time and energy to innovation and creativity. (Westerman et al., 2011, p.17–23.) The changes on business model require executives re-assess and experiment value creation and value capture archetype. However, executives hesitate to test new business model and anxious about the threat on current profit margin and customer segments, which is concerned as the major barrier to transforming success (Warner & Wäger, 2018, p. 5). The key strategic questions suggested to ask are: How digital is your interface to the customer; How will create revenue from future business operation; What will your future business scope be? (Hess et al., 2016.)

As a result, structural changes are needed in accordance to the overarching value creation activities. New operation activities or separate subsidiary should be considered to govern internal digital transformation setup. Potentially, collaboration and partnership could bring satisfied efficiency and cost saving in value creation process, external cooperation is under concern as one structural change as well. (Matt et al., 2015; Ismail et al., 2017). The relevant strategic questions are: “Who is in charge of your digital transformation endeavour; Do you plan to integrate new operations into existing structure or create separate entities; what type of operational changes do you expect; do you need to acquire new competencies?” (Hess et al., 2016, p.28.)

Lastly but most importantly, financial decision is the key dimension to start strategizing other three area. Transformation urgency and expectation from company perspective determine the financial pressure to carry out the digital transformation strategy in current business situation. (Matt et al., 2015; Ismail et al., 2017.) The increasing investment on transformational activities on one hand drives the options of other three elements in planning digital transformational strategy, on the other hand determines the urgency of transformational activities and managerial involvement. (Hess et al.,

2016, p.4.) The financial strategic questions facing to executives are: “how strong is financial pressure on your current core business; how will you finance the digital transformation endeavour?” (Hess et al., 2016, p. 23.)

It’s essential to plan a course of intended actions concerning the four decision areas. The intended plans can minimize future conflicts and contradictory internally and build individual commitment, company culture and belief concretely. Therefore, the company wide supports to individual commitment are considered in the transformation process.

In this chapter, the definitions of digital transformation are introduced. The researcher adapt digital transformation definition as a series of actions in digital and strategic changes to rethink use of technologies and capability development to bring efficiency and effectivity in operation (Kane et al., 2015; Rogers, 2016; Singh & Hess, 2017; Gimpel & Röglinger, 2015). Following, the internal and external factors motivating digital transformation on business agenda are summarised in accordance with previous research. The “comprehensiveness of actions” should be taken to initiate the transformational process (Warner & Wäger, 2018, p.1). A standalone digital transformational strategy is compulsory guideline to assign the use of digital technology, re-think the changes in value creation and company structure, and allocate the resource support. A thorough digital transformation strategy provides guidelines for managers to rethink business and functional subsidiary strategies to achive ultimate transformational stratgey.

### **3 Dynamic capabilities development**

Internal pressure and external triggers prioritize digital transformation on companies' leadership agenda. Digital transformation strategy prioritizes business decisions and require managers to capture digital opportunities and minimize threats in implementation. (Hess et al., 2016, p.2; Warner & Wäger, 2018.) Even if the call of digital transformation is urgent, companies still face challenges to initiate transformation to keep peace with the new digital world. Typical challenges are the use of digital technology, including deficient IT structure, insufficient IT skills, and lack of resource supports and digital risk management. (Leipzig et al., 2017, p.518.) Apart from the technology challenge, many companies are not able to gain advanced value from huge digital investment because they fail to envision new capability development-integrating " 'digital' into the DNA of the business model" (Leipzig et al., 2017, p.518), to re-think process and operation management including internal digital training, digital business culture development, digital leadership (Westerman et al., 2011, p.10; Amorim et al., 2018, p.418). The section is designed to understand capability development in changing environment and specifically how is developed in digital disruptive environment.

#### **3.1 Dynamic managerial capability**

A capability refers to the ability to perform a certain task or activity (Helfat et al., 2007). Dynamic capabilities are differentiated from operational capabilities. Operational capabilities "enable an organization to earn a living in the present" (Helfat et al., 2007, p.2). Specifically, operational capabilities are "ordinary in the sense they help a firm in the present by maintaining the status quo, but this leaves the firm vulnerable to environmental change" (Warner & Wäger, 2018, p.6). In contrast, the emphasis of dynamical capabilities concerns on contingent changes. Teece, Pisano and Shuen (1997) firstly define dynamic capabilities as "the firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments". The

competencies further are expanded to refer as organizational and managerial abilities which functionally serve searches and selections of tangible and intangible resource, and resource deployment. Therefore, Helfat et al. (2007, p.2) define a dynamic capability as “the capacity of an organization to purposefully create, extend, or modify its resource base”.

### **3.1.1 Dynamic capabilities**

Because of the rapid technological changes, well-developed global market, lack of technological and managerial know-how, the competitive advantage or success factors of companies is no more solely depending on optimization or operational efficiency, but also depending on innovations by capturing opportunities, combining existing and new inventions, inter-firm cooperation and intelligent property protection. Therefore, the ambition of dynamic capabilities on one hand is to adapt enterprise resources to customer and technological opportunities, on the other hand is to reshape capacity to embrace advanced products and business models (Teece, 2007).

Dynamic capabilities can be disaggregated into three clusters: sensing capabilities, seizing capabilities and transforming capabilities (Teece, 2007; Warner & Wäger, 2018). Sensing capabilities require companies to scan, search and explore internal and external opportunities by accessing existing information or new knowledge. “Scanning, creation, learning and interpretive activities” (Teece, 2007, p.1322) probe into investment in trends in business ecosystem such as, market needs, technologies possibilities, industrial boundaries. Therefore, the sensing capabilities are adapted in different level of hierarchy, whereby customers’ needs, and market information could be firstly glimpsed by office worker who at medium to low level, and management team or R&D could provide insight into technology possibilities and cooperation to response. Following, companies require seizing capabilities to enable the identified opportunities into new product, processes or services. Experimental, prototyping, maintenance capabilities

ensure the development. Importantly, the financial decisions to further develop the seized opportunity into practice is crucial and fundamental. Companies also should bear in mind that failures could happen in the development. But if no willingness to seize the opportunity due to fear, a potential highly beneficial return may be exposed to competitors. (Teece, 2007; Warner & Wäger, 2018). Sensing and seizing capabilities identify beneficial commercial opportunities for companies, transforming capabilities allow firms to “continuous strategic renewal of assets and organizational structures to ensure responsiveness in fast-changing environments”. (Warner & Wäger, 2018, p.8)

### **3.1.2 Dynamic managerial capabilities**

Recent researches have explored micro-foundations of dynamic capabilities to answer how to build sensing, seizing and transforming capabilities in organizational level (Fallon-Byrne & Harney, 2017; Helfat & Martin, 2014; Helfat & Peteraf, 2015). Hence, the research attention has not limited to aspects of organisational innovation process to concur rapid environment changes in technologies and market, but rather has denoted managerial abilities to reconfigure internal organizational behaviours and systems. A concept of dynamic managerial capabilities is extended from the concept of dynamic capabilities in microfoundations' level. Helfat and Martin (2014) have explained that dynamic managerial capabilities are “the capabilities with which managers create, extend, and modify the ways in which firms make a living—helps to explain the relationship between the quality of managerial decisions, strategic change, and organizational performance”. Dynamic managerial capabilities are crucial to strategic innovation changes and emphasize the capacity of senior managers to learn, integrate, reconfigure and transform “home grown” (Helfat & Winter, 2011, p.1244) resources, that is resources “embedded in the firm and are unique and path dependent” (Fallon-Byrne & Harney, 2017, p.21).

Dynamic managerial capabilities enable management teams to orchestrate or reconfigure assets for strategic changes. Specifically, the assets are underlying managerial cognition, managerial social capital and managerial human capital (Adner & Helfat, 2003). Managerial cognition refers to mental model and beliefs, mental process and emotions in anticipating changes, making choices and taking actions. Managerial social capital consists of relationship management to obtain or exchange information with others. Social relationships outside individual company provide access to resources and to seize opportunities, while internal social relationships such as centrality, “may confer power over resources that are useful in seizing opportunities”. (Helfat & Martin, 2014, p.1286.) Managerial human capital indicates to earned knowledge, education, experience and skills attributed to individuals, and some are beneficial for “particular teams, units, functional areas, technologies, firms and industries” (Helfat & Martin, 2014, p.1287).

The three underpinnings of dynamic managerial capabilities simultaneously effect on one another. The individual managerial human capital, such as past learning and education degree, can impact on managerial cognition on decision making of strategic changes, whilst managerial cognition can leverage development of human capital by the extent of information absorption during education, training and work experience. Social capital on one hand could impact on the development of human capital depending on the information exchange among social relationships, on the other hand, the individual human capital impacts on the strength of social capital as social relationship formation relying on expertise, personalities or communication skills. Likewise, there are interconnections between social capital and managerial cognition. Collected information from social capital impacts on sensing opportunities from internal and external business environments. Managerial cognition such as perceptions on strategic changes tend to affect establishment of social relationships. (Helfat & Martin, 2014; Adner & Helfat, 2003.)

The concept of dynamic managerial capabilities contributes on the understanding that capability development on individual participants, teams who could affect or be affected by strategic changes. The sensing, seizing and transforming capabilities on enterprise level are likely leveraged and determined by the responses on managerial cognition, managerial human capital and social capital. (Helfat & Martin, 2014; Adner & Helfat, 2003.) Recent researches deeply elaborate how to response and shape the three elements of dynamic managerial capabilities. The guidance of executives' strategic belief is essential to shape right managerial cognition. Right belief on business and business environment yields assumptions and behaviours in managers, teams and individuals. (Carnahan et al., 2010.) Corresponding managerial skills shape managerial human capital and develop capacity of social capital. Adaptive managerial skills allow managers to perceive and evaluate priorities about paths of firm development to concur strategic changes. Interactions with close network members accelerate information process and achievement evaluation. Additionally, intimate interaction could share companies' belief within and outside the companies to gain social capital. (Carnahan et al., 2010; Warner & Wäger, 2018; Minzberg, 2009.)

### **3.2 Capability development in digital transformation**

Dynamical managerial capabilities are key mechanism to prioritize company strategic changes, also harmonize resource competencies and external environment changes (Kor & Mesko, 2013). Typically, digital disruptive and business transformation trends highlight the importance of dynamical capabilities development. Many digital transformation studies recognize the importance of dynamical managerial capabilities and identify "generic contingency factors" (Warner & Wäger 2018, p.328) of building dynamic capabilities for digital transformation. (Warner & Wäger, 2018; Carnahan et al., 2010; Kor & Mesko, 2013; Ismail et al., 2017; Kane et al., 2015; Fitzgerald et al., 2013; Webb, 2013; Basu, 2015; Bolton & Thompson, 2015; Hess et al., 2016.) In this subsection,

the factors of shaping dynamical managerial capabilities are discussed including culture, leadership, learning and commitment.

### **3.2.1 Culture**

Necessary changes in business culture is required, which are expected to create flexible and open business environment to understand the importance of digital transformation within organization (Webb, 2013). In another word, rather than altering technology to adapt current business culture and business process, should rethink organization culture and embrace flexibility and openness to strategic changes (Chahal, 2016). Warner and Wäger (2018, p.337) find that “that strategizing in a digital context must be based on crafting a strong digitally oriented culture”. Digital transformation can be successful if entire company aligns a vision together (Fitzgerald et al., 2013). Additionally, the crafting culture shift throughout the entire organization is important in managerial cognition to build digital belief system for decision makings (Carnahan et al., 2010).

The culture shift is realized as one biggest challenge in digital transformation, as the internal resistance and external uncertainty. Firstly, the internal challenge comes from the risk-taking spirit, taking technology into company scope means embracing risks and failures in company profit and industrial position. Secondly, digital adaptation is another challenge. Resistant from long-held working habits and doubts in potential digital benefits in business and individuals impede adaptation process. The study of Fitzgerald et al. (2013) and Kane et al. (2015) reviews that old employees have trouble in reframing their perception on technology and gain enthusiasm compared to young people. Thirdly, the maturity of digital technology is concerned as external challenge to ensure determines the faith of digital transformation from the board and financial supports. Fourthly, the innovation and growth in digital technologies are disrupting the definition of industry boundary and business approaches, executives may face difficulties to define

and promise the benefits to stakeholders in the culture shift. (Webb, 2013; Warner & Wäger, 2018.)

### **3.2.2 Leadership**

Company attitude for taking technology into changes determines company competitiveness and future development of core business. Similarly, managerial attitude of digital transformation determines the company's ability to keep pace with digital technologies during execution. (Kane et al., 2015.) It is described that in most of companies, a group of person including C-suite or board members leads and executes digital transformation strategy (Kane et al., 2015). They also should be apprehensive about the urgency of digital transformation. The survey from MIT showed that leaders specially top to senior managers who currently in peace of long history company success might lack of transformation urgency and postpone the discussion at early stage, digital transformation is not a fixture on their executive agenda. (Fitzgerald et al., 2013; Hess et al., 2015). The ignorance of digital introduce and complacency of current business status might impede the outcome of digital value creation and competitive positioning over rivals (Fitzgerald, 2013). Leon (2008) mentions more than half of transformation failed because of people problem, and the rest of failures are ascribed to process design and technology problem. The practical case studies by Webb (2013) and Hess et al., (2016) indicate the importance of agile digital leadership and prompt reply to new technologies. Five characteristics are identified in successful leadership as factors to build digital oriented human capital (Fitzgerald et al., 2013; Basu, 2015; Kane et al., 2015):

- Leaders prioritize the transformation execution on agenda and share clear and aligned road map with all employees.
- Leaders scrutinize and coordinate every individual step ensuring impressive alignment around actions and strategy scope.

- Leaders use simulations to anticipate the possible outcomes and shape of future brought by the transformation.
- Leaders should meet digital fluency requirement. Digital fluency does not address the sophisticated understanding of technology itself, but implies the use of social media, mobile, embedded device and analytics in their routine work and continuous conversation with employees.
- Leaders encourage employees' participant in continuous projects to enhance their digital performance and synchronize their learning with one another.

Last but most importantly, leaders ensure the overall organization is familiar with the risk taking and innovation spirit business culture by offering training and skill aiding. Aligned leadership implies “a continued statement, restatement, communication, and validation of the company's mission and values, which includes reinforcing its culture” (Bolton & Thompson, 2015, p.224). The alignment of leadership and business culture ensures managers having digital oriented managerial cognition and human capital.

### **3.2.3 Employee commitment**

A successful transformational leadership means to “motivate, stimulate and influence the behaviour of people” to increase employee commitment and faith in new changes in company culture (Basu, 2015, p.31). The reasons of employee reluctant to digital changes are lack of awareness, fear of unknown job duties, fears of job loss, organizational culture and history effect (Cheng & Petrovic-lazarevic, 2004). Figure 4 describes the common reason why employees are reluctant to changes in organization. Lack of awareness for organizational performance direction and clarity on changes in responsibilities trigger resistance to culture changes and increase of fear of job loss. Employee may be indifferent to change because they are pleasant to current situations. There is a doubt that workers with large age might have trouble in accepting technology

changes and agreeing with success of outcomes by technology integration. (Kane et al., 2015.)

Exhibit 2. Areas of Change Resistance	
Resistance Area	Description
Lack of awareness	Lack of awareness about the change, why it is needed, or how it will affect them. Limited participation, during program design and build phase, or lack of clarity about the new roles and responsibilities, or limited or untimely communications about the milestones of the project, leading to confusion and apprehension among stakeholders.
Comfort with the status quo and fear of the unknown	Mature workforce, tend to be complacent and/or entrenched in the current way of doing business.
Organizational history and culture	Organization's past performance with change projects influences the employees' perception of the current change project. A technology project is often seen merely as the "flavor of the month" and employees expect it go away like those in the past.
Opposition to the new technologies, requirements and processes introduced by the change	Changes may increase the performance requirements and measurement of employees' work or employees feel the change would not solve the problems they were experiencing. Lack of motivation or knowledge to take on the revised roles—perceived resistance from employees to move to a new platform.
Fear of job loss	Perceiving the change as a threat to job security; apprehensions of end users moving from highly customized disparate systems/manual set of processes to a unified system.

Source: Cheng & Petrovic-Lazarevic (2004).

**Figure 4.** Reasons of change resistance in employees (Basu, 2015, p.31).

To confront these resistances from employee, the correct and agile leadership try to engage employees at very beginning by means of internal social channel, storytelling, training and hard and soft incentives. (Fitzgerald et al., 2013; Basu, 2015) These approaches are illustrated as below:

- Internal social Channel: Some companies sniff the help of digital channel to announce new culture changes. Internal social media platform for knowledge sharing and efficient communication can increase employee confidence and understanding. The open and transparent communication could, on one hand share clear transformation strategic activities with all parties, response any possible doubts and insecurity to reduce resistance of digital changes, on the other hand open platform

offers button-up reinvention opportunity to enhance core value transformation and engage all parties participants efficiently. (Fitzgerald et al., 2013; Chahal, 2016)

- Storytelling: It is another practical means of engaging employee participating in the new strategy. The story outlines a clear view what are the changes, how will benefit them, what changes meant to company and how would guarantee their future. (Webb, 2013, p. 6)
- Simulation discussion and training: The training is a strong approach to engage employees who should know how the digital changes reshape their internal process and technology landscape. Thinking employee as internal customer, the training is not only to equip them with sufficient knowledge about technical learning, also to introduce how the changes meet their expectation and needs (Webb, 2013, p. 6). Simulation discussion encourages employees raise voice about how to shape the future transformational development. Because employees who perform transformational actions might have practical development ideas how to improve to be efficient and effective (Basu, 2015, p.39).
- Soft and hard incentives: Incentives of financial factors such as bonuses, promotions or soft factors such as organizational recognition, title advancement are means to stimulate digital executives (Fitzgerald et al., 2013, p.11).

Internal social channel and storytelling share organizational digital knowledge and enable employee observing organizational and managerial attitude towards digital transformation. Continuous training and incentive rewards see employees “as capable, successful and worthy” (Bono & Judge, 2003, p.6). It’s argued that employee might imitate managerial attitudes if succeeding in knowledge sharing (Bendig et al., 2018).

Employee's proactive involvement in digital transformation promotes social exchange, and consequently strengthens social capital within or beyond organization boundaries., such as sharing insights of innovative opportunities in production, technologies and services, or extending customer networks. Crafting culture, leadership and commitment simultaneously develop managerial cognition, managerial social capital and human capital. Meanwhile, it's recognized that correct business culture leverages what kind of leadership leading to what level of employee commitment. (Bendig et al., 2018; Bono & Judge, 2003.)

To sum the section, "the quality of managerial decision, strategic change and organizational performance in sensing, seizing and transforming opportunities" (Helfat & Martin, 2003, p.1281) lies on the three core underlying elements of managerial capabilities: managerial cognition, managerial social capital and managerial human capital. In empirical study to assess how to develop the three underpinnings in digital transformation, three key factors are identified to success development of managerial capabilities: culture, leadership and commitment on strategic changes.

## **4 Methodology**

In the fourth chapter, the chosen research method is presented. Together with the limitation of the research is reflected. The data collection process and analyse are explained.

### **4.1 Qualitative research study**

Qualitative research is the chosen methodology for this study, where collected data logically draws conclusion to answer research question of the study (Yin, 2009, p.24). Qualitative research aims to understand and interpret the phenomena in-depth. Therefore, it gives researcher opportunity to understand “How” and “Why” certain phenomena behave in complex and different context, which requires interpreter to collect empirical and exploratory materials ranging from close observation, forms of interview to valid documents, to the personal experience (Denzin & Lincoln, 1995, p.14; Eriksson & Kovalainen, 2010, p. 3).

Quantitative research aims to reveal facts and laws of behaviour by using measurable data in construct forms (Eriksson & Kovalainen, 2010, p. 3). Scholars and institutions have studied the challenges and opportunities associated with digital transformation and capabilities development, revealed the capabilities leading to transformation success by means of quantitative method where numerical data is driven from surveys (Westerman et al., 2011; Fitzgerald et al., 2013; Kane et al., 2015; Bendig et al., 2018; Warner & Wäger, 2018.). However, to offer valid and credential conclusions of research questions related to the impact of digital transformation in context of corporate travel management, knowledge production from qualitative methods could help elaborate the implications clearly. In the research stream of corporate travel management, qualitative methods have been frequently used and encouraged in travel and tourism research (Ghuri et al., 2002; Xiao & Smith 2006; Komppula 2014; Holma et al., 2015).

## 4.2 Case study approach with systematic combing technique

Case method is chosen in this study. Case study research aims to generate detailed and holistic knowledge about a research subject based on empirical sources rich in a specific context. (Eriksson & Kovalainen, 2008, p.117). Case study method is frequently used in travel and tourism research and designed to answer how and why something is done in initial questions (Xiao & Smith, 2006; Komppula, 2014). It's argued that with rich empirical data access, researchers should prefer multiple case studies over single-case studies. However, corporate travel activities and forms of stakeholders are various case by case depending on such as the size of company, the frequency of business travel, the globalization of international business, and position of travel managers. (Eriksson & Kovalainen, 2008, p.118.) Apart from the company size and structure differences, the company culture and attitude to use of technology might make difficulty in drawing common patterns across cases. Additionally, single case study aims to "understand and explore the case from 'the inside' and develop understanding from the perspectives of people involved in the case" (Eriksson & Kovalainen, 2008, p.118). There are researches in understanding the outcomes of digital transformation in business model changes and customer expectation changes, but few case studies are built to have insight of impact on functional operation in digital transformation. Therefore, choosing the single study in the corporate travel context can focus interests in the case itself, instead of testing hypotheses based on the "pre-given theoretical propositions". (Eriksson & Kovalainen, 2008, p.119.)

There are two main streams of analysis strategy, named deduction and induction. The former refers to deduction reasoning explaining phenomena based from existing formulation of theories and hypothesis (Eriksson & Kovalainen, 2008, p.129). The latter means drawing new theories from close observations. As mentioned above, the study is to focus on the case itself rather than testifying hypotheses or drawing new theories. Systematic combing technique is adopted. Dubois and Gadde (2002) use the term of systematic combining refers to a different analysis method in case studies. Systematic

combing agrees that going back and forward “between empirical observations and theory, is able to expand his understanding of both theory and empirical phenomena” (Dubois & Gadde, 2002, p.555). The theory is to be understood by empirical explanation, while empirical observation “might result in identification of unanticipated yet related issues that may be further explored in interviews or by other means of data collection” (Dubois & Gadde, 2002, p.555). The systematic combining technique has two sections. First section is to match theories and empirical data. Second section is to combine different sources of evidence and direct to interpretation of current theories or redirect to new dimensions of current theories. The source of data is not to fit preconceptions or create new conception, is rather to reveal other variables or relationships among theories. (Dubois & Gadde, 2002.)

In this case study, author sets out to analyse the impact of digital transformation on process development and capability development in scenario of corporate travel reporting. The existing literatures provide theoretical framework of digital transformation and dynamical managerial capabilities. The interview with team members were carried to understand the whole company-wide and team-wide digital transformation process and managerial capability development process. The results are firstly to fit into preconceived categories in theories, secondly discover new dimensions out of the unfitted data (Dubois & Gadde, 2002). Because there are few researches on digital transformation on corporate travel management. Contextual setting might bring different perspective to theory framework. Based on the source of data, author might bring new dimensions to answer research questions.

### **4.3 Data collection and analysis**

The section is twofold. First subsection explains the source of empirical data. The second subsection describes data analysis process. The empirical context would be explained in next chapter.

#### **4.3.1 Data collection**

Qualitative data is collected to answer initial research questions. The primary qualitative techniques have used in the case study are interviews, recordings and observations (Ellram, 1996). The primary data source here is retrieved from semi-structured interview. When conducting semi-structured interview, interviewer needs to outline topics, themes, issues relevant to the research objectives and questions, but the order of the questions and question formulation are open and varied in each interview (Eriksson & Kovalainen, 2008, p.82). The common challenge is to cover all initial topics at the end of interview and prepared to probe for in-depth answers for specific issues or topics (Eriksson & Kovalainen, 2008, p.83). Six interviewees who are director of department, travel manager, travel expert and travel accountants were interviewed with different questionnaire. Summary of interviewees is shown in Table 3 and questionnaires are attached in Appendix I.

For director and travel manager, the interviews were designed to understand how the digital transformation decision was made and deployed from organization level to travel management team level, and what expectations were shared in the implementation process. Subsequently, how manager understood the digital transformation decision in their personal development and team development. The answers from travel expert and accountant were analysed to understand how reporting process was changed because of digital implementation, and how they understood the influence of managerial behaviours.

The criterion of selecting interviewee was whether interviewees are one of travel reporting management stakeholders: travellers, travel accountants & expert, travel manager and department director. Because of resources access and other limitations, it was hard for researcher to interview travellers. Instead, the secondary data, a short questionnaire distributed by travel team in November 2018 and October 2019, could provide view about travellers' insights. The first survey of November 2018 was sent to travellers who are based in 12 countries in which travel reporting process were successfully centralized in Finland, Vaasa. The survey link was available in a period of three months. Eventually around 500 questionnaires were collected. The survey got feedback from travellers to assess how travellers perceived new reporting process, training, reporting efficiency and behaviour changes. The result of survey was used to evaluate team efforts and future suggestion how to scope the rest companies in other countries. The second survey of October 2019 was suggested by the author to provide comprehensive understanding how global travellers evaluated new reporting process, as the project scope of countries were all on board in June 2019. Around 1000 replies were collected from travellers who are from over 20 countries. Besides, most of travellers adapted the new way of working over one year, it would be interested to see any behaviour improvements after a period. The survey questions were not designed by author for research purpose but could be used to understand travellers' satisfaction on the digital change and travel team efforts. The open comment given by travellers were viewed by author and team members to understand what were the complains and what could be used as system improvement suggestions or teamwork suggestions to reflect future managerial decisions in travel reporting process and behaviour changes.

The other multiple sources such as website, mins of meeting records were collected to improve the validity of the result interpretation. Team meeting were organized twice a month to discuss the periodic issues and ongoing issues. Mins of meeting records were archived in team files and available to check for all members. Company Website displayed global news of branch companies in categories of departments, projects and so on. Digital transformation was displayed as an individual category to illustrate organizational digital transformation purpose, strategy, department level objects, and

achievements. This information provided thorough understanding on the organizational journey on digital transformation till now to assess the capability development process.

Interviewee position	Length of interview	Working in travel team over
Department director	50mins	20 years
Travel manager	49mins	10 years
Travel expert	57mins	5 years
Travel accountant A	53mins	5 years
Travel accountant B	50mins	2 years
Travel accountant C	65mins	5 years

**Table 3.** Summary of interviews.

Making observation was another method to collect empirical data in the study. The observation method has two techniques as participant observation and non-participant observation. The distinct difference is the role of researcher in the case culture and context. The former method demands researcher "...becomes a participant in the culture or context being observed" and requires the participation lasts weeks, month or years to ensure the observation result display the nature study context. The Latter method requires researcher observe the study context as unobtrusive as possible. (Eriksson & Kovalainen, 2008, p. 84-85.) In this study, because of the author's role in the case company and travel team, participant observation method was decided to record actions as it took place. The decision on what to observe was made based on the research question and established theories. Company culture and leadership were observed to describe the company setting and might compare with the statements collected from interviewee. The author would observe how travel manager performs to influence travel team and travellers. Similarity, the author observed the relationship

changes between travel manager and travel team members, also between travel team and external service partners. Therefore, the observation not only recorded the phenomenon and got insights into what exactly took place, also might spot out new research questions and further investigation suggestions. (Eriksson & Kovalainen, 2008, p.89.) Furthermore, because the researcher did the case study out of own interest, not being part of recruited by the company, all company and interviewee information and other empirical data would be anonymous. Out of confidential concerns, the thesis would be viewed by company supervisor, and suggestions in writing and structure might be applied.

#### **4.3.2 Data analysis**

The analysis steps are threefold. Firstly, author has transcribed all interviewees' answers into documents according to recordings. Based on the open answers, author tried to draw links to relevant research theories. Secondly, author went through the charts of questionnaires to illustrate travellers' evaluation on the changes of travel reporting process, internal training, user satisfaction. Author went through all open comments from travellers in these two questionnaires to have insight of their expectations and suggestions. Thirdly, drew result of data analysis to fit established theories and discover new dimensions drawn from analysis. When illustrate the findings, author quoted from interviewees directly, also rephrased from source of company website and records of meetings.

To asses quality of result and conclusion in qualitative research, dependability and applicability are two essential criteria to examine the process and product of the research consistency, which closely correspond to the notion of reliability and validity in quantitative study (Hoepfl, 1997). The dependability refers to the researchers' evaluation, implications of findings are all supported by collected data (Korsjens & Moser, 2018, p.121). In this study, the drawn conclusion and empirical finding are

depending on the various data and theory. The data are mainly from the published documentation and interview transcripts. The interviewees have been well selected based on their different position, working duration and experience, in order to provide comprehensive understanding to answer research question. The secondary survey data has officially collected by the company for internal analysis.

The applicability or transferability refers to the study result can be generalized in other context or settings. However, it could be problem in single case study in which the unique context setting and differential variables. (Korsjens & Moser, 2018, p.121.) In the corporate travel context, the size of travel management team differs according to company background. Therefore, the criteria of applicability might not valid in the study, but other companies with same size of travel management team could view the steps of withdrawing the conclusion and the interrelationship of conclusion and theory to implicit or consider in their own travel management context. However, the study can be useful for the case company to evaluate their travel management and future improvement.

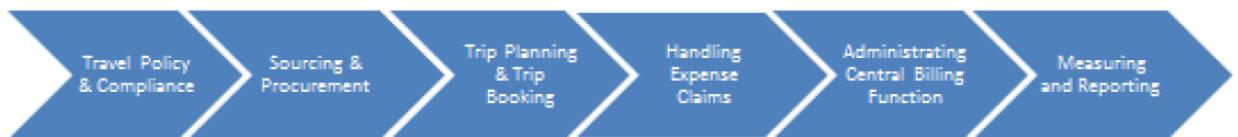
## **5 Case study context**

This chapter would firstly give readers insight about corporate travel management. Secondly, summarises managerial challenges and digital solution opportunities. Thirdly, illustrates the development process in corporate travel reporting process in case company.

### **5.1 Corporate travel management**

In this study, the segment of business travel, which is corporate travel has been studied and searched as the keyword for literature review and case study. The corporate travel is defined as “travel undertaken by the employees of a particular organization that has a substantial travel volume.” (Lubbe, 2003, p.1.) The consequences of frequent business travel have organizational and economic impacts for company, also personal impacts on family relations, personal identifications and work situation (Gustafson, 2012, p.1). Additionally, the appearance of virtual mobility introduces new ways of collaborative work as virtual meeting instead of physical travelling. Therefore, enterprises become more cautious about travel cost control and travel arrangement, in another words, corporate travel needs strict regulation and travel policy to monitor traveller expenditure and travel permissions. (Gustafson, 2012; Hermes, 2013.) Because of the high travel volume and demands of service quality and travel arrangement in corporate travel context, one specific department or team in corporations is assigned to manage travel portfolios for travellers, contract with service companies to handle travel demands, also control and monitor travel costs and travel regulations. Eventually, based on the travel data, corporations are able to seek for solutions of cost deduction and arrangement optimization for travellers and corporations themselves. (Lubbe, 2003, p.2; Hermes, 2013.) Theses activities and responsibilities are included in the travel management and assigned to a specific travel manger position in the specific department or team (Gustafson, 2012; Hermes, 2013; Lubbe, 2003).

Corporate travel management activities are deployed to six steps by Hermes (2013) containing travel policy and compliance, sourcing and procuring, trip planning and booking, handling expense claim, administrative central billing and measuring & reporting data, displayed in Figure 5. Travel managers need to understand the importance of each step and included activities to optimize performance and achieve cost saving (Lubbe, 2003; Hermes, 2013; Gaur, 2018):



**Figure 5.** Steps of Corporate travel management (Hermes, 2013, p.11).

- Travel policy & compliance are managerial activities to standardize travel policy for business travel activities. Enforcing policy compliance is the key to achieve cost saving, around reducing by 23% of total travel expense cost. Clear travel policy definition and explanations guide travellers thoroughly about what and how to do in pre-trip, trip and post-trip to improve reporting efficiency. Necessary training, information distribution, awareness sessions, feedback analysis and travel data analysis monitor and enforce travel policy compliance.
- Sourcing & procurement refers to activities building cooperative relationship with potential partners with long- or short-term agreement of providing travel services. The partners generally are service suppliers and travel agencies. Service suppliers are hotel, car rental agent, airlines and etc who agree to contract agreement with companies. Price negotiation of maximize discount, degree of comfort and ticket flexibility are concerned by travel managers in the agreement. Travel agencies are expected to be the intermediary who can offer uniform administrative routines and accessibility of travel data with analysis tool to

scrutinize policy compliance and record supplier preferences. Reliable and loyal travel agents and suppliers could help the increase of travel policy compliance by using centralized booking routines and analysis methods.

- Trip Planning & booking is a step when travellers start preparing travel needs, asking for travel approval and services in accordance with travel policy guidelines. Over 80% of indirect cost on travel expense management is allocated to trip booking, processing and handling reporting. Integration of digital tool can reduce duplicate data entry and workforce requirements. Some travel agents adapt the Online Booking Tools (OBTs) to control policy obedience and procurement process, also offer series of digital services for manager approval, booking, invoicing and reporting, which achieve time and cost saving, inter-corporation service satisfaction and traveller commitment to travel policy.
- Handling expense claim is composed of reporting activities by travellers to claim cost and report travel information after trips. Different methods are used in corporations. Some might use a central corporate credit card billed by travel Management Company for transportation and accommodation fee, some issues company credit card to traveller who will claim back later. The credibility and efficiency of travel Management Company and Card Company are as important as the reliability and authenticity of travel bills and receipts. To centralize travel data and expenditure reporting process, a central system is required to monitor process routine and control payment steps.
- Administrative central billing function is accounting activities, responsible for receiving travel expense invoices, archiving and saving for auditing and other purposes.

- Measuring & reporting are activities in which travel managers or department managers retrieve travel data from travel agencies data pool, corporate card company, OBT or reporting system to analyse certain travel activities, monitor travel compliance, report travel costs and measure travel management's objectives. Computing software enable the reports on travel and expense details of whose, where and when. The travel data could influence company decision on travel budget, business activity and investment directions. Some travel agencies offer business intelligence reporting system as analysis tool to measure performance with relevant key performance indicators.

Digital transformation disrupts the conventional business activities by highlighting the role of technology in value chain. Companies initiate digital strategies and resource relocation to achieve competitive objectives. Accordingly, to achieve cost-reduction of business travel and provide high quality of business trips, transforming travel management process with digital tools seems to be the best solution (Gaur, 2018). In the study of Iyengar et al. (2007), application model and structure in context of business travel software system are discussed to automatically analyse the business travel expenditures, the system could updates various of expense scenarios, such as high tips, missing receipt or high hotel cost, which give insight of possible fraud cases or misbehaviours. (Iyengar et al., 2007) Moreover, some tech-savvy companies introduce digital tools to confirm service booking, process travel data and receipts, which could offer wealth of benefits to systemize corporate travel management.

## 5.2 Challenges in managing corporate travel process and stakeholders

Business travels are activities consuming huge time, expenses and physical energy from companies and travellers' perspective. Moreover, concerning the environmental and societal impacts, organizations need to carry out the responsibilities to minimize the negative outcomes and to achieve cost efficiency and secure policy compliance. (Gustafson, 2012, p. 276) Travel managers face interest conflicts or dilemmas that impede corporate travel management process and involved stakeholders. Gustafson (2012) identified four main challenges faced in corporate travel management, which will be illustrated in this section.

Corporate travel management is not developed in long history, the importance of travel management is realized as the globalization and international market expansion, which requires large amount of travel activities with significant resource allocation. Travel managers are assigned to take travel management tasks. But without support from board and business culture, it is hard to implement travel management in practice, which is the first challenge. The position status of travel managers might lack of authority in organizational hierarchy, the participant of senior or members of management board could distribute the serious attitude from organizational perspective, therefore, the cooperation within different departments are much more efficient and accelerated. Additionally, the business culture should be favouring the attitude of standardized travel policy. If companies encourage freedom and open to discuss culture spirit, the travel regulation plays a role of giving travel suggestions and information sharing for cost efficiency. Instead, companies' culture in favour of strict rules and standard routines for workflow could embrace strict and compulsory travel policy to comply. Therefore, the attitude of organizational perspective play importance role in travel management, travel related objectives should be on agenda of board discussion. (Gustafson, 2012, p.278–279.)

The second challenge is in managing travellers. Travel policy regarding regulations of how to do and what should or can do from organizational view is formed respectively

(Holma, 2010; Gustafson, 2012; Holma, 2012). Without strong formal authority delegated from high hierarchical members, the travel compliance might be postponed or disregarded. The found solutions which standardize travel policy in place are senior and top managers participants and endorsement, also business culture supporting. Frequent travellers are sometimes in high position and power status, such as managers or professionals who prioritize the value of business purpose, travel time and personal prestige, rather than the travel cost or slight travel disobedience. Service offers in different business packages and bonus affect emotionally how they choose. These considerations challenge cost control in practice from manager's perspective. (Gustafson, 2012; Holma et al. 2015.) Control and commitment strategies should be used in travel management to, on one hand control travel process and outcomes by "setting actual and reasonable guidelines, explaining the rationale behind them, identifying guidelines for making travel arrangement, establishing parameter for corporate travel related costs, and setting the penalties for non-compliance" (Holma et al., 2015), on the other hand, self-control and social influences formed as an informal control approach to increase travel policy commitment voluntarily (Holma et al. 2015; Gustafson, 2012).

The third challenge lies on the relationship management. Travel service suppliers and travel agents might be competitive instead cooperative. Revenue of travel agents majorly comes from clients who delegate authorities to make choices of travel services for travellers, but still there is a doubt that travel agents receive abundant commission fee from suppliers who want to promote their sales. To achieve cost saving, travel suppliers may reach travellers or companies, by passing travel agents, offer attracting contract agreement compared to travel agents. In the situation of conflict interest, the solution is to employ travel agents for advanced operational and strategical cooperation to increase their profit generation, so that travel agents will be in favour of clients' regulations and price expectation. Currently, travel agents rename themselves as travel management companies (TMCs) as intermediaries integrate digital technologies for

travel booking, reporting, payment, manager approval and accountancy to enhance the relationship with clients and suppliers, also inter-firm relationship between organization and travellers. The technology integration transforms the TMCs' business model and revenue categories by selling travel management services. (Holma, 2010; Gustafson, 2012, 2013; Holma et al., 2015.)

### **5.3 Digital transformation in case corporation**

The chosen case corporation is a global service-oriented corporation based in Finland who is successfully transformed from traditional manufacture corporation. In decade, the role of technology is recognized and integrated in production and service products, the emphasis of digital transformation is supported by board of management. Special digital group headed by vice president is formed to coordinate and guide the successful global-wide digital changes in culture, people and governance. The transforming phases are bootstrap, accelerate and sustain. The first bootstrap stage refers to start planning and set up in infrastructure, right governance hierarchy and teams to brainstorm and innovate the proceeding activities to achieve smart service goals. The second stage of acceleration means executing the process transformation in value chain activities and deliver innovative tangible outcomes in presence of customers. Moreover, the business culture and people are targeted to adapt necessary changes in new governance structure and requirements. The last stage is to solid position of digital enable service-oriented pioneer in industry by cutting edge technology and innovative culture. Currently, the company on second stage of executing digital optimization in culture, product, people and business model. (sourced from corporation Website.)

There are several significant activities supporting each step execution. In Bootstrap stage, the governance model, communication channel and open innovation are keen to understand the ideation and expectation from board of management, customers, industry and society. The company has invested on digital hardware and software as

asset to construct the digital infrastructure and communication methods. Following, in the second stage, automizing manual process and encouraging innovative thinking by collaborating with teams, partners, customers and universities present the beneficial digital outcomes in production innovation and knowledge sharing. Especially, the company has created its own platform and application to boost the innovation participation and digital knowledge sharing in transparent and efficient way. Compared with the external platforms and learning materials, the internal platform and application are all in focus on industrial-specific and business-specific scenarios, and customized studying phases designed depending on users' position and department. The internal social media channel is encouraged to use in frequency. Because of the business globalization and business scope, the digital channel can collect thoughts and questions for further discussion and innovation. The transparency and interaction on digital tools enable technology acquaintance, knowledge sharing and collaboration.

### **5.3.1 Corporate travel management in case corporation**

The integration of technology not only changed the presence of customer values, but also facilitated the management in finance and business support performance. By the power of technology, the company recently centralized the activities relevant to corporate shared service centre from diverse brand company offices to parent company office in Finland. The mutually shared digital targets are improving cost efficiency, automating repetitive process, recruiting talent resource and use in decision-making.

The corporation has average 15000 expense reports to process monthly, due to its nature of business services and market globalization. A travel team formed of 11 travel accountants and expert is reporting to one travel manager who is assigned specifically to deal with corporate travel reporting management. The team is part of shared service centre which is managed by a director who is superior of travel manager. By reviewing

the six steps of corporate travel management proposed by Hermes (2013), the travel team only responsible for monitoring “Handling expense claims” and “Measuring & reporting”. The detail travel management activities in case corporation A are described in Table 4.

Steps of travel management	Stakeholders	Tasks
Travel Policy & Compliance	Board of management	Global policy and local deviation rules are agreed and signed by board of management team.
Sourcing & Procurement	Procurement Team	Contracting negotiation with service suppliers are assigned to procurement department.
Trip Planning & Trip booking	Travellers; Managers; TMC	Travellers should get trip approval from managers. Travellers should contact TMC for transportation and accommodation booking. Travellers should check the accessibility of corporation credit card.
Handling Expense claims	Travel accountants; travel expert. travel manager	Ensure each expense is viewed and approved by managers before processing. Check the expense details which should comply to travel policy and allocate to correct expense type before accountant approval.

		Rejection and correction are suggested to travellers if any disobey or mistakes in expense report.
Administrating Billing function	Payment team	Arrange reimbursement proposal. Ensure the validity of travellers' bank account
Measuring and Reporting	Travel accountants; Travel experts. Travel manager. Department managers	Report monthly expense volume. Report error issues. Check expenses by projects, employees or other measurable indicators.

**Table 4.** Summary of travel management in case corporation.

Freeman (1984, p.25) defined a stakeholder as “any group or individual who can affect or affected by the achievement of the organization’s objectives”, and this definition is widely used as the basis in other definitions. Because this research is based on project, therefore the stakeholders are identified according to the project portfolio stakeholder which refers to any group or individual in a relationship with a project portfolio (PMI, 2013). The core stakeholders in the case company refer to corporation travellers, travel accountants and expert, local key users, travel manager, director and TMCs, in concern of percentage of project contribution and knowledge of digital transformation

influencing on corporate travel management. The description of core stakeholders is described as below:

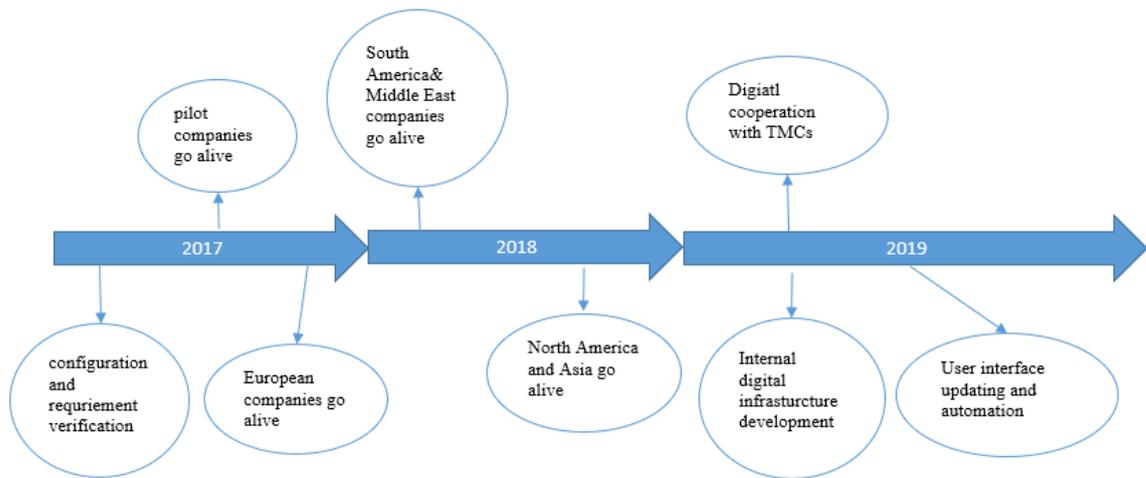
- Traveller: The employee who would be on trip for business purpose and claim travel expenses from company in compliance with company travel policy.
- Travel accountants: the travel accountants scrutinize report compliance before payment release.
- Travel Expert: the travel expert is responsible to control of technical administration and configuration. Travel expert is responsible to solve posting failure issue by communicating with other departments, travel manager and local key users.
- Local key users: contact persons who are directly trained by travel team are responsible for solving, escalating travel reporting issues.
- Travel manager and management team: management members who monitor the implementation process and suggest improvements.
- TMCs: travel agency companies who help and tools to facilitate travel reporting process in case company. The core TMCs identified are travel reporting service suppliers and bank service supplier.

### **5.3.2 Digital development in corporate travel management**

The company was using a software to process and monitor expense reports. The software only can update expense details such as amount, spending place, spending time and expense type which pre-defined by the software company. Travellers scanned the original receipts to mail or sent by letter according to local requirement per country.

The travel request approval, a signed paper form was also uploaded by internal mailbox. There were few supports for analysis and research to evaluate or compare travel costs, travel purpose and departments accordingly.

With the spirit of digitalization and agility, company called for operational and strategic change in corporate travel management to improve quality of work and achieve cost efficiencies. Particularly, the old software was out of date and stopped upgrading. By the call from board of management, a new travel solution partner was chosen to provide Expense solutionA for expense reporting and analysis in efficiency and convenience. The implementation project was assigned to travel team led by the travel manager start in February 2017. For the first three months, travel expert and manager worked together with travel solution partner to figure out the design of user interface and features. The go alive stage was composed of consequential steps: go-live in pilot companies from Third Quarter of 2017, go-live in Europe from fourth quarter of 2017, go-live in South America and middle East from first Quarter of 2018, go-live in north America and Asia in Second Quarter of 2018 and go-live in Africa in last quarter of 2018. Along the implementation of Expense SolutionA, the development of internal digital infrastructure was on-going started from first quarter 2019 till the time of author's analysis in 2020. The digital cooperation with TMCs were under development and implementation from first quarter 2019 as well. The development schedule is displayed in Figure 6.



**Figure 6.** Development timeline in corporate travel reporting.

At beginning of the implementation stage, the travel expert and travel manager gathered business requirements and expectation to customize the reporting interface, so that company business demands were included in the project. Concerning the business globalization and business complexity, the company decided to take administrative control and data integration in house. The travel expert was coached by a specialist from travel solution partner to understand and learn the administrative control, data processing flow and system integration. After the system completion, pilot companies in some countries moved from old software to the Expense solutionA, while the rest of companies still processed on old software without conflicts. The accountants got training from travel expert and learning materials to know the new system. Meanwhile, the local key users got online training and user materials provided by travel team and service solution partner. The new reporting way totally differentiated from the old software, problems and issues were raised up by different cases. Expert assisted travel accountants for problem solving and assist local key users for providing training to traveller.

After the prior companies, other companies were on board in different schedule and training timelines. The project by the time of research writing has successfully immigrated all companies who were processing travel expense in old software. The period of implementation time was approximately three years. By the time of project implementation, travel teams learned and understood the travel policy deviation in different countries and companies according to local policy and authority. By discussing with travel manager and department managers for the purpose of enhancing travel compliance, global policy and local policy has continuously updated complementarily.

## **6 Result**

The focus of this chapter lies on describing the qualitative analysis results. Firstly, the analysis of interviews reveals the motivation and pressure on travel management changes in case company. Secondly, the overall strategic management focus in Figure 7 demonstrates operational and managerial objectives. Thirdly, the transformation objectives and process of travel reporting activities are recognized. Consequently, the impact on travel policy compliance is identified because of transformation of travel reporting process. Lastly, the underpinnings to trigger managerial capability development are illustrated.

### **6.1 The call of travel management transformation**

Digital transformation is publicly involved in case organization strategy because of business needs and competitive benefits in the industry. A company-wide digital transformation strategy led by digital transformation group guides the organization towards being digitally transformed. (Singh & Hess, 2017.) It is widely recognized that the use of mobile, cloud, analytical and embedded devices positively improve the business performance in customer experience, operational excellence and new business opportunities (Fitzgerald et al., 2013). Similarly, operation excellence results from internal operation optimization and employee efficiency. Therefore, transforming internal functions with help of digital technology is included in the company strategy scope, which is the first and biggest motivation of travel management transformation. Specifically, the department director is very confident about the role of technology in business development, quoted as:

“the digitalization is development, is life.... we are surrounded by digitalization, .... we get used to have digital devices in personal life. Of course, in our organization, the core here is development, we cannot survive without aware of digital changes. We need to adapt digital solution in our work.” (Department director)

Despite that corporate travel management is not part of business unit, but board of management still see there is a need in digitizing travel expense processing, analysing and archiving. The company has seen the role of corporate travel management as enabler and a driver for business decision making, which are justified by interviewee:

“we belong to business support, ensure the travellers who are at frontline can get financial support properly.” (Travel expert)

“Considering the global scale of business needs and institution allocation, the travel expense holds significant portion on financial statement, tracking and reasoning the travel expense is necessary in department budgeting and auditing legislation. We need a tool, need the technology to help us.” (Department director)

“It (the travel data) may help decision making when managers want to value employee or project by numbers and facts. Also, the management team knows which company or which project makes money, or intimate with which customers...” (Travel manager)

Thirdly, there were too many manual workflows for accountant and traveller which impeded the process efficiency. The accountant and travellers urged new solution to simplify the expense reporting process and mobility access. The pressure from end-users demanded responses from company to solve the current problems also address future needs (Leipzig et al., 2017, p.7.) Commented by interviewee:

“we had receipts all around the word sent by employees to our office, it takes time to find correct receipt matching to certain travel expense report..... the report process had to postpone if some receipts were missing.” (Travel accountant A)

“Some (travellers) will be on sea (for work purpose) for weeks or month, they can do their reports after coming back, (because of) paper handling and (software) access.” (Travel accountant B)

“we (Accountants) want the tool to be fast, transparent, clear.” (Travel Expert)

Fourthly, the old software module was stiff and out of update which cannot satisfy current and future business requirements for institutional user groups. The input data was not structured to assist operational and strategic decision making, concerning the huge travel expenditure amount annually. But to have a sustainable internal operational environment to support business units, the company sought for advanced solutions in travel management. Therefore, the board of management prioritized the corporate travel transforming project by providing institutional resource supports. Lastly, Expense solutionA promised service commitment. The new service partner enabled kinds of data analysis modules and following updates.

“We are the pilot company who decide to prioritize travel process automation.... and we believe in outcome of new tool can bring efficiency and satisfaction in organization. The resource investment on this project may not be comparable to project directly related to business functions, but few companies in the industry are willing to take the task as a challenge and priority...We think how things want to be done in future and give user opportunities how to perform, minimizing the bad feedback. take much harm from employee.” (Department director)

To conclude, the call of transforming travel management drives from internal motivation and pressure also external pressure and competition. The external motivation of transformation in presence of external customers are from profitable pressure and market competition.(Hess, et al., 2016) Differently, transformation endeavours in internal operation are motivated by the company spirit of digital recognition and employee appealing. The company had strategized digital transformation in production solution. The fruitful benefits in production and customer satisfaction enlarged their belief and ambition in transforming internal systems to magnify business benefits by increasing internal operation efficiency. Meanwhile, the old software for expense reporting was out of date, manual repetitive workflow and lack of advanced analysis supports decrease the satisfaction and willingness of accountant and travellers. The

external competition threatened the internal operation efficiency and internal stakeholders' satisfaction. It was of urgency to find solution to maintain the company position as digital-oriented service company and digital spirit. The impetus and external pressure driving transformation in corporate travel management is shown in Table 5.

Internal impetus	External pressure
The willingness of board members	Out of date in old software
The transformation success in production	Development mission as industry pioneer
Upgrading needs from internal stakeholders	Business globalization
Analysis capabilities in supporting business decision-making	

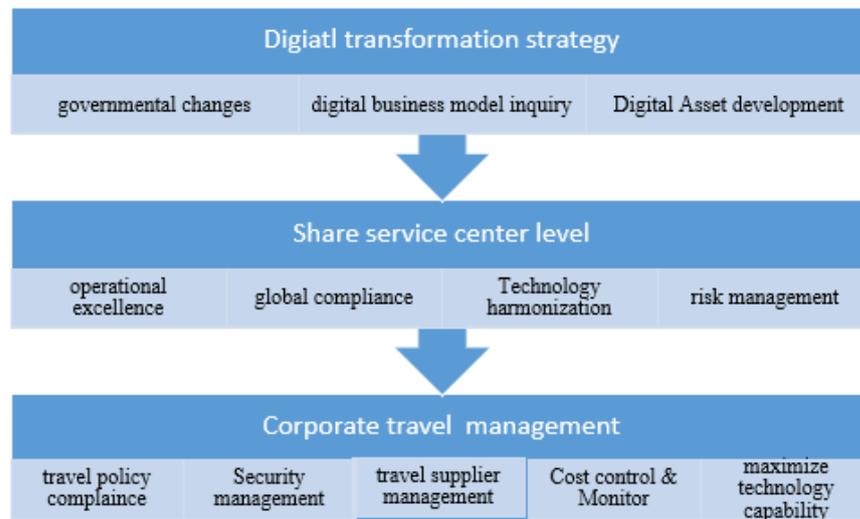
**Table 5.** Summary of internal and external drivers to upgrade travel management process.

## 6.2 digital transformation on travel reporting process

The section is designed to illustrate the influences of transforming travel reporting management. The first sub section is to understand strategic decisions from company perspective and travel team perspective: the overall digital strategy objective from company perspective, objectives in shared service department and travel management team are mapped to understand the strategy transformation value. Following, operational transit on travel reporting process is explained. Lastly, the strategic impact on travel policy compliance are explained.

### 6.1.1 Strategic decisions in corporation travel management

As discussed, some companies failed during the digital progress due to lack of clarity in transforming elements and corresponding capabilities (Ismail et al., 2017). The strategic decisions on the use of technology, changes in value creation, structural changes and the financial dimensions specify strategic guidelines to decrease transformation challenges and uncertainty (Hess et al., 2016). This section will examine the different strategic decisions from the overview of company-wide digital transformation strategy to travel management functional strategy, which is summarized in Figure 7. Concerning the information confidentiality and study agreement with superior, the author would possibly paraphrase words from interviewee instead of direct quotation.



**Figure 7.** Overview of strategic management focus in case company.

The company has transformed from traditional industrial company to smart business company by embracing existing technology and explore new technology possibilities in business units. The company has seen itself as market leader who treat technology as hardcore in products, infrastructure and operations. Specifically, the technology is

embraced in the form of digital artifact, digital platforms and digital infrastructures. The company invest on digital asset development. for example, company hired talented tech persons to support and maintain its own digital channels or licensed software in-house. As introduced above, the company has a separate digital transformation unit to govern the digital transformation in operation. A separate transformation governance aims to coordinate in departments, projects and production process to envision potential digital vision. Eventually, the company successfully offer digital solutions as form of physical or virtual product, because of corresponding business model alter and digital infrastructure support. (Sourced from Company website.)

In line with company digital transformation strategy, the shared service centre department has targeted goals of great efficiency and high quality in operational excellence to support business function operation. Consequently, the decision of centralizing global Shared Service in Finland and continuing global compliance development had been made. Previously, the Shared Service's duties were distributed under different company branches around the world. By the help of in-house tech infrastructure and external digital service, the tasks can be performed virtually with less paper process and fast speed. The task centralization can quickly identify the possible faults and incompliance behaviours which escalate to different policy deviation and requirements. Director therefore can discuss with management team and develop global policy firmly. It might be argued that centralization could be one factor to realize the shared strategic objectives. (Sourced from Company website.)

The risk management is one essential focus dimension be concerned during the transformation execution. Mentioned by the director, Risks are divided into three dimensions of data security, threat prevention and infrastructure reliability. The integration of different technologies advances performance, possibly expose to potentially internet risks, such as server crash, data leaking, fake data and hacking etc. Therefore, to maximize digital capabilities, department has taken concern of risk management in practice (Ismail., 2017).

Under the lead of Shared Service Centre, corporate travel management has shared objects of travel policy compliance, travel security management, travel supplier management, cost control & monitor and maximize technology capability scoped by travel team, travel purchasing team and corporate management team. In aspect of travel reporting process, maximizing technology capability travel security management and cost control are in objective scope, which influence travel reporting process and policy compliance. The detailed performance to strategize these objectives are explained as below. (Sourced from Company website.)

Because of the strong in-house digital support and experience, the decision was contracting with service partner for providing platform access with mobility and data storage, remaining administration and data integration in house. Administration and configuration are duties of travel expert in team, reporting workflow and other essential features could be added or adjusted according to business needs and agreements. In-house robotic solutions have developed to facilitate capabilities of expense solutionA. With the help of strong in-house digital support and control of administration and configuration in Expense solutionA have maximized the value in business support and customization.

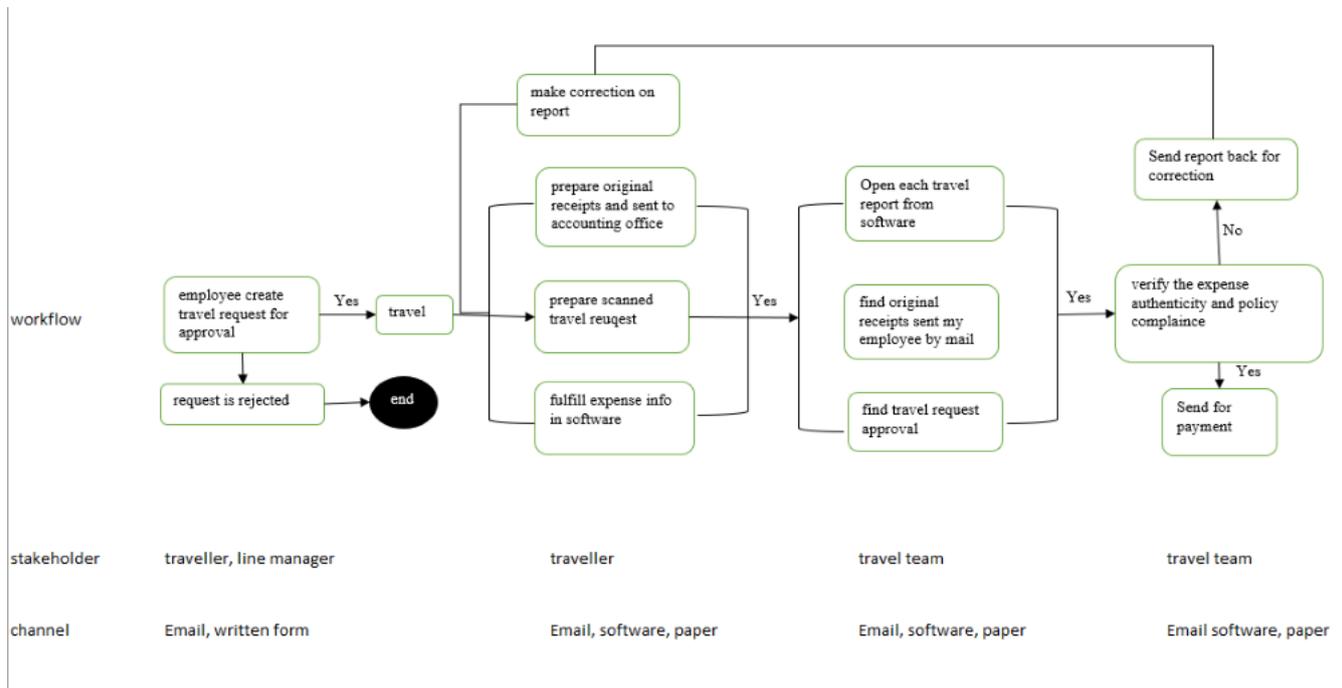
Data display and modification has been secured and monitored by travel team. Introduced by the travel manager and expert, the travel team can assign different roles with different features to traveller, accountants and department managers. All the input data are stored in the cloud-based infrastructure provided by service partner, simultaneously, the data would be transferred to other internal system for purpose of expense process securely, such as payment release, bank checking or personal information verification. The travel team and other function team guarantee the personal information security and usage purpose. The financial decision could impact on the customization and administration limitation.

The analytical capacity of Expense solutionA influence on cost control and monitor. Explained by the travel manager and department director, the travel data can be coded as charts or tables in Expense solutionA to illustrate the project indirect costs and frequencies of physical interactions with customers, therefore the department managers or board of management can combine the information with others to see the value and profitability of project. Additionally, by analyse the travel cost per project or department, the board could predict and optimize the budget allocation by facts.

Travel policy are embedded in configuration to increase compliant performance. The configuration in Expense solutionA is adapted to all travellers globally coordinated with travel policy requirements. Robotic automation and audit trail are two features. The features are initially built by service partner in line with travel policy. Introduced by the travel expert, the notification or errors will pop out if any disobey happened in reporting. The changes in features are controlled by travel expert if required by branch companies and finance controlling purposes.

### **6.1.2 Travel reporting process transit**

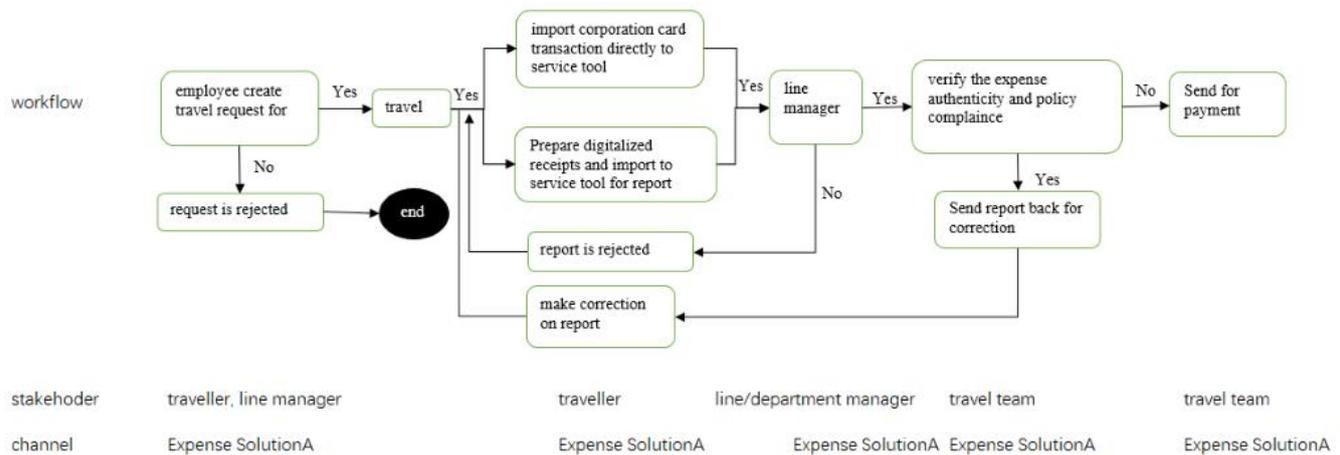
The company was using a software to process and monitor expense reports. The workflow of expense reporting is drawn in the Figure 8 according to researcher's observation and interviewees' answers. The role of software was to update raw travel data from travellers into correct category. E-mail and internal interaction channel were complementary tools to support the report verification and payment process. The measurement and analysis on expense amount and reports were not supported by the software design. The travel manager was able to load travel report volume and amount from software. The expense sorting by project or department code was done by excel or other complementary software. After implementation of Expense solutionA, the new workflow is presented in Figure 9.



**Figure 8.** The workflow of travel expense reporting before digital changes.

The operational outcome of expense solutionA is to centralize the reporting process of global travel expense shown from different company branches. The Expense solutionA allows travellers upload travel details in a user-friendly interface in which the travel request and travel approval are integrated in the design. Additionally, embedded chatbox allow accountants write comments to travellers or additional approver for questions or correction reasoning. It's agreed with accountants that travellers had less times to direct contact with accountants for questions about expense report because of plain explanation from Embedded chatbox and automatic error identification. The strategical outcome is to utilize the analysis tools to have insights of travel expenses, while increase policy compliance and internal satisfaction. Digital analytics transforms and illustrate raw data to measurable and reliable facts to explain spending behaviours, cost preference and so on. By inspecting the findings, travel team has insight of non-

compliant behaviours and traveller expectations, further actions are considered to control expenses by self-commitment and digital solutions.



**Figure 9.** The workflow of travel expense reporting after digital changes.

### 6.1.3 The impact on travel policy compliance

Holma et al. (2015) explained the two key strategies in travel policy compliance adapted to internal end users (travellers) in purchasing process, including of control-oriented and commitment-related strategies to manage travellers. In the corporation, the objective of global travel policy compliance is monitored, hence the impact on travel compliance due to digital transformation is included in travel reporting process.

In the expenses solutionA, the functional features control on process in different activities. For instance, when preparing reports, the control approaches are trip approval and use of TMCs. The integrated travel request and clear approval flow help travellers organize each trip with explicit business purpose and manager awareness. Departments are notified by the trip cost estimation in the travel request and could check with employee about the trip purposes and extra safety information. All the trip approval flow is transparent and accessible. In addition, the trip verification sorts out

the unnecessary travel that could be replaced by online meeting. The company has invested on the appearance of different digital communication channel.

“It’s different to have a face-to-face meeting with client, team compare to online meeting. It’s better to meet each other and have chat. But in some cases, online meeting saves more time, energy for better result. We have invested a lot on equipment to have hold a really good online meeting. We hope each department manager and line manager should concern ‘is the trip necessary, can be replaced by online meeting?’ before approve travel request.” (Department director)

Apart from the travel request of use of TMCs, the control approaches are appeared as digital examination and scrutinization by accountant. All the updated expenses clarified by traveller should obey travel policy. The configured settings automatically identify non-compliant expenses or information missing accordingly. Embedded functionality of alerts and modification suggestions prevent travellers from policy infringe and information violation. Before arrange payment, the expenses are checked by accountant who ensure the expense information is matching with the inputs by travellers.

“we have the tip box in the interface, ... I would believe, it certainly helps and with the communication by returning the report which is not policy complied, they should learn from that and not try to do next time” (Accountant B)

Travel team, departments managers can monitor travel behaviours sorted by employee or other subjects in their own units. The travel tool gives visibility of each expense item and every penny spent during the business trips, which provide concrete evidence and data analysis for future decision-making in budgeting and resource allocation. But the director and travel manager mentioned the departments lack of awareness of using the analysis capability in the reporting system. The continuous training and knowledge sharing are on discussion, so that the potential capability of reporting channel can be seized.

“The tool is really useful, we know where our money spends on, not just us, also our customer. So, we could offer analysis report for internal use, probably good record for our customers. And our departments can view specific reporting details... some probably didn't know the reporting is available. We hope we can benefit from the tool in maximize.... We might offer internal training about the reporting, encourage department use it.” (Department director)

The expenses solutionA is performed in a form of process control in which configuration in line with travel policy is designed to achieve high compliance when preparing expense report. Meanwhile, it includes a form of outcome control by travel accountants and analysis capabilities. The best practice of policy compliance is to increase their commitment and involvement, emphasized by the organization director. It's clear in empirical studies that business culture influence employee engagement and commitment (Gustafson, 2013). Holma et al. (2015) emphasize the high internal service quality influence employee commitment on travel policy. Customized administration design, Continuous training, high accountant commitment are three approaches recognized in the case study.

“External suppliers helps to build the configuration and teach our people about administrative skills, but we didn't hire them in the project implementation, they don't know our business better than internal persons,.....we need internal persons who have best knowledge about our business needs, also from cost saving point of view, the external source is much more expensive, once they project is gone, they will disappear and we won't know anything about the technology.” (Department director)

“Updates in new features and new user interface for end user part to improve experience. Training and learning material will be revised. We will take new round in config as now we have experience and spot any improvements. And any changes to make traveller easier, cuz that is what we go for. If we can get rid of one click, it is a successful improvement. We have to go through the details how to easy users' life.” (Expert)

The application of Expense solutionA has increased travel members' commitment and trust on new tools. But the change may require time and continuous training to change travellers' behaviours to adapt the new ways of working. Therefore, the importance of training material and communication with local key users is verified. By the time of research, the author observed that travel expert had collected common questions from accountant and create training videos accordingly.

"we have shared our training video in (company channel), practically, everyone body shall know who are the right person to contact if problem happen... not come to us all they time... positively, people get aware of it after we repeat and repeat with local key users, (internal media). And we will keep update the training videos." (Expert)

Meanwhile, it seems the continuous training satisfy 77% of traveller in 2019 Survey, much higher than 57% of travellers shown in 2018 survey. Over 50% of traveller giving 4 or 5 explained travel team and key user efficiency in problem solving and supports. Despite the strong policy control in Expense SolutionA, end-user satisfaction still increases because of efficient training and knowledge sharing. The team is expecting higher satisfaction rate in future when most travellers familiarize themselves with new system and supplemental suggestions are taken into consider.

"our next step is to have another round to check what we can do better.... Of course, travellers' suggestions are considered, actually we have some actions on that" (Travel Manager)

Sometimes, travellers behave differently on the trip planning for their own reasons. For instance, travellers' book cheap flight from public websites instead of booking from BTA, or book accommodation with other travel agencies such as Airbnb or Booking.com. Those are non-compliance behaviours because of misunderstanding of the rational of travel policy. By solving traveller confuses, travel management team has two directions of explaining the scene behind the control policy and departmental influence to increase self-control and commitment (Holma et al. 2015).

“We want travellers know that the advantage of booking from (TMC) is for personal security, safety, ticket flexibility and risk control. (Management member) has answer the question in our channel publicly.” (Travel manager)

“Their managers should know.... And the role of manager travel behaviour is very important.” (Department director)

To summary this section, the strategic decisions on travel reporting process are maximizing technology capability, travel security management and cost control. The implementation of Expense solution digitally transit paper works and repetitive workflows by automation and centralize use of channel, which improve functional operation efficiency and strategic insight on travel expense for decision-making, such as department budgeting, project budgeting, travel policy updates and so on. These workouts to visualize strategic objectives and implementation of Expense solution also impact travel policy compliance in reporting activities. Control and commitment are efficient approaches. Additionally, explanation from managerial team and continuous training could enhance control and commitment on travel policy compliance.

### **6.3 Underpinnings of capability development in travel reporting process**

In this case project, there was few conflicts happened during the implementation, and the project was recognized as a success in travel team and management team. Travel manager and director successfully achieved sensing and seizing digital opportunities provided by Expense SolutionA and internal technology infrastructure and internal digital department support. Following, transforming opportunities into reality was efficient and agile because of correct managerial belief and corresponding human capital and social capital. (Warner & Wäger, 2018; Carnahan et al., 2010; Kor & Mesko, 2013; Ismail et al., 2017; Kane et al., 2015; Fitzgerald et al., 2013; Webb, 2013; Basu, 2015; Bolton & Thompson, 2015; Hess et al., 2016.)

In this section, Culture, leadership and team members' commitment are recognized as factors to trigger managerial capability development in sensing, seizing and transforming opportunities in line with others' findings (Ismail et al., 2017; Kane et al., 2015; Fitzgerald et al., 2013; Webb, 2013; Basu, 2015; Bolton & Thompson, 2015; Hess et al., 2016). Additionally, the development of stakeholder relationship is extended to be recognized as an additional factor in this study.

### **6.3.1 Business Culture change**

The members of management team represent the voice of different companies, their commitment to the digital change in corporate travel management accelerate the digital adaptation. The corporate is aware of the importance of digital transformation in business development. The digital transformation group is responsible for digital solution and innovation, also importantly, share the benefits of digital changes, dissolve the confusion and stress of senior managers. The belief in digital changes encourage senior managers to utilize digital tools and process frequently which would influence the way of communication, workflow and knowledge exchange throughout the entire corporate. Additionally, the organizational digital events are open to all employee and partners to be brainstorming and innovative. To gain business benefits from digital transformation, the culture barriers can be solved by showing the company attitude towards the transformation commitment and essential internal advertisement. The atmosphere of encouraging innovation and technology increase employee faith in digital culture.

"I think we have a strong digital culture in our company... at least, I recognize it when our CEO did the digital transformation lecture on live." (Accountant B)

"We are a big family, and the technology is our pen, we can use the pen to write down how we can work together to compete with other groups" (Department director)

The company has successfully achieved the digital culture deployment in senior manager, manager and team workforces. The company has developed great digital attitude for taking technology into changes determining company competitiveness and future development of core business. A digital transformation department with individual liability and mutual strategic objectives take charges of internal digital channel development to create great learning environment. A correct digital culture aims at embracing digital innovations in present and future business. An individual digital transformation department is responsible to sensing, seizing and transforming opportunities, which explicit managerial cognition in organization level and operation level.

### **6.3.2 Leadership development**

leadership initiate changes in process and people (Basu, 2015). To achieve that, several components are recognized in case study. Firstly, leaders embrace failure as a prerequisite for success and encourage extensive communication to shape the future (Kane et al., 2015). The travel manager encourages the accountants to take risks on the path of finding right solutions. All travel accountant interviewees have mentioned that the travel manager's memo: learning by doing. The risk-taking spirit motivate accountant to learn, practice and discuss along the implementation. During the monthly meetings, the accountants raise up questions and suggestions in solving the issues, the travel manager has consulted with expert and other departments trying to find workable solutions. In travel team, the manager and accountants all has shared the same understanding of the urgency of digital change to improve processing speed and other compulsory business requirements. The doubt of accountant for the project is decreased by the strong risk-taking leadership and support from executives.

“When I heard how the new tool will automatize the works and provide analytics, I don't believe it could work as planned. It's hard to believe ... but (travel manager) said take in

as a learning journey, learning by doing, when risks come, we take it... now, I think we really did good job in our team.” (Accountant B)

“I’m really proud of our team, I think the project is a success... I have seen the whole team was committing on the project. It’s such as triumph for all.” (Department director)

“I think it is a success. The project is really big, but we manage to get most of companies on board, and successfully centralized the reporting process here as planned.... We should give credit to our team members. Because of their commitment, we did it.” (Travel manager)

The second component is to develop career value propositions in teams and share understanding of cooperation. Travel managers promptly has adjusted the work responsibilities to adapt the changes in technology transformation. Recruitment and knowledge sharing were prioritized to smoothen the transformational impact on travel team members. Travel accountants could help around with each other when report volume in certain country is overwhelmed. Manager has successfully deployed work breakdown to minimize impact of urgency and process slowdown.

“expert is busy with new tool configuration and administration. The routine works of handling reports view and process are too heavy, so I was hired to share the work, so expert can concentrate on the priorities. When I started, I leant the new processing tool, I didn’t learn the old software. Because there is no point learning the old tool if it is out of update and be abandoned soon... I know how to process other countries’ report. Sometimes, the report comes in huge amount, we need to help each other.” (Accountant C)

“We have our own responsibilities in person, but also know we need to help around with others. That’s our team.” (Accountant B)

The third component is developing digital fluency. The travel manager and expert use corporation social channels and internal learning application with mobility for online knowledge sharing and digital study. These channels encourage employee share thoughts, innovation and discussion, also are capable to provide studying opportunities

for all employee, which aims to familiarize with digital tool voluntarily, rather than to impose change pressure on employees (Ismail et al., 2017). Also, manager and director has familiarized themselves with corporation social channels and internal learning application. Director and manager mentioned that technologies would not replace our works, but to facilitate our works.

The fourth component is encouraging discussion. Employees' participant in continuous projects has benefited team performance and synchronized their learning with one another. By continuous interaction and brainstorming, manager is aware of the performance obstacles in transformation stage, mutual learning in meeting could solve some issues before escalating to management team discussion.

The leadership development is critical to stimulate business culture into transformational process by building correct digital managerial cognition with risk-taking spirit and learning by doing memo. In addition, agile leadership is essential capacity in managerial human capital.

### **6.3.2 Employee commitment**

The project in travel team goes well because of high employee commitment praised by the director and travel manager. Meanwhile, it's recognized that team members' commitment is determined by correct digital leadership and efficient training. There is a positive relationship between transformational leadership and employee commitment to the digital changes (Basu, 2015).

Travel expense reporting authority was decentralized in local branch companies, the decision of centralization brought uncertainty and doubts to travel team members. As mentioned by accountant C:

“There is a delay in information sharing from local update to our team or HR update to our team. Sometimes, we found the changes in expense behaviours, then we ask the contact person to verify. Then we were aware there are some deviation going on.”

But the spirit of learning by doing and travel manager’s encouragement has enhanced team members’ commitment. The centralization brought questions about local travel policy deviation compared to global policy. Travel manager has responded promptly to minimize the information gap. Travel manager has encouraged team members to gather all suspicious misbehaviours. As a result, the travel manager on one hand has challenged travel management team to enhance global policy, on the other hand, has challenged local key users for training and information distribution, while investigate how the expense solution can increase the policy compliance and learning. Supports from travel manager improve travel members’ belief on the changes and put much more efforts on training and learning to travellers and local key users.

“we currently are listing some unclear reporting behaviours in excel... We have discussed in team meeting; it is getting more clear what should be done if deviation is happen and who should we contact with... It eased our concerns and uncertainty.” (Accountant C)

“It’s not our job to make the policy and negotiate with travel suppliers (hotel, car rental etc.) But we could influence on its updates based on the facts, numbers... It needs a long-term process to have one global policy, it’s continuous to be developed.” (Travel manager)

Due to the increase of digital fluency, the communication with local contact persons and travellers for knowledge exchange and open innovation brings high commitment and acknowledgement. Throughout the whole project, travel team members are willing to answer relevant questions via digital tools or face-to-face presenting. By the time, it has created an internal knowledge sharing group on social media where local contact person or employee ask a query and comments are contributed by others who knows the solution by experience. From the latest 2019 survey, it shows that half of percentage surveyed travellers are favour to ask local key users and colleagues at first, before reaching travel team and digital materials.

“I am responsible to train local key users.... key contact persons are trained through face-to-face training lessons, skype training and video training. Local key users are trained to answer travellers’ questions related to the new system” (Expert)

“they share knowledge on the channel ...Afterwards, the local key users hold sessions to all employee who would travel according to business needs. The company website and shared platform occasionally keep information updates. local key users would help each other for common problem solving and knowledge sharing. In detail, there are some behaviour and responsibility changes for different user groups.” (Expert)

“they ask each other. One traveller came to me when he said his colleagues cannot help...” (Accountant C)

The digital changes in travel reporting process not only have significant impact on traveller commitment on policy compliance, also the commitment on travel team efforts and Expense solutionA. Different from old software, the use of Expense solutionA has included most of activities generated from creating reports to expense approval. The advanced internal system increases travellers’ satisfaction. Quoting from travellers’ comment displayed in surveys:

“it’s a good tool. I don’t have to check mails to see if my manger approves the request.” (Survey 2018)

“I could load expense directly (to report). Save time for me.” (Survey 2019)

“I can prepare reports during the trip, save time.” (Survey 2019)

The user-friendly functions save repetitive steps and time for traveller to manage travel report, which is expected to increase percentage of employee commitment and satisfaction. The 2018 Survey was conducted when the project scope was nearly completed, and first round of training was finished. The overview rate of traveller satisfaction was 3 score out of 5. 60% of travellers were using the tool daily and weekly, 32% of whom gave 4 and 30% of whom gave 5. Travel accountants had personal experience receiving compliment on the new travel reporting tool because of mobility

and fast process speed. The latest survey 2019 aimed to understand how traveller perceive the changes and support from team. The overview rate reached to 3.65 out of 5. 70% of travellers use tools weekly and daily, 55% of whom gave 4 and 32% of whom gave 5. The frequency of tool usage might affect the rate, as said by the traveller giving 5: "When you use it frequently it is easy to use", whereas a traveller giving rate 1 explained "it's not intuitive to use for one that is not using the system often."

Consequently, agile leadership result to high team members' commitment, while continuous training and advanced internal system effect travellers' satisfaction and acknowledgement. Therefore, employee commitment extends capacity of social capital to provide high quality of feedback and possible development opportunities. It is said there is a positive relationship between leadership and employee commitment.

### **6.3.3 The triadic relationship in travel reporting**

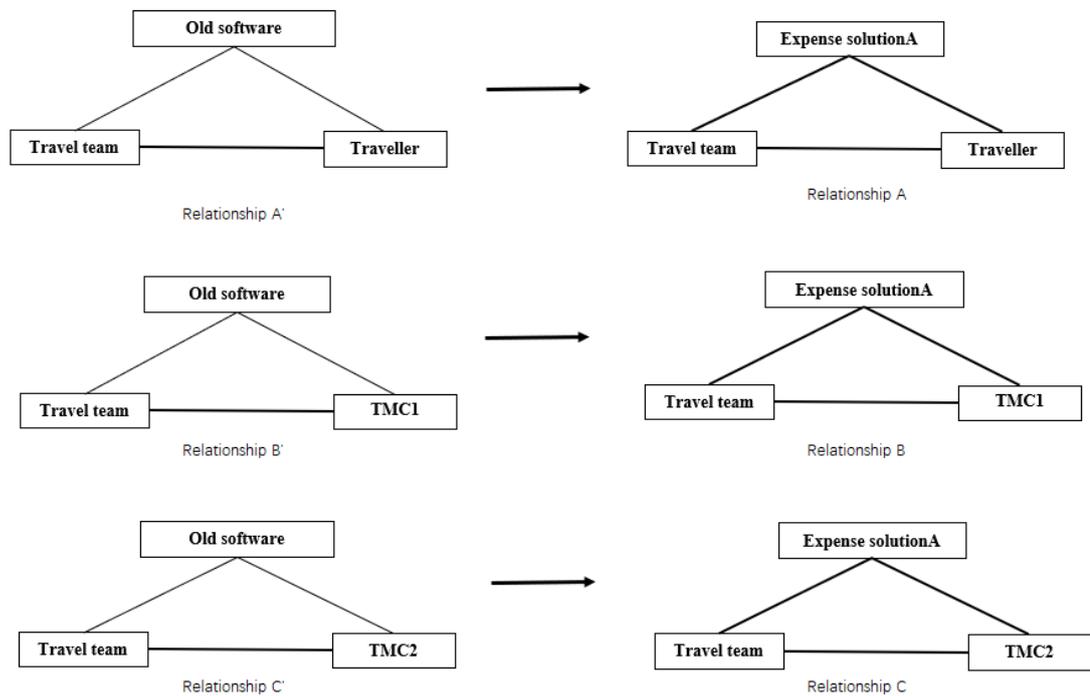
It's found that relationships with external stakeholders might determine capacity of managerial cognition in sensing opportunities and social capital. The use of Expense solutionA and internal technology infrastructure has required enhanced internal and external relationships to capture and transform possible opportunities.

"(Expense solutionA) needs (TMCs) some changes. Because we automize some steps. They need to synchronize in their systems. Our (data infrastructure) should be friendly to each other... they (TMCs) are willing to make changes, of course. Because we need that. And we believe they will cooperate with us." (Travel accountant B)

The core external stakeholders in the travel expense reporting are contracted TMC1 and TMC2. TMC1 is a corporate travel agency responsible for airfare and accommodation booking, TMC2 is a Corporate bank card supplier. Normally, business relationships are studies as dyads of two players, such as a seller and a buyer, a supplier and a customer and a manufacturer and a client. (Havila et al., 2007; Holma, 2010.)

Following triadic relationship research (Havila et al., 2007), it is recognized that business network relationship can be decomposed into triads which the interconnections between two actors are a dyad. Two triadic relationships are important in the research which are concerned as report processor-intermediary-end user relationship and buyer-intermediary-supplier triadic relationships. Internal travellers belong to demand actor in travel purchasing relationship (Holma et al., 2015) yet act as data suppliers in travel reporting relationship. The former is composed by travel team members, Expense solutionA and internal travellers. The latter concerns the relationship among travel team members, Expense solutionA and contracted TMCs.

Changes in business relationships are currently undergoing, especially the role of intermediaries is hard to define and affected by the merge of technology, globalization, and industrial boundary change and customer expectations (Holma 2004). The changes in one actor will affect triadic interactions, in another words, the relationship construction might be developed or weaken (Madhavan et al., 1998). After new expense solution adaptation, the interconnections of dyads has been all reinforced, which means the division of works and role of intermediary in operation and strategy are adapted in different situations and all three actors could directly communicate with each other in successful situations (Havila et al., 2007). The relationship transit is shown in Figure 10.



**Figure 10.** Triadic relationship development in corporate travel reporting.

Relationship A' presents relationship of travel team, old software and travellers. Travel team has intensive connection with travellers by mails, letters and calls in order process and archive reports correctly, shown in relationship A'. In the meantime, travel team and travellers have operational interaction on old software to update and process report data, whereas, have few strategic supports from it to facilitate operational performance. After changing to Expense solutionA in relationship A, travel accountants have less interaction with traveller by mail or letter because of operation improvement by expense solutionA, such as digital travel approval process, e-receipt and user-friendly interface, but remain positive interaction by call for problem solving and payment issue. Travel accountants and traveller both are actively on the expense solutionA, because of the strategic and functional development in line with travel policy and easy reporting process. Ownership of administration and configuration carries out these implementations. Consultant from Expense solutionA assist on problem solving. Traveller can prepare their expense report by themselves, which gives travel

accountants opportunities to focus on expense verification and eligibility efficiently on Solution interface.

“They (Expense solutionA) can update the expense from (TMC1 and TMC2), so we don’t have to manually do it anymore. It saved us a lot of time and energy. I am concentrating on other issues in verification and errors.” (Accountant B)

“if need, we can change the configures so, travellers get sort of reminders if something wrong... we have tool especially for analysing cost, the functions are built by the help from (consultant).” (Expert)

In the triadic reporting relationship B' and C', travel team interact interpersonally with old software and contracted TMC1 and TMC2 for data uploading and verifying. The heavy operational interactions with intermediary and TMCs performed by travel team decrease the speed of expense verification task, yet the operational and strategic functions of old software disappointed company. Because of the willingness of cooperation from TMC1 and TMC2 to update their digital capacity, such as cloud storage for data exchange. The Expense solutionA enables automatic expense feeding from TMCs data pool, therefore, decrease the manual work from travel team for data uploading. Because of the data integration and automation, details of the flight and hotel booking from TMCs can be captured automatically into the reporting channel, which are transparent and reliable for records. Therefore, expense solution not only an expense reporting platform, but an analyst who give accurate travel data for managerial analysis. The communication between travel team and TMCs is to ensure the smooth automation. Because committing on the project and Expense solutionA, the travel team did require the TMCs made changes to comply with the new IT infrastructure and configurations, which turned out that positive outcome of enhanced travellers' commitment and trust on TMCs (Havila et al., 2007).

“In the design stage, we had meeting, call with (TMC) to ensure the expense transit to (Expense solutionA) is ready. Before, we have to manual upload expense from one TMC record to the old tool, now, it saves a lot of time for me.” (Accountant B)

The strong interaction among actors in relationship increase closeness and mutuality bringing possibility of information sharing (Havila et al., 2007). The company can leverage and analyse the travel data summarised by Expense solutionA and further understand the travel behaviours. Without the successful triadic relationship management, it is difficult to maximize technology capacity and achieve operational and strategic outcomes. The business collaboration and opportunities with TMCs are getting intensive due to the increase commitment of company on the Expense solutionA and willingness of cooperation from TMCs (Havila et al., 2007). Further, because of operational and strategic development integrated in Expense solutionA, travel team could concentrate on solving non-complaint issues and internal control of configuration and administration. Therefore, managing relationship in triads is essential to reinforce social capital and skills' development in human capital. If under weak interconnections in traits, such as relationship A', B' and C', it's not possible to capture functional and strategic opportunities.

Here is the conclusion of findings. Digital transformation deploys strategic objectives to embrace use of technologies and changes in managerial capabilities to enable managers sense, seize and transform opportunities. Along the case study, it is found that culture change brings positive managerial cognition in digital changes, while direct correct path to approach agile leadership. The correct leadership enhances managerial recognition and develop digital fluency in human capital individually or in team. The attitude of organization and manager brings positive outcomes of travel team commitment on the digital implementation. Consequently, the commitment of travel team maximizes the quality of training and quality of reporting solution which leads to travellers' satisfaction and commitment on the new reporting system. Importantly, the recognition of triadic relationship changes in social capital enable information exchange, solution upgrades to increase the trustworthiness of the travel reporting process. The development of triadic

relationship is much important to realize all strategic and operational objectives because of willingness of TMCs in changes. Therefore, triadic relationship effects the development of social capital.

## **7 Conclusion**

The aim of this thesis was to understand how the digital transformational influence on corporate travel management. The study was developed under a single case study. In this chapter, the first section is to answer research questions, and second section is to provide theoretical and managerial implications.

### **7.1 Answers for research questions**

How digital transformation impact on travel management reporting process?

The influence on travel reporting process are threefold: objective illustration in designing reporting process, digital opportunities to centralize reporting process and evaluation on travel compliance. A digital transformation strategy, as one essential proprietary, is considered to guide organization implement technology advancement and undergo significant transformation with new value in business activities (Ismail et al., 2017, p.14; Rogers, 2016, p.61). The power of digital transformation strategy requires clear objectives in how to transform the business and go beyond cost saving from digitalizing resources and assets. The clear digital transformation strategy deploys strategic objectives on travel reporting process to concentrate on how to maximize technology capacity, control and monitor cost allocation and improve travel policy compliance. An individual digital department provide accessibility to digital channel, digital infrastructures and human resources to aid the implementation process.

The reporting process activities are including travel request approval, expense report preparation, input of digital receipt image, expense verification and approval for payment. The choice of digital artifact Expense solutionA, compared to the old software, has centralized performance of reporting activities. There is no need to access different channels such as mails and papers to prepare and verify reports. Reporting activities has

been simplified by automation, embedded comment box and efficient interface. Transaction can be updated automatically from credit card to profile without manual interfere. Comment inputs are displayed in accordance to correct report, rather through separate channel mail or letter. Mobile interface accelerates report preparation for travellers, while interface with accessibility to different files such as travel request and receipts speeds up verification process.

The quality of internal system (Expense solutionA) enhances control and commitment in travel policy. Functional designs reduce non-complaint reporting behaviours before reaching travel accountants in-deep verifications. Meanwhile, the analysis capability and automatic data feeding provide insight of spending details to track traveller behaviours. A comprehensive global travel policy is acknowledged by all travellers to follow, updates are occasionally coming as a result of clarification for non-complaint cases. Apart from the control approach, efforts from travel team in knowledge sharing and efficient communication contribute to traveller commitment on travel policy, which agreed with Holma et al. (2015) that a high internal service quality influences employee commitment on travel policy.

How digital transformation impact on core stakeholders in reporting process?

The failed digital implementations reveal the history of focusing on technology advance implementation, without considering changes in managerial capabilities to craft core stakeholders' behaviours (Kane et al., 2015). To embrace, seize and transform digital opportunities in travel reporting process, the capacity in managerial cognition, managerial social capital and human capital is extended. To encourage core stakeholders' participant in this digital project, the managerial capabilities are influenced by business culture change, agile leadership, employee commitment and intensive triadic relationship. Contribution of strong triadic relationship in travel

reporting allows implementation of seize opportunities to effective and achieve strategic objectives.

The culture change and responding leadership shape managerial cognition to be digital agile and digital objective oriented. A strong digital embraced business culture represents C-suite and senior managers' attitude to support transformative execution. The business culture shares a strong propensity to "encourage risk-taking, foster innovation and develop collaborative work environment." (Kane et al., 2015, p. 9.) Managerial examination pinpoints "which assets can be leveraged; which capabilities can be used in new ways and whether or not new competencies are needed to be brought into the company" (Ismail et al., 2017, p. 17). Additionally, the company attitude brings changes in people. Agile leadership is mediated by business culture.

Leading by the strong digital business culture, director and travel manager have correct attitude towards transformation and new Expense solutionA. The concern on digital objective sharing, risk management, efficient leadership, problem escalation and problem solving are responsibilities to director and travel manager accordingly. To reduce the risks of digital changes, such as high change resistances among employee and misunderstanding of strategic objectives, director and travel manager enhance the digital knowledge distribution by storytelling, information sharing via channels to decrease employee suspicion and doubts and increase confidence. "Learning by doing" as travel manager's memo is impressive by travel team members, which imply risk taking business culture spirit into practice and increase internal discussion towards problem solving. Harmonizing work responsibilities by recruitment and clear task breakdown increase travel accountant satisfaction and technology set-up.

Accordingly, the organizational and managerial attitude brings training to be digital fluent, and encourage risk taking spirit to employee who may have resistances to changes. Along the learning, the human capital is extended in digital transformation process. There is a significant positive relationship between strong leadership and employee commitment (Basu, 2015; Ismail et al., 2017; Hess et al., 2015). Following "learning by doing" memo, travel team view the implementation process as a learning

lesson, travel team members could escalate issues to discuss in order to increase reporting consistency in global scope and travel policy updating. Additionally, internal system quality guided by agile leadership increases employee commitment. Travel accountants, travel expert and local key users are dedicated on how to make expense reporting much efficient by training, knowledge sharing sessions and issue solving. The new Expense solutionA saves time in repetitive workflow and simplify reporting workflow. Travel accountants shift their priorities towards compliance enhancement and travel behaviour training to realize cost control and maximize technology capability. It's recognized that travellers have higher satisfaction on expense reporting after improving internal service quality by advanced technology, efficient communication and mobility. The mobility of Expense solutionA accelerates expense creation and reimbursement duration, which stimulates travellers' willingness and confidence on the digital changes.

Not only the employee commitment, also external relationships bring service innovation to identify and seize opportunities. Travel team needs to convince and bring service partners on board towards digital transformation. In this study, TMC1 and TMC2 have made infrastructure changes to achieve automatic data exchange. The enhanced triadic relationships in operational and strategic interactions create opportunities for travel team to realize strategic objectives in travel reporting process. Without correct interconnections in triads, it would be difficult to maximize technology capacity.

By answering these research questions, the author has found the impact of digital transformation on travel reporting process and core stakeholders are interwind. Specifically, the result of process changes is navigated by correct managerial development in crafting culture, leadership, commitment and triadic relationship. The managerial development is yet leveraged by the strategic objectives determined in reporting process. However, the answers towards impact on core stakeholders are not thorough due to missing perspectives from TMCs. It would be interested to conduct

further research to understand what changes are required from TMCs and how these impact on their performance.

## **7.2 Theoretical and managerial implications**

Despite the importance and attention on corporate travel arising, little research has been focused on topics related to business travel (Douglas & Lubbe, 2009; Gustafson, 2012). Recent research has contributed to social network in corporate travel purchasing (Holma et al., 2015), control and commitment strategies in travel compliance and corporate managerial dilemmas (Gustafson, 2012). Extensively, the thesis contributes to the body of research on the digital transformation and dynamical managerial capabilities in corporate travel reporting.

Firstly, this thesis has identified deployment of digital transformation strategy as a crucial element in corporate travel reporting. The technology itself is not core advantage in digital transformation, rather the use of technology is to meet strategic objectives accordingly. Secondly, the operational and strategic outcomes expected from the use of technology require dynamical managerial capabilities to sense, seize and transforming opportunities. The factors to shape managerial capabilities in travel reporting activities are identified as culture, leadership, commitment and triadic relationship. Thirdly, intensive triadic relationship in expense reporting is essential to achieve digital changes in reporting process.

Three types of managerial implications are available for companies and senior managers who want to benchmark or execute digital solution in corporate travel management. Firstly, thorough digital strategy maps strategic objectives, yet senior managers need have correct managerial cognition to translate them into functional objectives. Mapping corporate value into business culture and strong confirmation from management team

build strong faith to them. Secondly, it strongly approved that the use of technology is not a single focal dimension in digital transformation. capability develop in culture, leadership, commitment and triadic relationship in coordination with digital solution facilitate cost efficiency, enhanced business triadic relationship and data utilization in decision making. Thirdly, technologies provide opportunities for less workflow and interpersonal communication, but cannot supersede human. A good leadership should adjust work tasks and assign to each person. Appropriate training can maximize workforce confidence and commitment, also optimize expense solution capability.

The research follows systematic combing technique to analyse the research results. During the “going back and forwards” (Dubois & Gadde, 2002, p.555) in theories and empirical findings, the importance of triadic business relationship is identified in corporate travel management. The research itself has limitation in explicitly elaborating how triadic business relationships are changed in corporate travel reporting. Therefore, the possible future research could focus on the triadic business relationship and its impact on managerial capabilities in digital transformation.

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## Appendices

### APPENDIX 1. Questionnaire for expert and accountants

#### 1. Working experience in SSC or travel team

- How long you have been working in SSC, did you work in travel team from beginning? (warm opening)
- What are your job responsibilities back to time without technology integration (would you describe the workflow back to time, when and how to process travel reports at end?)
- As manager, what are the difficulties in corporate management? Is time consuming? Follow travel policy? Managing travellers? (challenges in travel management)
- How the corporate travel management is teamed up? What core relationships are in the management?

#### 2. Participant in the digitalization

- The digital tool changed the game, how are you informed by the change? Do you know how and why it start to change? Is this a decision from management board?
- Are you familiar with the word “digital transformation”? Where did you hear it in organization from and what is your understanding?
- When the project start? What are the target goals for the project at end? (cost saving? Investigation? Efficient reporting system?)
- How do you believe in the use of tool at beginning? Did you see the power of the tool in future back the time?
- What kind of tasks (Challenges) taking most of your time at early stage of project? (negotiation? Policy compliance? Managerial problem?)
- At the late stage of the project, what kind of tasks taking most of time? (what are the different tasks compared to early stage)
- Can the tool help on policy compliance? how?

#### 3. Personal perception of digitalization in corporate travel management

- Do you feel the project is a success? From what measurements? Time? Finance?

- In the project tour, what supports are important from your perspective, or what important factors accelerate the success? (external factors outside of travel team)
- In this project tour, what job responsibilities are quite important leading to success from your perspective? (from managerial perspective)
- Do you feel your job responsibilities are changing? If yes, which one?
- What kind of capabilities you are expecting from travel accountants? (Internal factors in travel team)
- What's next movements by the power of digitalization?

## **APPENDIX 2. Questionnaire for manager and department director**

### 1. Working experience in SSC

- How long you have been working in SSC?
- How important is the corporate travel management in the company? (what expectation you have from the corporate travel management)
- Are you familiar with the word “digital transformation” or “digitalization”? Where did you hear it in organization and what is your understanding?
- How did technology integration happen in SSC? From management board?
- What objectives are expected in the technology integration in SSC? (Do you have deployed a digital strategy?)
- Why decide integrating technology in Corporate travel processing?  
Benchmarking or suggestion from board?

### 2. Participant in the digitalization

- What kind of challenges facing in the technology integration process? (talent resource, negotiation, managerial issue, finance etc.)
- How to encourage or inspire employee the new change positively?
- Have you noticed some changes in your job responsibilities along with the technology integration?
- What are the important factors implementing the technology (from leadership, culture, resource etc.)?

### 3. Personal perception of digitalization in corporate travel management

- So far does the technology integration bring positive improvements in terms of efficiency, finance etc.?
- Do you see the project is a success? If yes, what important elements leading to the success internally and externally?
- What are the next movements with the power of technology in corporate travel management?