



TOWARD THE FUTURE OF GLOBAL CORPORATE TRAVEL MANAGEMENT

(Future scenarios and strategic actions in global corporate travel management)

A case study

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Abstract

This study aims to develop the global corporate travel management. In details, it reflected the current challenges in travel programme of buyers, discovered future scenarios of business travel and recommended strategic short and long-term actions. The study used qualitative approach to recognize challenges in corporate travel management. Interviews with sourcing and travel managers/assistants from three same size corporate buyers were conducted in October, 2017. Additionally, scenarios were built based on conventional intuitive logics method. Therein, 88 macro-economic and industrial trends were identified through secondary research. Discussions were organized with experts to rank the trends.

Main findings from empirical research are a list of challenges in corporate travel management. Additionally, four scenarios “Demand More”, “Brand New”, “More Opportunities” and “No Surprise” were created based on two driven factors: The distribution of airlines standard network in the market share and intensity of tailored made travel services. In each scenario, proposed main travel solutions providers are travel agencies, direct booking aggregators and travel agencies, the internet, and GDS operators respectively. At the end, short and long-term strategic actions such as rewarding travellers when savings and driving toward traveller-centricity were recommended.

The study contributed new aspects to the academic world. It built four future scenarios of business travel from corporate buyer’s perspective. After that, it presented scenarios implications and strategic actions for stakeholders. Such approach was not commonly used in previous studies. Besides, the study identified new participant - NDC aggregators – and new roles of GDS operators and metasearch engine in business travel distribution channels. In practice, the study tackled real business issue. It recognized the challenges and gave solutions to improve corporate travel management through short-term actions. Four scenarios and their implications mitigate the consequences of changes and clarify the managers concern. Lastly, long-term strategy navigates the global corporate travel management, at the same time, gradually changes the mindset of manager in suppliers’ negotiation and travel management.

Keywords Corporate travel management, business travel, scenario planning, intuitive logics method, travel sourcing, GDS, NDC, travel customization

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Abbreviations

CBCP	Corporate Bill, Corporate Pay
EMS	Expense Management Solution
GBTA	Global Business Travel Association
GDP	Gross Domestic Product
GDS	Global Distribution System
GRS	Computerized Reservation System
IATA	International Air Transport Association
IBIP	Individual Bill, Individual Pay
IL	Intuitive-Logics approach
IT	Information Technology
LCC	Low Cost Carrier
NAFTA	North American Free Trade Agreement
NDC	New Distribution Capability
RFP	Request for Proposal
T&T	Travel and Tourism
TMC	Travel Management Company
TRV	Travel
WTTC	World Travel & Tourism Council

1 Introduction

“Introduction” chapter contains four sections. Section 1.1 indicates the author motivation for the research topic and research questions (RQs). Since case study is one of the research methods, the case company is introduced in section 1.2. Section 1.3 discusses about research gaps, in which previous studies are reviewed and assessed. Lastly, section 1.4 presents the research’ structure, which helps readers follow the report more easily.

1.1 Motivation and research questions

Travel and Tourism (T&T) is a major industry of the world’s economy. For the past few years, in spite of the increasing crises such as terrorist attacks and political instability, the industry has continuously grown with much variation. According to the World Travel & Tourism Council (WTTC) (2017), the annual growth of direct T&T industry contribution toward the world GDP has been ranging from 2.5% to 3.5% since 2011. Direct T&T means any purchase that the tourists make with transportation providers, hotels, travel agencies and other activities of restaurant and leisure industry suppliers. In 2017, T&T direct contribution to the world GDP increased by 3.5%. The index is forecast to grow on average 3.9% per year for the next ten years. In conjunction with indirect and induced impacts, T&T contributed 10% to the global GDP in 2016 and was expected to increase by 3.5% in 2017. When categorizing the industry into leisure and business travel sectors, the latter one accounts for around 23%. This percentage has been constant for many years. In 2017, the consumption of business travel is about to grow by 4% (WTTC, 2017).

T&T is a dynamic industry. One of the vital shifts in this industry is a newly introduced airlines distribution standard - “New Distribution Capability” (NDC). Three years after IATA announcement, 45 airlines already adopted the new network. On top of that, those airlines started to surcharge fee for any booking based on the current distribution network GDS. (IATA, 2017). This rapid change tremendously affects the business travel distribution and the roles of players in the sector. Such trend and others big one in the industry are frequently discussed in the travel workshops and conferences. In there, one of the most concerns is about the future distribution channels of business travel. From the corporate buyers’ perspective, uncertainties in the industry increase the travel managers’ sceptics. At the same time, those bring extra costs, efforts and potential changes in the travel management system of the organization. To mitigate consequences of changes, managers need to

understand what the possibilities of future happenings are in the industry and how corporate buyers should do in such scenarios.

While working with the travel category of sourcing in the case company, the author acknowledged that this was the sensitive time in the industry especially due to the roll out of new airline distribution standard. Additionally, sourcing and travel managers realized that it was the right time for the company to review their current global corporate travel management programme and think of how it should go toward the future. This issue needs to be explored through a study. Eventually, the topic comes from both parties interest.

To handle the issue, the case company needs to reflect the current travel program, define the future possibilities in the industry and execute strategic short and long-term actions. Accordingly, three research questions (RQs) are set:

RQ1. What are the challenges of corporate travel management?

RQ2. What are the future scenarios of business travel and their implications to corporate travel management?

RQ3. What are the strategic actions the buyers could take to improve the corporate travel management and to prepare for the future scenarios of business travel?

1.2 The case company

The case company operates in the manufacturing industry and is positioned as a buyer in the business travel sector. According to the European commission definition on the size of the business, it is a very large enterprise. It operates in more than 60 countries all over the world with more than 50,000 employees and over a billion annual revenue (Case company website). The company headquarter is based in Northern Europe, where all the global functions, distributors and new operations are. Especially, global sourcing department is responsible for direct and indirect materials and services procurement. Any component related to the main products belongs to direct material sourcing group. On the other side, indirect sourcing consists of non-product related (NPR) products and services that mostly serve employees. The NPR is split into different categories such as ICT (e.g. mobile phone and laptop), car fleet for employees' usage and professional services (e.g. recruitment and subcontract service). (Case company internal materials)

Travel stands alone as a category of indirect sourcing, which accounts around 4% within the group and 1% of the whole sourcing spend globally. In the past years, there has

been around 140 thousands of travel days in the company. Additionally, there is no direct reporting line to travel management. In details, the company has local travel assistants and coordinators, who are responsible for travel related operational tasks. However, travel management related issues are reported to sourcing and category managers on a regional and global level. (Case company internal materials).

1.3 Research gaps

Keywords of this study are corporate travel management, scenario planning and travel as a strategic sourcing. They are not new phenomenon from academic perspectives. Relevant studies can be found from the internet. Nevertheless, they do not exactly discuss about the same context and purpose. Previous studies do not use scenario planning method to build future of business travel sector from corporate buyers' perspectives. Most of them miss the scenarios implication and strategic actions for a specific stakeholder in an industry. Additionally, distribution channels of business travel illustrated in previous studies might not stand for its future.

Scenario planning method to build future of business travel sector from corporate buyers' perspectives.

Scenario planning has been widely applied in tourism industry; however, most of the relevant researches are confidential (Formica & Kothari, 2008). Among few that are published, Sevagura and Saga (2005) developed future scenarios of small travel business in Malaysia. Formica and Kothari (2008) used scenarios thinking to analyse future of tourism in the US. No scenario was developed in this study. These studies comprise both leisure and business travel sectors of T&T industry. On the other hand, the nature of two sectors are different. Many events happening in leisure travel might not be important in business travel. Hence, a study about future scenarios of business travel would be essential. Regarding studies about scenario planning approaches, Paul K.H.Schoemaker (1995) was the first one writing down clearly the whole process of scenario planning and providing its application of the business case including Ad agency and Anglo-American Corporation. Besides typical approach of building four scenarios based on qualitative research, he also mentioned one that compare the correlation between the trends uncertainties and calculate the probability to build the scenarios. Additionally, Von der Gracht and Inga-Lena Darkow (2010) built a single scenario for logistics services industry using Delphi based analysis. In these studies,

a common method is using experts' opinions to build scenarios. Influential factors of the industry were recognized through interview with stakeholders (Sevagura & Saga, 2005) or workshops in which STEEP/PESTEL analysis was used (Formica & Kothari, 2008; Von der Gracht & Darkow, 2010). Though customers are important players in the business travel distribution, they were ignored in these studies. Furthermore, trends were identified but not revealed in these papers. Theories of scenario planning approaches were explicated in many studies (e.g. Godet, 2000; Bradfield, Wright, Burt, Cairns & Van Der Heijden, 2005; Derbyshire & Wright, 2017). However, its practice is not studied much. Especially scenario planning approach in business travel sector from buyers' perspectives is a new approach, which will be discussed in this study.

Implication and strategic actions for future scenarios

The benefits of scenarios planning are well pointed out in previous studies (Derbyshire & Wright, 2017; Huss & Honton, 1987; Mietzner & Reger, 2005). However, its application to a specific stakeholder in an industry has not been discussed widely. In other words, most of previous studies do not go beyond the narratives of scenarios. There is only Sevagura and Saga (2005) research, in which scenarios implications were found. They also recommended strategic actions for small travel business to take regardless of future scenarios. The practical approach of their study not only brings the insight of the industry but also guides a specific stakeholder to react with the changes. Hence, with this study, the author would like to take the same steps to identify not only what scenarios are but also how the company should deal with them. While implication is the interpretation of scenarios, strategic actions are more related to strategic sourcing literature. Some relevant scientific publications were reviewed (Gustafson, 2012; Rothschild, 1988; Holma, 2009; Trautmann, Bals & Hartmann, 2009). Therein, strategic sourcing actions are not the main discussion but applicable in this study. Overall, this study will expand the practicality of scenario planning related researches by analysing future scenarios and recommending strategic actions.

Future of business travel distribution channels

As mentioned in section 1.1, NDC challenges GDS and potentially affects the business travel distribution, especially players and their roles in the sector. It has appeared as a keyword in some researches; however, within airlines context. Researchers has been looking at the possible impacts of NDC on airlines revenue management, pricing (Wittman &

Belobaba, 2016; Westermann, 2013) and partnership (Jäckel & Maier, 2016). Therein, Jäckel and Maier could not figure out the NDC implications in their study. In short, there has not been a study about NDC effects on business travel sector, in particular of corporate travel management. Pearce, Tan & Schott (2004); Radulovic (2013), Karcht & Wang (2010) and Holma (2009) illustrated well the business travel distribution channels and corporate travel management structure. However, these studies mostly indicated the GDS based structure, which might not reflect future distribution channels of business travel.

1.4 Research structure

There are seven chapters in this report. From this chapter onwards, chapter 2 and 3 review the literature and methodology used in this study, which provide a solid background for the empirical research. Chapter 4, 5 and 6 present the practices, meaning the findings and discussion to answer three RQs. Chapter 7 concludes the report. The research structure is drawn in figure 1.

Chapter 2 goes in depth about the theories of business travel, travel services as a sourcing category, and scenario planning. Therein, the first two areas of theories provide sufficient knowledge for better understanding of research context and findings. The last area serves as a research method. Chapter 3 – research methodology- discusses about the empirical methods, in which qualitative approach and interview are applied. The chapter also includes the research context, which provides the insight of corporate travel management in the case company. Lastly, it presents the selected scenario planning method and how the method is executed in this study.

Chapter 4 indicates the challenges of corporate travel management, which answers RQ1. Chapter 5 explicates four scenarios as a result of the intuitive logics approach to scenario planning. Additionally, the chapter tells about scenarios' implications to the corporate travel management. Chapter 6 writes about strategic actions in short and long term. They are recommendations of how the corporate buyers should improve their corporate travel management and adapt to the future scenarios created in the previous chapter.

Chapter 7 is the conclusion, in which presents the research summary and implication in theory and practices. Besides, the chapter discusses about research limitation and suggestion for future study.

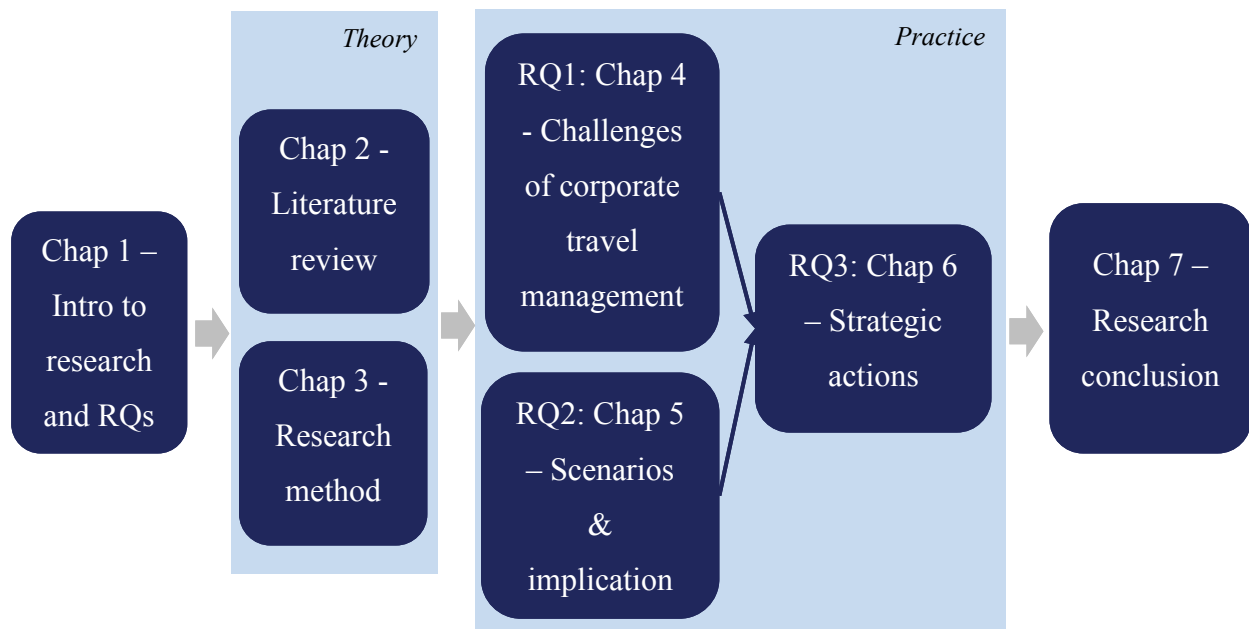


Figure 1. Research structure.

2 Literature review

Corporate travel management is a subject in this study. In T&T industry, it belongs to business travel sector. In a corporate, it is a responsibility of sourcing department, in particular of travel services as a sourcing category. Therefore, to understand the research context and solve RQs, one must have knowledge in business travel and travel in sourcing. Additionally, scenario planning serves as a method to draw the future of business travel. Through the results, pertinent strategic sourcing actions are applied. Therefore, theories of scenario planning is necessary. Overall, this chapter reviews the literature of business travel, travel services as a sourcing category and scenario planning. A summary of literature is presented in the last section.

2.1 Business travel

Before diving into business travel sector, it is important to understand the distinction between leisure and business travels as those two sectors have different requirements and infrastructure. Business travellers are simply “*people travelling for purposes which are related to their work*” (Buhalis & Laws, 2001). The purposes of business travel can be for individual, meetings, exhibitions, incentive trips and corporate hospitality. Firstly, an individual business travel is a compulsory travel for a person to do his/her job. For example, a Finnish journalist is responsible for reporting the president selection news in the US. Secondly, a majority of business travel purposes is for meetings such as summits, conference, internal meetings with team and negotiation with clients. Thirdly, exhibition like trade show and demo show is where the sales people come and present their companies. New products/services or new features are introduced there. Next, an employee can travel for incentive trips, which (s) he receives from the organization as a reward for their standout contribution at work or for winning in a competition. Lastly, corporate hospitality is mostly an entertainment related trips. It is offered to the company’s loyal or promising clients in order to strengthen the relationships with them. (Davidson & Cope, 2002). While the leisure travellers are end purchasers and users, the latter does not pay for every in use service but its company is completely or partly responsible for the payment. Business travellers’ choices of services are also bounded by the company policy. According to the WTTC (2017), in 2016 business travel only accounted for 23% of the whole travel and tourism distribution. Nevertheless, business travellers are much more essential for travel suppliers than the

number reflects. It is because they use wider range of service more frequently, regardless of the seasons, and pay higher price for the basic service (Mill, 1992).

Business travel is not a new phenomenon. Thousands of years before Christ was born, the marketers and producers already travelled long way to trade their agricultural products between communities. Thorough the world's development, business travel has evolved from short distance local trade in 500 AD to the launch of first business class airline 1500 years after that. In the modern world, critics argue that the future of business travel is less shiny than the past. It is because the development of video conference and virtual reality has been and will be alternative options for meetings. Hence, the demand for business travel will be declined. (Swarbrooke & Horner, 2001). Nevertheless, face-to-face communication remains powerful as it builds trust, sympathy and better understanding between the participants. Eventually, we – human are doing business with human. Statistics provided by Global Business Travel Association (GBTA) shows that global business travel spend is expected to surge 33% in 2020 compare to the amount of \$1.2 trillion in 2015. Additionally, figure 2 shows the steady growth (in percentage) from 2015 to 2020. Top three countries where the business travel spend rose the most in 2017 are China (11.5%), India (13.2%) and United Kingdom (7.9%). (Statista, 2017).

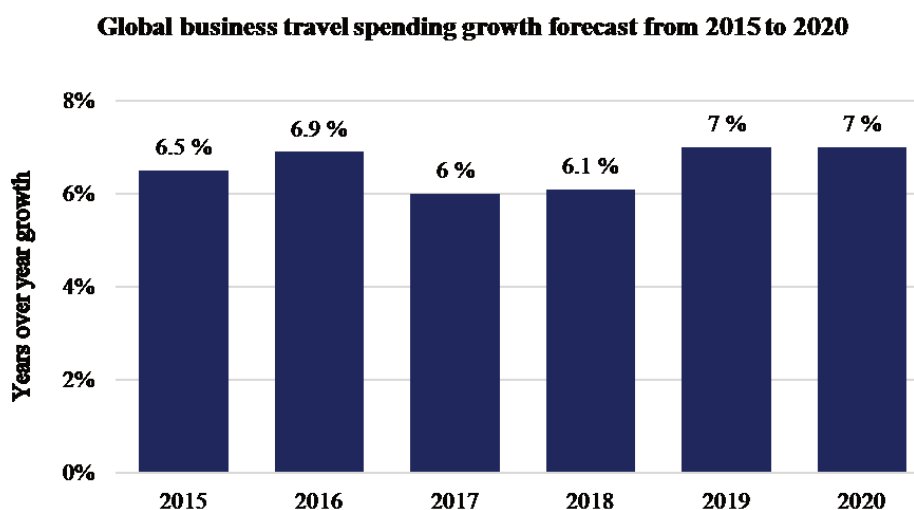


Figure 2. Global business travel spending growth forecast from 2015 to 2020 (Statista, 2017).

2.1.1 Players in business travel sector

In business travel sector, there is a clear line between customer and consumer. Customers are employers or entities that pay for travel services and give permission for employees to use them. The later one are users of services. Sometimes, customers can be consumers as well. For example, if a self-employed person travels for work, (s) he will pay for and use the travel services. In the common cases, consumers do not pay for the services usage. That explains why price in business travel oscillates less than leisure one. Besides, according to Swarbrooke and Horner (2001), business travellers can be classified into different groups. For example, researcher can analyse them based on their frequency of travel, purpose of the trip or length of trip. Others are presented below. These methods of segmentation potentially help travel suppliers or customers understand better consumer travel behaviour, thus to improve the travel management and travel services. (Swarbrooke & Horner, 2001).

Methods of segmenting the business travel market. Adapted from Swarbrooke and Horner 2001:

- *Seasonality of business trip*
- *Short-haul vs long-haul travellers*
- *International vs domestic business*
- *Age of the business traveller*
- *Frequent vs less frequent travellers*
- *Mode of transport used by the business traveller*
- *Purpose of trip*
- *Nationality of business traveller*
- *Gender of business traveller*
- *Agents book vs direct book*

Swarbrooke and Horner 2001 also defined three types of buyers. They are corporate, association and public sector. Firstly, corporate buyer is an employee of a company. Buying and managing the business travel services can be the main or part of his/her job responsibilities. In many cases, business travel is listed as a category in purchasing department. The role title on a managing level can be category, travel, or sourcing manager depending on the organization's structure. In some cases, it is under HR responsibility.

Anyhow, personal assistants and secretaries strongly involve in buying travel services in corporate. Secondly, associate buyers are members or volunteers of for example professional and trade associations, charities and political parties. Typically, such organizations are non-profit, so they are more sensitive about price and frequency of travel due to the clear and strict travel budget. Associate buyers organize summits and conferences where they invite hundreds or thousands delegates (with/without event tickets). Depending on the relationship between the association and delegates or the organization represented by delegates, the travel services might or might not be paid by the association. Last but not least, public sector buyers includes employees/statutory staff working in government authorities and agencies. Buying travel services is usually not a major part of their responsibilities. Additionally, public sector has very tight budgets. Overall, it is common that the buyers use intermediates to arrange and manage their travel. (Swarbrooke & Horner, 2001).

The supply side of business travel sector is perplexing because different suppliers have their own supply chain channels. For example, the supply chain of a restaurant can start from a farm to supermarket. Meanwhile, a room information of a hotel might go to different channels such as its own website, booking.com and corporate online booking tool. Swarbrooke and Horner also presented the supply side, which includes suppliers, intermediaries and miscellaneous services providers. Table 1 lists the players in business travel sector. Like leisure travel, business travel shares common services such as transport (e.g. plane, train, and car), accommodation (e.g. hotel, guesthouse), destination (e.g. restaurant, café) and ancillary services (e.g. shopping, gym, spa). Therein, airlines play a vital role in the supply chain as it is the most popular used transportation, especially from the global organizations' perspectives. Additionally, airlines also aim to provide the recreation facilities such as lounges and Wi-Fi for the travellers. Besides the common services, different services provided to business travellers are for example booking service, customer support, and expense reimbursement. Due to large volume and variety of travel services, it is common that buyers are using intermediaries and specialist agencies to organize and manage their travel in the modern world. Depending on the demand of different buyer sectors, intermediaries can be varied. Corporate buyers usually use travel services from travel management companies (TMC) or travel agencies. These companies provide customization service on the booking tool, customer support, reporting and ancillary service. TMC saves time and money to the clients by managing all the business travel requests

(tmcfinder, n.d.). Some major representatives of this player are CWT, HRG and Expedia Inc. The last group of suppliers are providers of miscellaneous services for the business travel and tourism industry. The services can be education and training, consultants and trade fares. (Swarbrooke & Horner, 2001).

Table 1: Players in business travel sector (Swarbrooke & Horner, 2001).

Category	Player
Buyers	Corporate, association, public sector
Suppliers	Destinations, venues, transport, accommodation, ancillary services
Intermediaries	Intermediaries and specialist agencies
Miscellaneous services	Trade media, industry trade fairs, professional bodies, consultants, national tourism organizations, and education and training providers

From Swarbrooke and Horner study, three main players in business travel sector are buyers, travel service supplier and business travel agency. Holma (2009) built a business travel stakeholders network while taking those three players as focal actors. In her study, buyers are called industrial enterprise. The relationships setting is presented in figure 3. Therein, double arrow reflects the direct link between two actors. For example, industrial enterprise has a connection with credit card companies and suppliers' supplier. However, they might not build a partnership with a technology provider. Additionally, many arrows go beyond the elliptical line, which indicates the relationships exist outside travel industry or network without limits. (Holma, 2009).

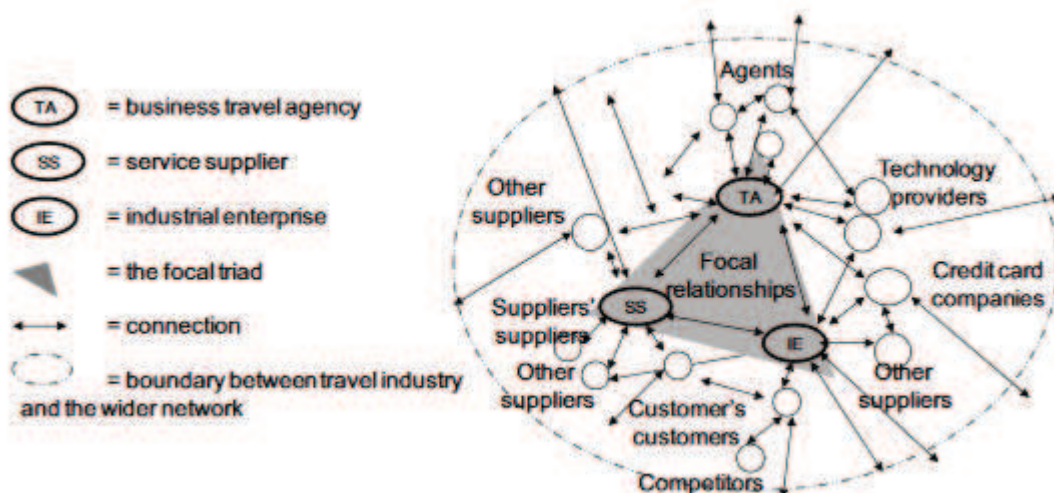


Figure 3. Triadic relationships setting in business travel (Holma, 2009).

2.1.2 Airline distribution

Section 2.1.2 revealed that main players in business travel are buyers, suppliers and intermediaries. To better understand their connection and position in the supply chain, airline distribution is studied. Therein, airline standard distribution networks reflect the based system of distribution. Airline distribution channels are the possible ways of how airlines sell their services.

Airline standard distribution networks

Most of offers in business travel, in particular of airlines are services such as seats on plane, insurance and extra weight for luggage. Unlike tangible products, those need to be purchased before use. Hence, information technology (IT) plays a vital role for the sector. It displays and describes relevant services in a timely manner to attract users. Additionally, IT helps provide efficient communication, accurate and broad data generation, and fast service process. It serves as a backbone for marketing, promotion, distribution and collaboration among stakeholders. Thus, the revolution of ITs requires the re-engineering of how business is organize, of customers behaviour in business travel. Generally, it is “*a paradigm-shift alerting the structure of the entire industry*” (Buhalis, 1998). Walking through the history of airlines ITs, there are three main evolvments: Computerized Reservation System (CRS) in the 1950s, Global Distribution Systems (GDSs) in the 1960s and the Internet in the 1990s. Despite of the development year gap, these systems are conjoint or work simultaneously. (Buhalis, 1998).

In 1958, Sheraton hotel introduced Reservatron – the first automated electronic reservations system and toll-free reservation number in the industry. In a following year, together with IBM, American airlines built up SABRE as a largest electronic airlines ticketing system for business travellers. That is when CRS was born. It is defined as “*a computerized system containing information about, inter alia, air carriers' schedules, availability, fares and related services with or without facilities through which reservations can be made or tickets may be issued to the extent that some or all of these services are made available to subscribers*”. (European Parliament, 1999). 1960s observed the adoption of the system in other airlines such as Delta Airlines and British Airways (HEDNA, 2010). Originally, CRS was to transform airlines reservation systems to yield management systems while comprised of additionally customers' information and seats availability. Later on, it became a strategic tool for the companies to generate more profits and extend globally. In

1975, American Airlines started to promote SABRE to travel agencies (HEDNA, 2010). After that came the wider CRS adoption from travel agents. The system allowed them to book the flight tickets online straight from airlines inventory, which strengthened their roles as an intermediary in the travel industry. (European Parliament, 1999).

The application of CRS went beyond transportation services. Together with the strict imposition of the regulation, the extension of CRS was no longer within the airline internal control or airlines interest. On top of that, from customers' perspectives, the ability of making comparison between prices and service of airlines offerings was vital and powerful. Then, it came the time of GDS, which is defined as "*an information system composed of databases, a data management and processing system, and an access to a global telecommunications network.*" The Global Distribution System has more advanced features than the CRS. For example, while CRS works with only airline inventory, GDS enabled users to get the information about the availability and price of not only the airfares but also other transportation and accommodations. Additionally, it is the data management tool, which displays real time available services, up-to-date database, ticketing, and price optimization. (Raymond & Bergeron, 1997). After a decade, airline CRSs were merged with the new released systems, not only in a horizontal way (with other airlines systems) but also in a vertical way (with other services such as hotel, car rental and entertainment). After the merge, GDS became so powerful that it quickly served as an airline global standard network. Its position remains until today. GDS - CRS evolution – was from an operating tool to an independent business. Sabre separated from American Airlines to become a public company in 2000. Travelport, which was established by United Airline, spun off from its mother since 2006. Amadeus was an internal tool of European airlines went independent in 1999. (Sheivachman, 2017). Today, according to BusinessTravel iQ, Amadeus and Sabre together marked 80% of market share. The rest 20% is mainly Travelport. In other words, these three companies play as GDS monopolies in airline industry particularly and travel industry generally. (businessstravel-iq.com, 2017). Additionally, the first low cost airline – Ryan Air – was born in 1985. The establishment marked a time for new trend of low cost carriers (LCCs) in the airline industry. (HEDNA, 2010).

The technology continued to make great impact on business travel industry, especially since the World Wide Web (WWW) was born in 1989 (World Wide Web Foundation, n.d.). The invention enabled major suppliers like Hilton hotel and American Airlines to make their own websites where they can display the flight timetable and availability of seats to their

users. This dramatically changed the way of communication between customers and suppliers. It was time for the first online reservation services using telephone to happen in the US. Regarding the financial benefit, distribution costs through internet booking with GDS was the cheapest (\$2 per transaction) compare with GDS booking costs \$ 3.5 and telephone booking cost \$15 (European Parliament, 1999). WWW or the Internet is a cornerstone for online service, international booking and search engine. Couple of years after the WWW establishment, Worldspan, which was founded by Delta Airlines, introduced a lower fare deals concept. Additionally, Travelocity and Hotelbook enabled travellers to book the international airfares online. In 1998, Google was born. (HEDNA, 2010).

Few keywords for the events in the late 20th century were travel distribution, data aggregation and digital services. More airlines and hotels built up their own websites, which allowed direct online booking. Fare searching was a popular business idea for start-ups and well established company's disruptive solutions. The development of WWW however does not completely constrained the growth of GDS, but strengthens its application at the same time challenges the system. Additionally, the first year of 21st century observed the significant trend in merge between GDS systems and Online Travel Agencies (OTAs). (HEDNA, 2010).

Certainly, GDS is the most use airline standard distribution network. However, not all the airlines follow the mainstream. The internet enabled airlines to make their own website and reduced the distribution costs. It also means that further cost savings opportunities can be generated while taking advantage of the internet. It is a dynamic to the development in volume and in service quality of low cost carrier (LCC). Some of the LCCs are Ryan Air, Jetstar and Eurowings (ICAO, 2017). O'Connell 2005 listed the differentiated characteristics of LCC in compare with other traditional airlines or full service carrier. Some of the characteristics are low airfare, simple fare structure and secondary airports operation. More importantly, LCC services are sold online and directly through the airlines website. Below figure shows the comparison between LCC and full service carrier. (O'Connell & Williams, 2005).

Table 2: Product features of low cost carrier and full service carrier (O'Connell & Williams, 2005).

Product features	Low cost carrier	Full service carrier
<i>Brand</i>	One brand: Low fare	Brand extensions: Fare + service

<i>Fares</i>	Simplified: fare structure	Complex fare: structure + yield management
<i>Distribution</i>	Online and direct booking	Online, direct, travel agent
<i>Check-in</i>	Ticketless	Ticketless, IATA ticket contract
<i>Airports</i>	Secondary (most)	Primary
<i>Connections</i>	Point-to-point	Interlining, code share, global alliances
<i>Class segmentation</i>	One class (high density)	Two class (dilution of seating capacity)
<i>Inflight</i>	Pay for amenities	Complementary extras
<i>Aircraft utilisation</i>	Very high	Medium to high: union contracts
<i>Turnaround time</i>	25 min turnarounds	Low turnaround: congestion/labour
<i>Product</i>	One product: low fare	Multiple integrated products
<i>Ancillary revenue</i>	Advertising, on-board sales	Focus on the primary product
<i>Aircraft</i>	Single type, commonality	Multiple types: scheduling complexities
<i>Seating</i>	Small pitch, no assignment	Generous pitch, offers seat assignment
<i>Customer service</i>	Generally under performs	Full service, offers reliability
<i>Operational activities</i>	Focus on core (flying)	Extensions: e.g. Maintenance, cargo

Travel distribution channels

Previous section discussed about why and how GDS became a number one airline distribution standard network. It is also important to remember that GDS is a base not only for airline booking but also hotel and car rental reservation. The next question would be how the travel distribution channels look like with GDS and what GDS owners/operators roles are in the channels. According to the author research, there are however not many previous

studies discussed or visualized the travel distribution channels with GDS. Couple of them are presented as follow.

Radulovic (2013) took Amadeus as a case study in her research to understand the role and potential of GDS for tourism development globally. Amadeus is a giant GDS operator, which held around 35% of global tourism market share for four year 2007-2010. In 2013, Amadeus network and database system was one of the biggest civilian computer system. Its users include but not limit to over 99,000 travel agencies, over 500 airlines, 86,000 hotels and 36,000 car rental providers. Hence, to a certain extent, it is fair to conclude that Amadeus business structure (figure 4) can represent the global travel distribution chain or the main distribution channel. (Radulovic, 2013). Therein, Amadeus plays an important role as a multi travel services distributor. They are not only a connection between travel providers and travel agencies, but also an IT solution provider for travel service companies. Additionally, through its business structure, we observe that GDS operators and travel agencies stand in between corporate buyers and travel providers, which reflects how the global travel distribution channel looks like.

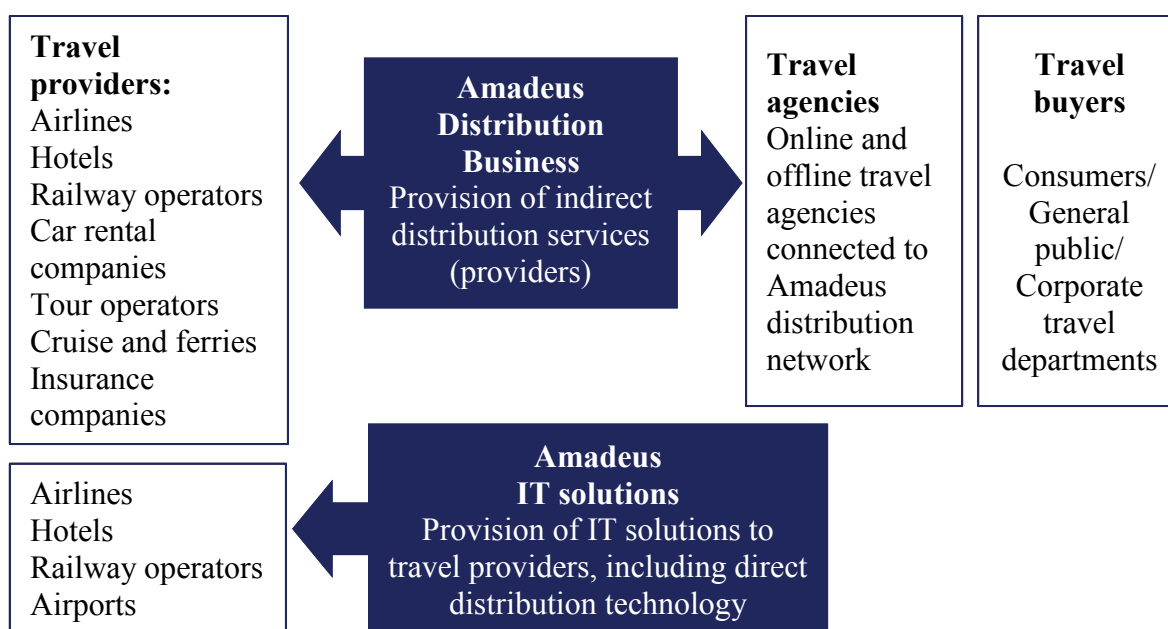


Figure 4. GDS Amadeus business structure (Radulovic, 2013).

Through interviews with accommodation providers in Wellington, New Zealand, Pearce, Tan & Schott identified the common distribution channels across different types of places ranging from luxury hotels to backpacker hostels. Regarding the business travel section, corporations and governments usually have their travel arranged by a travel

management company (TMC). At the same time, they negotiate directly with the hotels to get the corporate rates for discount. The study presents a similar distribution structure as Radulovic's regarding the TMC/travel agencies and GDS as intermediaries. Additionally, corporate buyers can book through TMC, however the data came straight from wholesalers of accommodation providers or from the hotel chains. (Pearce, Tan & Schott, 2004).

Kracht & Wang (2010) research provides a holistic view of tourism distribution channels with the active participation of Google Web Browser (figure 5). Therein the data travels from the suppliers through GDS to different players such as online travel agent, web-able tour operator and web-able retail agent. There is no direct relationship between GDS operators and Google or other search engine. The data display in Google comes from different web-able agents and online travel agency. Additionally, supplier can provide services directly to the consumer through their own website. The distribution channels presented in this study include both leisure and business travel sectors. Therefore, it is difficult to identify the common channels with corporate buyers. Nevertheless, the pattern supplier – GDS – TMC – Consumer can be found in this study as well.

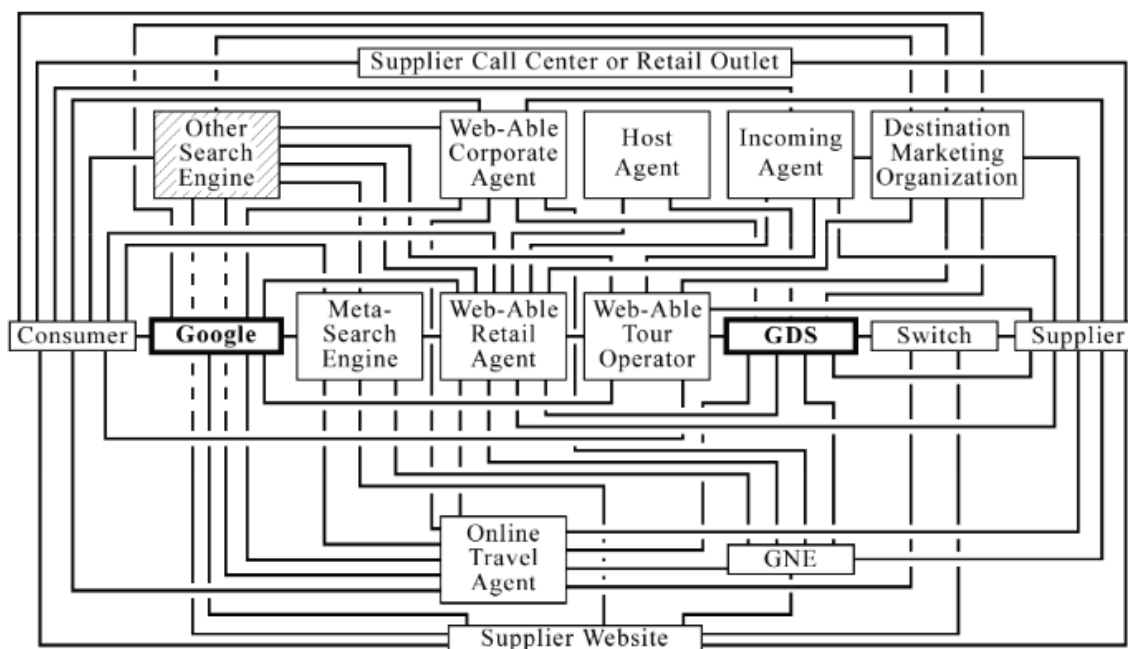


Figure 5. Structure of Tourism Distribution Channels: GDS's & Google Web Browser (2005-2009) (Karcht & Wang, 2010).

2.2 Travel services as a sourcing category

For years, “sourcing” was equated with “procurement”, “outsourcing” and “purchasing” (Buczek, 2014). It was a *“financial material, but strategically peripheral, corporate function”*. Due to the globalization and technology development, “sourcing” is not anymore of how much a company is capable of owning resources, instead its capability to manage and use to the best advantage of the capabilities. Meanwhile, it might or might not be treated as a company’s asset. (Gottfredson, Puryear & Phillips, 2005). Additionally, Trent and Monczka (2005) defined five levels of sourcing. Therein, global sourcing is the *“integration and coordination occur not only among worldwide buying locations but also across functional groups, including operations, marketing and engineering”*. Companies with global sourcing do not only execute the global agreements and contracts with suppliers but also standardize their management process and practices globally. (Trent & Monczka, 2005).

One of the strategic sourcing approaches calls category management. It is a way to categorize the organizational spend on products/services purchases into different groups based on the function of those goods and services in order to reflect the suppliers industry. There are two types of sourcing categories: Direct and indirect sourcing. Direct categories are defined as any purchase directly contributing to the final products/services of an organization such as raw materials, spare parts and services. Indirect categories are products/services that are not related to main products/services or support the operational functioning of the organization. Examples of indirect categories are utilities, legal services, HR services, car fleet, facilities management, consultancy, contractor, insurance, marketing services, IT, travel, print etc. Keep in mind that the direct categories might include the same titles as the indirect one. However, they are not the same thing, depending on the organization business. For example, “contractor” category reflect the employee search and recruitment costs of a manufacturing company. However, it is a direct cost for an HR agency. Additionally, each category requires the organization to work across the departments. For instance, “telecoms” category team, which provides mobile phone, phone package and for employees works closely with HR. (O'Brien, 2015).

2.2.1 Corporate travel management

As this research is about corporate buyer’s perspective, same point of view for travel management process is applied. Figure shows the three main players of corporate travel management. Davidson and Cope (2002) pointed out the key decision makers in corporate

buyer include senior management, travel managers, travellers, travel bookers, secretaries and so on. Typically, corporate buyers have travel agencies handled all the practicalities of travel services for them. These agencies no longer called themselves with that name, but Travel Management Company (TMC) instead. It is because they want to brand themselves also as consultants and sell the wider ranges of services. Their main role is to deal with practical travel arrangement. It can be done through implant operations, meaning to have a customer service office on the same city as buyers 'offices. They can have staffs working only for a specific buyer. Additionally or alternatively, they implement GDS based corporate online booking tool for the customers and/or set up a call centers for travel bookings. (Holma, 2009). Figure 6 shows no direct connection between corporate buyer and GDS operators. Corporate buyer can have direct and indirect relationship with service suppliers. They can be hotels, solution providers, charge cards and ancillary services. (Davidson & Cope, 2002).

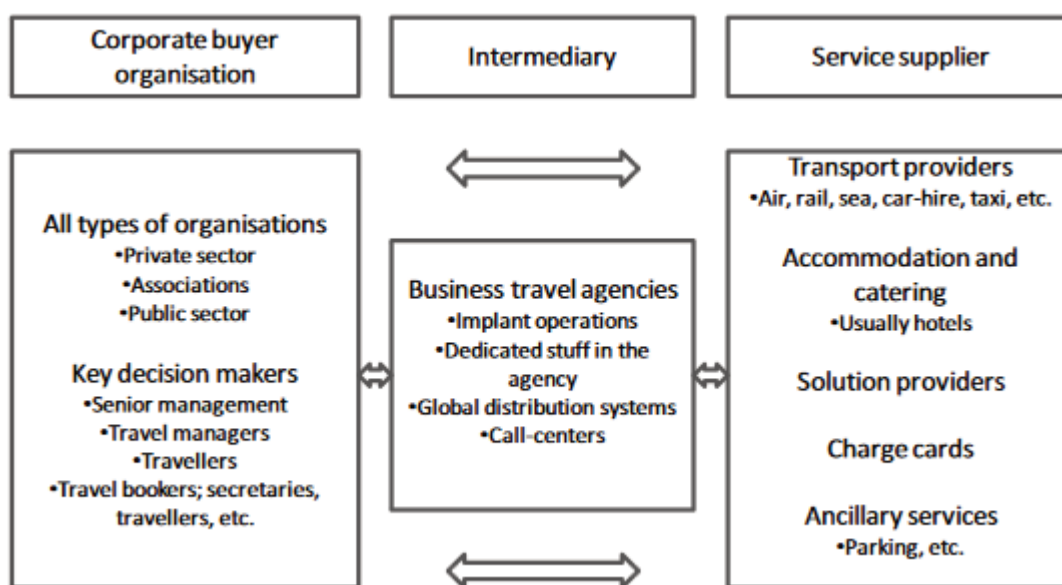


Figure 6. Three main players in corporate travel management (Holma, 2009). Origin by Davidson and Cope (2002).

A successful corporate travel management programme goes through a loop of feedback, values, goals and actions. It needs an active participation and contribution from internal corporate such as senior management, good travel management team and collaborative travellers. It also depends on the external party including travel management company (TMC) and travel service providers. These contributors bring value of comfort,

cost effectiveness, volume and constant flow of business. In many cases, value conflicts might happen between the players. For example, travellers do not follow corporate travel policy. Anyhow, these values serve as a backbone for objectives, which are for example about cost savings, service levels and increased productivity. To achieve the goals, proper actions are in place. They can be creating travel policy, managing travel processes and generating cost savings. After executing actions, the corporate travel management programme is evaluated and its feedback is sent to the contributors for reflection and improvement. This process or loop is based on soft value management model created by Liu and Leung. The model was original for implementation in engineering area. Douglas and Lubbe (2006) adopted it and put in the corporate travel context. (Douglas & Lubbe, 2006).

2.2.2 Strategic travel sourcing

Travel is a need in the organization. Travel management is to ensure the in-policy travel behaviours and reasonable travel spend. Through standardization and centralization, the organization can achieve such purposes. (Holma, 2009). To do so, Gustafson (2012) recommended six important tasks that the organization or travel team should execute.

Developing and implementing a travel policy. Travel policy consists of rules and guidelines on for example how to travel, what means of transport and what suppliers to use. Therein, actions to take during the travel journey of business travellers are well identified. Usually, there are four steps in the journey, including pre-trip approval, booking procedures, payment routines and expense report management. Travel policy serves as a backbone for internal travel management. Hence, it should be well communicated and explained to the employees. Simultaneously, the managers should take employees feedback into consideration when creating or updating policy. Policy-compliant travel behaviour helps the company saves one of the biggest costs and waste of travel. (Rothschild, 1988).

Cooperating with a travel agency allows the corporate buyer to access reliable travel data, which supports good decision-making. As mention above, travel agency nowadays provide consultancy services for corporate. Therefore, they support managers to implement and communicate the policy by advising travellers or refusing out of policy booking. (Gustafson 2012). Additionally, travel agencies provide duty of care, different travel reports and support in the relevant procurement.

Making agreements with suppliers. One of the managers' key responsibilities is suppliers' negotiation for advantageous service deals (Gustafson 2012). As we discuss about corporate buyers, in particular of the case company, they have high degree of volume

aggregation. Besides, there are suppliers that can cover globally and adequate to the corporate size. As part of strategic sourcing, the organization should establish regional or global frame contracts and use volume purchase as the negotiation power. (Trautmann, Bals & Hartmann, 2009).

Standardizing payment routines. Many buyers have a global expense management program, which includes card services suppliers and expense management solution providers (Holma, 2009). Corporate credit cards and lodge cards are commonly used. Corporate credit card can be issued to individual. The relevant payment methods can be individual pay, individual bill (IPIB) or corporate pay, corporate bill (CPCB). On the other side, lodge card centralizes payment, meaning all the purchases with the card go directly to the corporate account. Both types of cards integrated in corporate online booking tool provided by travel agencies. Additionally, to lessen the manual and paper work, there are end-to-end solution, which integrates approval, booking, invoicing, payment, expense reporting and accounting tasks into a single system. (Gustafson 2012).

Using travel statistics. It is essential for the organization to make sense of travel statistics. Data such as travel volume, spend and traveller behaviour patterns bring useful insight and help managers to control the category, negotiate with supplier, identify the saving opportunities. Data sources can be travel agency report, payment data, and adhoc analysis from other suppliers. (Gustafson 2012).

Communicating and gaining support within the organization. As mention above, communication is a key to policy compliant travel behaviour. Mason (2002) research shows that there is a mismatch between understanding of travel manager and traveller regarding travel policy. Among 20 large companies and travellers interviewed, 42% of travel managers claimed “airline and class level rules to be strictly followed”; however, only 16% of the travellers had the same opinion. Up to 44% of the travellers considered the “travel policies to be followed where possible”, meanwhile only 16% of travel managers share the same thought. As mentioned above, this issue can trigger to non-compliance behaviour. Thus, asking travellers about their understanding of travel policy via survey form can help travel managers clarify the gap and come up with appropriate communication solutions. (Mason, 2002).

2.3 Scenario planning

A scenario is the set formed by the description of a future situation and the course of events that enables one to progress from the original situation to the future situation (Godet, 2000). Scenario planning is the method to identify the possible events happening in the future, which helps the company outline the rational strategies (J.H.Schoemaker, 1995). In 1950s, Herman Kahn developed the technique of describing the future when working for the US military at the RAND Corporation. He was after referred as father of scenario planning. The method later became popular among military planners to handle strategic problems, especially during wars (Bradfield, Wright, Burt, Cairns & Van Der Heijden, 2005). The pioneer, which brought the scenario planning to the business world, was Royal Dutch/Shell in 1970s. The implementation helped the company improve its oil forecast than others in oil companies, thus firstly figured out the overcapacity in the tanker business and Europe's petrochemicals. (J.H.Schoemaker, 1995). Scenario planning however did not become a common way to forecast the future correctly. It is to identify at least two scenarios about the world evolution in the coming years. (St. Andrews University, 2005). Like Arie de Geus, who at that time was a head of Shell's strategic planning group, said: *"Nobody can predict, therefore we should not try. The only relevant discussions about the future are those where we succeed in shifting from the question whether something will happen to the question: what will we do if it happens"* - Arie de Geus. (Ruijter & Alkema, 2014)

Generally, scenarios planning is a good approach to build strategies. However, scenario work can be a success or failure. It depends on how purposeful a scenario project is. Bradfield et al. (2005) built a two dimensional matrix of purposeful scenario work (figure 8). Therein, categories of two axes are the types of solutions and the purpose of solutions. In details, solutions can be to use once for problem solving (once only problem solving) or to be part of the process and continuous improvement with longer term (ongoing surviving/thriving). Purpose of solutions can be either to support the company in learning/exploring the issue (opening-up exploration) or to make decisions and actions (closure decisions). Four main areas were identified as "making sense" (understand a particular situation or issue), "anticipation" (foresee what happens in the future), "develop strategy" and "adaptive organizational learning".

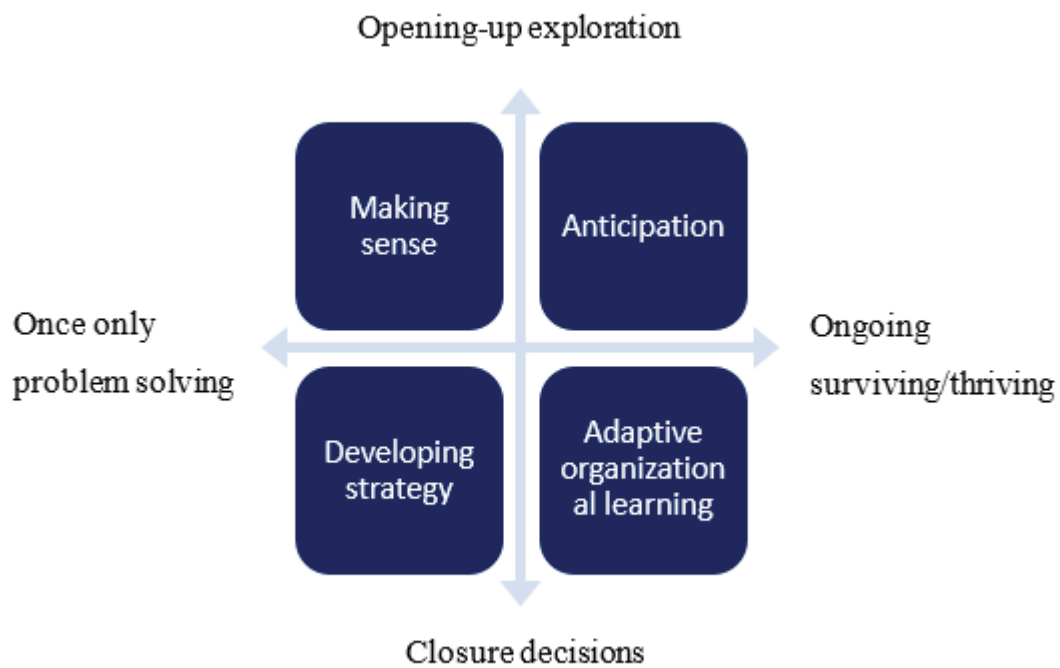


Figure 7. Purposeful scenario work (Bradfield et al., 2005).

2.3.1 Scenario types and scenario planning approaches

Scenario types

Regarding the types of scenarios, there is no single way to categorize scenarios. Godet and Roubelat (1996) classified scenarios into exploratory and anticipatory one. Exploratory scenarios use past and present trends to develop the plausible future. Meanwhile the latter creates different visions of future, which can be optimistic or pessimistic. (Godet & Roubelat, 1996). Exploratory scenarios are based on the following assumptions. Firstly, the future is a continuation of the past and directed by human choice and action. Secondly, no one can predict the future correctly; however, future exploration can be a base for present decision. Thirdly, there is not one but many possibilities for future due to the uncertain events that connect a “possibility space” Lastly, scenario planning relies on both rational analysis and judgement; hence, it involves interactive and participative methods. (Meitzner & Reger, 2004).

On the other side, scenarios can be divided into internal and external one. Internal scenarios reflect the future of individual, in which action is connected to a personal goal. External scenarios indicate the external world with projected ranges of possible future

developments. This categorization was developed by van der Heijden (1996). (Meitzner & Reger, 2004).

Fahey and Randell (1998 in Ratcliff 1999) categorized scenario based on the macro-environment and its benefits to the decision makers. Firstly, global scenarios show the future states that have different impacts on long run investment as well as operational decision analysis. Thus, it is a guideline for managers to make rational decisions. Secondly, industry scenarios provide the picture of how the industry's evolvement in the future. Knowing future environments and their differentiation supports the company to perform better in the industry. Thirdly, competitor scenarios define and analyse the competitor strategy alternatives under many circumstances. Last but not least, technology scenarios describe the opportunities, risks and options in the future market, which improves the quality of managers' s technological decision making .(Mietzner & Reger, 2005).

Scenario planning approaches

Generally, scenario planning is a practitioner oriented approach. Thus, there are various methodologies for building scenarios. Depending on the purpose of usage that a certain scenario approach is chosen.

Amer et al (2013) listed three approaches for drafting scenarios (table 3). Therein, minimal approach uses two trends to draw a four quadrant matrix of scenarios. This produces minimal project cost; however, is questioned about the validity of scenarios. Drawing the future with only two key drivers is challenging and too simplified. Therefore, it needs a careful section of factors to make sure the strategic actions can be generated. Standard approach considers 3-8 uncertain factors to draw 3-6 scenarios. Appropriate tools or method to assess all elements can include, but not limit to, consistency analysis and morphological analysis. The cost to develop scenarios is appropriate or in mid-range. Lastly, maximum approach takes more than 8 factors into consideration. Tools used are the same as in the standard approach with cross impact analysis as an addition. The costs of this approach is very high. (Amer, Daim & Jetter, 2012).

Table 3. Three approaches for drafting scenarios (Amer, Daim & Jetter, 2012).

	Minimal approach	Standard approach	Maximum approach
<i>Number of uncertainties</i>	2	3-8	>8

<i>Tools and method used</i>	Four quadrant matrix or 2 x 2 matrix approach	Wilson matrix, morphological analysis, consistency analysis	Wilson matrix, morphological analysis, cross impact analysis, consistency analysis
<i>Scenario project cost</i>	Minimal	Appropriate	Very high

On the other side, Huss and Honton 1987 identified three main categories to scenario planning approach, which are Intuitive Logics, Trend-Impact Analysis and Cross -Impact Analysis. Intuitive logics was described by Pierre Wack in 1985 and later implemented by Global Business Network and Shell. Especially, the methodology helped Shell to identify correctly the scarcity level of oil, which trickled down to the increase of oil price. The success of the company's implementation made its intuitive logics application method became the "*gold standard of corporate scenario generation*". This approach was also called as "Shell approach". Intuitive logic collects all the available information about the future and develops a pattern through the trend identification. The model also uses the industrial experts' opinions and experience to build scenarios. (St. Andrews University, 2005). Nevertheless, from science's perspective, this feature makes it difficult to check the validity of scenarios built based on the approach. In 1970s, Trend Impact Analysis (TIA) model was created in 1970s and used by the Futures Group. The method was developed to overcome the limitation of traditional forecasting in using the historical data while ignoring the future happenings. There are four steps in the TIA process. After the relevant historical data is gathered, a curve-fitting process reveals data patterns and eliminate/reduce the wildcards in the extrapolated trends. From these future trends, the unpredictable possibilities, which have a huge impact on the industry, or in other words the wildcards are identified. Lastly, the industrial experts are invited to give opinion and utility on the likelihood of the unprecedented events and their influence on the data. The critics of this model lies on the data quality and researchers' expertise. To analyse trend, a long, detailed and reliable time series of data and the thorough understanding of statistical and probability subjects of experts are required. Thus, it does not become popular (Mietzner & Reger, 2005). Cross – Impact Analysis or CIA was created by Gordon and Helmer in 1966 at the RAND Corporation. Like TIA, the model takes into account the chances of wildcards to be happened in the

extrapolations of pastime data. However, as its name shows, the cross impacts of pairs of future events are calculated to figure the conditional probabilities of those in the future. The drawback of CIA is that it is easily to go out of control thus negatively influences on the reliability of the content if there is no constraints (Mietzner & Reger, 2005). Either the CIA or TIA, the scenarios are built based on the utility of events' occurrences. To summarize, the table 4 shows the comparison between three described scenarios planning methods.

Table 4: Comparison between three scenario planning approaches (St. Andrews University, 2005).

Step	Intuitive Logics	Trend Impact Analysis	Cross Impact Analysis
1	Define the problem	Collect historical data on topic	Collect historical data on topic
2	Collect all available information about the future	Use algorithm to select curve fitting historical data	Use algorithm to select curve fitting historical data
3	Identify patterns and trends	Generate “surprise-free” future trends	Generate “surprise-free” future trends
4	Establish scenarios	Develop list of future events which could cause deviations from the extrapolated trend	Develop list of future events which could cause deviations from the extrapolated trend
5		Use expert judgement to identify probability of event occurrence	Use expert judgement to identify probability of event occurrence
6		Produce adjusted extrapolations	Determine conditional probabilities of future events through costs impact calculations
7			Produce adjusted extrapolations

2.3.2 Intuitive- logics models

As mentioned in previous section, the purposes of scenario drives the success of the scenarios works. The characteristics of intuitive logics (IL) model make it applicable to all

above purposes (Bradfield, Wright, Burt, Cairns & Van Der Heijden, 2005). Moreover, two main differentiations between the IL approach and others are the participants of scenarios team and the roles of experts within the planning process. In short, unlike other approaches, with IL, members of the scenarios group are mostly internal, who already work for the organization. The external experts play a supportive role in challenging the team thinking and designing the process. The nature of intuitive logic model makes it suit the most with this research, thus the author shall apply the method to build scenarios for the case company. The literature review will also go detailed with this method instead of introducing others.

The nature of IL model

Among the above methodologies, intuitive-logics is the only one, which does not rely on the historical data or predetermined procedure. Therefore, the model brings more freedom to the use of research and techniques to build scenarios. (St. Andrews University, 2005). Besides, with this method, the answers to “what if” questions are subjective or in other words, from the experts’ perspectives. IL is a plausibility oriented approach rather than probability, so it is believed to support the management team vision to the future better than forecasting. Ramirez and Wilkinson (2014) cited IL as the “standard” approach to scenario planning.

The outcome of Intuitive- Logics model enables the managers not only in decision-making and strategy development, but also in the organizational learnings. It can be applied widely from local to global, from a company to an industry. The time range to consider in the scenario planning method is from three to 20 years. Regarding the application of technique, IL can be either exploratory or anticipatory. Thus, if the methodology is applied, qualitative data collection will likely be used. This means interview or workshop in which participants are asked for opinions are arranged to achieve the necessary information. To get a better outcome, the stakeholders of scenario team come from internal or experts with relevant expertise within the organization and internal or experienced scenario practitioners. Besides stakeholders’ analysis, other tools are also in used such as secondary research, STEEP analysis, clustering, matrices and systems dynamics. At the end of the process, scenario team are able to come up with two to four scenarios, which must be equally probable and plausible. Further implications and strategic options can be included as parts of the outcomes. (Bradfield, Wright, Burt, Cairns & Van Der Heijden, 2005).

IL approaches and process

There are two approaches of IL model: conventional or standard IL and augmented IL. The distinguishable factor between the approaches is the driving forces. The augmented IL focuses on causation of events and establish the causal loops at the end. Nevertheless, the conventional approach is standardized, simply clusters the events and identifies two critical uncertainties to create a matrix of scenarios. The storyline is the result of this approach. (Derbyshire & Wright, 2017). Considering the resources and complexity level of this study, conventional IL approach is better fit.

There are five steps to build scenarios with conventional IL method. At first, the scenario team should create the scenario agenda, in which tells what the problem/issue is. Shell scenario planning guideline (2008) reviews the following key questions at the beginning phase of scenario planning process:

1. *What is the primary purpose of the project?*
2. *Who will be using the scenarios?*
3. *Who is sponsoring the project?*
4. *Why has the scenario approach been chosen?*
5. *What are the expected outcomes?*
6. *What time horizon will the scenarios cover?*
7. *How long do you have for the scenario project?*
8. *Who will be involved and how much time is required?*
9. *How much will it costs?*
10. *How will the scenarios be applied?*

Next, the team figures out what events happening in the industry and how great their impact on the issue. These driving factors are clustered through macro environment. The typical cluster tool is PESTEL analysis, which considers political, economic, social, technological, environmental and legal aspects. Many researchers have also used STEEP as the alternative. Therein, the first dimension is social trend, which indicates the development of social factors such as demographics, religion, lifestyle and value (PESTLE analysis, 2015). Secondly, the technological trend is essential in the trend analysis framework. The evolvement of technology touches aspects like innovation, communication, R&D and transport. The third dimension of STEEP is economic, which mainly tells about the customer's buying position. Relevant factors are for example, international trade, savings, inflation, subsidies and taxes. The next dimension is environmental or ecological factors including climate change, air pollution and environmental regulation. Lastly, political

elements are tax policies, price regulations, personal data regulations and political stability. (pestleanalysis, 2015). Generally, legal and political dimensions do not gain as much attention as the other factors from the commercial companies' perspective (Mietzner & Reger, 2005). Trends are taken not only from macro-economic factors but also from business travel industry, which concerns about events of suppliers, customers, competitors and substitutes (Schoemaker, 1991). These factors are then clustered into different groups.

The scenario team identifies two most uncertain and important driving factors. These are treated as two scenario axes and thus create four quadrants of scenarios. At this stage, the scenarios frame and scope are clear. The development of scenarios or description of the future scenes also involves the stakeholders', mostly the management team's opinion and experience. As being mentioned, the scenario planning technique also depends on the purpose of the scenario exercise. Thus, if the purpose is to develop strategy for long-term development, the organization should assess its own strategies in each future scene. (Derbyshire & Wright, 2017). Figure 9 illustrates the summary of conventional intuitive logic scenario planning process.



Figure 8. Conventional intuitive logics scenario planning process. Adapted from Derbyshire & Wright, 2017.

2.4 Summary of literature review

Section 2.1 reviewed the literature of business travel. It used Swarbrooke and Horner (2001) study to explicate main players in business travel. They are buyers, suppliers and intermediaries (table 1). Besides, the section presented three main evolvments of airline standard distribution networks: CRS, GDS and the Internet (Buhalis, 1998). Advanced features made GDS much more powerful after the merge with CRS. GDS quickly served as the airline global standard network. When the Internet was born, it leveraged the development of GDS but also challenged the system. The dominance of GDS in airline industry trickled down to the monopoly of GDS operators in business travel sector. While most of the airlines distribute their tickets through GDS based platform, low cost carriers

typically use online and direct bookings. Additionally, Radulovic (2013); Pearce, Tan & Schott (2004) and Karcht & Wang (2010) studies revealed the common business travel distribution channel, which are Suppliers – GDS operators – TMC – Buyers. Since 2005, tourism industry beheld the rise of meta-search engine participation, in which Google is a representative. Although booking through Google seems to be popular in leisure travel, previous studies do not discuss about the roles of meta-search engine in business travel.

Section 2.2 reported on several theories of (travel) sourcing. In this study, the level of sourcing is global sourcing. It triggers companies to have global agreements and contracts with suppliers and global standard management process and practices (Trent & Monczka, 2005). Category management, which is a strategic sourcing approach, was briefly discussed. It indicates that the allocation of sourcing spend is in accordance with the functions of products/services. It is to reflect the suppliers industry. (O'Brien, 2015). Travel is a sourcing category. In corporate travel management, TMC is no longer simply handle travel practicalities but in addition, consults on travel matters and sells ancillary services. Corporate buyers have direct or indirect relationship with service providers. However, they do not partner with GDS operators. (Holma, 2009). Douglas and Lubbe study (2006) also defined that a successful corporate travel management programme has a loop of feedback, values, goals and actions with the involvement of all stakeholders. When it comes to strategic travel sourcing, Gustafson (2012) suggested six important tasks for the organization. They are developing and implementing a travel policy, cooperating with a travel agency, making agreements with suppliers, using travel statistics, and communicating and gaining support within the organization.

Section 2.3 pointed out several scenario planning studies. Bradfield et al. (2005) created four purposes of scenario work matrix, which are making sense, anticipation, developing strategy and adaptive organizational learning. A successful scenario project should fulfil at least one of these purposes. Moreover, the section discussed about types of scenarios and presented some ways of classification. They are exploratory vs. anticipatory scenarios (Godet & Roubelat, 1996); internal vs. external scenarios (van der Heijden, 1996); and global vs industry vs competitor vs technology scenarios (Fahey & Randell, 1998). Previous studies also showed multiple ways to build scenarios. Amer et al (2013) introduced three approaches: Minimal, standard and maximum. The differences lie down on the number of uncertainties, tools and method used and project costs. Alternatively, Huss and Honton (1987) mentioned three methods: Intuitive Logics (IL), Trend-Impact Analysis and Cross -

Impact Analysis. IL is the only one that does not connect with historical data or predetermined procedure; simultaneously, fulfils four purposes of scenario work. Considering the available resources and scope of this study, IL was selected and further explored. There are two types of IL: conventional and augmented IL. Conventional IL is standardized, simply clusters the events and identifies two critical uncertainties to create a matrix of scenarios. On the other hand, augmented IL focuses on causation of events and establish the causal loops at the end. Conventional IL was applied to simplify this research. Figure 8 illustrated five steps of scenario planning process with conventional IL approach. The first step is to build scenario agenda, which can be done by answering key questions displayed in Shell scenario planning guideline. Step 2 and 3 is to use PESTEL/STEEP analysis to realize driving factors in macro economy and business travel. These factors are clustered into different groups. Step 4 involves workshop and discussion with industrial experts to build impact/uncertainty matrix. Step 5 is to develop scenarios based on the matrix. (Derbyshire & Wright, 2017).

3 Research methodology

This chapter indicates the study approaches applied to develop corporate travel management. Section 3.1 indicates empirical methods including qualitative approach and interview. These methods are to discover insight of corporate buyers, thus to answer RQ1 and 2. Next, “Research context: travel as a sourcing category in the case company” is introduced in section 3.2. Lastly, section 3.3 presents the selected scenario planning method and how it is applied in this study.

3.1 Empirical methods

Qualitative approach

Case study approach is popular in International Business research. It is defined as “*a research strategy that investigates a phenomenon in its real-life context, relating it to theory and seeking to understand what the empirical phenomenon is a case of in theoretical terms*”. Case study is usually equated with qualitative study. It requires researchers to spend lots of time on observing, evaluating and revising the activities and operations of the case. (Fletcher & Plakoyiannaki, 2011). These characteristics of case study fit well with this research background and reasons of research topic.

Haslam and MGarty (2014) listed the distinction between quantitative and qualitative research, as present in table 5. Reflecting with this study background and research questions, qualitative method brings a good fit. In details, an appropriate empirical method is one that could help to identify challenges in global corporate travel management. In this case, relying on numbers as a form of data delivers limited amount of challenges. For example, if the travel service quality is bad in some countries, using quantitative method cannot reveal right away that problem. Instead, asking stakeholders help to detect that issue much faster. Additionally, as intuitive logics scenario planning is applied, it rather contains the subjective view than objective one about the phenomenon. The core value of intuitive logics method is the stakeholder’s perspectives about the importance and uncertainty of trends. Apparently, different stakeholders have different views. Thus, scenarios in other same studies might not be the same as in this study. Nevertheless, the goal of analysis is more idiographic, meaning to understand a specific case, not to extrapolate generalizations or be nomothetic.

Table 5. Distinguishing features of quantitative and qualitative research (Haslam & Mc.Garty, 2014).

	Quantitative	Qualitative
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<i>Standard distinguishing features</i>		
<i>Form of data</i>	Numbers	Situated practices
<i>Form of analysis</i>	Statistical	Illustrative
<i>“Feel” of analysis</i>	Cold, bare	Warm, rich
<i>Radical distinguishing features</i>		
<i>Underlying philosophy</i>	Positivist, realist	Relativist, constructionist
<i>Goals of analysis</i>	Nomothetic (oriented to discovery of universal causal laws)	Idiographic (oriented to understanding behaviour in its local context)
<i>Products of analysis</i>	Reliable, stable relationships between variables	Potentially variable meanings and rules
<i>Application of findings</i>	General	Particular
<i>Stance assumed by researchers</i>	Detached	Involved
<i>Assumed status of analytical products</i>	Objective	Potentially subjective

Interview

Interview is the most popular data collection in qualitative research. In term of structure, interview has three main types: semi-structured, lightly structured and in-depth. Unstructured interview is available; however, is recommended to use in long-term field work which allow interviewees to express themselves. Semi-structured interview requires the respondents to answer a predefined set of open-ended questions. However, during the interview, the questioner can explore more about a specific topic based on the respondents' reply. Semi structured interview generally lasts for 30 min to more than an hour. (Jamshed, 2014).

Semi-structured interview was chosen in this study to identify challenges in global corporate travel management (RQ1). A set of open-ended question was prepared in advanced. In the beginning of an interview, introductions of both sides were exchanged. Instead of jumping to the challenges related question, the interviewee firstly told about his/her corporate's current global travel management setup. By answering that question, the interviewee was able to recall the information and thus, thought about challenges more thoroughly. Other non-challenge related questions such as industrial trends and expectation of future travel management were asked. They are for the interviewees to detect potential

challenges imposed on their current travel programme. Besides, it validated and updated authors' researches and knowledge about trends, which would be used to build scenarios. Interviews were more conversational, in which both parties discussed and shared information to each other. This created a relaxed and natural atmosphere to encourage interviewees shared their opinions and information of their companies, especially confidential information. Furthermore, due to the busy schedule of stakeholders, another set of questions were sent to different types of respondents. Follow up meetings were conducted after that.

The main purpose of interview is to identify the challenges in corporate travel management. As mentioned in previous chapters, travel management is a part of indirect sourcing, in particular of travel category. Therefore, interviewees from the case company are head of global indirect sourcing, global travel category managers, regional and local sourcing managers and travel assistants. Additionally, global travel managers from two same size buyers were also participants. This is to identify the potential/additionally challenges in order to reflect the corporate buyers' challenges more correctly. The respondents are not only responsible for travel related tasks but also decision makers (some of them) and travellers. Therefore, the outcomes of interviews are reliable and reflect the challenges holistically.

Face to face and skype meetings were organized in October 2017. The interviews outcomes are presented in Appendix C. Some information such as suppliers names is not revealed to guarantee the confidentiality. Table 6 aggregates the information of interviews. After the interviews, list of challenges were gathered. Therein, replicated or similar challenges were deleted. Additionally, some issues of a specific case which were discussed in emails/interview were also omitted. It is because the issues might be popped up once and do not strong enough to represent the global challenges. Alternatively, problems of other cases were generalized into a challenge when they appear more frequently and in some big frontlines of the case company. After that, challenges were classified into four categories, which will be present in the next chapter.

Table 6. Interviews information.

Interviewee	Role	Level of role	Related issues	Length of interview	Type of interview
1	Head of indirect sourcing	Global	RQ1 & 2	60 mins	Face to face

2	Category manager, Travel	Global	RQ1 & 2	60 mins	Face to face
3	Travel manager	Global	RQ1	60 mins	Skype meeting
4	Travel manager	Global	RQ1	60 mins	Skype meeting
5	Travel manager	Global	RQ1	60 mins	Skype meeting
6	Sourcing manager	Regional	RQ1	60 mins	Skype meeting
7	Travel assistant	Global	RQ1	60 mins	Skype meeting
8-18	Sourcing managers and travel assistant	Local	RQ1	60 mins if skype meeting	Email + Skype meeting

3.2 Research context - Travel as a sourcing category in the case company

This section presents the research context – travel sourcing in the case company. In details, it describes travel policy, travel KPIs and travel management programme of the case company. It helps the readers understand the challenges in corporate travel management explicated in chapter 4.

Travel policy

Travel policy of the case company is well defined and mandatory for all employees. It serves as a guideline to navigate travellers' thinking and behaviour towards the desired way for the company. It aims to optimize the company's travel costs, reduce the carbon footprint and minimize the risks while travel. Therefore, before making decision on travel, an employee needs to compare the value with time, cost and environmental impact of the trip as well as considers whether to use virtual meeting as an alternative solution or not (company X travel policy, n.d.).

According to the travel policy, when an employee has a need to travel, (s)he firstly has to plan the trip at least three weeks beforehand and request for the travel approval from in-line manager. Besides, practicalities such as country security, visa and insurance must be taken care of before booking. Next, the employee accesses to the corporate online booking tool (OBT), where air tickets, hotel rooms, rental cars and rail tickets are available for purchase. As the tool is customized for the company, (s)he needs to choose the mode of transport with the lowest logical costs (optimization of both cost and time) as well as preferred hotel and vehicles. In some countries, train might bring lower logical costs and more environmental friendliness instead of air. During the trip, typically the employee uses a company credit card to pay for all the on trip expenses. After that, (s)he needs to report expenses three weeks after the trip at the latest via the company expense management tool. Figure 9 illustrates the travel process defined under the case company's travel policy. Overall, the case company's travel policy reflect exactly four steps in the journey indicated in Gustafson (2012) study. They are pre-trip approval, booking procedures, payment routines and expense report management.

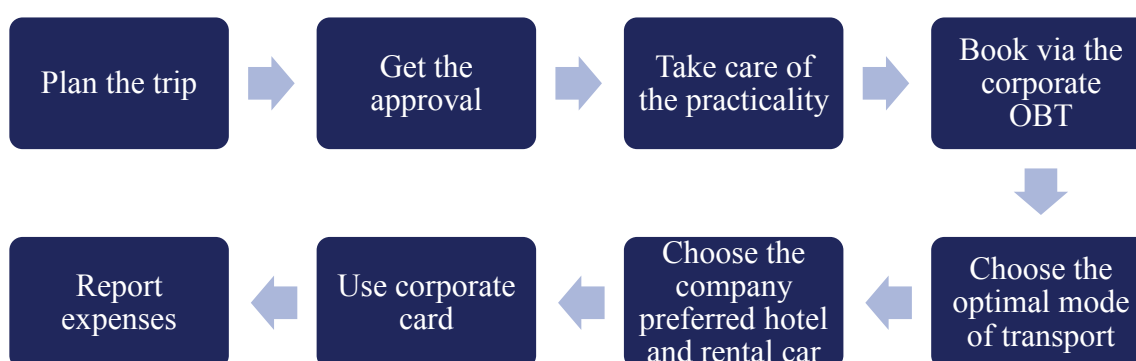


Figure 9. Travel process defined under the case company's travel policy. Source: Company X travel policy.

Travel KPIs

Travel key performance indicators (KPIs) is a set of measurements on which the company can evaluate how well their travel (management) program is doing (Sison, 2018). The indicators serve as a monitor tactic and support the relevant managers to identify saving opportunities as well as make good strategies. In the case company, KPIs were defined based on the industry's best practice. They are advance booking rate, online booking rate (online adoption rate), travel costs vs. budget, travel costs per unit turnover, travel costs per staff and travel costs per mile. The data sources are from the preferred travel management

company and the case company own consolidated reports. Table 7 provides the further description of the case company's KPIs.

Why does the company use such KPIs to measure the success of their travel program? Firstly, the travel policy regulates the airfare bookings to be conducted at least two weeks before hand. Additionally, such bookings potentially bring cost savings for the company because the more air tickets price typically increases the closer to the travel date the reservation is. Therefore, advance-booking rate is to monitor the policy compliance and travel behaviours. Secondly, online booking is generally cheaper than offline booking because there is no direct involvement of the agency and thus, no extra offline fee on top of the airfare and transaction fee. Knowing the online adoption rate enables the managers to access the TMC services on whether all the bookings are bookable online as well as to understand travel behaviours. Thirdly, every spend has budget. Measuring the travel costs over the travel budget for the same period is essential for the managers to realize if the spend is within the budget. Additionally, travel costs per unit turnover is a good indicator that helps managers understand how efficient the travel is. Also, comparing the costs with turnover is a standard calculation in finance. It is good to be aware of how many cents of travel costs out of a euro of revenue. Next, travel costs per staff indicates how much money the company spends on travel for each employee. The indicator can be used to forecast the travel volume of the following year together with the expected changes in headcount (Rocketrip.com, 2016). Last but not least, travel costs per mile measures the account of travel costs over its distant, which helps company understand about the expensiveness of the negotiated travel deals.

Table 7: Travel KPIs of the case company (Company X internal materials).

KPIs	Description	Data source
<i>Advance booking rate</i>	% of air trips booked \geq 14 days in advance	TMC
<i>Online booking rate</i>	% all trips booked online	TMC
<i>Travel costs vs. budget</i>	% of travel costs over the travel budget for the same period of time	Internal
<i>Travel costs per unit turnover</i>	% of travel costs over the turnover for the same period of time	Internal
<i>Travel costs per staff</i>	% of travel costs over the amount of staff for the same period of time	Internal

<i>Travel costs per mile</i>	% of travel costs over the travel distant for the same period of time	Internal + TMC
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Global travel management program of the case company

To identify the challenges in travel programme of the case company, it is important to clarify not only the travellers' journey (section 4.1) but also what beyond the actions. To do so, the author designed a service blueprint of the company' standard travel process (appendix A), which visualizes in details how the travel services are provided through different layers: frontstage, backstage, support processes, direct service and supplier. At the same time, it helps point out some challenges of the travel program. Additionally, a shorter and modified version of travel program is presented in figure 10 as a summary of this section. Since it is cumbersome and time consuming to picture the travel management program completely, the study focuses on the one that serves as globally preferred practices and is adopted by big volume countries.

As mentioned in "travel policy" subparagraph, an employee or travel assistant needs to plan a trip and send the travel request to the in-line manager. The pre-trip request for approval is currently done simply through email or department's own form. In short, this step of travel journey is conducted manually.

After getting the approval, (s)he makes reservation with preferred airlines, hotels or short-term car rental. These suppliers are selected through global procurement and based on the result of travel spend analysis. The case company then negotiates with them to get a corporate fare or discount deals for the bulk volumes spend. These suppliers for example airlines however, do not distribute tickets directly to the company but via intermediaries. A typical distribution network is controlled by a GDS operator or owner aka technology company. They use GDS to take data from the airline inventory, restructure and visualize it on the corporate OBT.

Anyhow, there are two main architectures of travel services distribution in the case company. In accordance with strategic sourcing, the company tendered to have a global preferred travel service supplier, which is a travel management company (TMC). This TMC provides optimal travel solutions for travellers (schedules, connections, price, process (payment, expense management). They help implement and manage travel policy and suppliers contract (airlines, hotels) (business class, early booking). Additionally, TMC supports travel managers to improve the visibility of travellers regarding the risk

management and travel tracking through travel statistics. TMC also collaborates with technology providers to create a customized OBT where the travellers can find the preferred travel services suppliers and perform travel related actions in line with the travel policy. The distribution network, which technology providers and TMCs are intermediaries, serves as a standard for the case company. In other words, same structure is applied locally.

On top of that, in several big frontlines, the company also uses OBT and travel services from TMC of an OTA. Besides aggregating the data from different GDS operators, these type of TMCs provide their own flight ticket and room fares from direct negotiation with airlines and hotels. This allows the customers to compare the TMCs rate with theirs and choose the lower option. Regarding the travellers actions, after selecting the appropriate travel services in OBT, the employee/travel assistant pays for air ticket using lodge card and guarantee hotel room and car rental with corporate credit card.

During the travel, typically the employee uses corporate credit card for on trip transactions. When returning to the office, either (s)he or his/her travel assistant claims the expenses through the company's expense management solution (EMS). The total costs of trip (apart from air ticket but not limit to car rental, hotels and standard daily allowance) are generated, allocated by cost centers and sent to the company financial system. After reviewing and approving the expenses claim, the company deposits the amount to the employee bank account. Separate credit invoice is also sent to the employee and (s)he is responsible for the payment. In short, the company uses "individual bill, individual pay" (IBIP) as a global preferred payment method.

When reflecting with abovementioned theories, global corporate travel management of the case company has similar characteristics. In details, the structure Suppliers – GDS operators – TMCs – Buyers discussed in chapter 2 (section 2.1.2) is applicable in practice. In comparison with Gustafson (2012) study about strategic travel sourcing, the corporate already applied six important tasks to a certain extent. In details, they developed and implemented a global travel policy, which is mandatory for all travellers. Sourcing team also partner with a global preferred TMC, which supports not only on travel practicalities but also in other matters such as policy compliance. Periodically, TMC provides customized reports to track spend and travel KPIs across the countries and ad-hoc analyses per request. Travel services of the case company are provided by global/regional leading suppliers. Additionally, sourcing managers have used volume purchase power to negotiate corporate

fares and discounts with service providers. The corporate buyer also standardize payment routines with global expense management solution and IBIP as global payment method.

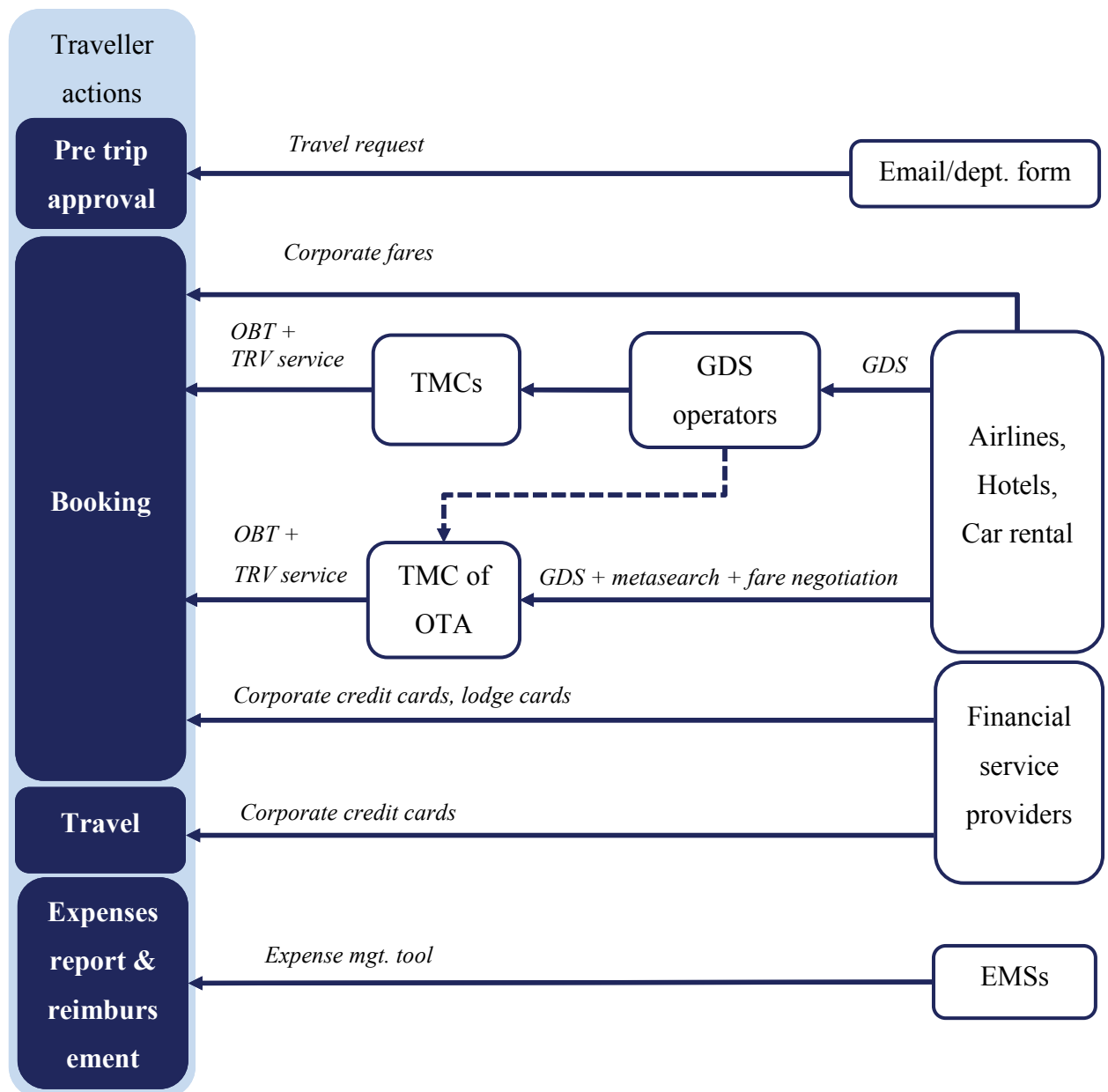


Figure 10. Global travel management program of the case company.

3.3 Scenario planning method

The limitation of resources and the complexity of this study makes the minimal approach applicable and suitable. In other words, two uncertainties will be defined to create 2 x 2

matrix (Amer, Daim & Jetter, 2012). Additionally, as mentioned in chapter 2 (section 2.3.2), IL model will be used to develop scenarios. In this case-study-based research, experts and stakeholders opinion enhances the relevance and practicality of scenarios. The process of scenario planning was adopted from Derbyshire & Wright (2017) study. It is shown in figure 9. Meanwhile, this section demonstrates the application of step 1 to 4. Step 5 – Scenario development – will be presented in chapter 5.

Step 1. Scenario agenda

According to Shell scenario planning principle, it is important to clarify the objective of scenario planning as well as the scope and timescale of scenarios (Shell, 2008). In this research, the ultimate purpose of scenario planning is to support travel managers in the category strategy planning. On the other side, scenarios will provide more insights of the industry, and that keeps the managers updated. Unlike the typical scenario planning of a whole industry, scenarios will be developed taken the corporate buyers' perspectives into account and broadly relevant to the travel management of the buyers. In other words, trends that influent on the buyers (in)directly will be considered in this research. Lastly, as many of the events are predicted within five years, it is relatively safe to use that number for the timescale. Also, it is challenging to predict trends in a longer term due to the lacking resources and time for this research.

Step 2 & 3. Driving forces and clusters

Through secondary research and interviews, 88 macro-economic and industrial trends are identified following the STEEP analysis, they are listed under appendix D. These are chosen based on the author's preliminary assessment on their relevance and impact to corporate buyers and travel management. After that, recognized trends that indicate a same issue are clustered. As a result, 38 downside trends are named and presented in the appendix E.

Step 4. Impact/Uncertainty matrix

The managers, who are experts in the travel industry, were invited to meetings to discuss about their top concerns in the industry and thus, rank the impact and uncertainty of trends. Additionally, it is crucial to build plausible scenarios, thus the compatibility of two most impact/uncertainty events were taken into consideration in the discussion. For example, the

increasing inflation rate and threatened nature do not go together, so the combination has to be eliminated. As a result, we defined two critical factors for future scenes, which are the change of airline distribution network and intensity of tailored travel service. The matrix is shown in figure 11. The ranking points can be found in the appendix E.

Horizontal axis: GDS is dominant – GDS is not dominant

The change of airline distribution network is the top concerns among the experts. It is reflected in the following trends:

- *New distribution capability (NDC) as the evolving airline landscape (IATA, 2016)*
- *CRS regulation of EU about airline surcharges (GBTA, 2017)*
- *Resolution 787 of IATA allows the airline to have their own distribution channel (IATA, 2013)*

For decades, the global distribution system (GDS) has been dominant the airline distribution network. It is usually owned or operated by a third party such as travel agency or technology provider. Typically, when a corporate traveller books for a ticket through online booking tool, the agency will receive the request and use GDS to connect with the airline's reservations system. In the airline inventory, they are able to select the appropriate flight options and send those back to the traveller. Participating in this circle of network or indirect booking network means that the airlines have to pay for the agency commission fees and according to them, the costs are expensive.

On the other side, the tough competitiveness of the industry has often put pressure on the ticket prices. These conditions together might trickle down to a thin profit margin of the air firms. Additionally, airlines no longer desire for filling up seats on plane. They want to provide business lounge, wine, food and many other ancillary service as well as package the offerings differently for the corporate customers. However, with the current network, they do not have such control to diversify the services as they wish. The problems had been discussed with no concrete actions until the travel industry supported program – NDC - was launched in 2012. Within 5 years, 27 airlines including the big names such as Lufthansa, Emirates and British Airways have deployed the system. Therein, 11 airlines in 2015 succeeded in implementing NDC in the booking tools. The new system is to lift up the airlines problems and give opportunities for them to become true retailers. (IATA, 2016).

The disruptive standard has led to the question about the roles play of TMC in the distribution cycle and in overall, how the distribution landscape of the business travel would look like in the future. Along with the new adoption, air firms added extra fee to the booking of air ticket through the traditional system. For example, in 2015 Lufthansa group of airlines which include Lufthansa, Austrian Airlines, Brussels Airlines and Swiss International Air Lines announced to surcharge €16 for every GDS booking with all members of the group (May, 2015). These changes potentially increase travel costs and challenge the current management program of buyers, thus triggers the managers to find alternative solutions. All in all, the ongoing battle between GDS and NDC indicates the unclear future of airline distribution network. The question here is whether GDS will stay dominant or will not. That is also a variable in the horizontal axis of scenario matrix.

Vertical axis: Personalization – Mass customization

The intensity of tailored travel service, which includes personalization and customization, is addressed in the following trends:

- *The usage of corporate self-booking tool is increasing, meaning booking through corporate travel agency is decreasing (FBTA, 2017)*
- *Travellers demand on personalized service (Deloitte, 2017)*
- *Airlines enhances the environment on plane for a better comfort and wellbeing of the passenger by providing ambient LED lighting, bigger overhead bins (business traveller, 2017)*
- *Personalized traveller experience (GBTA, 2017)*
- *Many full service airlines follows the principle of low cost carriers, charging on customized services (business traveller, 2017)*

The shift of generation in workplace and faster technology adoption rooted the change in mode of consumption or in customers' values, preferences and expectations toward products and services. In "2017 travel and hospitality industry outlook" report, Deloitte identified personalization as one of the consumers' changing expectation. Personalized service provides individual what (s)he exactly needs and prefers (Onsgard, 2012). Another recognized trend is the collision between the travel management and HR. In many cases, the opportunity to travel is considered as one of the employees' benefits or talents' attraction

factors. Thus, when/if the travellers' behaviours and expectation are changing, the travel management should catch up with the trends in order to serve the users better. With the help of technology and big data analysis, suppliers can for example tailor the booking services for their customers. Relying and developing the tailored solutions create competitive advantages for the service providers to sustain in the highly competitive travel industry.

While the demand of tailored service is undoubtable, the implementation is still a big challenge in the whole travel industry. Most of the customers perhaps have not seen the personalization in many of the travel services, as if they would expect to see in Spotify or Netflix. The potential reason might come from the lack of data to conclude the customers' behaviour and preference if they are infrequent travellers. Moreover, a business traveller might use a broad range of services and that make it hard for travel companies to capture the big picture. On the other side, the corporate buyers' travel program has applied a mass-customized solution, which is a standard package adjusted to travel policy and corporate specific needs. However, considering the change in travellers' behaviours and cost saving opportunity for the company, how much of customization for travel services the company should take is a question mark. In short, the intensity of tailored travel services as a scenario matrix variable can be divided by two opposite sides: Mass customization – personalization.

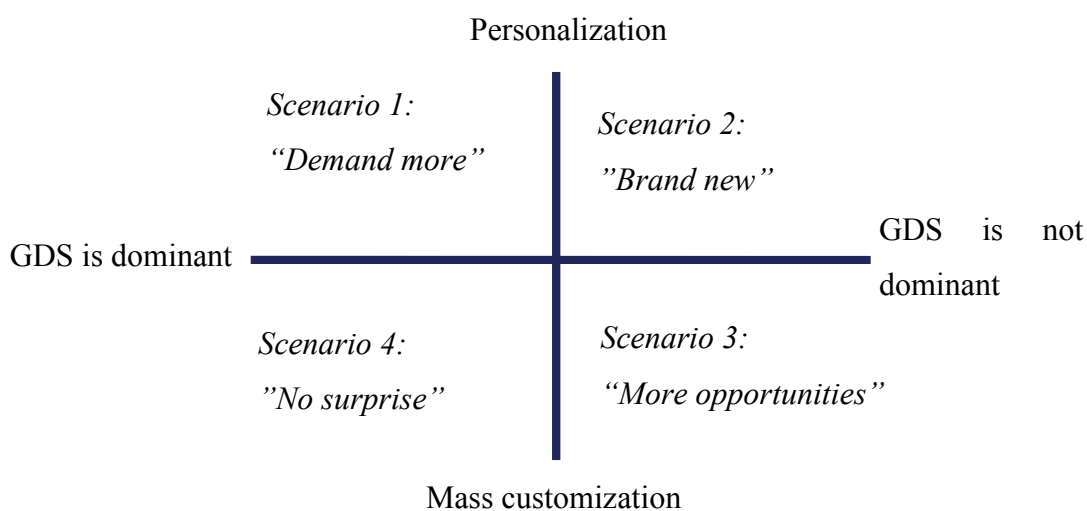


Figure 11. Impact/Uncertainty matrix.

4 Challenges of corporate travel management

This chapter is to answer RQ1:

What are the challenges of corporate travel management?

The question was tackled through semi-structured interviews with corporate buyers. Fundamentally, the global travel management program of company X is mature and has a similar distribution architecture as other same size buyers. However, there is room for improvement. As a result of interviews, challenges of corporate travel management are classified into four categories: global travel management program, travellers' behaviours, strategic sourcing and suppliers' service and technology (table 8). Keep in mind that these challenges do not necessarily belong to a certain corporate buyer but are aggregated. It is essential for a corporate to be aware of challenges that have not been concerned and impede them in becoming realized one.

Besides global preferred TMC, the case company adopts travel services and tools from local TMCs and other regional and local travel agencies. The dispersion of suppliers challenges the global travel manager about the visibility of global travelling regarding the travellers' behaviours and travel data. Also, the company has not found a global strategic expense management solution provider. Apparently the less supplier consolidation is, the more horizontal supplier management is needed. On the other hand, since the company operates in more than 60 countries, having a one-size fit all travel solution is challenging and might not be the best way. Couple of reasons are the distinct government regulations, uneven travel services quality and heterogeneous travellers' behaviours. Additionally, the service blueprint shows that at least three tools are involved in the travellers' journey. They are for pre-trip approval, booking and reimbursement steps. On top of that, travel request for approval is done manually and informally. This signifies that the travel program does not provide a seamless experience for the travellers. Another need to improve issue is that the payment method IBIP requires extra efforts for a traveller to handle his trip. In details, (s)he firstly gets the reimbursement amount from the company and invoice from the credit card service providers. Then, (s)he pays the travel expenses with his personal bank account.

The second challenges category, yet the second most concern issue is about travellers behaviours. Different nature of work and circumstances have led the business travellers to breach travel policy. For instance, a sales manager might book for flight tickets and hotel rooms today for tomorrow meeting with a big client of the company. In this case, it is fair to

say that (s)he breaks the rules for the greater good. In fact, the case company has a relatively high out of policy booking rate, which results in a large amount of missed savings. Besides, though OBT is available, there are great amount of offline bookings, which increases the total costs of booking due to the additional agency fee. One of the reasons for high offline booking rate is due to the travellers' habit and booking method preference. Many of them might think that it is more convenient to call the agency rather than go through the list of deals themselves. The travellers spend is heterogeneous. The spend report analysis also showed that top 10% of travellers account for 80% of costs. Moreover, some of the interviewees concern that travellers might be doubtful or curious about the competitiveness of the corporate fare price. They also stated that the fares are expensive from many travellers' perspectives. In addition, the interviews revealed that employees had used external booking tools for flight and hotel. Therefore, when travellers spend time on finding and comparing the better deals from external OBTs, it creates double work and indirectly generates extra costs for the company.

The third challenge category is about the travel services and technology. Online booking has been available for decades and popularly used in leisure travel. Meanwhile in business travel sector, the adoption rate is still a need-to-improve point. The interviewees claimed that the average online booking or adoption rate was not as high as expected. Its standard deviation is big. The rate is more than 80% in some countries, while it can be less than 30% in some others. The main reason comes from the sub-optimal tool. In many cases, the open jaw tickets in which for example, a traveller flights from A to B, then return back to A from C, are not bookable through the corporate OBT, which actually "forces" the travellers or assistants to call the agency. Alternatively, employees cannot add extra luggage in the fare, thus need help from the third party. Furthermore, a standard payment method involves with corporate credit card. Exceptionally, there are employees without the card. Hence, they would need to have someone else booked for them. In the interviews, some managers addressed about the uneven quality of travel services provided by TMC across the countries. In details, in the low volume area, local language is not available and customer service is not supportive. They also expect more customized reporting and analytics from the service suppliers. Additionally, the flight deal is expensive even with the corporate fare. Some interviewees said that transaction fee was high in several countries, which apparently makes total booking costs more expensive. Besides, the interviewee also discussed about the

limitation of airlines and hotels on the OBT. In some cases, the optimal air route is provided by local airlines; however, such flight deals are not available in the preferred booking tool.

Last but not least, the application of strategic sourcing on travel category is an improvement point. Travel category strategy has not been updated for a decade. Travel program is typical and traditional, which heavily depends on TMC and GDS operators. According to the response from the interview, the company could create more competitive environment when in RFP process. In other words, it should seek and reach more opportunities of travel services available in the market. More frequent bidding, but not necessarily of the whole or global travel services, should be arranged to leverage the strategic sourcing and the tender's competitiveness. Additionally, maintaining long-term relationship with suppliers is beneficial for the company such as building trust, better understanding and mitigating the price volatility. On the other hand, getting exclusive services from a single provider in a long run potentially increases the buyers' dependency and decrease their purchasing power. The interviewees concerned that their suppliers might become laid back in updating the new features or supporting the company's users. In case of switching the supplier, it brings additional costs, resources and changes to the company. Besides supplier relationship, the interviewees concerns about the unclear responsibility between sourcing and other departments and among sourcing positions. For example, travellers' safety is a common issue between sourcing and HR. In which situation the responsibilities belong to sourcing or when sourcing involvement is needed should be clarified. Moreover, there are several overlapped responsibilities between global travel manager and local travel coordinators. In many cases, but not necessarily urgent one, the manager has to do operational tasks or forwards the requests to different stakeholders.

Table 8: Summary of the corporate buyers' challenges.

Category	Challenges
<i>Global travel management program</i>	<ul style="list-style-type: none"> • Limited visibility of travellers behaviours and travel data • No global expense management process and solution • No end to end travel management solution • Manual pre-trip approval process • Complicated reimbursement process • Several local service providers and practices locally

<i>Travellers' behaviours</i>	<ul style="list-style-type: none"> • Travellers do not always align with travel policy • Lots of booking offline • Top 10% of travellers account for 80% of costs
<i>Suppliers' services and technology</i>	<ul style="list-style-type: none"> • Low adoption rate in some areas • TMC service level is not equally high across the countries • Service lacks customization • Less competitive transaction fee in some countries • Expensive flight deals • Not all airlines and hotels are available in TMC OBT
<i>Strategic sourcing</i>	<ul style="list-style-type: none"> • Not enough competitive environment in RFP • Unclear responsibility between sourcing and other departments and among sourcing positions • Travel category strategy has not been updated for years

5 Future scenarios of business travel and their implications to corporate travel management

This chapter is to answer RQ2:

What are the future scenarios of business travel and their implications to corporate travel management?

As a recap, an impact/uncertainty matrix (figure 11 of section 3.3) was built by two key driven factors. They are Mass customization – Personalization (vertical axis) and GDS is dominant – GDS is not dominant (horizontal axis). Section 3.3 of chapter 3 stopped at step 4 of scenario planning process. The last step is to develop scenarios or create narratives of scenarios. This is presented under section 5.1. Section 5.2 discusses about scenarios implications.

5.1 Scenarios

In figure 11, based on where scenarios stand, the appropriate name is given to each of them for better visualization. Scenario 1 or “Demand more” scenario tells that the traditional airline distribution network will keep running the market while personalization becomes must do thing. Scenario 2 happens when personalization is favourable and available; non-GDS distribution networks are leading the market. The scenario is named as “brand new” since it is the opposite way of what happens now. In scenario 3, we observe the demand of travel services is to mass customization level; however, dramatic changes in airlines distribution network that make GDS is not anymore dominant the market. Scenario 3 is called as “More opportunities”. Scenario 4 shows a future world, where GDS and mass customization are still a standard, is the same as the current world. That is why it is a “no surprise” scenario.

Scenario 1: Demand more

General Data Protection Regulation (GDPR) from government is still in place, however, do not become a big concern among stakeholders as the cyber security grows strong and its solutions are able to mitigate the risks. Besides, political stability gradually rehabilitates, refugee crisis is solved and terrorist attack is under control. In this case, it is important to find the even point between data privacy and data sharing (Egencia, 2017).

The world is moving towards with the evolvement of technology and the expansion of its application. One example of its results is JetBlue airline attempts to understand the

customers' moods base on their social media activities (futuretravelexperience, 2015) to offer the right content of entertainment for each passenger. Other low-cost carriers such as Ryanair and EasyJet also consider the personalization of service is an important matter. While Ryanair aims to sell the right ancillary services to the right customers, EasyJet uses algorithm to set the seat price based on the personal information (Humphries, 2016). Besides, legacy airlines such as LATAM Airlines Brazil uses Facebook to create 100% personalized inflight magazine – “Ownboard magazine” - for all passengers (airlinetrends, 2015). Additionally, the development of IoT enhances the joy of travel. For example, in Dubai airports, passengers are going through smart gates, which detect their ID based on the facial and retinal recognition. The technology helps reduce the check-in time by just 20 seconds. Sensors installed in the air plane seat measure the traveller's level of anxiety, hydration and temperature and inform the flight attendants or change the cabin environment to ensure the wellness of the customers (Morris, 2016). On the demand side, the rise of millennials in labour force as well as the faster technology adoption of employees drives the business travellers' expectation more towards the tailored travel services. For example, many people extend their business trip to leisure vacation and desire to use the services of the same the corporate' providers. Personalization is an important factor to evaluation the traveller's satisfaction. Traveller oriented services are intensively demanded from corporate buyers in order to keep their employees healthy and happy. Company's travel management program becomes seamless with the adaptation of end-to-end solutions.

The competitiveness of airlines industry remains high with strong growth of low cost airlines. On the other side, corporate buyers prefer a variety of choices in order to compare the prices and availability between the airlines. Many airlines accelerate the NDC adoption to reduce the commission and transaction fees for the third party. Nevertheless, “the airline industry does not move very quickly when it comes to distribution” (Sheivachman, 2017). With NDC standard, the airlines need to invest heavily on the development and commercial costs to make sure their services are outstanding compare to others. The big sunk costs make many airlines hesitate to change their distribution network. In addition, it is perplexing for an airline to have separate contract agreement with direct booking. In details, an airline of NDC standard needs a contract with their IT providers, others for themselves to enable the access their system and for their clients to have content agreements with them (Sheivachman, 2017). In short, airlines, which favour NDC such as Air France-KLM, Lufthansa and British Airways, continue to surcharge the GDS booking in order to promote direct booking or go

against the high distribution costs through GDS. They also offer different service packages for different networks. Meanwhile, others stay with GDS due to the potentially high adoption costs and complexity of new standard implementation. Generally, airlines maximize the tickets sold and ancillary service sales by reaching out every single platform as they can. The ticket distribution can be direct or indirect, but at the end of the day, airlines want to sell as much as possible.

Though GDS remains its solid position in the market, it does not mean that NDC and LCC standards are off the table. In this scenario, we observe the on-going battle between different airlines standard networks. Thus, besides GDS, NDC and LCC aggregators, there are aggregators of aggregators available in the market. As the personalization of services is a crucial matter, any related travel service beyond the flight tickets are well paid attention.

Scenario 2: Brand new

The world grows in peace and its economy development shows positive sign. Highly protected online world trickles down to the positive attitude of society about open and sharing data. Though the personal data privacy regulation is still in place, not much tension actually is pressed in this area (A.T. Kearney, 2017). In the business travel sector, corporate buyers invest more on the travel program in order to enhance the travellers' satisfaction and well-being. A great travel experience restricts travellers' stress and tiredness, save time and effort for productivity. It becomes a part of employees' benefits and talent's attraction. On the other side, technology advancement and new mode of consumption develop the need and supply for personalized services. AI, big data and predictive analysis bring positive impact on the society. They assess the online behaviours of people, mine data for firms to provide the right service to the right person at the right time. For example, Delta airlines releases its program called "Check-In Recognition", which focuses on the corporate traveller. In details, with mobile devices, the airlines staff would be able to identify the business travellers who participate in the program in order to greet and thank them for flying with Delta (Skift, 2017).

The price pressure in airlines industry is tense due to the uptick oil price and the rise of low cost airlines. To save costs and create more flexibility in service offerings, most of the airlines move towards the NDC adoption. Airlines continue to surcharge on GDS bookings in order to direct more reservations to either their website or their NDC partners. The New Capability Distribution provides great help for service suppliers to personalize their products. IATA also provides strongly support in building a thorough adoption

program, including the establishment of standard contract agreement between stakeholders in the NDC. Airlines work together with all the players in the industry to figure the best way to distribute their fares through NDC. The strong demand of personalized services and feasible NDC based booking platform downsize the popularity of GDS.

Together with the development of blockchain technology, NDC enables new disruptive solutions and innovative start-ups in business travel. For example, Windingtree uses blockchain technology to build up an intangible inventory for airlines. Flyiin allows customers to book directly with the airlines to obtain the cheapest deal and personalizes the booking based on their history (flyiin, n.d.). In the current world, such firms are already in the market. Under “brand new” scenario, they grow strong with wider network of airlines, which threaten the market share of traditional companies. Blockchain technology also allows company like “Shocard” to develop a singular ID for every traveller. The ID contains all the relevant information needed thorough the journey like passports, visa. Blockchain based platform does not only provide real time information for security issue but also enables managers to see the booking information (hyryde, n.d.).

NDC as a global network standard does not necessarily mean airlines will be able to clear out the third party. Along with using their own website as a distribution channel, they need to spread their deals to other retailers. This is because the corporate buyers or travellers indeed still aim for the best deal with cheapest price, so the price and availability comparisons are still important purchasing factors. In this case, it means that the new direct booking aggregators rise high in the market or GDS aggregation is fading out. In the current world, we notice that GDS provides relatively standardized content of airfares. On the other hand, NDC strongly supports the customization and personalization. Therefore, it allows the airlines to provide the price deals and content the way they want and NDC based platform is as a tool to deliver the personalized package.

In this scenario, GDS standard is weaken or omitted from the airline distribution landscape, which make the picture leaner. Direct booking goes strong and becomes a driver for new business models and solution in the market. With the help of technology, disruptive start-up in the current world strongly develops under this scenario. Vast adoption to NDC and new mode of consumption is a dynamics for personalized services.

Scenario 3: More Opportunities

Unpredictable terrorist attacks put a high alert to the security of countries in Europe. Refugee crisis is a big exercise for the government. We observe the rise of nationalism in the leadership bureaucracy of many countries, which makes travel more cumbersome and challenging from EU to the UK. Trump travel ban and policies are still in effect. The political instability leads to the cautious attitude in open data and hesitation in revealing personal information on the internet. Government and regulators restrict consumer data to be shared between countries or trading blocs by execute more of the data privacy regulations. Considering the situation, EU decides to strengthen the GDPR, however, not to the point that open data is forbidden. This challenges the feasibility of personalized services. On other other side, economic stagnation as a result of shrinking global commerce confronts the growth of travel industry including business travel. Additional costs of law, tax, labor and data protection regulation elevate the total business expenses (A.T. Kearney, 2017). The unfavourable economic development and strict regulations trickle down to more price sensitivity of the individuals and corporations. Therefore, personalized services generally do not gain much attraction. Travel services border on commodity and the convenience – cost scale leans more on the right side. Traveller's benefits and satisfaction indeed keep as the company's concern; however, such factors are not the main focus in the travel services.

Technology serves as a base for the market development; however, market share for travel technology providers is decentralized with the rise of new entrants and formidable competitors. Meta/mega search companies such as Google, Skycanner and Kayaj expands into B-to-B sector by offering the developers their API to build up travel website or online booking tools, which promises to provide the best deals for the most affordable price. Especially, when/if the world's most powerful search engine Google plan to be online travel agency, it will be a great threat to current OTAs like Egencia, booking.com (Schaal, 2016). Additionally, sharing economy business models are growing in the market. They are defined as a peer to peer based activity of giving, getting and sharing access to products and services through an online platform (Investopedia, n.d.). The companies with such models collaborate with each other and with metasearch companies to provide a different type of end-to-end travel solution for corporate buyers. Following the travel demand and market situation, the application of technology inclines towards the cost saving element. For example, price-tracking platform uses more sophisticated algorithm to track and predict prices more precisely. It then alerts travellers when the deals go cheaper. Fare track and rebooking tool also follow the price fluctuation, automatically calculate the costs savings

and notify travellers to rebook the flight when the savings is positive. Besides the tool that helps boost savings from “passive” traveller’s activity, new solutions requiring more activeness from travellers are also available to help the corporate buyers generate more savings and create win-win situation. For example, Rocketrip calculates the total trip costs and share the savings (if there is) with the travellers (rocketrip, n.d.). Besides, this scenario facilitates the growth of sharing economy firms like Airbnb and Uber as their offers are usually cheaper than traditional hotels and taxi.

The implementation of NDC standard provided by IATA continues to roll out and become more and more popular. Not only because of the high commission and additional fees that technology provider and TMC charged on the airlines, but also the service suppliers do not wish to be controlled by monopoly companies. This move indirectly asks for the strategic change from current technology providers. Otherwise, it will weaken them. On top of that, the rise of disruptive new entrants and strong growth of small firms threaten the monopoly. Air firms establish a solid network chains and new partnership to allow the direct booking at most. The cost savings from the airlines enables them to reduce the ticket prices, thus adapts well with the current economic situation and customers’ preference. While the cost pressure is lifted up, personalization is challenging to reproduce in the mass market. While customers have many alternatives, leading their behaviours is costly and sometimes a fruitless exercise (Sheivachman, 2017). Moreover, larger amount of airlines join NDC leads to a greater concern about consumer data privacy. This is because customers’ personal data such as age, interest and travel history will be analysed by the airlines to offer the best customer experience of services (O’Neill, 2013). The stricter GDPR makes it difficult and costly to fulfil the NDC purpose. Even though the Netflix effect cannot be achieved, mass customization fits well in this case. The current world goes too far away from one size fit all and this imaginary world cannot touch the individual preference, hence, mass-customized services satisfy the majority of users and brings costs saving for the company.

This scenario implies that GDS and GDS operators are not as popular as before, however, does not vanish. The strong rise of NDC and LCC changes the market share portion in the business travel sector. This scenario is somehow similar to “Demand More” scenario, in which the winner is the aggregators of aggregators. However, the distributors might be different. Additionally, the bad outlook of the world pulls down the level of tailored made travel services up to mass customization.

Scenario 4: No surprise

The world economy starts to show a positive sign of growth after a long period of stagnation. However, the growth distribution is not equal across the countries. Furthermore, there are still a number of uncertainties and risks, especially in geopolitical tensions and trade protectionism. For example, last year, the US started to renegotiate the NAFTA for the first time after 23 years. The government also examined the China's policies and practices, which influence on the US export. The emphasis on bilateral agreement increases the trade transparency, at the same time, potentially associated with high trade barriers. Violent conflict and political instability remain vital in many countries such as Korea and Syria (United Nations, 2018). In this growing however complex world, governments are more careful in sharing data, even for business development purpose. Policies are in place for data protection. In business travel sector, the situation impedes service innovation to the thorough travellers' personal experience and satisfaction. Technology providers strengthen their position by embracing all kinds of standard/system into a single platform. They collaborate with airlines to bring the personalization into the GDS, which creates a win-win solution for both parties.

From the demand perspective, the internet development leads to higher utility of online service. Mobile technology becomes more powerful in helping the travellers eliminate the pain points of the travel journey such as luggage tracking, mobile payments (Deloitte, 2017). As many travellers are skeptical about data sharing, personalized services are not favourable. However, travel data can be used legally in the corporate to raise the understanding of spend travellers and identify the savings opportunities for travel services. Indeed the data is managed confidentially and only stakeholders have an access on that. Hence, travel packages for different groups of travellers or mass customization of services fits well in this situation. Airlines still aim to provide the business passengers ancillaries' services such as business lounge, pre-order meals on plane.

Among four scenario, this one is closest to where world is now. From business travel point of view, it means that the giant GDS operators remain their monopoly position in the market. A trend of market share published by *business-travel-iq* (2017) shows that Amadeus and Sabre together held around 80% of the share in A2 2016 and Q1 2017. With the solid position in the market and heavy investment in R&D, these company remains well established and imposes a tremendous challenge to the new entrants. Due to the tough competition, sharing economy services Airbnb and Uber failed to stand alone as a direct

booking channel for business travellers. Instead, their services are embedded in others' platforms. Additionally the managers are still sceptical about using the service due to the security issue. On the other side, as the intensity of demand on customization reduces, most of the airlines decide not to follow NDC path. The costs saving impact of NDC; however, is not manifest and takes time to prove. The standard is still available and adopted by some airlines. As the customers are very price sensitive, the battle between the direct and indirect bookings are fiercer. Airlines start to realize that like other traditional retail business such as consumer good or mobile phone, having a price transparency across channels is the best way to increase the volume and achieve operational efficiency (Sheivachman, 2017).

In this scenario, GDS continues to be the global airlines standard network. However, one of its great drawbacks is the inflexibility in providing customized content. In other words, the standard prevents airlines from creating richer content on the online booking tool. Therefore, GDS owners come up with new solution or platform integrated in the corporate online booking tool to satisfy the demand of customization from the users. In January, Emirates Airlines signed an agreement with Sabre to adopt Sabre Travel Marketplace, which allows them to package different types of travel services, ranging from budget fares, most reward miles to the great degree of flexibility (Wollenhaupt, 2017).

“No Surprise” scenario indicates the likely to happen world. Therein, GDS remains as the most favourable standards despite its incapability of offering more customized flight tickets. Catching the demand of customers, some GDS operators develop themselves a tool that allows customization in travel services. Others collaborate with available tool providers in the market.

5.2 Implications

This section is to answer the following question: What does each scenario mean for the case company/corporate buyers? Hence, there are four subparagraphs presenting four scenarios' implications in this section. Therein, the author evaluates the current global travel management program in order to recognize its validity and (if any) limitation. Next, a single potentially alternative travel management chain is introduced due to the scope of this research.

Scenario 1: Demand more

As GDS is a widely used standard, current travel distribution network of the case company works in this scenario. Remaining the setup might save the company time, effort and financial resources rather than switching suppliers. Using the online booking tool provided by the monopoly GDS operators allows the buyer to access to a majority of travel service's pool. On the other side, the intensity of tailored travel services is high in this case. To follow the trend with current travel program, TMCs need to have wider responsibility besides typical tasks such as reporting, duty of care, crisis management and travel policy compliance. In details, when a frequent traveller calls the agency. Through the new tool to track travellers' booking behaviours, would be aware of what is the best for the person, including tickets and additional services (e.g. extra leg room, additional baggage, breakfast and premium wifi in hotel). Thus, they can quickly recommend the same or better travel services package. Furthermore, if the flight is delayed and he missed the next connection, new boarding pass will be automatically delivered through SMS and he has time to enjoy his favorite black coffee in the business lounge. (Amadeus, 2015). TMC can also provide or recommend to corporate the right travel tracking behaviours solutions. From the corporate buyer's perspective, to control the travel services and ancillary costs, they should firstly understand their travellers' behaviour pattern. Then they can negotiate with TMC on what kind of services suit them. Besides, corporate should identify the standard costs for short-haul and long haul flight based on the historical air costs data and benchmark of the same indicators.

On the other hand, when using only GDS based platforms, the case company are not able to see many of the airfares coming from other networks. GDS adds extra costs on top of the flight tickets, which might make the flight deal expensive. Besides, as GDS is incapable of delivering the customized content and is controlled by an intermediary, airlines do not know well the travellers. Thus they cannot provide personalized services or provide limited of services for the company. Additionally, as GDS operators are partners of suppliers, the case company cannot influent on the features of the OBT or the availability of non-preferred airlines in the OBT. Hence, what would be the optimal solution for corporate buyer in this case?

In this scenario, we observe GDS, NDC and LCC network battle, which becomes a dynamics of developing meta search engine. For example, meta search company Skyscanner provides travel APIs for the third party to build up a customized online booking tool using data from the company's inventory (Skyscanner, n.d.). Not only GDS based airfares but also

LCC and NDC based fares are available in Skyscanner. In fact, there have been acquisitions between OTAs and metasearch companies. For example, in 2017, China's biggest OTA – Ctrip bought Skyscanner for a definite time with £1.4 billion (Skyscanner, n.d.). One of the biggest OTAs in the US – Expedia - (Gaggioli, 2015) acquired Germany metasearch company - Trivago in 2013 (source). Additionally, keep in mind that OTAs also partner with GDS operators, such as Expedia x Amadeus (Vallantin, 2016). Besides, they make a direct agreement with airlines and hotels to get the discount rate. In other words, they are the aggregators of aggregators. Not only are they active in the leisure travel sector but also do they expand into the B-to-B segment. Expedia found Egencia, which is the fifth largest TMC in the world. C-Trip has Ctrip travel services for corporate. Priceline in 2016 showed a sign of stepping into the corporate travel world. (hotelmarketing, 2016). In fact, its subsidiary - booking.com entered the market providing accommodations for business travellers (O'Neill, 2016). Another example is American Express Global Business Travel (GBT). The company acquired KDS NEO, which is an end-to-end GDS and non-GDS travel search and booking tool. Hence, in this case, to capture more of the available deals, the case company should consider using travel agencies, which provide both OBT and travel services as the global preferred travel solutions provider. This also enables the company to choose the lower flight ticket or hotel room when comparing between corporate rate and the agency rate. As the travel agencies provide both technology and travel services to the corporate buyers, same recommendation for personalizing services is for this set up. For example, instead of showing lowest cost preferred options, KDS NEO of GBT mines the previous travellers' booking data and brings the right preferred option to the top of the page. (amexglobalbusinesstravel, n.d.). It also shows the past trip, which allows travellers to rebook for the same journey with different dates (kds, n.d.). Additionally, being the aggregators of aggregators means possessing greater pool of airfares that allows agencies to offer the matching travel services to the individual business traveller. The proposed global airline distribution is illustrated as figure 12.

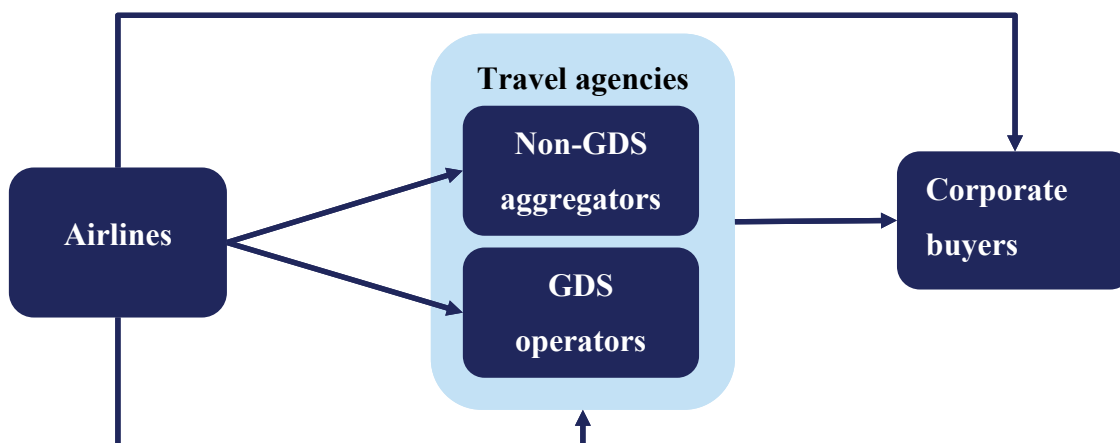


Figure 12. Global travel distribution of the case company in “Demand More” scenario.

Scenario 2: Brand new

In “Brand New” scenario, the GDS is no longer dominant. Therefore, if its owners or operators keen on holding the standard in the loop, those companies will likely lose the market share. Especially in the competitive environment with such a huge change, disruptive and modern entrants have more opportunities to enter the market. In this case, the current set up of the case company’s travel program does not go to the same direction as the market offers. If they wish to continue with the current program, the company will likely pay higher price for airfares or/and capture very limited amount of deals available in the airfare pool. For the travel services to reach the personalization, it is important for the corporate buyer to strengthen their relationship with airlines. Negotiating different airfare packages based on travellers’ segmentation and navigating the travellers booking behaviour towards the preferred airlines enable the company to save travel costs through discount with bulk volume. To achieve the agreed volume with airlines, the travel policy needs to be strict. On top of that, consulting the global preferred TMC and implementing similar actions as mentioned in “Demand More” scenario helps the company tailor the travel services to a certain extend.

Nevertheless, the current travel program is not optimal in this case mainly due to the unfavourable GDS. With NDC standard, the airlines and hotels yearn to pull the customers towards their booking websites and provide all kinds of possible and favourable services for them. From the buyers’ perspective, relying on couple of hotels and airlines is not a good way to find the cheapest in the best deals. The tickets and ancillary services together will make the content fragmented. Hence, the company needs an aggregator. A good example of

direct booking aggregators is an organization called WindingTree. It uses the blockchain technology to create data inventories and issues token for every purchaser. Here is the simplified explanation of how it works (figure 13). To put offers on WindingTree, an airline would firstly pay 0.01 Lif (cryptocurrency) to purchase its own inventory on blockchain. This also help to create a list of index contract. Any travel agency or traveller would be able to freely search for the flight. After that, for every single booking with the airline offer that costs 100 Lif, it has to pay additional 0.02 Lif. Overall, the total transaction cost 0.03Lif. This costs 0.03% of the ticket price. Meanwhile, according to PwC, the distribution cost through GDS per return ticket is \$12 on average. To make the cost account for 0.03% of the ticket price, the airfare should cost \$40,000, which is an impossible price. Assume that the ticket cost \$2,000; \$12 is already 0.6% of that amount. In other words, the corporate buyer will then get a cheaper deal through WindingTree. The low commission fee is expected to attract the airlines and hotels switching from GDS to this direct booking platform. WindingTree however, only serves as a data source and is communicated between engineers. They do not plan to work directly with end users, thus require having a third party in the distribution chain. (windingtree, n.d.).



Figure 13. Air booking with WindingTree (windingtree, n.d.).

Managers might think that customized service is not essential or cost waste for the company. However, it is recommendable to embrace the trend, especially when the world goes positive in this scenario. Personalization does not only enhances the corporate travellers' satisfaction but also brings savings for the company already from the booking step. For instance, if the surroundings of a traveller in the airplane (regardless of the seat he is taking) are changed based his level of anxiety, hydration and temperature, the price of this ancillary service is probably cheaper than a business ticket. When the health and happiness of travellers are taken care, they are more productive and loyal to the company. Additionally, providing the right travel package for the right traveller saves his/her time and effort in order

to work on his/her main tasks. The case company can do so by adopting auxiliary travel related tools such as Flyiin. These tools record the past booking behaviours and recommend the likely favourable one to the traveller for the same destination. Another useful tool mentioned above is Shocard, which creates a singular ID for every traveller complete save and without password. With the travellers' permission to share their personally identifiable information (PII) with managers, all the travel transactions are visible to everyone in the chain. Thus, Shocard supports managers in risk management by defining each traveller itinerary and travel spend analysis. (shocard, n.d.).

In this scenario, travel agencies play an important role in helping the case company with personalization of services. It is because though airlines are capable of delivering the right fares to the right travellers, the company cannot have for every traveller a different package with their preferred airlines. Instead, they can segment the travellers and negotiate with preferred airlines to get a small amount of customized packages. Together with the auxiliary tool to identify the travellers' need and preference, travel agencies collect the right deals from the travel API of direct booking aggregators. Airlines with NDC display wider range of ancillary services to the corporate/ blockchain inventory. For example, airlines provide the food based on the corporate travellers allergies. Historical booking data shows that a traveller is allergic to wheat, therefore, whenever (s)he is on the plane, gluten free meal is served automatically without informing in advanced.

No matter what kind of travel agencies the corporate buyer works with, communication and actively working together with the suppliers are important to achieve the personalized services. Such companies with long experience in the industry and possess great source of benchmarking can become good consultants, which helps the company achieve travel KPIs and strategies as well as update travel policy as a best practice. Figure 14 shows global travel distribution of corporate buyers in "Brand New" scenario.

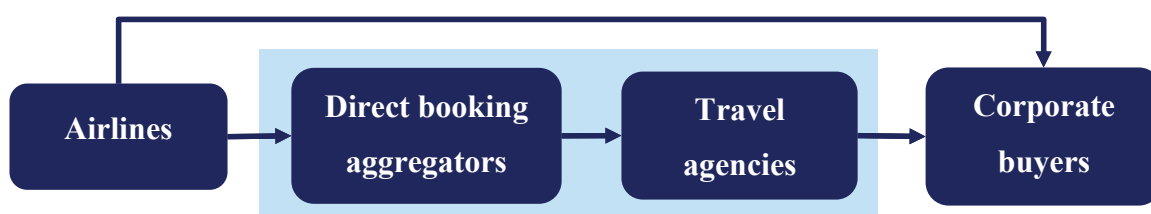


Figure 14. Global travel distribution of the case company in "Brand New" scenario.

Scenario 3: More Opportunities

In this future scene, GDS still exists; however, is not a choice for most of the airlines. Thus, if the case company keeps using GDS based platform, they will not be able to capture well the deals available in the market. Hence, it is challenging to choose the best out of the cheapest deals. Especially in this “dark” situation, Global Distribution System seems to be an expensive option. On the other hand, it brings some benefits. Collaborating with GDS operators, especially the big three monopolies Amadeus, Sabre, Travelport of the current world, can ensure the data security. This is because these companies are well established and have a long experience in the industry. Furthermore, TMC brings the mass customization of travel services to the case company and its travellers as it does in the present. However, as explained in the section 3.2, the global preferred TMC of the case company partners with GDS operators to provide OBT and travel services. Hence, if the deals displayed through OBT are not competitive, how will the relationship between TMC and the case company be if they wish to change the technology provider?

In “More Opportunities” scenario, free search on the internet or open booking policy can be a good option for the case company. Most of the case when the employees are allowed to book the flights on the internet, they google first. Google is known as the world’s largest metasearch engine. In 2011, the company launched Google Flights for travel air bookings. Today, the search engine feature is able to predict the delay of flights before airlines can do so (Perez, 2018). Its travel business is already twice the size of Expedia’s. The forecasted travel revenue for Google in 2016 is \$12.2 billion. Meanwhile, the actual revenue of four biggest travel companies in 2015 are The Priceline Group (\$9.2 billion), Expedia (\$6.7 billion), Ctrip (\$1.6 billion) and TripAdvisor (\$1.5 billion). (Schaal, 2016). Hence, using Google travel booking which is free potentially brings cost savings and employees’ satisfaction to the corporate buyer. Along with the growth of Google travel business, the strong rise of meta/mega search company opens a new solution for the corporate travel management. Regardless of the standard presented in the market, these companies use their search engine to look for available on the internet. Depending on the source of XML, their page links to online travel agency or airlines and hotels website for final bookings. Small fee is collected based on the number of bookings. Since this is not another type of GDS platform, airlines following NDC standard are still favouring them as an affordable marketing channel. The representatives of this player are Skyscanner, Kayak and TripAdvisor. On top of that, we observe the expansion into B-to-B business of sharing economy business. Airbnb apartments are cheaper than hotel rooms. Uber fare is lower than

taxi. Thus, open booking policy gives a variety of options for the travellers to book whatever they want. It also matches the demand on mass-customized travel services in this scenario.

Indeed, the travel agency or travel management company still provide great help in this case. It is difficult for the company to track travellers and travel behaviour when there is no such corporate OBT. TMC might be capable of bringing the data together and creating visibility for managers. However, can the company go without TMC? In the author's opinion, yes. The company needs auxiliary tools to do so. To replace the TMC, the buyer needs to change the system so that its roles are not important anymore and hand over its responsibilities to others. Firstly, as the fare choices and bookings are in hand of employees, it is fair to say that they are the one who decide what the optimal travel solution is. For example, for one, they use low cost airlines and stay in Airbnb. For another, they use major airlines and five star hotels with a discount. Secondly, open booking policy means that the company does not have any preferred suppliers. When the travellers are free to choose their airfare, the airlines selection is likely heterogeneous. Hence, the case company will not have enough of volume to negotiate with the airlines. However, other rules such as booking two weeks in advanced can be in place as the flight ticket is usually cheaper when buying further from the travel date. Furthermore, corporate cards are in used for tracking purpose Active communication about travel policy to travellers is recommended to avoid e.g. reserve business class for the trip. Lastly, apart from the corporate cards, traveller visibility and travel spend tracking can be done using "Shocard" (mentioned above). This blockchain-based card is the most secure way to store the travellers ID documents, passport, and visa. Furthermore, all the transactions done by the travellers are visible to the managers or one that have permissions. To direct the traveller toward the cost saving, reward for savings and reminder (and sanction if needed) for wasting can be applied. Figure 15 indicates global travel distribution of the case company in "More Opportunities" scenario.



Figure 15. Global travel distribution of the case company in "More Opportunities" scenario.

Scenario 4: No surprise

In “No Surprise” scenario, GDS becomes the most favourable airline standard network. Therefore, its operators remain the solid position in the market. The global preferred travel program of the case company provides the travellers great amount of deals through GDS based OBT. Moreover, the more GDS operators grow the wider range of travel services they want to provide. For example, besides online booking platform, Amadeus also provides market insight and report, optimization and automation, service and consulting, duty of care through Amadeus mobile messenger (Carter, 2016) and so on. Additionally, these IT providers are working with airlines to enable the richer content in the current platform as well as identify the supportive package for corporate. Therefore, a question to a company would be: Do they need TMC?

While keeping the same setup is an option for the case company, what if TMC is removed from the chain? In other words, the corporate buyer will outsource TMC tasks to technology providers or GDS operators and increase the travel related responsibilities of internal departments such as sourcing and HR. Three main TMC tasks are providing optimal travel solutions, complying travel policy and tracking travellers and travel behaviours. For example, Sabre – a GDS operator – introduced Sabre Corporate Solution, which is a portfolio of technologies and service to help manager better control travel. Therein, GetThere integrates the expense management system to provide an end-to-end booking solution for corporate. GetThere is customized for the corporate. It helps the managers streamline process, increase adoption, comply policy as well as advance savings. Additionally, TripCase Corporate is a mobile app managing every traveller itinerary and keep the travellers connected all the time. Hence, through the application, corporate is able to track the travellers’ location any time (Sabre, 2015). This guarantee the risk management while travel is taken place. To replace the travel managing partner, the case company should also utilize the in-house human resources. For example, they can allocate local travel operational tasks to local assistants; meanwhile global team is only responsible for improving the travel solutions.

In this scenario, mass customization of service is required. As being discussed in the scenario description, GDS operators work closely with airlines to develop supporting tools for customized air packages. Hence, while the idea is feasible through technology, it is important for corporate buyers to identify what the right content is for them. The company needs to understand their travellers and compromise between their employees’ expectation and company’s benefits in order to identify the right services and prices for the travel

program, update the travel policy to be more compatible and thus create a win-win solution where everyone is happy. In other words, the customization would lie down in the inter-cross section between the traveller's needs and travel policy. For example, negotiating prices for different package for different traveller clusters supports to ensure the travellers' benefits and satisfaction, at the same time save costs for the corporate. After forecasting the travel volume of the year, they can buy in advance a numbers of seat on plane. In this way, corporate eliminates the volatility of price and reduce the negative impact of out of booking policy. AtlasGlobal – a Turkish airlines is providing unlimited business class tickets for intercontinent flight for a flat fee of \$3,500 (boardingarea, 2017). Figure 16 illustrates global travel distribution of the case company in “No Surprise” scenario.



Figure 16. Global travel distribution of the case company in “No Surprise” scenario.

A summary of four scenarios and their implications presented in table 9. When comparing with previous studies, secondary research and discussion in this chapter brings new findings. In chapter 2 (section 2.1.2), GDS is dominant in travel distribution channels, which were outlined in studies of Pearce, Tan & Schott (2004); Radulovic (2013), Karcht & Wang (2010) and Holma (2009). However, “More Opportunities” and “Demand More” scenarios indicated the strong rise of meta search engines and OTAs in business travel. These participants do not completely rely on GDS. Secondary research revealed that meta search companies like Google and Skyscanner provide travel APIs to travel agencies of corporate buyers. In “More Opportunities” scenario also observed the growth of sharing economic services (e.g. Airbnb, Uber) in business travel. Besides, “Brand New” scenario showed some evidences of the NDC or direct booking aggregators. They are new comers in the market and under development at the present. However, they potentially threaten and weaken the power of GDS operators/aggregators in the future. “No Surprise” scenario found out that GDS operators might replace TMC to build a direct partnership with corporate buyers. In fact, they already provide overlapped travel services. Generally, the (business) travel distribution structure might be significantly dynamic in the future, instead of mainly GDS based platform illustrated in previous studies. Another interesting point is about the open

policy discussion in “More Opportunities” scenario. Free-to-book-anywhere policy was applied in some companies. During the interview, managers also brought this issue and was curious about the option of open policy. This might go against abovementioned study of strategic travel sourcing conducted by Gustafson (2012).

Table 9: Summary of scenarios and their implications.

Category	Demand More	Brand New	More Opportunities	No Surprise
<i>The world economy growth and situation in politics</i>	+	++	--	-
<i>The importance of data protection</i>	-	--	++	+
<i>The distribution of airline standard network in the market share</i>	GDS > NDC and GDS > LCC	GDS << NDC + LCC	GDS < NDC and GDS < LCC	GDS >> NDC + LCC
<i>Intensity of tailored made travel services</i>	Personalization	Personalization	Mass customization	Mass customization
<i>Main travel solutions providers</i>	Travel agencies	Direct booking aggregators and travel agencies	The internet	GDS operators

6 Strategic actions for corporate buyers

This chapter is to answer RQ3:

What are the strategic actions the buyers could take to improve the corporate travel management and to prepare for the future scenarios of business travel?

As indicated in section 1.3 (chapter 1), most of the scenario planning research stops at the scenario level. However, it is vital for stakeholders to know how they can react to the changes in the industry. Therefore, this chapter brings recommendations/recommendable actions and practical examples to develop corporate travel management. Short-term actions are to improve the current corporate travel management. Meanwhile, long-term strategic actions is to prepare for the future scenarios of business travel.

6.1 Short term

Adopt auxiliary tools

Beside the basic travel tools such as online booking and EMS, travel managers should consider auxiliary tools that support travel savings and travel (management) efficiency. For instance, price tracking and rebooking solutions are getting popular among corporate travel managers. FareIQ and RoomIQ of Yapta monitor prices of airlines and hotels and alerts the travellers/travel counsellors when the prices go down enough to warranty the savings. (CWT, 2015). Another example is Roadmap. This mobile app acts like the travellers' personal assistant, which provides travellers all the necessary information about your travel such as how to check-in? Should you take a taxi or use public transportation? (Emmer, 2017). Same type of app is delivered by CWT, which is one of the market leading TMCs. It is called *CWT To Go*TM. Further, the rise of mobile technology would make the booking easier by just few clicks on the travellers' phones whenever and wherever they are. Getting a TMC app for booking or the travel journey saves their time and effort to focus on the daily tasks. This also means to save costs indirectly and is as one of the key benefits for the case company. Besides tools that handle directly with travellers, there are platform for the managers to identify the savings opportunities. For instance, data-driven decision support tools like the Trip Cost Planning Estimator brings a solid understanding of travellers' behaviours, in particular of figuring out the peak time of travel and travellers booking pattern. The analysis helps travel managers maximize cost efficiency when it comes to scheduling business travel. (Vivion, 2017). To increase the efficiency of travel management,

managers can utilize ready-made platform in the market like Traxo CONNECT. This tool captures all on and off-platform bookings, giving corporations with both managed and unmanaged travel programs comprehensive data visibility (Traxo, n.d.). Enhancing the security while bringing more convenient to the travellers is a way to a better travel management. A Dutch start-up, which won the investment in Business Travel Summit 2017, introduced their security devices – Keezel. Their product separates the individual network to bring more flexibility in browsing and more secure than VPN (Keezel, 2017). Overall, adopting the auxiliary tool supports managers in solving the current challenges related to travel visibility, policy compliance and cost savings.

Improve traveller's engagement

According to Rothschild study (1988), policy compliant travel behaviour saves one of the company's biggest travel costs and waste. To do so, it is important to understand why travellers' behaviours do not align with travel policy. Managers explained that it is due to the personal preference or practicality and pricing; however, travellers have different opinions (CWT, 2016).

Firstly, many of them are not aware of or "naively" forget about the travel policy. To solve this issue, apparently the company should make travel policy visible as much as possible. An example would be a summary of travel policy with bullet points embedded into the OBT and EMS. For the countries where EMS is used by travellers, they should easily see the instruction about the tools and reimbursable types of costs. The travel policy can be more "communicable" if it contains image, good design or is in video format. On top of that, HR/sourcing team or TMC should create a single contact email or phone number for any questions related to travel process and actively promote the contact. This is to avoid the waiting time and "spam" on the travel managers email. Additionally, before the reservation, travellers should click to agree that "I have fully understand and keep in mind the travel policy while booking".

Secondly, travellers might see the travel policy's compliance as an optional-to-do thing. Tougher solution can be implemented. The company should refuse out of policy booking and apply strict sanctions against such travellers (CWT, 2006). Any reservation with non-preferred suppliers will not be reimbursed. Warning oriented actions can also be provided. For instance, the (missed) savings appear in every air, hotel or car rental deals in the online booking tool or it comes at the end when the travellers are about to book the travel.

Furthermore, total costs of trip and missed savings can be shown in the end-to-end solution, where both manager and traveller will be able to see the number. By this way, they are able to realize how their booking affects the company financially. Showing the missed savings is a psychological way to raise the travellers' concern about their out-of-policy actions. For the same purpose, policy flag should be shown in the deals in case e.g. the travellers choose business class. Moreover, travellers can also receive a simple travel spend report periodically, which tells how much (missed) savings they made and how policy-compliant they are. Such action nevertheless requires resources and extra effort to do globally. Hence, piloting for a country as a test for the managers to see if the travel report would have a positive impact on the travellers' booking behaviours.

Thirdly, non-compliance behaviours can come from specific situations. It might be that the preferred airlines run out of seats or do not provide the best deal for that travel period. Alternatively, the meeting is arranged a couple of days ago without the travellers' power to control. In this case, the travellers should clarify the reason by commenting on the booking tool or in the pre-trip approval. If this reason is common in the company, it is important to review our policy and renegotiate the service packages with airlines.

It is essential for the travellers to obey the travel policy and know what to do throughout the travel journey. Therefore, trainings from TMC should be available when needed and relevant materials are visible and easily accessible. A single contact for all kinds of travel-related operational tasks is also recommendable. Additionally, it is important for the employees to understand why they need to follow the policy, not because it is set by the company. They would need to understand that if they book a hotel outside the preferred list, the company will not be able to identify where they are located (Sheffield, n.d.).

Travel savings is not only within the travel managers' responsibility but also should be all the employees' concern. Hence, everyone should make effort and since sourcing has deeper knowledge in this industry, we can educate the travellers to save travel costs. Some tips for savings such as Monday morning and Friday evening are the most expensive times to book. On the other hand, Tuesday has the cheapest deals available. Additionally, the company should inform travellers and make it visible in the travel policy about delay compensation. Sourcing can periodically share know-how for travellers to all the travellers through email, or Yammer. Several titles could be "10 tips to travel savings", "How to remove pain points throughout the trips" and "update new feature from TMC that benefits the travellers". Additionally, encouraging travellers to use public transportation or walk saves

costs and brings health benefits to them. To do so, the company can promote google map, share story of a local colleague using public transportation to work every day.

The remedies for “bad” travel behaviours are needed; however, it is more important that we encourage travellers to engage with the program and policy. HR or Sourcing team can recognize travellers who constantly following the policy and rewards with points that can aggregate to a small prizes (travellerscorporate, n.d.). Incentive program has been used in many corporate buyers. Concur has been working with Google to introduce “Travel Points” system. It enables the employees to earn points if their bookings’ price are under the company thresholds. Later, they can use such points to book over-threshold travel (DeLuna & Campbell, 2013). Another example is Rocketrip, which actually reward employees in money. They use algorithm to calculate the trip budget and give employees half of the savings (Ruch, 2016). The company can also collaborate with Rocketrip to get the same benefits.

Enhance online adoption

According to CWT research, online booking can reduce up to 10% of the total travel costs through airfares and booking fees savings. Firstly, the OBT allows travel bookers to see a range of price themselves, thus they tend to choose the lower price deal. That is so call the “visual guilt” factor. Additionally, online booking encourages earlier booking than offline one (CWT, 2006). Secondly, the transaction fee when booking online is cheaper than the agency fee for offline service. Therefore, it is important to enhance the online adoption.

Fully integrated travel management and travel policy compliance will elevate the company online adoption. This is because high quality and more user-friendly platform attract employees to use. Additionally, travel policy requires travellers to book in the corporate online booking tools. Following the policy will obviously help company incline the rate. In practice, it means to encourage travellers making a reservation for themselves and educate them to do so. A couple of minute long instruction video might help new or infrequent travellers capture the booking process more easily. Besides, incentive or compliments can be made for country perform well in this area.

To improve the total online booking rate, the company should understand the different situations of different geographical units. On one side, low online adoption rate is due to the travellers behaviours. On another side, it is because of the unequal travel service quality across the countries. For the frontlines with low rate, it is important to communicate about

the problems and solution for increasing the rate within stakeholders (frontlines, global and TMC). In case the quality of travel services provided by the global preferred travel solution supplier is not high in a country or the suppliers service is not well covered, and that leads to low adoption rate, the case company should switch to use local one or one that provide better tool. In this case, the company can compensate the benefits of supplier consolidation by asking the local travel solution providers or local office to report on the travel spend of the unit.

Overall, online adoption is an improvement process. It means that the case company cannot achieve 100% of online booking rate by tomorrow. Hence, this process involves constant feedback from frontlines, communications among stakeholders and evaluation the rate periodically.

Embrace opportunities in tender and tender more

It is important for the corporate buyer to remain good and long-term relationship with their suppliers. On the other hand, it can trap the company into the vendor lock-in situation, especially when they have been using the services for long. To improve the current travel program, the company should challenge their travel service suppliers by actively finding the new solutions in the market, tendering travel related services more frequently while embracing new suppliers during the RFP process. Keep in mind that before the tender process, the case company should review their current suppliers' performance as well as their needs and expectation for the tender.

There are many disruptive solutions in the market, which the case company can easily find on google or ask the local. However, many of those come from the companies with limited coverage of area, which prevents them from being a global partner with the company. Piloting such solutions to low volume country is a good way to test if they benefits the company travel program in terms of savings, efficiency and travellers satisfactions. Disruptive solutions in the business travel sector include sharing economy services. A trend spotted among top 100 biggest corporate travel in terms of US based volume spend is the collaborating with ride-hailing platforms like Uber and Lyft. The service is expected to saving ground transportation costs and enhance travellers' comfort while travel. (BTN, 2017).

Make sense of data

As mentioned in section 2.2.2 (chapter 2), *using travel statistics* is a part of strategic travel sourcing (Gustafson, 2012). One of the challenges is that travellers do not always follow the travel policy. Couple of reasons are stated above; however, the company is not sure what the main reasons are, or what else. Data can reveal what is behind the scene. It helps the company understand better their travellers' behaviours. Besides, data analysis might recognize interesting findings, which lead to further actions to solve issues.

Every traveller has different travel behaviours, one own definition of logical booking and are in different situation when requests for travel. However, all the differences might follow patterns. Clustering analysis helps managers identify different traveller segmentations and common characteristics within a group. Theoretically, Swarbrooke and Horner (2001) presented different methods of business travellers segmentation. While the details were presented in section 2.1.1 of chapter 2, several segmentations, which are short-haul vs long-haul travellers, frequent vs less frequent travellers, international vs. domestic business travel and purpose of the trip, are very interesting to conduct.

Practically, the information supports the travel managers to get the right package at the right price for the travellers. Besides, once the managers get to know about their travellers' behaviours, they will better collaborate with experienced TMC or airlines to solve the problems. For example, assume that sale people are likely to book the trip less than two weeks; the company should give them more flexibility in booking. Another example would be executive booking. Since the executives travel very frequently, the company can propose the travel service price as a whole package or subscription based to the TMC instead of price per transaction. Applying different rates with different types of travellers is also a good option.

Big and experience suppliers are able to capture travel data and deliver customized reports. To take advantage of this, sourcing analyst should assess the performance across the suppliers and analyse the different travellers' behaviours groups. Theses analyses reflect the service and technology quality of suppliers, enables managers to learn best practices from every suppliers and request for changes from suppliers. Also global travel manager should ask local TMC or local office to report about travel KPIs to capture more of the big travel picture. Additionally, analysing the most booked city pairs or destination supports travel managers in evaluating on whether the current corporate fare is worth. Travel data analysis enables the company to realize the busiest travel month and alert the travellers about the ticket price beforehand. A simple email can be sent to the travellers or message to be

appeared in the OBT: “this month is a peak time of travel booking, if you plan to travel, consider booking 3 weeks in advance”. The managers can also ask TMC to provide the average total costs of ownership for top ten routine and benchmarks comparison. Generally, travel reports from different TMCs and geographical units increase the managers’ visibility of travel sourcing category, at the same time, feed ideas for cost savings.

Internal reports are good for the company reflection on travel category. On the other side, it is crucial for the companies to be aware of what is happening outside the office. A summary of business travel trend and impacts reports based on research and external communication can be conducted periodically. Keep in mind that embracing any trend into the global travel program is challenging and requires lots of company resources. Hence, trends that have high impact and low uncertainty can be considered at a local level.

Enhance communication between stakeholders

“The most important thing in communication is hearing what isn’t said” - Peter F. Drucker. Besides communicating with travellers, travel managers should learn and update knowledge about the industry with same size buyers. This also supports to realize the potential problem of the company. Attending conferences and workshops are apparently good for the managers to be aware of and understand what is happening in the industry. Additionally, exchanging information, discussing and building up travel solutions with frontlines helps the stakeholders to learn best practice as different subsidiaries might have different travel strategies and tips to go. Last but not least, TMC should act like a travel consultant for the company. It means that the TMCs help drive strategies to meet travel KPIs. They should actively work together with the client to identify the problems of the current setup and solutions as well as introduce and recommend the right travel tools.

Overall, short-term strategic actions aim to solve the current challenges of the current global travel management program of the case company. They are classified into five different big themes: Adopt auxiliary tools, improve travellers’ engagement, enhance online adoption, embrace opportunities in tender and tender more, make sense of data and enhance the communication between stakeholders. A summary of short-term strategic actions is presented in table 10.

Table 10: Short term strategic actions for the case company.

Goals	Actions
<i>Adopt auxiliary tools</i>	<ul style="list-style-type: none"> • Fare tracking and rebook: FareIQ and RoomIQ of Yapta • Travellers assistant: roadmap, CWT To Go™ • Security devices: Keezel • On and off platform bookings data capture: Traxo CONNECT
<i>Improve traveller's engagement</i>	<ul style="list-style-type: none"> • Travel policy – make it visible, short and attractive • Create a single contact email for travel related questions • Travel policy confirmation before bookings
	<ul style="list-style-type: none"> • Refuse out of policy booking and apply strict sanctions • Total costs of trip and missed savings are visible in the OBT for both manager and traveller • Policy flag/pop-up policy reminder in OBT • Simple travel spend report for travellers
	<ul style="list-style-type: none"> • Ask travellers to clarify the reason of out of policy booking by commenting on OBT or in the pre-trip approval • Review our policy and renegotiate the service packages with airlines when needed
<i>Enhance online adoption</i>	<ul style="list-style-type: none"> • Trainings from TMC when needed • Relevant materials are visible and easily accessible • Communicate with travellers more about travel policy and travel savings • Apply incentive program: Rewards employees who save travel costs (e.g. Google with "Travel Points" system, Rockettrip)
	<ul style="list-style-type: none"> • Encourage travellers making a reservation for themselves and educate them to do so • Incentive or compliments can be made for country perform well • Communicate about the problems and solution for increasing the rate within stakeholders (frontlines, global and TMC)

	<ul style="list-style-type: none"> • Switch to use local one or one that provide better tool where global preferred services is not well covered • Constant feedback from frontlines, communications among stakeholders and evaluation the rate periodically.
<i>Embrace opportunities in tender and tender more</i>	<ul style="list-style-type: none"> • Tender travel services regularly with more same size and innovative suppliers • Pilot disruptive solution to low volume country • Consider sharing economy services
<i>Make sense of data</i>	<ul style="list-style-type: none"> • Suppliers performance evaluation • Corporate fare rate analysis • Trend and impacts report • Travel KPIs report from local TMCs and OTAs following the company structure • Benchmarks flight costs and total costs of ownership • Out of policy behaviours patterns • Travel volume analysis
<i>Enhance communication between stakeholders</i>	<ul style="list-style-type: none"> • Update knowledge about the industry with same size buyers. • Attend conferences and workshops • Exchange information, discuss and build up travel solutions with frontlines • TMC as a travel consultant

6.1 Long term

If short-term strategies guide the company to improve their current travel program, long-term strategies help them prepare for the future. Several case studies are introduced in this section. They tell how others big corporate buyers improve their travel program to keep up with the industrial trends and the world development. These might serve as best practices or something to consider for the case company.

In four scenarios, keeping the same travel program is still an option for the case company; however, it is sometimes not the optimal one. A recommendation of the potential

travel setup is presented in each scenario. In “Demand More”, the company should use travel solution from travel agencies or TMC of OTAs. They offer both OBT and travel service, which allows the case company to make an influence on also the technology part. In “Brand New” scenario, the combination between direct booking aggregators like WindingTree and travel agencies is the optimal option for the company. The third scenario “More Opportunities” is when the GDS is favourable and mass customization is trendy. The author suggests open booking policy as an option in this case. Together with auxiliary tools for tracking and risk management, free search on the internet gives wider range of choice for travellers and enables the booking independent from airlines standard network. Last but not least, “No Surprise” scenario is where GDS operators would be the great choice of travel solution providers. They grow strong horizontally and vertically to be able to provide good OBT and travel services for the case company.

As four scenarios have different characteristics, it is not correct to suggest the company using travel agencies, direct booking aggregators, or GDS operators as a global solution for future. Instead, the company can pilot different setup to low volume country to figure out what needed to be fix. This is a good preparation for the future scenario. For example, FINRA is a financial industry regulatory authority in the US with 3400 employees. The travel manager piloted an open booking policy, which allows 20 targeted travellers in 6 months to freely book their flight and hotel anywhere they want including OTAs and meta search except the company’s OBT. However, the participants still have to pay with their corporate card and manage the expenses by the company’s tool. The travellers also have to use auxiliary tools called Tripit to centralize the itinerary. Whenever a traveller sends his booking confirmation details, the company would compare the booking with its own channel. Together with a constant feedback and reviews, collected traveller data reveal some interesting findings for the company. “After one year of piloting the concept with 20 travellers at FINRA, McDowell has concluded a few things. Travellers, when allowed to roam outside of gated corporate booking tools, have not abused the system, she said. Also, they didn't spend more than the rest of the organization's travellers, on average and when controlled for access to supplier discounts.” “What they [the travellers] learned from it was that our negotiated rates with hotels are really pretty good, because for them to get something at that same price, they had to reduce the level of type of hotel they were staying at.” “For now, FINRA has maintained the program as a 20-traveller pilot. Pending some automation

solutions, TMC work and supplier fixes, McDowell sees an opportunity to expand it, perhaps into a companywide option". (Boehmer, 2014).

Toward traveller-centricity

Previous chapter reveals the possibilities of the business travel sector development and the implications of scenarios on the case company. In all scenarios, the intensity of tailored travel services is from mass customization to personalization. Regardless of the intensity, there is always a focus on travellers in any cases. Therefore, in order update the travel program following the changes, the company should drive it towards the traveller centricity. Additionally, trends that have relatively high impact and low uncertainty according to the travel experts are the growth of millennial employees and new mode of consumption. It means that in the future, the company will have new employees who are 21 to 30 years old with tech centric habits and experienced employees with high technology adoption. They will have wider options of travel service to choose and they might use those even if the options are not part of the corporate approval. (BTN Group, n.d.). Additionally, if customer centricity is recognized as a trend in other industry, traveller centricity should follow the same logic. From indirect sourcing point of view, employees are customers. At the end of the day, sourcing provides tool to help the company's employees life better. In addition, it was identified "travel behaviours" is one of the challenges of the case company. On top of that, the travel manager reveals that this issue is among the top of her concern. Like Steve Jobs said, "if you define the problem correctly, you almost have the solution". Thus, putting the traveller in the heart of the travel program will create win-win solution for all stakeholders.

In fact, among 100 biggest corporate travel spends based on US booked air volume 2017 provided by BTN, big names like Accenture, IBM and Oracle realized the correlation between traveller behaviour and compliance and achieving program goals. They are using travel data to enhance traveller experience and engagement levels. (West, 2017).

As indicated in section 2.2 (chapter 2), a successful corporate travel management programme goes through a loop of feedback, values, goals and actions (Douglas & Lubbe, 2006). The case company should also focus on the soft value management. In practice, to understand travellers better, the company should simply ask them. In other words, travellers' feedback and survey should be parts of travel strategic sourcing and travel program improvement. Taking travellers' feedback after the trip is a good way to evaluate the service

providers, detect the problems while it is small as well as enrich the travellers' wellbeing while travel. It is also a way to show the company care about and listen to the travellers. Surveying the travellers generally helps the manager understand what is the expected and floor expectation of service quality. For example, if the employees are willing to take Uber or Airbnb or any lower standard of hotels and airlines, this is a good sight for the travel managers, as such service will bring cost savings for the travel. There are available tools to survey the travellers. A recommendation is a free tool called BTN's Traveller Happiness Index provided by *BusinessTravelNews* in order to help the business measure its traveller's satisfaction (BTN, n.d.). Additionally, analyzing the travel data might help travel managers to identify if there are any patterns of non-compliance based on different characteristics such as age, position, type of travel, etc. For example, Microsoft has combined different data sources such as travel and expense data, supplier data and unstructured data from its social media channel to identify a digital picture of the whole 75,000 travellers of the company. Then it categorized the travellers into four different groups. The company is going to use the result to negotiate contract and special offers with service providers to satisfy each group. (Deluna, 2017).

Another way for the travellers to be heard is a travel channel on Yammer or internal communication tool where the travellers can discuss about any relevant topics, suggest ideas and exchange know-how. For instance, IBM is implementing a travel bot provided by IBM Watson to answer all the users' questions via most how-to videos. After receiving the answer, the user can evaluate by thumbs up or thumbs down and leave a comment on how it could be better. IBM will take those feedback for develop the service further. This idea comes from the company's traveller forum. Moreover, in travel IBM platform, everyone can suggest ideas for the travel program and others can vote via Ideation Blog. (Sickel, 2017). Another example is Microsoft travel program. The company collaborates with Tripism to map their office locations, preferred hotel and restaurants chain. Like Pinterest, the app allows travellers to review relevant services and pin points of interest on a trip board. All the reviews and boards are either private or publish. The company is currently working on how to get the hotel customized service to the platform, as the current GDS is not able to do so. Hotel/restaurant reviews will give the travellers better ideas about the service quality and empower the value of negotiated relationship. (Deluna, 2017).

Mason (2002) study shows that there is a mismatch between understanding of travel manager and traveller regarding travel policy. As mentioned above, this issue can trigger to

non-compliance behaviour. Thus, asking travellers about their understanding of travel policy via survey form can help travel managers clarify the gap and come up with appropriate communication solutions.

Corporate travel KPIs are used to measure the success of travel program. Besides the usual indicators such as use of approved booking channel, traveller compliance with policy and carbon emission, the company should consider to include traveller satisfaction and safety rate. In details, it means how happy the travellers with corporate travel program. It is important they feel supported and safe when they are traveling, so they can stay focused on the job. Traveller satisfaction can be measured by regularly running a survey that factors in their thoughts about the corporate travel suppliers you use, how safe they feel, and whether there are any areas they feel need improvement. Calculating the difference between the average satisfaction score and the highest possible score will give an idea of how much work to do to improve traveller satisfaction. (CWT, n.d.). Additionally, travel managers have sought to use more traveller focused metrics, such as traveller net promoter score, or employee retention rates specific to the most frequent travellers, to measure the success of their programs and to justify improvements to service. It is this interplay between traveller demand and travel management's efforts to accommodate it will shape the future of business travel (amexglobalbusinesstravel, n.d.)

Toward modern travel program

In all scenarios, we observe the power of technology and big data in bringing the customization of travel services to the travellers and corporate buyers, as well as changing the airline standard network when needed. Besides modernizing the travel management with short-term strategic actions such as data analysis and auxiliary travel tools, the company should upgrade to trendy travel solutions.

An end-to-end means the starting and ending points of a service, which removes as many middle steps as possible during the process (Investopedia, n.d.). An end-to-end travel solution, therefore, would integrate all the different tools and systems of travel into one single platform. In details, it includes pre-trip approval, booking, expense reporting, accounting and reimbursement while embeds the company's policy compliance (Amadeus, 2017). Adopting end-to-end solution will optimize the travel management process, eliminate manual approval process and complicate reimbursement process, thus, saves costs and time for the corporate and its employees. At the same time, it creates a central and structured way

to manage and coordinate the travel. According to Amadeus research, an end-to-end solution imposes 10% savings on direct costs. Additionally, it lowers down the average cost of expense management from 23.48€ with manual process to 6.05€ with automatic one. (Amadeus, n.d.). Many stakeholders including GDS operators and travel agencies are developing and implementing the solution to their clients. For example, Amadeus has newly introduced their one solution one app: full end-to-end integration called Amadeus Cytric Travel & Expense (Amadeus, 2017). Another example is Egencia Integrated Travel and Expense provided by Egencia, which captures booking, fulfilment and expense into a single solution (Wash, 2017). Below figure illustrates the end-to-end travel solution for corporate buyer.

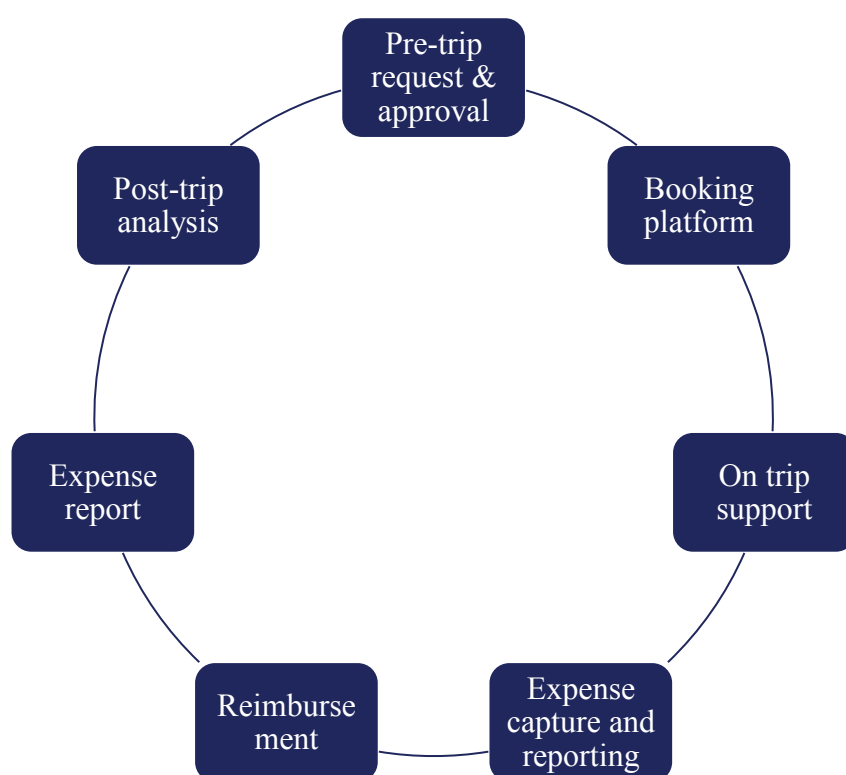


Figure 17. End to end travel solution for corporate buyer.

Besides, evolvement of digital and online payments will replace traditional credit cards as well as solve related problems. Three types of payments concept play a vital role in shaping the future of corporate travel payments, simultaneously supports the end-to-end solution implementation are: virtual payments, mobile payments and invisible payments. Virtual payment like AirPlus International's own A.I.D.A. product or Sabre virtual payment is a solution for non-FTE employee or one who does not have corporate credit card.

Additionally, it can be used to pay for LCC flights (CWT, 2017). In practice, when a traveller/travel agency reserves a hotel room through OBT and he choose virtual payment. Booking information such as amount, date range, merchant type, job number and cost center, is captured automatically. Simultaneously, a new unique card number containing a CVV number with expiration date is sent to the hotel with all the relevant information. The payment is made at time of purchase (air and rail) or time of stay (hotel). When invoice from hotel is received, it matches booking data automatically in the expense management tool. The matched data can be exported for further analysis and reporting (Vivion, 2016). Virtual card is more secure than traditional credit card as it cannot be lost/stolen and is used only once or several times. Furthermore, it cannot be misused for because it is created to pay for a single purpose e.g. room in a hotel. Virtual payments are still in the development. Within the next five years, it is expected to be available for on trip payments and for all travellers. (AirPlus, n.d.). Together with traditional credit cards, virtual card can also be stored in the same mobile device. The storage is then called as a mobile wallet, which brings many potential benefits for the corporate buyers. The digital wallet will create a seamless payment process for the travellers and generate real time transaction data that link to the expense management system. Mobile payment can be a bank app (e.g. Nordea, Danske in Finland) which integrates with the user bank account or mobile operator app such as Apple pay, Samsung Pay and Google Pay. Mobile pay has been popular in the B-to-C market and recently extended to B-to-B. For instance, American Express announced to activate Apple Pay for their own corporate cards. This allows the employees to pay with their mobile phone in stores. Great things about Apple Pay is that the card numbers are not saved on the mobile device nor Apple servers (American Express, 2015). Last but not least, invisible payment (the card number is not visible in buyer or seller's sight) is also considered as a future payment solution. The name seems strange; however, it has been used by the B-to-C service provider like Amazon, Uber, and Airbnb. For example, when a traveller registers their card number with Uber, he does not need to type his card information every time he orders a service. As the payment is made from the central account, invisible payment supports to eliminate the after trip expense reporting for approval, data collection or reimbursement. With three payments solutions combined, travellers will be able to pay for most of their expenses with controlled virtual or invisible payments through centrally billed account. (AirPlus, n.d.).

In the long run, the case company should prepare for future scenarios by piloting the different recommended setup (in section 5.3) to the low volume country and making assessment. Besides, they should drive the travel program toward traveller centricity and modernization. Figure 18 illustrates long-term strategic actions for the case company.

Prepare for future scenarios	Traveller centricity program	Modern travel program
<ul style="list-style-type: none"> • "Demand More" scenario: Travel agencies • "Brand New" scenario: Direct booking aggregators and travel agencies • "More Opportunities" scenario: The internet • "No Surprise" scenario: GDS operators • =>Pilot recommended setup to low volume country 	<ul style="list-style-type: none"> • Traveller feedback and survey • Identify travellers behaviours pattern • Internal communication tool for travellers. • Traveller satisfaction as a travel KPI 	<ul style="list-style-type: none"> • Adopt fully integrated travel program • Adopt digital payments

Figure 18. Long term strategic actions for the case company.

7 Conclusions

This final chapter concludes the study. Therein, section 7.1 summarizes the answers of three RQs. Section 7.2 presents research implications to both academic and business worlds. The last section reflects research limitations and suggestions for future study.

7.1 Summary

The purpose of this study is to develop global corporate travel management program. To achieve the goal, three RQs were created (section 1.1). In each question, the answer is summarized as below.

RQ1. What are the challenges of corporate travel management?

To answer this question, interviews were conducted with sourcing related managers and travel assistants across global, regional and local levels. Generally, the global business travel program of different corporate buyers are somewhat the same. It is mature and facilitated by the leading travel services suppliers. However, indeed there is always room for improvement.

The challenges are classified into four themes: Global travel management program, travellers' behaviours, suppliers' service and technology and strategic sourcing. Global travel management program lacks optimization with manual pre-trip approval and complicated reimbursement. It is not an end-to-end solution. Despite of preferred suppliers, local service providers and practices, especially of EMS and TMC, are in place. It triggers the narrow visibility of managers regarding travellers' behaviours and travel data. Additionally, travellers' behaviours is one of the main concern. The research found that travellers do not always align with travel policy. Besides, the spend data shows lots of booking offline and top 10% of travellers account for 80% of costs. Regarding the supplier's services and technology, online adoption rate is low in some areas, which pulls down the average rate into about average. This in many cases is due to the lack of comprehensiveness in OBT. Additionally, the corporate GDS based booking platform does not display all or wide range of airlines and hotels, especially local and low cost one. This is also a reason why flight deals are expensive. Less competitive transaction fee in some countries also add extra cost on top, which make higher price of purchase. Besides, there were comments about the unequal services of TMC across the countries. On top of that, the interviewees expect more customization from the suppliers. Lastly, corporate buyers still need to improve the

travel category in implementing strategic sourcing. Challenges are the lack of competitiveness in RFP, unclear responsibilities among stakeholders and not up-to-date travel category strategy.

RQ2. What are the future scenarios of business travel and their implications to corporate travel management?

After reviewing couple of scenario planning methods, the author decided to use intuitive logic approach. In practice, 88 macro-economic and industrial trends following STEEP analysis were identified. The trends were downsided into 39. Next, the author asked the managers who are experts in travel industry to rank the impact and uncertainty of trends. After evaluating the ranking, two critical factors were found and four scenarios were built accordingly. Based on the trends, the author created narratives of scenarios and connect them with the current global travel management program of corporate buyers. Therein, the current program was evaluated and the new proper setup for each scenario were recommended. Four future scenarios are named as “Demand More”, “Brand New”, “More Opportunities” and “No Surprise”.

The first scenario describes a relatively positive economy and politics, where data protection is not the big issue. Therein, though GDS is still dominant, the standard network competition is tough. On the other side, development of technology and new mode of consumption is a dynamics for personalization of travel services. In this case, the current setup of corporate buyer works. However, using solely GDS based OBT limits the visibility to bigger pool of deals; at the same time, might increase travel costs due to the surcharge of some airlines. Additionally, the company cannot influent the supplier’s partner with the current setup. My recommendation is to use travel agencies in order to capture all or most of the (non)GDS flight deals available. Travel agencies works like TMC, which is capable of delivering necessary tools and service for the demand. Corporate buyers should analyse their travellers’ behaviour and take advantage of travel agencies experience in order to escalate the personalization in travel.

”Brand New” scenario describes the most positive future among the scenarios. It is when the growth of economy and stability of politics encourage society to welcome open and sharing data. Cost pressure and great support from IATA trigger most of the airlines to switch to or focus on the NDC adoption. Technology, in particular of blockchain, enables new disruptive solutions in the market. As a result, GDS is weaken gradually. NDC vast

implementation and company emphasis on travel satisfaction push the need for personalized travel services. On the other side, the current program of corporate buyer does not go to the same direction as trends do. Companies likely pay higher price for airfares while capturing very limited amount of deals. In this scenario, they should consider the direct booking aggregators. A standout example in the market now is WindingTree. The platform and service allow more secure, flexible and cheaper way to book and pay for air tickets. On top of that, corporate buyers should collaborate with travel agencies to enable the personalized services. Additionally, they should work more closely with airlines to negotiate different service packages for different travellers 'groups. Adopting auxiliary tools such as Flyiin also helps corporate understand the travellers better.

“More Opportunities” scenario indicates a chaotic world with rise of nationalism in the leadership bureaucracy and unpredictable. Data protection is strengthened however not forbidden. More costs from regulations are added in companies' credit part of the income statement while the revenue side does not increase much. This prevents the feasibility and desire for personalized services. Corporate buyers seek for travel solution that bring cost savings and mass customization. Regarding the airline standard network, the strong rise of NDC and LCC weaken GDS; however, does not make the traditional network disappear. With the current travel program, corporate buyers have TMCs as a reliable partner for especially security issues. However, TMCs partner, who are GDS operators, do not bring competitive air deals on the OB. In this scenario, buyers can consider open booking policy. In practice, the employees can book in any online platform or in Google as they want. Booking data is tracked through payment information. Traveller visibility and spend tracking can be done using blockchain based solution call “Shocard”. Additionally, reward for travel savings and sanction for wasting can be applied to navigate the travellers toward cost savings choice.

The last scenario writes the same story as the current world. Despite of the positive sign of economy growth, there are still a number of uncertainties and risks as well as unequal growth distribution across the countries. Data is managed confidentially and only relevant people have access on that. Together with the conservativeness of travellers about data sharing, high data protection makes the intensity of tailored travel service stops at mass customization level. In “No Surprise” scenario, GDS remains as a global airlines standard network. GDS operators develop in-house or collaborate with other players that allow customization in travel services. Current travel management program of buyers suit this case.

However, as the IT providers also provides travel services and works directly with airlines to enable the richer content embedded in the GDS based platform, TMC can be removed from the distribution chain. In other words, collaborating only with GDS operators brings optimal travel solutions and satisfies the mass customization demand in services. Like above scenario, buyers should segment the travellers based on their behaviours and background information to offer the right package to the right group of travellers.

RQ3. What are the strategic actions the buyers could take to improve the corporate travel management and to prepare for the future scenarios of business travel?

In short term, corporate buyers should adopt auxiliary tools available in the market. These enhance the managers' visibility of traveller's behaviour and travel data. To improve the travellers' policy engagement, companies need to investigate the reason of out-of-policy bookings. Based on that, proper actions are recommended. They are to ensure travellers aware of travel policy before booking, to understand the reason behind out-of-policy booking, to put sanctions or "psychological threat" when wrongdoings and reward when savings, and to encourage travellers obey the rules. Additionally, adoption rate can be improved through communication to solve problems, switching to more competitive tool providers, and constant feedback and evaluation from stakeholders. To better execute strategic sourcing in RFP, corporate buyers should tender travel services regularly with more and newer candidates, including sharing economy services providers. Piloting disruptive solution to low volume country is good to test changes. Besides, companies should conduct different data analyses apart from the traditional spend analysis to understand and detect problems in different perspectives, control the quality of services and make better purchasing decision. Finally not yet importantly, enhancing communication with same size buyers, suppliers and frontlines help managers learn best practice and update knowledge about the industry to better manage the program.

As indicated in RQ2, a recommendation on corporate buyers' travel program is for each scenario. While there is no one size fit all solution, buyers can pilot setup in low volume country to mitigate the consequences of risk. If it works, bigger scale of implementation can be done. Nevertheless, four scenarios indicate a certain level of tailored travel services, regardless of the intensity. Therefore, in long run, corporate buyers should drive the current travel program towards traveller-centricity. To do so, they can create a loop of travellers' survey and feedback, manage travellers by segmentation, get information from

(un)structured data coming from system but also internal communication. Importantly, measuring the traveller satisfaction as a travel KPIs will change the managers' perspective and roles of supplier in the buyers' distribution chain. As the power of technology and big data is expanding, buyers at some point need to catch up with the innovation. Hence, they should modernize the travel management program by adopting end-to-end travel solution and digital payments. It helps automate the reimbursement process and create a seamless travellers' experience as well as travel management.

7.2 Research implications

Theoretical implications

In section 1.3, we discussed about three research gaps found in the previous studies. Hence, this section shows how this study closes those gaps.

The first gap indicates that previous scenario planning related studies do not concern about business travel sector nor look at the future of an industry from a specific stakeholder's perspectives. This study used intuitive logics approach and considered the corporate buyers' opinions when building scenarios. Additionally, besides macroeconomics, industrial trends that reflected events in business travel sector were recognized. As a result, four scenarios were built from two most uncertain and important factors – GDS and customization. The narratives of scenarios also include other highly influential trends such as personal data privacy and technology. In each scenario, intermediaries in business travel sector including existing companies and new comers were discussed. As these mentioned trends were ranked by and essential to corporate buyers, the scenarios context are relevant and reflect the environment that they are in.

Another missing point is the implication and strategic actions for future scenarios. Following Sevagura and Saga (2005) logics, this study does not only describe the scenarios but also apply those to corporate buyers. In each scenario, it evaluated the current global corporate travel management of buyers. Additionally, it presented what kinds of partnership opportunities for buyers in the market and how they should redefine the roles of current partners. Regarding the strategic actions, many were based on previous studies (Gustafson, 2012; Rothschild, 1988; Holma, 2009; Trautmann, Bals & Hartmann, 2009). Others are from secondary researches and the authors' experience.

Last but not least, the study solved the gap between current and future of business travel distribution channels. Previous studies showed the impact of NDC on airlines

(Wittman & Belobaba, 2016; Westermann, 2013; Jäckel & Maier, 2016). This emphasized that NDC also influences on the global corporate travel management or corporate buyers. New entrance for direct booking aggregators were presented and put into the corporate business travel distribution chains as an opportunity for future scenarios. In other words, the study added an extra intermediary apart from GDS operators and travel agencies in the studies of Pearce, Tan & Schott (2004); Radulovic (2013), Karcht & Wang (2010) and Holma (2009). It is the first research to discuss about meta search engine as an option for corporate buyers. Furthermore, a scenario reviewed the strong expansion of GDS operators as also a travel agency, which made them partner directly with corporate buyers. This kind of relationship has not been addressed in previous studies.

Practical implications

Three research questions of this study are concrete and closely related to the corporate buyers. The findings of RQs impose practical implication to challenges, future corporate travel management and strategic actions to the buyers. In fact, the manager of the case company commented that *“the scenarios bring interesting and different angles in future business travel. Also the recommendations contain a lot of meat”*

Challenges in current global corporate travel management were realized after the interviews with sourcing/travel managers from different corporate buyers. RQ1 findings serve as training materials for newcomers and successors in the indirect sourcing team of a case company. Moreover, it is a checklist for the current managers. The challenges can be bundled up in a different way based on project/campaign that managers will take. Since improvement is a process, it is important to review the challenges once actions were done.

At foremost, this study tackled the real business issue. It solved a big concern among corporate buyers at this sensitive time as mentioned in section 1.1. Four scenarios and their implication help corporate buyers understand the possibilities of future happenings and ways to handle those. Thus, they mitigate the consequences of changes and ease the managers worry.

At last, the study recommended strategic actions in short and long terms. These support managers to solve current challenges and prepare for the future scenarios. One of the most standout solutions is *“towards traveller centricity”* corporate travel program. The study does not only suggest the actions to take, but also tell the successful application stories of other same size buyers. These make the recommendation more reachable and practical. If the case

company executes this long-term strategic action, their global corporate travel management will be transformed. The travellers will not only follow travel policy but also will contribute to the policy as well as travel management development. Additionally, having travellers satisfaction as a travel KPI will change the mindset of managers in suppliers' negotiation and travel management.

7.3 Research limitations and suggestion for future study

Research limitations

Intuitive logics approach was applied to build four scenarios in this study. Chapter 2 and 3 explained the reasons of choice. As abovementioned, IL is a plausibility oriented approach rather than probability. It mainly relies on the experts' perspectives when ranking uncertainty/important impact of trends. Therefore, it delivers the subjective views about scenarios, which makes the reliability and feasibility of scenarios hard to validate. For example, AT Kearney and Amadeus (2017) identified four possible futures of global travel industry based on two factors: personalized - mass market and fragmented - seamless traveller's experience. This outcome was also based on experts' opinions. On the other hand, their report concerned about the whole travel industry. Besides, Amadeus is one of the GDS operation monopoly. Obviously, they do not want to eliminate their roles in the future travel. It possibly leads to bias when recognizing and ranking the trends. Overall, future has many possibilities and cannot be predicted. Though it is challenging to judge the validity of scenarios with intuitive logics approach, it creates a certain vision for managers.

The proper way to conduct any scenario planning method involving experts' opinions is to hold workshops. Von der Gracht and Inga-Lena Darkow (2010) organized two workshops with the participations of 200 students, researchers and practitioners and 5 research centers to identify the driven factors of the studied industry. Additionally, they invited 30 experts from 24 organizations to rank the trends. Meanwhile, in this study the application of scenario method is much downscale due to the limitation of resources and level of the research.

Suggestion for future study

Short-term actions were recommended for the corporate buyers to overcome challenges in corporate travel management. However, as each category of challenges is a big topic in academic and business world, it can be a base for future study. For example, non-compliant

travel policy behaviours is a great concern in companies. There are quite many researches discussing about this specific topic. Further study can apply relevant theories into practice in order to solve the problem thoroughly. Another category of challenges is about strategic sourcing, in which stated that “travel category strategy has not been updated for a decade”. Therefore, an in-depth study about strategic sourcing with an emphasis on long-term strategies is needed.

The implication of scenarios is discussed in general level. In each scenario, the study recommended an appropriate global distribution channel for corporate buyers. Hence, one can develop concrete actions to apply those channel in practices. Additionally, the study mainly focuses on airlines as the air spend accounts for a majority of travel costs. Future study can expand to other services such as hotels and car rentals. At the present, those services also run through GDS based platform. An interesting question would be what if NDC is dominant, how do hotels distribute their data.

Long-term actions are part of this study recommendation. They navigate the direct to go with corporate travel management. Future research can dig into create a plan for each direction. For instance, in “*toward modern travel program*” long-term strategy, many examples and actions were mentioned. However, to thoroughly apply the strategy, one can create an implementation plan for that.

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Interviews

Global professional service and travel manager, case company, Espoo, 27.10.2017.

Global travel manager, company X (same size buyer), Skype, 16.10.2017.

Global travel manager, company Y (same size buyer), Skype, 26.10.2017.

Indirect Sourcing Manager, case company, Espoo, 12.10.2017.

Regional sourcing manager, case company, Skype, 25.10.2017.

Travel assistant, case company, Skype, 30.10.2017.

Appendix B: Semi structured interview questionnaires

Interview

1. How is the current travel management setup in the company?
2. How do you think about the setup?
3. What are the challenges/problems you have been facing with the current setup?
4. What were the challenges previously that you managed to overcome?
5. What were the solutions?
6. Where is your attention in place regarding market trend in the travel industry?/what are the top concerns in the industry in your opinion?
7. What are your plans/expectation in the future from travel management perspective?

Emails

1. How do you evaluate the TMC services?
 - a. General
 - b. Customer service
 - c. Service quality/management
 - d. Online booking tool
 - e. Airline
 - f. Hotel booking
 - g. Car rental booking
 - h. Pricing
 - i. Others
2. Interest to change?
3. Things to improve?
4. Recommendation?
5. Report?

Appendix C: A summary of note from interviews

Interviewee	Category	Challenges	Concern
Global indirect sourcing manager and global travel manager	<ul style="list-style-type: none"> • Visibility • Travel behaviour • Sub-optimal technology (no end to end solution, limitation of bookings) • Sourcing/Manager responsibility • Centralization • Travel safety • Disruptive system • OBT 	<ul style="list-style-type: none"> • No visibility of global travelling/can't control all the travellers/ all countries • Travellers do not align with travel policy • Not strong approval process • No end to end solution from approval to expense management • No global expense management process and solution • Traditional solution • No clear role of travel assistants • Low online booking rate • Reporting tool is hard to use • Travellers find a better deal in other tools and complain 	<ul style="list-style-type: none"> • Central management in global or region? • Change in the industry: NDC vs GDS • Travel safety

Regional sourcing manager	<ul style="list-style-type: none"> • Sourcing/Manager responsibility • Tender • OBT • Customized service 	<ul style="list-style-type: none"> • Travel manager has to do operational tasks and other departments tasks • More customized reporting and analytics are needed (e.g. global map to point where travellers) • not everyone uses the company's online booking tool • Awards from hotel and airlines make travellers biased • Travellers behaviour: Traveller spends an hour trying to find the better deal • Can't find enough opportunity in the market 	<ul style="list-style-type: none"> • the frequency of tender
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<p>Global travel manager from company A</p>	<ul style="list-style-type: none"> • OBT • Quality of service • Price • Setup of the travel management process • Sub-optimal solution • Visibility 	<ul style="list-style-type: none"> • Harmonize the travel policy compliance • More customized reporting => do not have visibility to all TMCs booking => hard to negotiate the price for RFP • No visibility for external hotel booking tools => travellers don't book the internal one • TMC service is not equally high across the countries • Low rate of online adoption 	<ul style="list-style-type: none"> • Consider to use sharing economy option like Uber
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<p>Global travel manager from company B</p>	<ul style="list-style-type: none"> • Strategic sourcing (supplier relationship) • OBT • Suboptimal technology/setup • Policy • Service quality 	<ul style="list-style-type: none"> • Clear role between global travel manager and local travel coordinator • Optimize the OBT, can be improved online adoption rate, complicated flight is not bookable through OBT => need agent/offline booking • Loyalty programme offered by airlines/hotels and how to balance between the company and the employees • Manual end to end solution • No local language for local office, lack of locally serve => services are not the same everywhere • Using a supplier for many years => need more competitive environment 	<ul style="list-style-type: none"> • Development of technology, disruptive startup • Would like to have a big picture and total cost of ownerships? Security? • Distribution: NDC vs. GDS • Policy => should we have more easy going policy to give more freedom to the travellers?, in and out policy
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Frontline sourcing managers/Travel assistants	<ul style="list-style-type: none"> • Sub-optimal solution • Price • Quality of service • Setup of the travel management process 	<ul style="list-style-type: none"> • No end to end solution (cant book hotels and car through current OBТ) • Payment setup with credit card • High transaction fee • Not enough customer service support • Not aware of OBТ • Limitation in booking with the current tool (cant book complicated flight), not flexible (in adding the luggage in the fare) • Expensive flight deal • The number of travel assistant should be reduced 	
Travel association representative	<ul style="list-style-type: none"> • Data security • Setup of the travel management process 		<ul style="list-style-type: none"> • Data security => based on EU law about personal data security • NDC vs GDS
Data analysis	<ul style="list-style-type: none"> • Travel behaviours 	<ul style="list-style-type: none"> • Top 10% of travellers account for 80% of costs • Missed savings? • Out of policy booking is 46% (booking less than 2 weeks in advance) • Lots of booking offline which add extra fee on top of the flight fare 	

Appendix D: List of recognized trends

Society

1. Millennials will be the main workforce in 2025 (EY, 2015)
2. More millennials are moving into management (EY, 2015)
3. Increase of mobile broadband user (Amadeus, 2014)
4. Usage of apps (Sabre, 2017)
5. Refugee crisis in Western Europe (GBTA, 2017)
6. Terror (IATA, 2017)
7. High fear about terrorist attacks (ITB, 2016)
8. Urbanization and the growth of megacities (IATA, 2017)
9. Global aging (IATA, 2017)
10. Global population growth driven by Asia and Africa (IATA, 2017)
11. Shifting ethnic, political and religious identity (IATA, 2017)
12. Bleisure travel becomes popular among business travellers (amexglobalbusinessstravel, 2017)
13. Tech-centric travel habits (amexglobalbusinessstravel, 2017)

Technology

14. Artificial Intelligence and machine learning are reaching a new level of maturity (Deloitte, 2017)
15. Blockchain technology is toward the broad adoption (Deloitte, 2018)
16. Mobile technology will become more powerful (Deloitte, 2017)
17. The future of IoT looks bright (Deloitte, 2017)
18. Virtual and augmented reality (IATA, 2017)
19. Geospatial technology (IATA, 2017)
20. Robotics and automation (IATA, 2017)
21. Voice activation (business traveller, 2017)
22. Cyber security problems are growing (IATA, 2017)
23. Smart messaging (FBTA, 2017)
24. Shopping and booking (FBTA, 2017)
25. Constant connectivity (IATA, 2016)
26. Real time interaction (IATA, 2016)
27. Self service and support (FBTA, 2017)

Economy

28. The world GDP continues to growth at the rate of 3.7% in 2021 (GBTA, 2017)
29. Emerging and advanced economies expansion (GBTA, 2017)
30. The volatility of oil price (IATA, 2017)
31. Significant depreciation of pound in the UK (GBTA, 2017)
32. Inflation rate can rise in the UK (GBTA, 2017)
33. Increase of trade and inflation rates due to the trade restrictions (GBTA, 2017)
34. China continues to be the largest market opportunity for travel suppliers (GBTA, 2017)
35. Rise of startups with a conscience (business traveller, 2017)
36. Shift to knowledge based economy (IATA, 2017)
37. Open data and radical transparency (IATA, 2017)
38. Business travel spending is predicted to continuously growth at 7% on average till 2021 (GBTA, 2017)
39. India, Indonesia, and the U.K. to all average double-digit growth in business travel spending over the next five years (GBTA, 2017)
40. Many other European countries are poised to be growth leaders over the next five years – a significant departure from our expectations over the last few years. Leaders include Norway, Sweden, Spain, France, Germany, and Austria. (GBTA, 2017)
41. Business travel markets economic in the US with lots of optimism, not enough progress due to Trump policy (GBTA, 2017)
42. The “Era of Uncertainty” is coming to an end in 2016 with slightly improvements in 2017 and significantly growth of business travel in 2021 (GBTA, 2017)
43. The increase of hotel room prices (amexglobalbusinessstravel, 2018)
44. Hotel financial performance has been resilient despite of the high competition in the industry (Deloitte, 2017)
45. Airlines aim for a weak growth due to the upstick oil price and competitive environment (Deloitte, 2017)
46. Virtual travel agents is on the way (Deloitte, 2017)
47. Airlines enhances the environment on plane for a better comfort and wellbeing of the passenger by providing ambient LED lighting, bigger overhead bins (business traveller, 2017)

48. The sharing economy such as Airbnb, Uber and Lift is expanding the business into business travel sector (Concur, 2016)
49. The usage of corporate self-booking tool is increasing, meaning booking through corporate travel agency is decreasing (FBTA, 2017)
50. Travellers demand on personalized service (Deloitte, 2017)
51. Travel management is integrating with HR (amexglobalbusinesstravel, 2018)
52. Many full service airlines follows the principle of low cost carriers, charging on customized services (business traveller, 2017)
53. Low cost airlines will continue to grow in long haul direction and new routes (ABTA, 2018)
54. Strikes, delays and cancellations in transportation including the airlines (business traveller, 2017)
55. Travel will be cheaper in Asia but more expensive in Western countries (FCM travel solutions, 2016)
56. New distribution capability (NDC) as the evolving airline landscape (IATA, 2016)
57. Digital wallets (business traveller, 2017)
58. Mobile and virtual payment adoption (travelport locomote, 2017)
59. Online booking tools (travelport locomote, 2017)
60. Personalized traveller experience (GBTA, 2017)
61. Apartment rental (business traveller, 2017)
62. Luggage tracking (business traveller, 2017)
63. Door to door services (Amadeus, 2014)
64. End to end services (Amadeus, 2014)
65. Global seamless travel solutions (Amadeus, 2014)

Environment

66. Water and food security (IATA, 2017)
67. Extreme weather events are to increase in frequency and intensity (IATA, 2017)
68. Rising sea levels and reclaimed habitats (IATA, 2017)
69. Infectious disease and pandemics such as HIV, SARS, Zika virus threaten the world (IATA, 2017)
70. Alternative fuels and energy sources such as bioenergy will replace the traditional fuels (IATA, 2017)
71. Resource nationalism (IATA, 2017)

72. Personal carbon quotas (IATA, 2017)
73. Human-controlled weather (IATA, 2017)
74. CO2 emissions in airline industry continues to decrease (IATA, 2017)
75. A balanced approach to noise in the airline (IATA, 2016)
76. Airline fuel reporting (IATA, 2016)

Politics

77. Brexit puts an impact on financial, immigration and trade that will reduce the management confidence (GBTA, 2017)
78. The rise of nationalism in the US and across Europe (Forbes, 2016)
79. Uncertainty about Brexit situation (GBTA, 2017)
80. State fragility, religious and ethnic tension, global resource scarcity impose a geopolitical instability (IATA, 2017)
81. Shifting borders, boundaries and sovereignty (IATA, 2017)
82. Trade protection and open borders (IATA, 2017)
83. Strength of governance (IATA, 2017)
84. Bribery and corruption (IATA, 2017)
85. The US travel electronics ban policies have a detrimental impact on the buyers' costs (GBTA, 2017)
86. CRS regulation of EU about airline surcharges (GBTA, 2017)
87. Resolution 787 of IATA allows the airline to have their own distribution channel (IATA, 2013)
88. General Data Protection Regulation (GDPR) by EU to protect the privacy data for all individuals within EU (FBTA, 2017)

Appendix E: Downsided trends and their impact/uncertainty rank (Scale: 1-5)

Downside trends	Recognized trends	Impact	Uncertainty
1. New distribution capability (NDC) as the evolving airline landscape	56, 86, 87	4	4
27. Customization/traveller centricity is needed in business travel service	49, 50, 47, 60, 52	4	4
16. The world economy shows positive sign for future growth	28, 29, 8	3	4
4. Terrorist attack	6, 7	3	3
6. Mobile technology will become more powerful	3, 4, 16, 23, 24, 58	5	1
7. Business travel service will be online	24, 58, 23, 57, 59	4	2
9. Faster technology adoption	13, 3, 4	3	3
10. Artificial Intelligence and machine learning are reaching a new level of maturity	14	3	3
11. The boom of internet technology and its application	15, 17, 18, 46, 58	4	2
21. Political (in)stability	41, 77, 78, 79, 85, 80, 71, 81, 82, 83, 84, 11, 5	3	3
30. Low cost principle airlines	52, 53	4	2
33. Solutions for optimization management	63, 64, 65	4	2
2. Data protection is a big concern	88, 83	2	3
8. Bleisure travel becomes popular among business travellers	12	2	3
12. Geospatial technology	19	2	3
13. Robotics and automation	20	3	2

14. Stay connected	25, 26, 62	3	2
15. Self service and support	27, 62, 21	3	2
17. Significant depreciation of pound in the UK	31	1	4
18. The increase of inflation rate	32, 33	1	4
19. The flourish of business travel sector	34, 38, 39, 40, 41	2	3
20. The rise of nationalism	77, 78, 79, 85, 71	2	3
26. High sensitivity of price in airlines industry	45, 30	3	2
28. The (in)stability of country	84, 6, 7	2	3
29. Travel management is integrating with HR	51	2	3
32. Travel will be cheaper in Asia but more expensive in Western countries	55	2	3
34. Threatened nature and poisoned environment with virus	66, 67, 68, 69	2	3
35. New solutions to solve the environmental issues	70, 73	2	3
36. Airline industry will focus more on improving the air and noise pollution in the future	74, 76, 75, 72	1	4
3. Cyber security	22	2	2
5. The rise of millennials as a main workforce	1, 2	3	1
22. Life sustainability of business	35	2	2
23. Business travel as a competitive market	35, 44, 45, 48	3	1
24. Shift to knowledge based economy	37, 36	2	2
25. Hotel is in a competitive market	44, 48, 61, 43	2	2
37. Urbanization and the growth of megacities	8	2	2
38. Global aging	9	2	1

31. Strikes, delays and cancellations in transportation including the airlines	54	1	1
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