E-Business Readiness in Indonesian Small Medium Size Travel Agencies

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Abstract—The development of world tourism, especially in the tour and travel business is influenced by Information Communication Technology (ICT). The effective use of ICT added values to products and services that continue to develop business electronically (e-business). By doing e-business, companies tend to have effective and efficient operations. The e-business adoption in small medium size travel agents encounter rapid changes in technology and the raise of online travel agent. The aim of the research is to understand the readiness of small medium size travel agents in doing e-business. Three variables developed were technology readiness, organization readiness, and external environment. All the respondents were small medium size travel agents operating in West Java, Indonesia. Interviews were conducted during June-August 2018 with 61 persons from travel agents, consisting of managers, supervisor, owners, commissioners, and staffs. Content analysis was used to analyze data. Results showed that all small medium size travel agents are keen to run e-business. The technology infrastructure and organizational readiness support the travel agents to apply e-business. The external markets which were already online become potential market in supporting e-business. Differences between cities and suburb areas in terms of e-business adoption revealed that in suburb areas travel agents had less infrastructure, lacked staff competencies, and relied innovation on the free application available. However, suburb area travel agents faced high opportunities to take more costumers in purchasing airline and hotel tickes due to the low ability of the customers to use available distribution system.

Keywords—e-business; small medium size travel agent; technology readiness; organizational readiness; external environmental

I. INTRODUCTION

The technological advance provides new opportunities for tourism industry shifting from traditional operation to electronic business model. In the rapid grow of tourism industry, electronic business (e-business) has become an important factor to increase company activities into (a) cheaper and faster transaction on getting information, and (b) integrated business process supported by various coordination and activities in the company. Running e-business reduces administrative costs, improves accuracy and quality of information for decision making [1]. The world of tourism development has been much influenced by important information and communication technologies (ICT), Computer Reservation System (CRS), and Global Distribution System (GDS). The use of ICT adds value to services and products in tourism industry.

The e-business implementation is influenced by the differences of company business strategies and policies. Porter's theory explains that companies adopting technology in business strategies will sustain in fast-moving competition. Many companies become leaders and innovate more than others because of the application of technology [1]. The use of internet in travel business shows the important strategy for company to grow and compete. The use of effective and efficient ICTs helps organizations and individuals gain competitive advantage [2]. E-business process in various fields supports the occurrence of globalization, especially in tourism industry.

As the implementation of ASEAN Free Trade Area (AFTA) has emerged since 2014, digital business has as been growing globally [3]. The use of internet provides convenience and comfort in travel business. However, huge numbers of small medium size travel agents operating in Indonesia are facing the competition from the large company due to lack of their technology infrastructure as well as lack of staff competencies. Inability of these travel agents to adopt technology becomes an obstacle to do business electronically [3]. The ICTs adoption is a must for travel business supported by technology infrastructure and staff competencies. This study is designed to analyze the small medium size travel agent companies in Indonesia in terms of their readiness to operate business electronically. The total number of small and medium size travel agents in Indonesia reaches about 4,000 companies, and about 10% of the travel agents are operating in West Java [4].

II. LITERATURE REVIEW

The challenge of today’s business is the never-ending grow of ICT that needs to be adopted by businesses, especially in travel and tourism area. The increase of competitive environment should be suited in the company strategy. The competitive advantage of company is based on the company’s ability to generate and apply knowledge through the right strategies in creating value over information [5]. The application of e-business has been carried out in various industries, because e-business have been proven to be able to
improve efficiency and productivity. However, the benefits of internet will not be realized without the company’s desire to the new structure adjustment to cope with the changes, that is allowing technology to play an important role in the company [6].

The real virtual business environment has been developed that create a new, easier relationship in between companies, between business people, partners, customers, service providers and others [7]. To respond appropriately, tourism business must identify threats and opportunities in a real virtual environment. The response generates a strategy to create value through information technology applied in the tourism business and push the company to do business electronically.

A. E-Business

After the internet era, the term of e-business starts to be used as a strategic asset and can be a company advantage if used properly. E-business is defined as a procedure for conducting business through the internet and computer technology [8], [9]. Another definition of e-business is that it is as the practice of implementing and managing key business processes over computerized communication and data technologies [10]. E-business is an approach to achieve business goals where computer-based internet network is used for information exchange that allows the exchange of information or other activities to support decision making in business activities [11]. E-business is an online activity that combines employees, service providers and customers who share the same goal of creating value [12]. Furthermore, e-business create efficient operations and improve the company’s achievements [13].

In another point of view, e-business is perceived as the use of ICTs in all corporate activities internally [14]. ICT is the instrument that fundamentally change business behavior and business strategy. The internet has provided a new business environment virtually. It is also explained that the emergence of e-business through the internet resulting an increase in income as well as range of sources of information and knowledge [12]. A study revealed that e-business practices are intensively adopted by medium and large sized companies, while in small companies, e-business practices applied through outsourcing [13].

B. Factors in Adopting E-Business

Company’s ability in adopting e-business is very important, because it is related to sales, purchasing, and customers that will be integrated in the business strategy [15]. To be able to adopt e-business, [16] identified three main factors in adopting electronic business: (1) Technological, (2), Organizational, and (3) Environmental (TOE).

Technological – technological readiness is defined as technology infrastructure and capability of human resources in the field of ICT. Technology readiness is reflected not only in physical assets, but also in the human resources capability in completing physical assets [17]. Technology infrastructure formulates networks using the internet; while human resources provide knowledge and skills to develop web applications [18]. Technology integration helps to improve company performance by reducing time cycles, improving services to customers as well as lowering procurement costs [19]. E-business requires close coordination of various components of the value chain. Thus, a wider integration of applications is needed to be able to do business with sufficient capacity [20].

Organizational - In organizational factors, the company size is an important element that must be considered for adopting e-business. [21] explained that large companies tend to innovate using new IT to get benefits. However, large companies have a bureaucratic level and hinder the decision-making process about new ideas and projects. In small companies, the adoption of IT through cooperation and coordination is easier. Empirical studies consistently find that adopting IT has a significant impact [22]. But, perceived barriers are also very relevant because the adoption process may be complicated and require huge costs [23]. The improvements in products and services from internal processes can be obtained through IT called e-business technology [24].

Environment - Internet penetration measures the adoption and use of the internet by people in a country’s population. This becomes an important factor for decision making for e-business because it reflects the potential market served [25]. The competitor in similar industries usually appears to be pressure to the company. [26] analyze the strategies underlying pressure in competition as a driving force for innovation. It is suggested that by using new innovations, companies can change the rules in competition, influence the industry structure and utilize new ways to be superior to competitors, resulting a change in competition. This analysis can be adopted for IT, as explained by [20] that competitive pressures are drivers of the adoption and spreading of IT in the context of e-business.

C. E-Business Readiness for Small Medium Size Travel Agents

Many travel businesses take the opportunity with internet evolution. However, many travel agents are still looking for strategies to integrate the internet in business practices to gain innovation in business processes. The integration of travel companies adopting the internet in business is improving business processes and adding value to customers. Information technology has a significant impact on business and customers. The dramatic change in the travel business that customers now are easily reached electronically. This has changed the traditional service system at travel agents and the tourism business. E-business is the company’s service in a wider environment that includes service to customers, collaboration with business partners, and electronic transactions in an organization [27].

The e-business strategy has been widely researched in various fields of tourism such as hotels, hospitality, transportation, tourism service providers, as well as travel agents in large company sizes. This study specializes in analyzing the readiness of small medium size travel agents in adopting e-business due to the large number of companies in this size operating in Indonesia. The Indonesian Law No. 20, 2008 defines the characteristics of small medium size companies as an independent productive economic enterprise
that operates independently and individually. Government also provides business development facilities in the field of: (a) production and processing, (b) marketing, (c) human resources, and (d) design and technology.

In analyzing the readiness of small medium size travel agents adopting e-business, three main dimensions should be identified in the small medium size company; (1) technological readiness, (2) organizational readiness, and (3) external environment. Those factors based on [10] implemented to the small medium size travel agent companies as those three factors were importantly-fundamental to do e-business in Indonesia. Based on the literature, variables develop to support this research are shown in table I.

| TABLE I. VARIABLE AND DIMENSIONS |
|----------------------------------|
| Technology Readiness            |
| Technological infrastructure     |
| Internet availability            |
| Application availability         |
| Human resources capabilities     |
| Organizational Readiness         |
| Level of bureaucracy            |
| Company obstacle                 |
| Innovation                       |
| Cost consciousness              |
| External Environment             |
| Technology adoption              |
| Level of competition             |
| Technology used by other company |

III. RESEARCH METHODOLOGY

Most of travel agents in Indonesia were small medium size companies and they belong to the Association of Indonesian Travel Agencies (ASITA). The criteria of small medium size travel agents in this study were independently run by individuals or business entities that are not subsidiaries nor branches of large companies as refers to the Indonesian law. Small medium size travel agents found mostly have limitation with their technological development. The total of 61 travel agents spreading in West Java regions were the samples in this research. Interviews were conducted during June-August 2018 to the managers, owners, supervisors, directors, commissioners, and staff members of travel agent companies. To measure the readiness of travel agents adopting e-business, a structured interview was conducted on the readiness of a travel agent in terms of (1) technological readiness, (2) organizational readiness and (3) external environmental situation. Data triangulation applied to obtain data validity in qualitative research [28] used various types of data sources and evidence from different situations. In this study, many sources from different people were used at the same activities, different times, and different places. The use of various theories helped in providing better understanding of data. In this study, the theory develop was supported by numerous theories resulting the same analysis conclusions.

Content analysis was used to analyze the interview data. The information gathered was about the travel agents’ readiness to operate electronically. In analyzing data, data reduction is used to sort, improve, and classify unnecessary data to get the conclusion. The data were reduced, presented, and concluded [29]. Reducing data process is performed through sorting, classifying, removing unnecessary data, and organizing data to get conclusion. In this study reducing data focused on three specific areas of travel agent readiness on technology, organization and external environment.

IV. FINDINGS AND DISCUSSION

The total number of 61 small medium size travel agent companies in West Java were being surveyed. The qualifications of small and medium size travel agents were (1) Individual company, (2) mostly having no more than five employees, and (3) mostly having less profit than IDR 100 million per year. In-depth interviews were conducted with 10 directors, 1 commissioner, 12 owners, 23 managers, 12 supervisors and 3 employees at the travel agents who were directly involved in the daily operation. Length of structure interviews range from 40-60 minutes which resulted the transcripts of interview between 700-1800 words.

A. Technology readiness in travel agent companies adopting E-Business

The travel business operations are growing very fast because of the use of technology. The adoption of e-business for technology readiness consists of technology infrastructure, internet availability, application availability and human resources capabilities. Results showed that all small medium size travel agents were keen to adopt e-business. The travel agent readiness is firstly indicated by technology infrastructure with adequate internet network. Although in some small cities the internet network is slower, but still they can do business electronically. In daily operation, all travel agents are already integrated with various application programs ready in their computer, such as Ms. Excel to be used for managing their financial program. This study supports [14], that ICTs are used in all corporate activities. For marketing program, all companies have generated website with the purposes of marketing their products and services. Most of travel agents were using paid website to get more benefit in generating more values, related with the study of [12]. Most companies are also using social media application for their marketing program. They understand that social media become more effective as more consumers are online now.

Technology play an important role in the company [6]. This study also highlights that all travel agents were agreeing that e-business is important for their business operations, but they have limited budget to be invested in technology. To this reason, most travel agents were relying on the available application that can be used for free. Some travel agents use the paid application focusing on mostly ticket booking for such airline tickets, hotel reservation, and train tickets. Some applications used for those travel agents were Abacuc Sabre, Galileo, Voltras, and Via.com. Few small travel agents use free global distribution system, such as traveloka.com and booking.com.
All travel agents are having the same problem that most of them lack staff competencies in using technology supported. Travel agents in the small cities did not have staff to maintain technology. Most of travel agent staffs only use the application and did not know how to maintain the technology used. The travel agents also have problems with high turnover rate of staff resignation in the specific period. Those barriers become the problem to sustain technology used in adopting e-business as travel agents should train the new employee.

B. Organizational readiness in travel agent companies adopting E-Business

Organizational readiness in supporting e-business was being studied in four main dimensions (level of bureaucracy, company obstacle, innovation, and cost consciousness). This study demonstrates the level of organizational bureaucracy in travel agents was not an obstacle in adopting e-business. This is supported by the small number of staffs involved in the daily operations as well as the limited number of positions in the travel agents. Most travel agents have low integration organization structure because the owners involved in daily operations. The bureaucracy level was not an obstacle to do business electronically.

The level of travel agent innovation was not as expected as the advance technology of external environment. The travel agents did not have innovation as in creating marketing advertising online about their product and services. Limited innovation on travel agents are mostly due to the limited products and services that they have. Some advertising and promotional programs last for some periodic time, and this led to limited creation of company advertising online. The innovation level also being consider as the number of staffs was inadequate that staff must do multi-tasking job at a time. Most travel agents are facing the same condition, that in fact those travel agent were only adopt the ready template of producing advertising and doing promotion of product and services without taking a creative work. Only in website some companies improve their website content regularly. This showed that only a few medium size travel agents have done some little creative work for their marketing and promotion.

The level of company’s barriers in adopting e-business are quite high in the readiness of existing company infrastructure, especially in the information and technology field. The investment in infrastructure were not easy for small medium size travel agents due to cost consideration. But still, most of travel agents believe to invest on infrastructure and technology in doing e-business giving more benefit and will increase their company value as well as will raise the company profit.

C. Environmental influence in Adopting e-business at Travel Agents

The influence of external environment in adopting e-business for travel agents is an important part that the necessity of technology provided good and services to consumers as the travel agents are accessible by technology. Data were collected about travel agents understanding of the market served, pressure from the competitors, and the types of technology used. The result showed that environment influenced the e-business of travel agents indicated by the adoption of technology used by the market. This means that the market is ready with the use of technology as it is common to communicate and to do business online. This also supports the study of [27], that e-business has a wider impact on services to customers, brings collaboration with business partners, and develops an electronic transaction in the company.

Technology adoption has been spreading all over the areas that most of the markets are now online. The use of smartphones by the public was also very common. For travel agents, this is becoming a potential market to be served. This potential market was easier to reach using online marketing media. Travel agents need to have advanced marketing strategy not only by using website but also by actively promoting and communicating in social media such as Facebook, Instagram, Twitter, and WhatApps.

The travel agent market served becomes broader and easier to reach as the market itself is online. This also leads to the high competition among travel agents. However, the growth of online travel agents (OTA) greatly impacts to travel agent business and become the competitors to other travel agents. Large OTAs such as Traveloka.com and Ticket.com are giving impact to the business process in conventional small medium size travel agents. Travel agents start losing their customers because the customers can easily buy airline tickets online using OTA available application. This showed that the competition is not only among travel agents, but also between travel agents and the OTAs.

Last dimension in the environmental influence is technology used by other companies. The majority of travel agents using online application is related to ticketing purchasing process. This application is actually used in most travel agents. However, small size travel agents use cheaper applications such as Voltras and Via.com while the medium size travel agent using GDS such as Sabre, Galileo and Amadeus. The travel agent location also indicates small travel agents were mainly in the suburb areas while the medium size travel agents generally operate in bigger cities. All travel agents in this study use also traveloka.com application to make reservation and purchasing airline tickets as well as hotel booking. With the availability of this application, many small travel agents take an opportunity to sell airline tickets because the market served in the suburb areas is still not familiar with the use of available applications, so that travel agents still get enough market to served. Although environment gives pressure to travel agents, but they still take the advantage of the risen OTAs.

V. Conclusion

The readiness of small medium size travel agents in Indonesia adopting e-business is identified by three main factors; technological readiness, organizational readiness, and environmental influences. The study has shown that small medium size travel agents are willing to do business electronically. Most travel agents have technology infrastructure with internet network as well as various applications for e-business. Travel agents are facing lack of staff competencies in running e-business. With low travel agent
organization integration, the travel agent bureaucracy was not an obstacle to do e-business. The difficulty in the organization factors were the limited amount of travel agent innovation due to limited numbers of staff with high staff’s turnover. The environment also influenced travel agents in adopting e-business as the external customers were already online which become a potential market to be served. The most used application in marketing the products and services are social media and website. The rapid growth of online travel agents become a high competitor for small medium size travel agents. The rise of OTA leads customer willingness to buy airline tickets and hotel reservation by themselves. However, this does not occur in the rural areas, as they have low customer ability to go online with these kinds of reservation and purchasing.

To get better understanding of travel agent readiness in adopting e-business, research in other geographical locations might be conducted. The process of e-business can be broader; not only in terms of the readiness of travel agents in adopting e-business, but also the e-business process from other perspectives including customer relationship management, supply chain management, collaboration system, and transaction processing system. The comprehensive study of e-business in travel agents will describe the better understanding of e-business process especially to small medium size travel agents.

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