Analyzing the impact of electronic word of mouth on purchase intention and willingness to pay for tourism related products

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ABSTRACT
This study investigates deeper on how electronic word of mouth (eWOM) found across different platforms on the Internet is able to affect the intentions of tourists to purchase tour packages for Puerto Princesa, a city in the province of Palawan in the Philippines, and in turn, how their intention to purchase these tour packages affect their willingness to pay for the said tour packages. Data collected from 368 respondents were analyzed through the use of Confirmatory Factor Analysis (CFA), Structure Equation Modelling (SEM) and Conjoint Analysis. Conjoint Analysis results show that for tour packages, price is the most important attribute, followed by tour inclusions, length of stay, and lastly, accommodation. The results of SEM analysis show that a significant relationship exists between eWOM and purchase intention, but the relationship between purchase intention and willingness to pay is insignificant.

Keywords: Electronic Word of Mouth (eWOM), purchase intention, Willingness to Pay, conjoint analysis

INTRODUCTION
In the past, information about products and services were shared through word-of-mouth (WOM) (Jalilvand, Esfahani & Samiei, 2011). Since the introduction of the Internet, it has significantly changed the way information was being shared, leading to the emergence and rise in popularity of electronic word of mouth (eWOM) (Lin, Wu, Chen, 2013; Gretzel & Yoo, 2008; Lerrthaitrakul & Panjakajornsak, 2014. The term eWOM is defined by Hennig-Thurau et al. (2004) as “any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet.” (p. 39). eWOM can be found on different social media platforms online and may be grouped into blogs, discussion forums, and consumer reviews, to name a few (Lo, 2014).

Information can come from sellers and other end consumers, and information created by the consumers are said to be more credible (Park, Lee & Han, 2007; Confente, 2014). The work of Fan and Miao (2012) mentioned that the information people find online have an impact on their offline purchase decisions.
It was stated in the research done by Chiang, Lin, Fu, & Chen (2012) that prior purchase intention may be used to assess the willingness to pay of consumers. This was done to improve the accuracy of the researchers’ estimations. In the study done by Corrigan and Rousu (2008) involving perishable goods, it was pointed out that purchase intention critically determined a consumer’s willingness to pay.

The key objectives of this paper are to analyze the significance of the relationship between eWOM and purchase intention, as well as the relationship between purchase intention and willingness to pay. These objectives will help answer two research questions, particularly: “What is the impact of eWOM on the purchase intention of tourism related products?” and “How will a tourist’s purchase intention influence his or her willingness to pay for tourism-related products?”

CURRENT LEVERS IN PHILIPPINE TOURISM

Word of Mouth and Electronic Word of Mouth

Word of mouth (WOM) is one of the most influential ways that information may be shared in the early days of human society (Vimaladevi & Dhanabhakaym, 2012). The introduction of the Internet has given rise to the expansion of the scale and scope of WOM, leading to electronic word of mouth, as we know it today. It can be observed that eWOM has been gaining attention from several researchers in the recent years (Zhang, Craciun & Shin, 2010).

Electronic Word of Mouth in the Tourism Industry

The Internet has significantly changed the way tourism is being promoted (Crofton and Parker, 2012). The increase in the usage of the Internet plays an important role in the distribution of tourism-related information, as well as changing the way itineraries are being planned for nowadays (Zhang, Pan, Smith, & Li, 2009; Xiang and Gretzel, 2010). Gretzel and Yoo (2008) noted that searching for travel related information is one of the most popular activities done online. Social media helps travellers make informed decisions based on the past experiences of others, which may come in the form of online reviews or blog entries. Travel review websites are also known to give recommendations for destinations that tourists may have in mind (Zhang et al., 2009).

Dimensions of Electronic Word of Mouth

Lin et al. (2013) considered three factors under eWOM that have an effect on purchase intention: eWOM quality, eWOM quantity and information provider’s expertise. eWOM quality pertains to the quality of information found online in terms of its objectivity, usefulness, understandability, and significance. DeLone and McLean (2003) also added accuracy, completeness, dynamism, currency, personalization and variety as criteria for assessing the quality of information. In the context of travel, this information quality is important since this is part of the itinerary planning process, and will influence the traveller’s decision as to where he or she will be eating, staying and visiting. For eWOM quantity, the work of Cheung and Thadani (2010) defined it to be the total number of reviews posted online. Chevalier and Mayzlin (2006) noted that the number of reviews posted about a particular product is a good indicator of its popularity in the market. Cheung and Thadani (2010) referred to information provider’s expertise as the ability of the source of the information to share information. The results of the study done by Park
et al. (2007) showed that a positive relationship exists between the trustworthiness of the source and the credibility of the information.

**Purchase Intention**

According to Lin et al. (2013), purchase intention pertains to the willingness of a consumer to purchase a particular product or service. There have been assumptions on intentions being good predictors of purchase behaviors for individuals, giving rise to the widespread use of intentions to derive an estimate for sales forecasts (Sun and Morwitz, 2005). Smith, Parker, and Davenport (1963) as well as Smith (1965) have noted that consumers who have the intention to buy certain products are likely to gather more information such as advertisements for the products they have in mind (as cited in Warshaw, 1980).

*The Relationship between eWOM and Purchase Intention*

Lerrthaitrakul and Panjakajornsak (2014) noted that WOM does have an impact on the decision making process of consumers with regard to thinking of purchasing products or services, and that it also affects the loyalty of customers. Dellarocas, Zhang, and Awad (2007) mentioned that people utilize the information that they get online for making decisions offline, and that people become reliant towards the opinions given by other consumers when coming up with decisions that are related to purchasing (watching a movie or investing in which kind of stock).

High quality reviews, defined by Park et al. (2007) to be reviews that are persuasive, logical, and gives reasons based on specific facts about the product, are said to have a positive effect on a consumer’s purchasing intention. In the same paper, it is highlighted that consumer reviews are an important consideration for individuals who visit online shopping websites, and that the quantity and quality of online reviews have an effect on the way consumers process the information that they receive. The quality of eWOM is crucial for consumers since the usefulness and correctness of information is something that matters to them (Fan, Miao, Fang, & Lin, 2013). People also believed that service providers that have been given more reviews are trustworthy compared to those that have less reviews written about them (Lo, 2014). Fan et al., (2013) as well as Lin et al. (2013) observed that the number of reviews is helpful when it comes to reducing a consumer’s anxiety when making purchase-related decisions since consumers’ reason, “There are a lot of other consumers who have also purchased the product”. The degree of expertise of is one of the factors that will make consumers follow a certain advice when making purchase decisions (Lin et al., 2013; Cheung, Lee & Rabjohn, 2008).

**Willingness to Pay**

The definition of willingness to pay (WTP), according to the work of Le Gall-Ely (2009), is the maximum price that a consumer finds acceptable to pay for products or services. In the same paper, several methods related to assessing the willingness to pay have been enumerated, which include contingent valuation, Vickrey auctions, Becker, DeGroot, Marschak (BDM) lotteries, and conjoint analysis to name a few. Being able to evaluate the WTP of a consumer is significant, especially for the formulation of competitive strategies, the development of new products, and when value audits are being conducted (Miller, Hofstetter, Krohmer, & Zhang, 2011). Bishop and Barber (2014) considered the
willingness to pay of consumers to be an important factor for designing optimal pricing policies for getting an estimate for the demand of new products.

The methods of assessing willingness to pay mentioned in the work of Le Gall-Elly (2009) have been used in past studies to analyze tangible products (e.g. bananas (Corrigan and Rousu, 2008); blueberries (Shi et al., 2012); genetically modified food (Chiang et al. (2012); fair trade coffee (De Pelsmacker, Driesen, & Rayp, 2005)), however there are only a limited number of materials that discuss the assessment of a consumer’s willingness to pay in the context of services.

Conjoint Analysis

Conjoint analysis is a multivariate technique developed for the purpose of specifically understanding how respondents develop preferences for objects (Hair, Black, Babin, and Anderson, 2009). It is used for measuring buyer’s trade-offs among products and services that have many attributes (including price) (Green and Srinivasan, 1990). Also, it is used to get estimates of the impact of characteristics of products/services on consumer preferences (Cattin and Wittink, 1982). In studies making use of conjoint analysis, it is possible to pinpoint the importance of each attribute for the consumers, which is known to be the relative importance of an attribute (RIA), and according to Wind, Grashof, and Goldhar (1978), the RIA may be calculated using the formula:

\[
RIA_i = \left( \frac{A_{i(\text{max})} - A_{i(\text{min})}}{\sum_{i=1}^{n} [A_{i(\text{max})} - A_{i(\text{min})}]} \right) \times 100\%
\]

where:

- \( i \) = each attribute being tested, \( i = 1, 2, \ldots, n \)
- \( RIA_i \) = The relative importance of attribute \( i \)
- \( A_{i(\text{max})} \) = the maximum utility value for the \( i \)th attribute
- \( A_{i(\text{min})} \) = the minimum utility value for the \( i \)th attribute

Although there are some materials involving certain aspects of tourism (e.g. travel packages (Chiam et al., 2009); destination choice (Tripahi and Siddiqui, 2010); destination brand of Shandong, China (Li and Hudson, 2016)) that make use of conjoint analysis, these studies focus on identifying the importance of the attributes being studied and the preferences of the consumers. For conjoint analysis studies that focused on the willingness to pay of consumers, those were still focused on tangible products (e.g. fair trade coffee (De Pelsmacker, Driesen, & Rayp, 2005); wood furniture (Veisten, 2007)).

The Relationship between Purchase Intention and Willingness to Pay

Some studies have explored the relationship between purchase intention and willingness to pay. Chiang et al. (2012) noticed that if a consumer’s prior purchase intention was not considered, their willingness to pay for a premium would likely be overestimated, and considered screening their potential respondents through identifying their prior purchase intention first, which is beneficial for their study as the accuracy of
Their estimation is improved. Corrigan and Rousu (2008) found that the prior purchase intention of the BDM auction participants in their study is related to their willingness to pay, particularly for the behavior of the auction participants who understand that the auction conducted is able to reveal the demand that is found to be consistent with what theory predicts, giving an insight of an unbiased estimate of their willingness to pay. Shi, House, & Gao (2012) noted that researchers pay attention to the consumer’s willingness to pay for product attributes, emphasizing the importance of understanding how the purchase intention of consumers have an impact on the partial bids for the attributes of products when it comes to experimental auctions, a method which can be used to assess the willingness to pay of consumers.

Tourism in the Philippines

The Philippines is a country in Southeast Asia that is made up of 7,107 islands that can be grouped into three major island groups, namely Luzon, Visayas and Mindanao (About the Philippines, n.d.). The tourism industry is said to be contributing significantly to the Philippine economy and it is an industry that has been experiencing remarkable growth.

In its National Tourism Development Plan (2011), the Philippine Department of Tourism has identified nine areas of tourism included in its product portfolio, namely nature tourism, cultural tourism, sun and beach tourism, leisure and entertainment tourism, MICE and events tourism, health, wellness and retirement tourism, cruise and nautical tourism, diving and marine sports tourism, education tourism. According to the Travel and Tourism Competitiveness Report that was released in 2015 by the World Economic Forum, the Philippines ranked 74th out of 141 countries.

Beaches are deemed to still be the most popular products of the country (2012 Tourism Year End Report, n.d.). A list written by Jefferys (2016) for the travel magazine Conde Nast Traveler enumerates two Philippine beaches, particularly El Nido in Palawan as well as Puka Beach in Boracay, as two of “The 20 Most Beautiful Beaches in the World”. The country is noted to be the “center of global marine biodiversity” based on the findings of scientific studies, thus it is regarded to be the best diving destination in the world (Department of Tourism 2013 Year-End Report, n.d.)

The Philippines has launched the Philippine Medical Tourism Program under the Department of Tourism back in 2004 during the Arroyo administration (Picazo, 2013). Based on the list released by the International Healthcare Research Center and the Medical Tourism Association for the year 2015, the Philippines has been ranked 8th as a medical tourism destination (Magkilat, 2016). Evangelista (2013) pointed out factors that were listed in the study “Philippine Medical Tourism Compendium 2011: Facts, Figures & Strategies” such as the country being able to provide high quality healthcare at lower costs compared to other countries, internationally accredited hospitals that have state-of-the-art medical facilities, competent medical professionals such as that have a good command of the English that puts the Philippines at an advantage to gain a larger market share across the globe.

Application of eWOM in the Philippine Tourism Industry

The Philippine Department of Tourism has launched several tourism campaigns over the years, including the 2012 “It’s More Fun in the Philippines” campaign (Gatdula, 2014), and the 2014 “Visit the Philippines 2015” campaign (Cacho, 2014). Lonely Planet, a
travel magazine and website, has recognized the Philippines as one of the ten countries (ranked 8th) included in its “Best in Travel 2015” list (Hegina, 2014).

The table below presents the number of international arrivals for the month of February for the years 2011 up to 2015. It can be observed that the numbers have been increasing year by year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Arrivals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>456,524</td>
</tr>
<tr>
<td>2014</td>
<td>422,631</td>
</tr>
<tr>
<td>2013</td>
<td>418,108</td>
</tr>
<tr>
<td>2012</td>
<td>361,925</td>
</tr>
<tr>
<td>2011</td>
<td>318,912</td>
</tr>
</tbody>
</table>

Source: Philippine Department of Tourism (http://www.tourism.gov.ph)

The campaign “It’s More Fun in The Philippines” by the Department of Tourism was created due to the lack of image as well as the need to increase the target markets’ awareness of the Philippines (“Philippine Tourism Competitiveness”, 2015). Diola (2013) wrote about the campaign winning the Carmencita Esteban Platinum Award, the distinction given for the most value-driven and effective campaign at the Tambuli Awards 2013, a competition, which recognizes the best, integrated marketing communications campaigns. In the same news article, it was mentioned that the Department of Tourism was presented with the “Effectiveness Advertiser of the Year” award.

In the words of the Secretary of the Department of Tourism Ramon Jimenez, what made the campaign effective was that it is “simple, easy to be remember, and closest to the truth” (Flores, 2012). The hashtag for the campaign (#ItsMoreFunInThePhilippines) trended worldwide, holding the top spot, on the social networking site Twitter in just two days after the media launch of the campaign (Buenaventura, 2013). In the same case study, it was mentioned that aside from trending on Twitter, online searches for the Philippines have tremendously increased from 38 million in 2011 to over 89 million in 2012, as well as the number of searches for “Vacation Philippines” went up by 7% for 2012. The campaign has been effective in bringing international tourists in, seeing the numbers rise from 3.9 million in 2011 to 4.2 million in 2012, 4.6 million in 2013, and 4.8 million in 2014 (Visitor Arrivals by Subcontinent of Residence 1996-2014, n.d.).

Figure 1. Applicability of eWOM Dimensions to Philippine tourism
Considering that online tourism campaigns are one of the many forms of eWOM utilized for promoting particular destinations, the dimensions of eWOM that were discussed earlier may be applied to the Philippine tourism industry setting as appears below:

Items marked with an asterisk (*) may be regarded as the most common levers when it comes to the Philippines.

In addition, majority of the international tourists that visit the Philippines come from Asia (Korea, Japan, China, Singapore, Taiwan, Malaysia, Hong Kong) as presented in the table below.

| Table 2. Top 12 Markets by Volume for the Months of January and February (2014/2015) |
|-------------------------------------------------|-----------------|----------------|----------------|
| Rank   | Country      | Jan-Feb 2015 | % Share | Jan-Feb 2014 | % Share | Growth Rate (%) |
| 1      | Korea        | 268,381    | 28.68%  | 220,831      | 24.98%  | 21.53          |
| 2      | USA          | 142,226    | 15.20%  | 131,978      | 14.93%  | 7.76           |
| 3      | Japan        | 83,489     | 8.92%   | 75,383       | 8.53%   | 10.75          |
| 4      | China        | 62,976     | 6.73%   | 59,017       | 6.39%   | -36.40         |
| 5      | Australia    | 40,906     | 4.37%   | 38,009       | 4.30%   | 7.62           |
| 6      | Canada       | 31,068     | 3.32%   | 28,506       | 3.22%   | 8.99           |
| 7      | Singapore    | 27,274     | 2.91%   | 27,538       | 3.12%   | -0.96          |
| 8      | Taiwan       | 27,002     | 2.89%   | 24,615       | 2.78%   | 9.70           |
| 9      | Malaysia     | 23,444     | 2.51%   | 19,741       | 2.23%   | 18.76          |
| 10     | United Kingdom | 23,341  | 2.49%   | 23,321       | 2.64%   | 0.09           |
| 11     | Hong Kong    | 21,029     | 2.25%   | 21,160       | 2.39%   | -0.62          |
| 12     | Germany      | 15,244     | 1.63%   | 15,395       | 1.74%   | -0.98          |

Source: Philippine Department of Tourism (http://www.tourism.gov.ph)

Palawan province will be the focus of this study. A part of Region IV-B, this province that is made up of 1700 islands has made it to the list of the major tourist destinations in the country by the Department of Tourism of the Philippines for the years 2009, 2010, 2011, and 2012, particularly its capital city Puerto Princesa. Palawan has gained recognition globally, as it ranked first among the “Top 30 Islands in the World” in the Conde Nast Traveller’s “Readers’ Choice Awards 2014” (Scherer, 2014). Palawan is also home to one of UNESCO’s World Heritage Sites and one of the New 7 Wonders of Nature, specifically the Puerto Princesa Subterranean River National Park (Puerto Princesa, n.d.).
RESEARCH DESIGN AND METHODOLOGY

Based on the literature review, the research framework used for the study based on the works of Lin et al., (2013), and Zangeneh, Mohammadkazemi, and Rezvani (2014) is shown below:

![Research Framework]

*Figure 2. Framework of the Study*

The following are hypotheses being tested in this study:

\[ H1 \quad \text{eWOM positively affects purchase intention.} \]
\[ H2 \quad \text{Purchase intention positively affects willingness to pay.} \]

For the collection of the data used in this study, paper copies of the survey were given to respondents in the Philippines. At the same time, an online survey tool was used so that more data can be collected. The link for the online survey was shared on social media, particularly on Facebook and Instagram, and it was intended for respondents who are university students aged 21 to 25 and young professionals aged 26 to 35 who are working in corporate offices in the Philippines, as individuals in these categories are observed to log on to their social media accounts the most.

Three screening questions were included in questionnaire so as to filter out invalid responses. Out of the 680 responses collected both electronically and through paper copies, only 368 were usable after filtering out invalid responses.

Some items initially included in the survey were deleted due to it having low factor loadings (less than 0.7), which affected the Construct Reliability (CR) and Average Variance Extracted (AVE) values as well as the model fit of the constructs that the items belonged to. The items that were left after other items were deleted are QUAL4 (The more detailed the online information, the more confident I feel about my decision to visit the destination), QUAL5 (Online information about the place are given by sources that are deemed credible), QUAL6 (Online information given about the destination has sufficient reasons supporting the opinions), QUAL7 (Generally speaking, the quality of information that can be found online is high), QUAN1 (There is a large number of online information for the destination and accommodation, indicating its popularity), QUAN3 (The number of online information allows me to collect and select information that helps me make better decisions in line with the trip), QUAN4 (The destination and accommodation have high rankings online as well as gained positive comments, inferring that these places have a good reputation), EXPERT2 (In my opinion, the people who provide the information are...
knowledgeable), EXPERT4 (The people who provide the information have given me ideas that are different from the opinions of other people), EXPERT5 (The people who provide the information have mentioned some important things that I have not considered in my travel planning), EXPERT6 (The rank of people giving the reviews (in review websites) helps me come up with better decisions), EXPERT7 (The number of “helpful votes” given to the online reviewers (in review websites) are important in my opinion), PI1 (After reading information found online, it makes me want to see the places for myself), PI2 (I will consider visiting the places in the future after reading information that can be found online) and PI3 (I have the intent to visit the places discussed online in the future).

The statistical methods that were used for this study are Conjoint Analysis, Confirmatory Factor Analysis and Structural Equation Modelling. The work of Tripathi and Siddiqui (2010) shows an example of a conjoint analysis model, like the equation shown below:

\[
U(X) = \sum_{i=1}^{m} \sum_{j=1}^{k_i} a_{ij} x_{ij}
\]

where,

- \( U(X) \) represents the overall utility (importance) of each attribute
- \( a_{ij} \) represents the part-worth utility of the \( j^{th} \) level of the \( i^{th} \) attribute
- \( i = 1,2,\ldots,m \)
- \( j = 1,2,\ldots,k_i \)
- \( x_{ij} \) = 1, if the \( j^{th} \) level of the \( i^{th} \) attribute is present
- = 0, otherwise.

The conjoint analysis portion of the study considered 4 attributes, particularly accommodation, length of stay, tour inclusions, and price. Each attribute considered had two levels. For accommodation, the options are Subli Guest Cabins and Balaylnato Pension. For the length of stay, the options are 3 days and 2 nights (3D2N) and 4 days and 3 nights (4D3N). For the tour inclusions, the options are City Tour and Underground River, and City Tour, Underground River, and Honda Bay. For the price, the options are PHP 3,700 and PHP 5,600. Respondents then were asked for their willingness to avail of 8 different tour packages on a seven point Likert Scale (with 1 being the least likely to avail and 7 being the most likely to avail) as generated by the statistical software SPSS using an orthogonal design (out of 16 possible combinations). One of the tour packages generated (3 days and 2 nights stay in Puerto Princesa with accommodation in Subli Guest Cabins, and the tours included are a city tour within Puerto Princesa and a tour of the Underground River for PHP 3,700) is a tour package that currently exists in the market.
The work of Chou (2009) shows two equations which is the way conjoint analysis may be used to calculate for willingness to pay, where the price coefficient must be calculated first and then the price willing to be paid.

\[
\beta_p = \frac{\beta_{\text{high price}} - \beta_{\text{low price}}}{\text{High Price} - \text{Low Price}}
\]  \hspace{1cm} (3)

where

\( \beta_p \) = price coefficient
\( \beta_{\text{high price}} \) = part worth utility value of the highest price
\( \beta_{\text{low price}} \) = part worth utility value of the lowest price

High Price = Highest Price
Low Price = Lowest Price

\[
WTP = - \frac{\Delta \beta_{\text{any}}}{\beta_p}
\]  \hspace{1cm} (4)

where

\( \Delta \beta_p \) = differences in utility values of different levels of an attribute

The study will be analyzing electronic word of mouth using a second order CFA model, with eWOM quantity, eWOM quantity, and information provider’s expertise at the first order, followed by eWOM as the second order measurement. To be able to analyze the relationships between eWOM and purchase intention as well as the relationship between purchase intention and willingness to pay, structural equation modelling will be utilized. The figure below represents the final model used for this study after some items were deleted.
RESULTS AND DISCUSSIONS

Almost half (43.2%) of the respondents of the study were male and 56.8 percent of the respondents were female. The 21-25-age bracket made up 36.4 percent of the sample. 27.4 percent of the respondents earn more than PHP 35,000, followed by the PHP 15,001 to PHP 20,000 income bracket, which accounts for 17.9 percent of the sample. A majority of the respondents are single, which is equal to 69.6 percent of the sample. More than half (57.5%) of the respondents are employed in the corporate world.

The survey data show that the respondents got information about the destination mostly from social media (75.8%), their family and friends (69.3%) and travel websites (54.6%). As for their sources of travel related information, the Internet is the most popular source, which is chosen by 304 respondents. For the familiarity of the respondents towards eWOM, the three forms they are most familiar with are online reviews (71.8%), followed by feature articles (49.2%) and blog entries (49.2%).

For Puerto Princesa tour packages, it can be seen that the respondents viewed price as the most important attribute (38.987%), followed by tour inclusions (25.232%), length of stay (18.215%), and last but not the least is the accommodation (17.566%).

Conjoint Analysis Results

For the calculation of the price willing to be paid by one respondent, the existing tour package used in the study will be used as the basis for the calculation of the respondent’s willingness to pay (particularly the minimum price to be paid). The price coefficient will be based on the utility values of the highest package price and the lowest package price, and it will be divided by the difference between the highest price and the lowest price. After which, the willingness to pay of each respondent may be calculated through getting the difference between each level of the other attributes excluding the price, and dividing it by the price coefficient calculated beforehand. The formula for the
price willing to be paid carries a negative sign, so if the resulting value is negative, it will not have an effect on the overall/total price that the consumer is willing to pay.

For example, one respondent prefers to stay in the original accommodation (Subli Guest Cabins), and would like to stay in Puerto Princesa city for 3 days and 2 nights (same as the base package), but would prefer to have an extra tour for Honda Bay, would have PHP 20,800 as the price he/she is willing to pay, since the utility that the concerned respondent would have for an extra tour would be higher compared to the tours included in the base package. The utility values for this particular respondent is as shown in the table on the next page.

Table 3. Part Worth Utilities for Respondent X

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Utility Estimate</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subli Guest Cabins</td>
<td>0.625</td>
<td>0.554</td>
</tr>
<tr>
<td>Balaylnato Pension</td>
<td>-0.625</td>
<td>0.554</td>
</tr>
<tr>
<td>Length of Stay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 days 2 nights</td>
<td>0.375</td>
<td>0.554</td>
</tr>
<tr>
<td>4 days 3 nights</td>
<td>-0.375</td>
<td>0.554</td>
</tr>
<tr>
<td>Tour Inclusions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Tour and Underground River</td>
<td>-1.125</td>
<td>0.554</td>
</tr>
<tr>
<td>City Tour, Underground River, and Honda Bay</td>
<td>1.125</td>
<td>0.554</td>
</tr>
<tr>
<td>Price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3700</td>
<td>-0.250</td>
<td>1.109</td>
</tr>
<tr>
<td>5600</td>
<td>-0.500</td>
<td>2.217</td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.000</td>
<td>1.753</td>
</tr>
</tbody>
</table>

Substituting the part worth utility values for the attribute “price” into (3), the price coefficient is calculated to be:

$$
\beta_p = \left[ \frac{(-0.500) - (-0.250)}{(5600) - (3700)} \right] = -0.0001316
$$

The $\Delta \beta$ value comes from subtracting the part worth utility values of one level of a particular attribute from the other level of the same attribute (part utility of Balaylnato Pension – part worth utility of Subli Guest Cabins; part worth utility of 4 days 3 night – part worth utility of 3 days 2 nights; part worth utility of City Tour, Underground River, and Honda Bay – part worth utility of City Tour and Underground River). Given that the price coefficient for the respondent mentioned above carries a negative sign, the resulting WTP value for each attribute may also be negative. Negative WTP values would not have an effect on the overall (final) price that the respondent is willing to pay for, in this case, tour packages for Puerto Princesa, Palawan.

Table 4. Willingness to Pay Calculation for Respondent X

<table>
<thead>
<tr>
<th>Attribute</th>
<th>$\Delta \beta$</th>
<th>$\beta_p$</th>
<th>WTP</th>
<th>Final WTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>-1.25</td>
<td>-0.0001316</td>
<td>-9500</td>
<td>3700</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>-0.75</td>
<td>-0.0001316</td>
<td>-5700</td>
<td>3700</td>
</tr>
<tr>
<td>Tour Inclusions</td>
<td>2.25</td>
<td>-0.0001316</td>
<td>17100</td>
<td>20800</td>
</tr>
</tbody>
</table>
Structural Equation Modelling Results

The main purpose of the study is to know how electronic word of mouth affects a consumer’s intention to purchase tourism-related products, and in turn, how purchase intention has an effect on a consumer’s willingness to pay for the aforementioned product.

The model shown in the next page is said to not be a good model based on the $\chi^2$ test, as the p-value of the test is less than 0.001. However, the normed chi value shows otherwise, as the value of the normed chi is 2.203, which is less than 3. Both the values for GFI (0.929) and AGFI (0.905), and show a good model fit and the PGFI value (0.690) indicates that the model is simple enough.

Figure 4. Results of SEM Analysis

The conclusion about the model fit based on the RMSEA value is not aligned with the other indices since the RMSEA value (0.057) for this model only indicates a reasonable fit. Hoelter’s N values are above 200 for both the 0.05 (207) and 0.01 (226) levels, which is good. The model fit, as seen from the NFI (0.881) and RFI (0.859) values, is not good enough as their values are lower than 0.9. The values of IFI (0.932), TLI (0.918), and CFI (0.931) show that the model has an okay fit. Parsimony-wise, the model is simple enough as seen from the values of the PNFI (0.742) and PCFI (0.783).

Overall, most of the indices (GFI, AGFI, RMSEA, Hoelter’s N, IFI, TLI, CFI) indicate an okay/good model fit for the model shown above, except for some indices that show a bad model fit (NFI, RFI). The model is simple enough based on parsimonious fit indices such as PGFI, PNFI and PCFI.
Results of the Hypothesis Test

### Table 5. Results of the Hypothesis Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Coefficient</th>
<th>P-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>eWOM → Purchase Intention</td>
<td>0.676</td>
<td>***</td>
<td>The hypothesis is supported.</td>
</tr>
<tr>
<td>H2</td>
<td>Purchase Intention → Willingness to Pay</td>
<td>0.032</td>
<td>0.569</td>
<td>The hypothesis is not supported.</td>
</tr>
</tbody>
</table>

*** Indicates a p-value less than 0.001.

It can be seen that electronic word of mouth has a positive influence on a consumer’s intention to purchase tour packages. As for the other hypothesis that involves analyzing the effect of purchase intention on a consumer’s willingness to pay, it is not supported based on the results of this study.

There may be several reasons why the findings of this study are not consistent with previous ones. It can be due to the object used for the study is in fact, a service rather than a tangible product. The intention to purchase products is easier to quantify compared to services, since a person will already know what a product is like even before purchasing it. As for services, it is more difficult since it is intangible, and there are other factors to consider prior to purchasing services like tour packages such as whether or not he/she can pay for these services, and at the same time if he/she actually has the time to go on a tour (given a particular package); whereas for products, the factors that the individual has to consider is simpler – in most cases, they only consider money as one of the factors before they buy certain products.

It has been observed that the demand for products and services can be influenced by pricing strategies (Inkson & Minnaert, 2012). This means to say that when the price of a particular product or service is decreased, the demand for it will increase and vice versa. In the research done by Voss, Parasuraman, & Grewal (1998), it was explained that companies that provide services utilize the demand oriented pricing approach, which pertains to the variations in the price of the products depending on the time, as services cannot be inventoried unlike products. Chiam et al. (2009) noted price to be a key decision consideration when it comes to the purchase of products related to travel. The tour packages used for this study are low cost packages, since the initial consideration of the researcher is that travellers would be conscious of the expenses that will be incurred when it comes to travelling.

**CONCLUSION AND RECOMMENDATIONS**

The study conducted placed emphasis on the role of electronic word of mouth. Based on the data collected from 368 respondents, it can be seen that these respondents have relied on the Internet in general (84%), and specifically on social media (roughly 76%), travel websites (approximately 55%) and blogs/online feature articles (about 48%) for travel planning as well as for information related to the destination in focus, Puerto Princesa. It can also be seen in the results that the about 72 percent of the respondents who participated in this study are most familiar with online reviews as one of the many forms of eWOM.
The findings of this study highlighted the positive effect of eWOM on purchase intention. The result of this study is consistent with the studies done by Park et al. in 2007, Lin et al. in 2013, and Zangeneh et al. in 2014. The coefficient indicating the relationship between eWOM and purchase intention is 0.68, and the p-value of the hypothesis is less than 0.001, which indicates that the relationship between these two variables is significant. This goes to show that making use of information (in the form eWOM) prior to making a purchase decision does have an impact on the intention to purchase. As for the relationship between purchase intention and willingness to pay, the findings of this study are not in line with the work of Corrigan and Rousu which was published in the year 2008. The coefficient that shows the relationship between purchase intention and willingness to pay is 0.032, and the p-value of the hypothesis is 0.569, which means to say that the relationship between these two variables is insignificant.

Managerial Implications

The findings of this study may be taken into consideration individually. From the data collected, it can be seen that the respondents’ most used Internet-based sources of information about the destination in question are social media and travel websites. Also, the respondents collected information for their itinerary mostly from the Internet. Having said this, businesses in the hospitality and tourism industries should take advantage of Internet-based information sharing platforms (particularly social media and travel websites) for their operations. Given the positive relationship between eWOM and purchase intention as proven in this study as well as past research (Park et al., 2007; Lin et al., 2013; Zangeneh et al., 2014), utilizing social media as well as other forms of electronic information distribution channels may help these businesses to gain popularity, attract prospective clients, retain current customers, collect feedback about the services that are currently being offered, and promote newly launched offerings such as tour packages, promotional room rates and the like that travellers would consider to have the best value for the money they are going to spend on travel. When it comes to the conjoint analysis part of this study, it can aid businesses come up with new offerings that would, most importantly, take price into consideration. As an attribute considered when performing conjoint analysis, it would be possible to come up with an optimal combination of attributes for new offerings, which are reasonably priced. This is considering the fact that consumers have varied preferences when it comes to product and/or service attributes, especially for products that are highly customizable like travel packages.

Limitations of the Study

This study was based on previous research that involved the intention to purchase tangible products. As for analyzing the relationship between purchase intention and willingness to pay, it also involved tangible products. The items that were used for the survey questionnaire were based on these studies, which is a limitation since the thing being researched on for this study is tour packages, which is essentially a service due to its intangible nature. Also, there are only a limited number of materials available when it comes to analyzing the relationship between purchase intention and willingness to pay in the context of services. The difference in the methods used to analyze willingness to pay in previous studies was likely to be the reason why a difference in the results exists.

As for assessing the effectiveness of eWOM when it comes to influencing the intention to visit a particular tourist destination, it would be better if only first time visitors
are considered to be the subjects of the study as the results will be more accurate should it be the case.

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Strategic management with learning from failure: A Case Study on Sagikyo Corporation in Japan

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ABSTRACT

Every company can fail when they make an attempt on a new challenge, and it is quite important to learn from the failure in order to avoid repeating it and improve their organizational capability. Unfortunately, few companies have been good at learning from failure. In this paper, we briefly showed a unique company in Japan, which had succeeded in establishing their system for learning from failure, and improved their performance and had sustained their competitiveness. We studied their strategic management, which optimized the organization with their learning activity from failure.

Keywords: Learning from failure, Strategic Management, Alignment

INTRODUCTION

There was a unique company in Japan, which has succeeded in establishing their way for learning from failure. The president in the company said they had never repeated same failures after reviewing them through their learning system, and eventually they improved their business performance and sustained their competitiveness.

Many people know importance of learning from failure, and most managers want their organization to do it in order to improve their performance. It is important to learn from successful case study, but it is more important to learn from failure (Edmondson, 2011). Madsen and Desai (2010) find that organizations learn more effectively from failure than success, that knowledge from failure depreciates more slowly than knowledge, and that prior stocks of experience and the magnitude of failure influence how effectively organizations can learn various forms of experience.

We should note that there are few organizations, which are very good at and succeed in learning from failure (Cannon and Edmonson, 2005). Companies have invested significant money and effort into becoming learning organization with ability to learn from failure struggle with day-to-day mindset and activities of learning from failure (Edmondson, 2002).

We assume that there are a lot of company executives who are eager for their company to succeed in learning from failure for business performance improvement. Since there are however also a lot of barriers to conduct learning-from-failure activity in organization, it is difficult for them to get through the activity. Thus they need a strategy for learning from failure. But it unfortunately seems to be veiled; we cannot refer the key for learning from failure. Thus a lot of companies still straggle with learning from failure.
We apply, in this paper, the Japanese company, which has succeeded in establishing their system for learning from failure and improved their business performance. We explore keys for success in learning from failure from the point of strategic management.

The purpose of this paper is to provide a referential case study toward a success in organization learning from failure. We here set a general research question for the purpose in this paper. “What is the strategic management in Sangikyo Corporation (2016), which has succeeded in learning from failure?”

RELATED STUDIES

Saavedra, Fernandez and Lindemann (2015) suggest a comprehensive model for knowledge application. In the model, knowledge transfer is influenced by factors related to the company’s infrastructure like organizational roles, stable teams and IT system. Knowledge integration/creation is influenced by factors related to knowledge itself, which are knowledge affinity, depth and breadth. Knowledge application is influenced by socio-psychological factors, because it is personal decision whether a person apply available knowledge or not. They, however, do not mention the strategic alignment in detail although they cite Zack (1999), which suggests influence to the infrastructure-related factors, knowledge-related factors and psychosocial factors.

In this regard, we have one question that what is strategic alignment in knowledge management, especially learning from failure.

The infrastructure-related factors include organizational infrastructure (Saavedra, Fernandez & Lindemann, 2015). On the contrary, Carmeli (2007) suggests barriers for learning from failure like this:

*Failure and fault are virtually inseparable in most households, organizations, and cultures. Every child learns at some point that admitting failure means taking the blame. That is why so few organizations have shifted to a culture of psychological safety in which the rewards of learning from failures can be fully realized. When you feel psychologically safe, learning from failures is enabled.*

Ardichvili and Page and Wentling (2003) study motivation and barriers for knowledge sharing and suggested it is necessary to develop various type of trust for removing the barriers. Li and Chang, et al. (2014) test previous studies and conclude strong tie in organization, trust and common cognition are influencing factors for knowledge transfer.

It seems to be a key strategy to establish strong tie, trust and common cognition in organization for conducting well learning from failure. Here we also have another question that how we can establish strong tie, trust and common cognition in organization for conducting learning from failure regarding business strategy.

Nagayoshi and Nakamura (2015a) have already explored the motivation and remover of barriers for learning from failure in the company. And Nagayoshi and Nakamura (2015b) have explored encouragement for knowledge application and positive feedback loop in the company. The IT system in the company was also mentioned in Nagayoshi and Nakamura (2015a, 2015b). But we were unfortunately not able to reach a study, which mentions the relationship between business strategy and learning from failure. Thus here is necessity to explore a strategy in learning from failure.
RESEARCH QUESTION
We already mentioned the general research question in this paper as “What is the strategic management in Sangikyo Corporation, which has succeeded in learning from failure?” And we here decompose it into two subjective research questions based on the related studies in the previous section.

The first one is strategic alignment related question, as “What is alignment between business strategy and learning from failure in the company?”

The second one is strong tie, trust and common cognition related question, as “How can we establish strong tie, trust and common cognition in organization for conducting learning from failure regarding business strategy in the company?”

RESEARCH METHOD
Since a lot of company executives do not disclose their organization’s failure experience, there are unfortunately so few available cases to study that we cannot have enough knowledge about the way to succeed in learning from failure. In this paper, thus, we need to do a case study in detail.

We conduct a qualitative research with a case in the Japanese company named Sangikyo Corporation (2016). First of all, we introduce the learning-from-failure activity in Sangikyo Corporation in the next chapter. Second, we analyze the case from the point of alignment between their business strategy, their learning-from-failure activity and work style. Third, as discussion, we explore a strategic reason for them to conduct learning-from-failure and the way to create strong tie, trust and common cognition in the company.

Since the case itself was however already introduced in Nagayoshi and Nakamura (2015a, 2015b, 2015c) in detail, we provide a brief description in the next chapter in this paper. We would like ask you to refer the articles if you wish to know the detail. For the sake of reader’s convenience here, we show a summarized description from Nagayoshi and Nakamura (2015a, 2015b, 2015c) in the next chapter.

CASE
Sangikyo Corporation was founded in 1965 primarily as a company, which dealt with engineering services for installation and maintenance of microwave communication systems. The President thought new challenge sometimes led them failure, but also thought it important to avoid repeating the same failure. They accumulated 41 failure cases and lessons learned from them since 2005. Mr. Sengoku, the president, and Mr. Tokunaga, a director at Sangikyo Corporation emphasized that they had never had the same failure they examined in the task forces since they started them. The notable points are following;

• An employee who faulted and/or made an incident causing failure was appointed as leader in a task force team.
• The leader of the task force team conducted the task force team, made a report and deployed it through their knowledge sharing platform to all the employees
• The report included verification, causal analysis and countermeasures of failure, and in which all data including name of leader in task force and customer, and number of lost money was revealed
• At the same time, they also disclosed a report to related customer who was suffered from the failure, and they got trust and further business from the customer again
All the employees were able to browse the reports through their knowledge sharing platform anywhere to avoid the same failures. Sangikyo Corporation implemented an appraisal system in which employee was evaluated not mainly on his/her personal individual performance but mainly on his/her skill. Company executives in Sangikyo Corporation had tried to build their capability for new business development by applying learnings in task forces.

CASE ANALYSIS

Environment Analysis

The company focused on engineering services for installation and maintenance of microwave communication systems, and their customers were companies like wireless telecommunication service providers in Japan.

This industry grew rapidly between late 1990s and 2000s. The number of subscribers in Japanese mobile companies increased from 8.7 million in 1996 to 152.9 million in 2015 based on Telecommunication Carrier Association in Japan. The amount of the capital investment in equipment from 2004 to 2013, during which the task force activity had been taken place, in Japanese communication industry was stable as shown in Figure 1.

![Capital Investment in Japanese Communication Industry](image)

Since the industry had been growing during the period in terms of the number of subscribers in Japan, a key factor for success in the mobile industry in Japan was capability to provide stable and attractive service to customer. Accordingly, the mobile service companies invested huge amount of money on new equipment to provide stable and good quality of attractive wireless communication service. And they needed a new technology to provide attractive service to customer. Thus a key point to win in the industry was assumed to have a capability to install new technology, which also advanced rapidly, earlier and faster than competitors.
One of the issues was how they implemented the new technology, which was necessary to provide an attractive service and was not established yet. They had a risk to fail in implementing the technology because there were few proven methods for successful installation. Japanese mobile companies were seen to be so conservative that the employees did not want to take risk to select a new technology, which was not proven very well. On the other hand, one key for success was implementing a new technology to provide good, stable and attractive service to customer. Thus they had a dilemma between risk avoidance for their safe and risk taking for attractive service.

**Business Strategy of Sangikyo Corporation**

Sangikyo Corporation found a business opportunity in the conflicting situation in a mobile service company in Japan. They found that mobile service companies sought for a partner company who took a risk to have a new technology and to implement it on behalf of them. For this reason, Sangikyo Corporation took a risk to have a new technology, and provided implementation and maintenance service with Japanese mobile service companies. Sangikyo Corporation, however, sometimes failed because they dealt with a new technology, which was not proven very well. They had to accumulate knowledge through experience with the technology in order to prevent defect.

**Learning-from-failure activity and the business strategy in Sangikyo Corporation**

Since Japanese mobile service companies were also assumed to know that failure might sometimes happen due to little proof, they justified in making one just time fault. It was quite important for Sangikyo Corporation to avoid repeating same failure in order to succeed in the business, thereby the learning from failure was a key success activity to win the business in Sangikyo Corporation.

The number of mobile service companies was four in Japan, and it was also quite important for Sangikyo Corporation to retain customers. Since it was a key success factor to continuously do business with same customers for long time, Sangikyo Corporation needed to be trusted from the customers by accumulating technical knowledge in new technology, which mobile service company did not want to deal with. With this regard, it was also important for Sangikyo Corporation to accumulate knowledge acquired by their learning activity. Figure 2 shows that the learning from failure in Sangikyo Corporation was their operational strategy for achieving their business strategy.

![Figure 2. Learning from failure as an operational strategy in the company](image-url)
Rule, System and Infrastructure for the learning from failure

It was also necessary for Sangikyo Corporation to build organizational learning system for learning from failure, and they started the task force activity for reviewing and counter measuring failure. Their appraisal system was seemed to be suitable for their learning activity, under which employee in the company was evaluated based more on personal skill than on individual performance. When employee contributed to provide important knowledge and/or organized a learning task force team well, he/she was recognized a skilled personnel. Thus employees were willing to dedicate their time to the learning activity. Their annual reward was also decided based more on company performance than on individual performance, so that employee provided their knowledge to improve company performance. In addition, employee, who contributed to provide knowledge and/or who showed an excellent performance in learning task force activity, might get a prize.

They had knowledge sharing platform named Cyber Manual (Sangikyo Corporation, 2016) to accelerate sharing knowledge among employees, which seemed to be useful to deploy knowledge learnt from the learning activity to all the employees in the company.

Collaborative task in the company

Most tasks in the company were generally achieved through multiple employees’ collaborative work. They shared one task with colleagues and sometimes work in shifts.

Any employees could make a fault leading business failure because they shared job and work in shifts. Even if a certain employee by chance makes a fault today, any other employee could make the same fault if he/she works on the job in his/her shift. Employees in the company, in nature, were so eager to prevent from doing a fault that they had to learn how to avoid a fault. Thus they learn from their colleagues’ fault.

Content in the knowledge-sharing platform

Content in the knowledge-sharing platform was interesting for employee. We asked the entire employee in Sangikyo Corporation to answer the following question; “Do you visit the learning from failure site on Cyber Manual because it shows insightful and useful knowledge for your daily job?” Answer formulation was Likert scale type from “-3(Not at all)” to “+3 (Yes, definitely)”. We asked 900 employees in Sangikyo Corporation in September 2015, and we received 829 answers in October 2015. Figure 3 shows the reason why employee visited the website on the knowledge sharing platform.

The employees in the company visited the knowledge sharing website because the posted contents were directly related and useful to their daily job. The knowledge sharing site provided valuable knowledge which was directly useful to their daily job, and they were able to solve their problem. We can assume that direct relation to job was the reason because employee was interested in the knowledge learnt from failure. Thus we find that employee visited the website because the posted contents were directly related and useful to their daily job.
Interdependency in knowledge sharing

Employees in the company wanted to have knowledge to prevent them from doing a fault, and they were able to have knowledge through the knowledge-sharing platform only when colleague kindly disclosed the knowledge on it. If a faulting employee did not disclose his/her fault, his/her colleagues were not able to have the knowledge to avoid the same fault. Even if the faulting employee made the fault today, he/she might make another fault tomorrow. In other word, only when a faulting employee willingly disclosed his/her knowledge for prevention, he/she was able to reach colleagues’ knowledge for other prevention. Hence there was interdependency, which lead preventing colleagues from repeating same fault. Then the relationship among employees in the company got stronger into a strong tie, trust and common cognition, which meant willingness to contribute for the organization.

DISCUSSION

Strategic alignment between the business strategy and the learning activity

We discuss the analysis to answer the research questions. The first research question in this paper is “What is alignment between business strategy and learning from failure in the company?”

Sangikyo Corporation decided to belong to the wireless engineering industry, which grew rapidly. The mobile service companies which wanted to have a partner company providing a new technology and its implementation service. Since the new technology was not proven, even the partner company sometimes failed. Sangikyo Corporation as a partner company established their own system for learning from failure for preventing themselves from repeating same failure with accumulated knowledge.
There were a limited number of mobile companies in Japan, and the initiative was to get trust from the limited number of customers in the mobile industry and to get continuous business. In addition, they set internal management system like appraisal system, which was suitable for the learning system and built the knowledge-sharing platform. Consequently, there was optimized alignment among their business strategy, providing service, operation, internal management and IT infrastructure.

As far as the case analysis, it was important for the success in their learning from failure in the company to keep consistency among business strategy, providing service, operation, internal management, IT infrastructure.

Generating a strong tie in the company

The second research question is “How can we establish strong tie, trust and common cognition in organization for conducting learning from failure regarding business strategy in the company?”

First of all, there was interdependency for learning knowledge for preventing from fault. Only when employee disclosed their knowledge, he/she was able to have other knowledge for prevention. This was assumed to be one of the key factors to generate a strong tie, trust and common cognition.

Second, the appraisal system and company executive message were assumed to be important to make mutual trust for knowledge sharing. Ardishvili and Page and Wentling (2003), Li and Chang, et al. (2014) mentioned trust is important to remove barriers for knowledge sharing. The appraisal system, under which employee was evaluated based on skill and company’s performance, removed individualism and got them to contribute to their colleagues and the company. In addition, the executive message encouraged them to get forward to collaborative learning from failure. This was also assumed to be one of the key factors to generate a strong tie, trust and common cognition.

IMPLICATION

Saavedra, Fernandez and Lindemann (2015) suggest a comprehensive model for knowledge application. It, however, lacks detail explanation for strategic alignment. In the previous section, we argued the importance of optimizing alignment among their business strategy, providing service, operation, internal management and IT infrastructure for the success of learning from failure in the company. This may help to validate the model.

And the model should be adjusted even if our findings can be applied to the model, which is for knowledge application, because our findings are related to the learning from failure in the company. Although Saavedra, Fernandez and Lindemann (2015) show strategic alignment affects infrastructure-related factors, infrastructure-related factors, knowledge-related factors and psycho-social factors, it should be a strategy that affects the factors, and all the factors including strategy should keep mutually optimized and aligned each other.

CONCLUSION

In this study, we explored strategic management for the learning from failure with the study in the Japanese company, and discussed their strategic management with the learning from failure. Although strategy so highly depends on business environment and context that it is different from company to company, it is suggested to be important to
keep consistency among business strategy, providing service, operation, internal management, IT infrastructure.

First, we studied their learning-from-failure initiative from the point of business strategy. We found that they implemented to execute the learning-from-failure initiative for achieving their business strategy, and they also implemented internal management and IT infrastructure for executing the learning-from-failure initiative.

Second, Li and Chang, et al. (2014) test and conclude strong tie in organization, trust and common cognition are keys for knowledge transfer, but we had not had a clear knowledge for the way to build them in organization. And we explored it through the case. Since employee in the company shared their task with colleague, every employee could make the same fault that colleague made. We found that there was interdependency among employee for preventing fault and they shared their own knowledge - even failure experience - for doing it. This seemed to be a key for building a strong tie in the company.

The findings in this study rely just on a single case study, which is qualitatively analyzed in this paper. McLaughlin, Paton and Macbeth (2008) find that barriers impact on organizational learning take place at process level rather than organizational level. Ranjbarfard, Aghdasi, et al. (2014) suggest barriers of knowledge generation, storage, distribution and application are different between organizations such as gas and petroleum. Hence the result we can have from this paper may be applicable only to the case company.

To generalize the findings we must do more sufficient research not only from qualitative perspective but also from quantitative perspective beyond this paper.

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