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## FACTORS THAT INFLUENCE THE LOYALTY OF A BUSINESS CUSTOMER USING A PACKAGE DELIVERY SERVICE IN THAILAND: A CONCEPTUAL MODEL

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### ABSTRACT

This paper proposes a six-hypothesis conceptual model to investigate customer loyalty within the Thai courier, express, and parcel (CEP) delivery sector. Globally, in 2020 this was a \$326 billion industry employing nearly 2.5 million packages delivering 60.7 billion parcels. Thailand as a leading commercial hub in many regional economic sectors relies heavily on both domestic and international CEP delivery services to keep e-commerce and supply chain wheels rolling. Therefore, the authors' proposed study includes an investigation into the four primary latent variables of service innovation (SI), service quality (SQ), service satisfaction (SS), and customer loyalty (LT) and the theory supported 17 observed variables. The proposed research instrument is a questionnaire for use in the quantitative analysis. Initial sample size theory research indicates a sample of 340 - 400 should suffice. Qualitative analysis will employ the use of LISREL 9.1 software from which the goodness-of-fit (GOF) statistics will be analyzed for the confirmatory factor analysis (CFA). Descriptive statistics are anticipated to include the mean ( $\bar{x}$ ), standard deviation (SD), kurtosis, and skewness for each of the items surveyed. From the outcomes of these processes, a final structural equation model (SEM) will be undertaken for results interpretation. It is also suggested that the study will be a significant contribution to the region's literature on courier services and what makes their customers loyal.

## 1. INTRODUCTION

The global courier, express, and parcel (CEP) delivery sector was reported to represent \$326 billion in revenue generation in 2020 (IBISWorld, 2020), which was a decrease from 2019 due to supply chain disruptions from the global Covid-19 pandemic. However, in 2019, there had been a 7.9% increase over 2018, reaching EUR 330.3 billion. This represented a worldwide volume increase of 9.1%, reaching 60.7 billion packages (Ejdys & Gulc, 2020).

The top five companies within this sector are household names to many, but there are 100,000s of thousands of other smaller enterprises taking on similar challenges. Furthermore, worldwide employment within the industry has been estimated at nearly 2.5 million individuals. The companies holding the largest market share within the industry are United Parcel Service (UPS), FedEx, and Germany's Deutsche Post DHL Group. In the United Kingdom, most would recognize the local Royal Mail couriers, while in Japan; Yamato Transport plays a key role, holding a 41% market share, whose 'black cat' and kitten logo is as popular in Japan as the Coca-Cola logo is in the United States (Miller, 2016).

In Thailand, just before Christmas 2020, the company known nationwide as Kerry Express went public on the country's stock exchange, surging 161% in its debut ("Kerry Express Thailand Surges," 2020). Locals know their vehicles, as smaller, entrepreneurial offices with small fleets of Kerry vehicles seem to pop up on every highway, intersection, or the local village. Having originated in Hong Kong, Kerry's strategy is to use all the major e-commerce platforms while increasing its delivery capacity up to 3 million parcels a day by 2023 (Chudasri & Polkuamdee, 2020), even though these giant e-marketplaces have their own logistics services. This compares to the current 1.2 million packages per day during the first nine months of 2020 during the height of the Covid-19 pandemic. Their future target markets include home shopping and traditional businesses, as well as SMEs and farmers (Sangwongwanich & Leesa-nugansuk, 2020).

Moreover, current estimates project a 20% growth within Thailand's e-commerce business sector over the next three years, which will heighten the need for more delivery centers, service points, ICT (information and communications technologies), and efficiency increases. Support for this can be found in European Union CEP delivery service research in which it was stated that the evolution and success of courier services have been due to the implementation of modern ICT and the development of e-commerce, which has resulted in better access to the Internet and increased consumer confidence in e-commerce platforms (Ejdys & Gulc, 2020).

However, competition is fierce for Thailand's Kerry, with competitor's vehicles filling the streets from Bangkok to the outer, and more remote rural, outlying agricultural provinces. Many of these services are also working hand-in-hand with major e-commerce platforms such as Lazada and Alibaba. Although globally the courier/package delivery sector has seen a drop from larger commercial businesses due to the disruption of their supply chains, within the home shopping market there has been a significant increase in home deliveries from smaller suppliers/vendors, as consumers don't wish to risk, or can't leave their homes, due to Covid-19 related lockdowns. This is true from Thailand to the UK.

However, according to a study on courier services from Ejdys and Gulc (2020) in Poland, service quality was stated to be an essential element for the creation of service sustainability. Moreover, the Polish authors further determined the importance of courier services' ease of use, the customer's trust and usefulness of the service, service quality, and their future intention to use the courier service. It was also interesting to note the study's finding on the critical importance of ICT capabilities. This is consistent with a Thai ICT customer loyalty study by Pongcharnc and Fongsuwan (2014), in which it was stated that in an increasingly connected and complex world, ICT is a transformative driver of change across entire industries, which also is an enabler of new value chains.

Therefore, the authors offer the following brief literature overview of the study's proposed latent variables and theory supported observed variables:

## 2. LITERATURE REVIEW

### 2.1 *Service innovation (SI)*

In their discussion about SI in a digital age, Barrett et al. (2015) described SI as transformative in nature, with new services in developing economies driving economic development despite societal infrastructure or resource limitations. Moreover, SI directly facilitates customers meeting their desires and needs, which can be understood both as a process of organizational development and as the resulting configuration of new activities by companies and their customers, suppliers, and other actors.

Moreover, the value of information and communications technologies (ICT) to SI has long been recognized (Barras, 1986). Moreover, the OECD (2014) has reported on the growing role of the digital economy in a consumer's daily life, along with the heightened demand for new data and measurement tools, with ICT technologies acting as key enablers of innovation throughout all economic sectors.

Therefore, after the authors review the related theory and literature, it was determined that four observed variables would be added to the proposed study under the latent variable *service innovation (SI)*. These included *new service delivery (SI1)*, *customer interaction (SI2)*, the *service delivery process (SI3)*, and the *service technology (SI4)*.

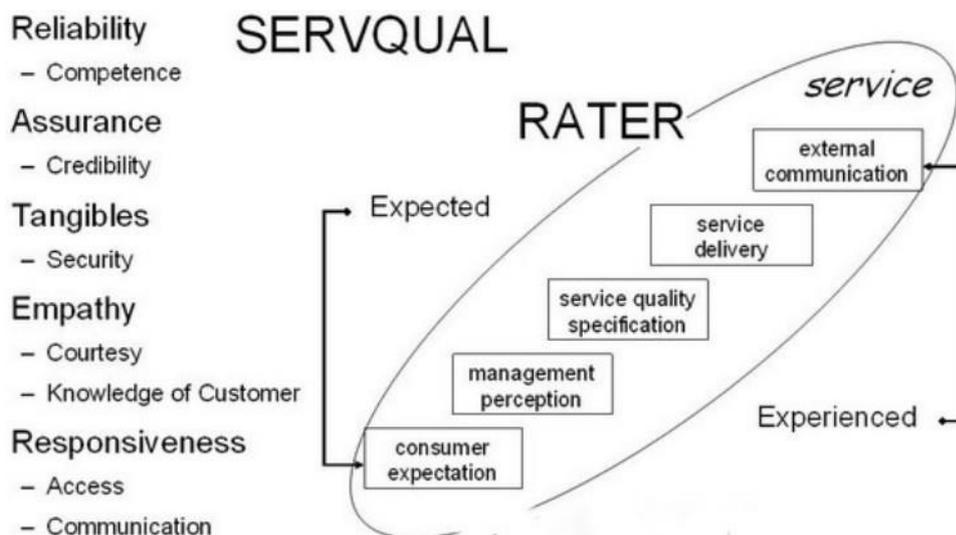
### 2.2 *Service quality (SQ)*

Grönroos (1984) was an early researcher who divided service quality into two elements. These were discussed as being either technical or an outcome (what consumers receive), or as a function or process-related (how consumers receive the service). Shortly thereafter, Parasuraman et al. (1985) proposed the now-famous SERVQUAL Model. Originally consisting of ten dimensions, several years later the SERVQUAL Model was reduced to five dimensions (Lee, 2012), and renamed the RATER Model (Figure 1). Parasuraman et al. (1988) later added that SQ originates with the expectation of customers or clients using the service.

In a practical world, the Japanese auto industry has defined ‘quality’ as the buyers’ perception of the value of the suppliers’ work output, which includes look, the touch, and the feel of a vehicle. This is consistent with Bei and Chiao (2001) who added that Japanese auto manufacturers needed to give priority to product quality and price, to establish consumer satisfaction and loyalty while improving SQ. Other factors such as fulfilling expectations, meeting customer’s goals, and having positive customer relationships are also significant (Tohidinia & Haghghi, 2011). Service quality has also been associated with affecting profitability (Aaker & Joachimsthaler, 2000) and purchase intention (Tsotsou, 2006). Shih-Tse Wang & Tsai (2014) also added that exceptional quality, reliability, and consistency are essential.

In Malaysia, Yee and Daud (2011) investigated customer satisfaction (CS) with the CEP delivery sector using the SERVQUAL Model’s dimensions. From their analysis, they determined that tangibility, reliability, and assurance each played a key role in CS, but empathy and responsiveness played no essential roles.

**Figure 1:** SERVQUAL and RATER model conceptualizations.



**Sources:** RATER design adapted by Krishnana Umachandran (2014) from Parasuraman et al. (1988).

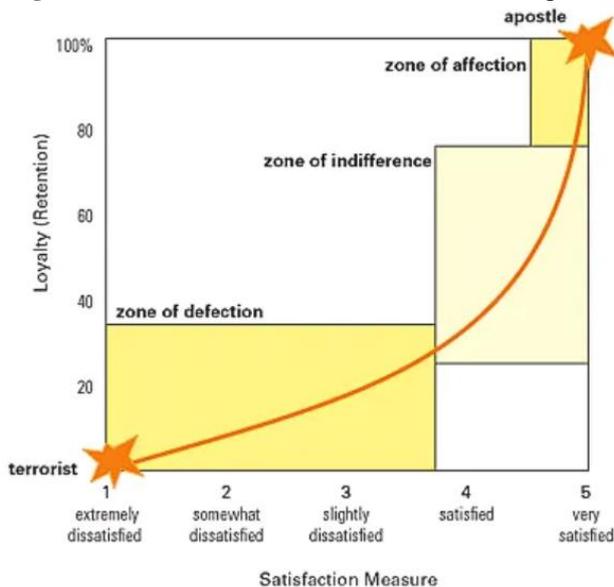
Therefore, after the authors review the related theory and literature, it was determined that four observed variables would be added to the proposed study under the latent variable *service quality* (SQ). These included *reliability and competence* (SS1), *assurance and credibility* (SS2), *security* (SS3), *courtesy and customer knowledge* (SS4), and *responsiveness and communications* (SS5).

### 2.3 Service satisfaction (SS)

Recently the World Bank has reported that increasingly agencies are encouraged to measure the quality of service delivery. However, performance measurement systems that focus on quantity while disregarding quality potentially invite problems with service delivery satisfaction (Shah, 2007). This is consistent with a McKinsey study in which it was stated that when officials deliver services based on the needs of the people they serve, governments can increase public satisfaction and reduce their costs (Dudley et al., 2015). Furthermore, Bei and

Chiao (2001) have added that service quality perceptions can affect a customer's loyalty through their overall satisfaction. Moreover, Türkyılmaz and Özkan (2007) highlighted the importance of increasing satisfaction and loyalty when organizations are faced with limiting resources. These points are also in agreement with Heskett et al. (2008) which vividly showed in Figure 2 the levels of a satisfied customer in becoming a loyal customer.

**Figure 2:** The levels of satisfaction leading to loyalty.



**Source:** Adapted from Heskett et al., 2011, page 71.

In Thailand, multiple authors have also suggested that satisfactory public service entails equitable, timely, ample, continuous, and progressive services (Changwetchay, 2018; Limoubpratum et al., 2020; Millet, 1954). Specifically, *equitable service* refers to the process of ensuring that all customers are treated equally. Therefore, all users of the service are treated as individuals using the same service standard. *Timely service* (also referred to as *timeliness*) ensures that the services being rendered are done so in a timely fashion. If this is not done, there will be dissatisfaction amongst the service users.

Providing adequate services or *ample service* ensures that the correct amount of service is offered in the right place at the right time and is sufficient in having the needed supplies, staff, and equipment. It is also interpreted to mean that the service is provided in the best geographical location possible, which Millet (1954) refers to as service ‘equality’. This is consistent with Chen et al. (2012) who also determined that fair service is equally important to a customer’s satisfaction.

Continuous service (also referred to as *continuity*) is the idea that service must be always available to the customers, with service staff on the job, willing and able to serve their customers (Changwetchay, 2018). Progressive service means providing public services with improved quality and performance. In other words, it is an increase in efficiency or capacity that can perform more functions with the same amount of resources.

Therefore, after the authors reviewed the related theory and literature, it was determined to select the five variables originally championed by Millet (1954) as service satisfaction factors for a follow-on study. These were *equitable services* (SS1), *timely service* (SS2), *ample services* (SS3), *continuous services* (SS4), and finally, *progressive services* (SS5).

## 2.4 Customer loyalty (LT)

When studies discuss customer loyalty, oftentimes LT is qualified in terms of a customer's retention rate. This is crucial, as retaining existing customers tends to be as much as five times more cost-effective than prospecting for new ones (Wertz, 2018). Moreover, numerous other studies have added the importance of word-of-mouth (WOM), as customer WOM can be far more cost-effective and influential than advertising (Bughin et al., 2010; Pongcharnc & Fongsuwan, 2014), especially in a social media world-renowned now for its 'influencers'.

Therefore, differences between LT and a customer's retention are important to understand, as both are assumed to equate to a company's business success, revenue, and profits (Trasorras et al., 2009). If the correlation exists, then managing for improvement in customer retention or customer loyalty equates to managing for business success.

Other scholars have also identified the importance of a customer's satisfaction and their trust in their loyalty (Leninkumar, 2017). This is consistent with Wahab (2018), whose study on the Indonesian package delivery service sector determined the importance of service quality and customer satisfaction on the loyalty of the customer. Furthermore, various other studies have reported the importance of an employee's attitude on CS and LT as well as business profitability (Aldas-Manzano et al., 2011; Chaudhuri & Holbrook, 2001; Lam et al., 2004; Oliver, 1997; Sirdeshmukh et al., 2002).

Customer loyalty is also a deep commitment to making a regular purchase of a product or service that the customer is happy with. Also according to Dick and Basu (1994), a customer's loyalty is measured by the relationship strength between a consumer's relative attitude and their willingness for repeat patronage. This relationship is also mediated by the surrounding social norms and the situational factors. Andreassen (1999) also made the connection between customer loyalty and complaint resolution and suggested that complaint resolution is a crucial aspect of a firm's customer retention strategy. This is consistent with Faryabi et al. (2015) who examined the impact of several relationship continuity factors on customer loyalty. From their analysis, it was determined that conflict resolution, satisfaction, trust, and reliability, respectively, have the greatest effects on loyalty.

Therefore, after the authors reviewed the related theory and literature, it was determined to select the following three variables for customer loyalty for analysis. These were *continued use of the service* (LT1), *word of mouth* (LT2), and finally, *complaint behavior* (LT3).

Therefore, the following research objectives are proposed for the study:

### 1.1 Problem Statement and Research Objectives

The study's objective will be to undertake an empirical investigation of contributing factors and their interrelationships that influence a courier, express, and parcel (CEP) delivery customers' loyalty. Even though we have found other Asian regional studies (Alam Siddiquee, 2008; Wahab, 2018; Yee & Daud, 2011), there appears to be no recent English language empirical research concerning Thailand. Moreover, the proposed study will explore the SERVQUAL Model's dimensions contributing to CEP customer loyalty as originally articulated by Parasuraman et al. (1985, 1988). It is also interesting to note the massive

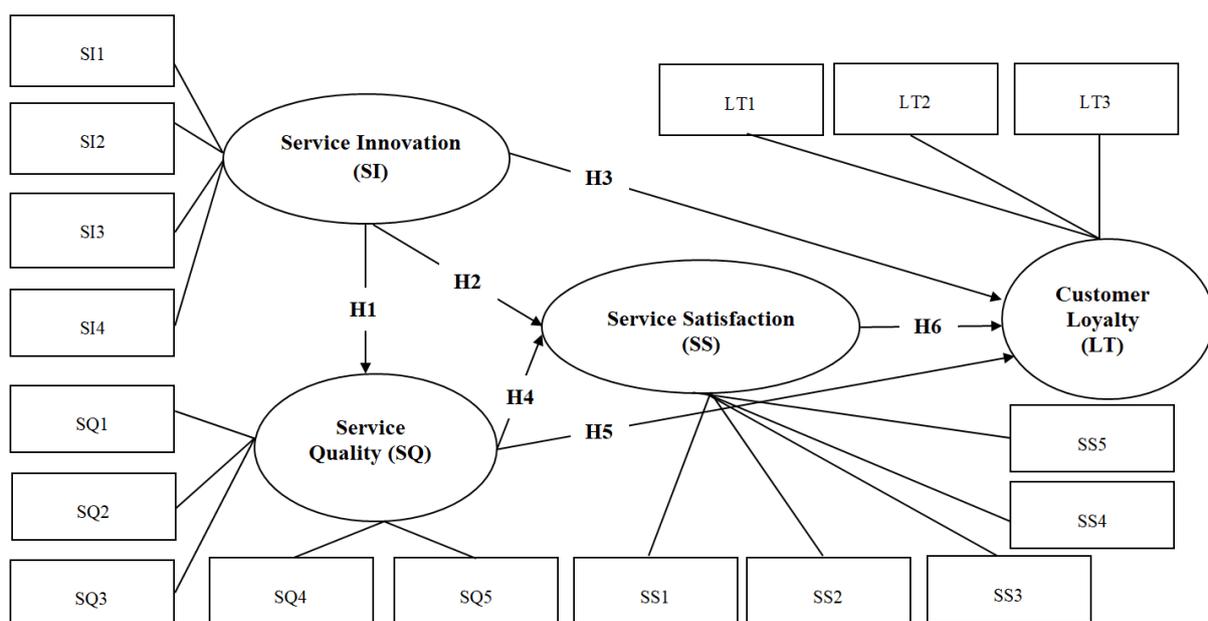
investor interest in the Kerry Express public offering in Thailand just before Christmas 2020. This seems to support the growing importance of this sector within Thailand and the need for the proposed study. Therefore, we propose the following research objectives and six hypotheses shown in Figure 3.

Research objectives

1. To investigate what SERVQUAL Model factors influence courier, express, and parcel (CEP) delivery service quality (SQ) in Thailand.
2. To study the interrelationships of the variables identified from the theory as potentially influencing the loyalty of business customers towards using a courier, express, and parcel (CEP) delivery service in Thailand.
3. To create a structural equation model of factors that influence a business customer loyalty towards using a courier, express, and parcel (CEP) delivery service in Thailand.

- Hypothesis 1: A package delivery company’s service innovation will directly and positively affect the company’s service quality.
- Hypothesis 2: A package delivery company’s service innovation will directly and positively affect the customer’s service satisfaction.
- Hypothesis 3: A package delivery company’s service innovation will directly and positively affect the customer’s loyalty.
- Hypothesis 4: A package delivery company’s service quality will directly and positively affect the customer’s satisfaction.
- Hypothesis 5: A package delivery company’s service quality will directly and positively affect the customer’s loyalty.
- Hypothesis 6: A package delivery customer’s service satisfaction will directly and positively affect the customer’s loyalty.

**Figure 3:** A proposed conceptual model for CEP delivery service customer loyalty.



### 3. PROPOSED METHODOLOGIES

The primary research instrument will consist of a questionnaire in which a multi-level opinion agreement scale will be used. It is anticipated that the scale will consist of five opinion points, with the anchor points being agreed (5) to totally disagree (1). LISTEL 9.1 software is proposed for the analysis, which is expected to include a goodness-of-fit (GOF) analysis and confirmatory factor analysis (CFA) before the structural equation modeling (SEM) of each customer's response to each of the variable's items. Therefore, the following preliminary and intermediate steps are proposed:

#### *3.1. Quantitative and qualitative research methodologies*

Traditionally, according to Hameed (2020), social science researchers used quantitative research methods. However, with the advent of computers and their software in the early 1980s, there was an upsurge of interest in qualitative studies. The authors, therefore, find significant support for a mix of both (Morgan, 2014; Mueller & Hancock, 2010).

##### 3.1.1 Study of the secondary data

Secondary data research is currently underway in which the literature in its various hard-copy and digital formats is being reviewed for the proposed conceptual model of package services' customer loyalty.

##### 3.1.2 Quantitative research methods

Quantitative research is involved in the use of statistics and mathematical theories. It also takes on many forms of implementation, from Internet surveys to face to face interviews. Fortunately, with the advent of the computer becoming easily available to researchers, a rich mix of statistics software is also available for the analysis and validity assessment of the data.

##### 3.1.3 Qualitative research methods

Qualitative analysis will employ the use of LISREL 9.1 software from which the goodness-of-fit (GOF) statistics will be analyzed for the confirmatory factor analysis (CFA). Descriptive statistics are anticipated to include the mean ( $\bar{x}$ ), standard deviation (SD), kurtosis, and skewness for each of the items surveyed.

#### *3.2 Questionnaire development and content validity assessment*

Five academic and CEP industry experts will be assembled in a weekend workshop to assist with the study's questionnaire development and subsequent content validity verification by use of the IOC (Turner & Carson, 2003). A commonly accepted validity score is  $IOC \geq 0.50$ .

##### 3.2.1 In-depth interviews

Quantitative research methods are also proposed to entail the use of five to 10 in-depth interviews with professionals involved in the CEP delivery industry in Thailand. Their thoughts and opinions concerning SI, SQ, SS, and LT will be taped and transcribed for the study analysis.

##### 3.2.2 Questionnaire pilot-test

Numerous scholars have opined that a qualitative pre-test is a key phase of the development, adaptation, or translation of any questionnaire or psychometric instrument (Presser et al., 2004). As such, the sample size of the pre-test survey is often discussed. However, in a study from Perneger et al. (2015), it was specifically stated that even though the final study determined to some degree the pre-test sample size, a sample size of 30 participants is recommended. This is consistent with other studies that recommend a baseline survey sample of between 30 - 50 individuals to identify any major problems with the survey instrument. As such, the authors propose a pilot-test in which 30 individuals (who will not participate in the final study) are selected to evaluate the initial questionnaire. Pilot-test reliability assessment will make use of Cronbach's  $\alpha$  (Tavakol & Dennick, 2011).

### ***3.3 Ethics clearance***

Ethics clearance and approval for the proposed study will be obtained from the King Mongkut's Institute of Technology Ladkrabang Human Ethics Committee before consultation with experts relating to the questionnaire's design (Pimdee, 2020). An informed consent form for each of the study's pilot-test survey group and the main study's participants will also be obtained. At every step, participant anonymity will be considered and ensured.

### ***3.4. Population and sample***

The target population for the study is Thai businesses that use package delivery and shipping services within the Bangkok metropolitan area. Various online and hard-copy business directories are available to the researchers for the process of identifying potential survey business targets. Furthermore, specific focus will be given to individuals specifically assigned in the management of each firm's shipping and receiving use of package delivery services.

To assure the statistical accuracy of the proposed survey and study, companies will be selected by sector, and then divided into their respective geographical areas. Sectors anticipated to be included in the study include auto parts dealers and distributors, mobile-phone shops, wholesale clothing outlets, flower shops, and dental and medical offices. From these lists, multistage random sampling (MRS) will be used to further identify and contact individuals for the study (Pimdee, 2020). Crawford (1990) also added that MRS uses multiple primary sampling units (PSU's) within the targeted population, each of which is made up of second-stage units in each selected PSU. This process then continues down to the final sampling unit, with the sampling ideally being random at each stage.

It is also anticipated that an electronic version of the survey will be produced for online use. For other survey participants, a PDF version will be produced in which the respondent can print a hard-copy, mark their choices, and then either scan or email back, fax, or return by post. As post responses are always known to be problematic (Chumney, 2013), faculty graduate students will be employed to assist with the follow-up contact process to obtain a minimum of 340 completed and audited questionnaires.

### ***3.5 The sample size***

Numerous scholars such as Brown (2015) and Kyriazos (2018) have stated that statistical power and precision of CFA and SEM parameter estimates are influenced by the sample size. Kline (2011) has also reported that many researchers suggest sample sizes of about 200 cases or 5 or 10 cases per parameter. Other scholars have suggested a higher ratio of 20:1. As such,

with the proposed study containing 17 observed variables, a minimum of 340 completed questionnaires is the proposed target sample size. A large sample such as 400 might be finally determined due to sampling errors and survey time constraints.

#### 4. RESULTS AND DISCUSSION

The Reichheld and Sasser (1990) study which was published in the Harvard Business Review adds a powerful punch in understanding the importance of customer loyalty to a firm. In their article, they state that a 5% increase in customer loyalty can produce profit increases from 25% to 85%. They also concluded that the *quality* of the firm's market share, measured in terms of customer loyalty, deserves as much attention as the *quantity* of this share.

It also astounds the authors to see the valuations placed on Thailand's largest CEP delivery firm in their initial public offering (IPO) just before Christmas 2020. It seems both the 'Kerry Express' brand and its services are well-known to Thai investors and international traders, for reasons similar in many ways to the proposed variables for this study. The CEO's pronouncements concerning the company's direction and vision are also focused on ICT and e-commerce platforms. Moreover, Kerry Express executives see the potential in rural and agricultural enterprises for their sector's growth, which we 100% agree with, as OTOP (One Tambon One Product) products and their entrepreneurs are a significant contributor to Thailand's economy and economic employment (Sitabutr & Pimdee, 2017).

In Bulgaria, Otsetova (2017) also confirmed the critical nature of CEP service quality on customer loyalty. There is significant support for this conclusion, as numerous studies from the marketing literature suggest that loyalty is a critical ingredient for a firm's business strategy. Loyalty is also a strategy that creates mutual rewards to benefit firms and customers (Liao, 2012), and is also considered a source of competitive advantage, which has proven to have a relevant impact on a firm's performance (Shah, 2007). Finally, Boonmalert et al. (2020) in Thailand observed that higher amounts of customer orientation results in a greater amount of customer loyalty.

#### 5. CONCLUSION

This paper set out to introduce the reader to both the importance of CEP type delivery services and the underlying factors which have the potential to contribute to a firm's customer loyalty. We went on to detail these factors and uncover the supporting theory for related observed variables. This was followed by our detailed methodologies proposal, including the use of LISREL 9.1 for the CFA and the SEM. Support for the proposed study is well-founded in both the theory and the action of commercial courier enterprises, both domestically in Thailand and around the world. We are very excited about this study and feel that upon its conclusion and final publication will be an often referenced work within the industry and the region of Asia.

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