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# Factors Affecting Mass Customization and the Positively Impact on Customer Re-purchase Intention in Logistics Service Companies

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# Abstract

Aims to investigate factors affecting mass customization and the impact on customer re-purchase intention in logistics service companies. This study refers to the mass customization project that provides theoretical and empirical results as the company proceeds and brings it into practice. Besides, it also is one of the few studies that explore the impact of mass customization in the service industry on customer satisfaction and intent to reuse the service. In addition, with a sample of 411 customers from two logistics companies in Vietnam and Myanmar, we checked out the hypothesis model using SEM model with LISREL statistical program. From this, it can be concluded that the relationship between mass customization project and customer satisfaction, then tested again whether has an affection of satisfaction on word of mouth dimension and the other two factors are re-purchase intention and trustworthy respectively. Finally, the final results note that half of the hypotheses are rejected but that is still a practical result that can be used to raise awareness and draw experience for companies which have used and still preceding the mass customization project.

**Keywords:** Mass Customization, Customer Satisfaction, Customer Re-purchase Intention, LISREL, Logistics Service.

# Introduction

# Logistics definition and Logistics Industry Overview

Nowadays, logistics has gradually affirmed its great role in the import-export industry. In the simplest sense, logistics has been judged that is service delivery goods from the place of production to the consumer by differing transportation. Logistics providers and firms will have to schedule and control the flow of merchandise information from the beginning of departure to the location of sale indicated by the customers. According to SoL (The Annual State of Logistics Report) 2017, the logistics market has averaged \$8 trillion a year in the past two years, equivalent to about 11% global GDP. By 2017, the market value is estimated at \$9 trillion, of which Ceva Logistics, DHL, FedEx, and UPS account for 15% of global revenue. The functions of the logistics industry are not only logistics, delivery but also other occupation such as warehousing, goods storage and packaging. If able to control logistics in a harmonious way, firms

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could save more shipping costs, reduce the cost of products, increase competitiveness on market and earn more profits for the company.

# Relationship between Logistics, Supply chain and Distribution process

According to the Logistics Management Committee, one of the leading specialty organizations in this area, logistics is the plan includes planning, implement and control ability to transport goods as well as store cargo efficiently, holding relevant information from the beginning to the final consumption point to fit the needs and satisfied customer requirement (Lambert, Cooper, Pagh, 1998).

Since the late 90s, logistics widened its activities and benefits. That extension concept is called supply chain management which is a network and distribution of means that carry out the functions of purchasing raw materials and auxiliary materials that transform them into final products through a variety of stage, then distributed to customers (Ganeshan and Harrion 1995).

The distribution process is a concept that reflects the movement of goods by an organization (producer, entrepreneur or any other person who has goods), including transportation by means of various means this point to another place, from one country to another, in which there is a combination of various activities to ensure the continuous transport of goods from the pre-production stage to reaching the consumer last resort. Thus, the distribution and logistics activities are closely related. In other words, the entire distribution process is a commodity-laden cargo movement under the organization and supervision of logistics technology.

# **Logistics in freight forwarding**

Over the past decades, the structure of the world's industry and trade has undergone profound changes, in short, the sellers are not necessarily the producers and the buyers are not necessarily the ultimate consumer. The process of moving goods from producer to consumer has many intermediaries in turn acting as sellers, buyers. The richness of the goods and the complexity of their movement require strict management to set new requirements for transport.

Logistics is the ingenious development of multimodal transportation services. All transport operations may be performed under a multimodal transport contract and the coordination of the carriage of goods by the logistics service provider. The similarity here is that, on the basis of multiple purchase contracts between the buyer and the seller, the logistics operator will receive the goods at the premises of each seller and consolidate into multiple orders at the warehouse or place.

Removing and classification of goods before they are shipped to the destination by different of transportation is also the major responsibility for logistics firms. At the destination, the logistics service provider arranges to separate the orders and distribute them to the final address. Logistic is not a single service but a chain of logistics services. With this service chain, logistics service providers will help customers save inputs cost in the transportation, storage, distribution of goods as well the other similar cost at the output processes.

Accompanied by the developed economy and increasing internationalization, freight forwarding has become popular and brought about remarkable results for the economy. Therefore, transportation service companies or also called logistic service companies need to have a positive innovation. That is why this study has a purpose to investigate factors affecting mass customization and the impact of mass customization project on customer re-purchase intention in logistics service companies and also is specially figure out the impact of mass customization in the service industry on customer satisfaction and intent to reuse the service

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#### **Literature Review**

#### Mass Customization and its meaning in the service industry

The notion of mass customization was raised very early from the previous century (Kay, 1993; Lau, 1995; Tu, Vonderembse and Ragu-Nathan, 2001). In 1995, the study of Hart proved that mass customization is the proficiency for a business to set up flexible manufacturing processes and manage organizational structures to create products or services that have been customized to get the standards of enterprise products in particular and according to diverse needs of customers in general. In the other word, this mean a business apply mass customization must know how to changing a product or service to meet a certain customer group. This change can be easily understood as a change in color, size, taste or more complex such as developing a product that completely new for a particular group client.

Mass customization could be considered as a fusion of flexibility and personalization on-demand production and grow it up a new level of mass production, a new trend of production with lower costs. Consequently, different giant consumer groups are considered for bulk customization rather than attention only one customer. This topic is used in many kinds of businesses, for example, in the computer industry that produces computer memory (Random Access Memory) with a variety of storage sizes, hard disk capacities or there are some distinctive features software allowed the users to add or change those functionalities following to their demand which provides exactly and quickly what they are wonder looking for. Another example is that in 1996, the Dell computer attracted attention in the computer market because it allowed individual customers to "assemble" and directly purchase computers and their accessories through the www.dell.com website. Moreover, it is no stranger that Coca-Cola's bottle print campaign. Coca-Cola has been very successful in their "mass customization", customers still find coke bottles for themselves, printing their names while the cost of production is negligible.

Mass customization was defined as by utilization the technological capabilities and services to fit the customer needs with mass production efficiency (Tseng and Jiao, 2001). Business firms can produce custom goods or services to response the diverse and often changing needs of consumers at mass production prices. Supported by modern advanced technology such as internet, product modularization, information technology, and flexible manufacturing technology, it can clearly illustrate the final stage of the market segment where consumers can find out exactly what they want.

Customer service contributes an important quarter of the manufacturing process, particularly in the delivery process or called with other name is logistics services. Customers can integrate directly into the delivery process and it implies opportunities and challenges for the mass customization of services (Kaplan and Haenlein, 2006). More specifically, a company that has a constant contact with the customer allows it to respond positively to customer reactions and that is used as the personalization of the delivery service. When customers directly communicate with the service personnel they are already in the beginning of the delivery process and it is necessary to identify and modify the available options in the case when customer want to negotiate the details of the contract, for example, or the change of service option that has been set before. In addition, participating in the manufacturing process, customers will also have the opportunity to reconfigure the service even though its production has begun. The opportunity to influence this restriction of customization based on the fixed configuration settings previously mentioned in Wirtz and Bateson (1999). The consequence of the need for service customization is that service customization becomes a continuous process and that is the result of the constant interaction between client and staffs from beginning to the end of the delivery process, the professional advice from personal service is needed.

#### **Condition to apply Mass Customization**

The first goal is to find "the unique point of popularity" in the product want to be customized. So what is the "unique point of popularity"? For example, the name printed on the coca cola bottle is a "unique point

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of popularity" because clearly, that the name can be very popular, there may be thousands of people with the same name but in a "space used product" such as a table, a conversation etc. Therefore, a name printed product has both unique elements and a common element and that is the only factor that makes customers feels special. Common factors will help businesses reduce production costs. In short, the implementation of mass customization is a dialogue with customers, where the business provides tools to help customers articulate their needs and desires. The better the technology cause the better the adoption of mass customization.

#### Three factors impact on success mass customization

In recent years there have been many researchers study on the effect and importance of customer involvement in the service industry. In addition, variants of this topic are covered in other studies such as customer integration (Da Mota Pedrosa, Näslund and Jasmand, 2012), customer participation (Dong, Evans and Zou, 2007), user involvement (Alam, 2002). According to Lundkvist and Yakhlef (2004) research about the customer involvement, there is an active involvement and customer involvement in order to communicate with the company. This process is not only important in generating new initiative but also in improving the social relationships between customers and the company.

In addition, some evidence supports that customer participation is a main factor for the prosperity of the transportation service (Lau, 2008). According to Kristensson, Matthing, and Johansson (2008) customer involvement is not simply about direct asking the customer what they desire like other classic market research, instead, customer involvement requires the accumulation from real-life rather than verbal. This involvement will likely happen in one part or all of the processes in research such as commissioning research, setting the research timetable, undertaking study, disseminating the results of research and interpreting research

The second factor is information technology which plays an important role in mass customization management and was mentioned in Andel (2002) study, which shows that mass customization requires mass communication, a major contribution of technology information is the administration of the supply chain and the shipping service within the mass customization of customer orders, which includes information about the production order processing, processing or flow of information about inventory and shipping details. This has created a relationship between customer demand and the ability of companies to respond to that need. With information technology, the basic information of the product or service is processed in the fastest way. In addition, delinquent orders are no longer available thanks to information technology, which not only helps businesses reduce costs to deal with their customers, but also creates an additional new relationship between business and new customers.

Finally, organizational management is also considered a factor which is understood to be a common management model for today's small businesses. Organizational management methods allow managers to divide major activities of a division into stages. The division of this activity into parts gives the manager a clear overview of the goals of a division and how to achieve those goals in the most effective way. In addition, effective organizational management also helps managers respond quickly to the consequence of internal and external factors of the company.

As mentioned in Lau (2008) study, research results indicated that the intrinsic internal qualities of a company are the organizational readiness, such as attitudes, resources or culture. In addition, logistics management also contributes equally important in the internal elements of an organization. In other words, logistics management reflects how much an organization can reduce the cost of a merchandise or service and how much is it increase? Or even how short a product's launch time is? Logistic management is responsible for receiving orders from customers and swapping them into production orders

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#### **Customer Satisfaction**

From the previous, the study problem of customer satisfaction is no longer a strange definition for business enterprises in particular and market researchers in general. The definition of customer satisfaction is the measure of how well a business responds to a customer's essential or the attitudes of customers to the high service value. Consequently, satisfaction of customer is one of the important key criteria that must be paid attention to business. According to Kotler and Keller (2009), the satisfaction factor can be either the satisfaction or despair of a consumer when receiving results that match up their expectation through experience and enjoy using the service. If the activities of the provider do not like their wish, the customer will be dissatisfied and vice versa. In particular, if this performance exceeds expectations, the customer will be very satisfied and that will greatly affect the business performance (Kotler and Armstrong, 2010).

Consequently, accurate measurement of customer satisfaction through reliable feedback from consumers on a product or service is critical to developing effective management strategies which allow managers to implement programs that improve customer satisfaction. In addition, Natalisa and Subroto (2003) clearly explained the concept of customer satisfaction, with the strong support of the expectation theory developed by Oliver (1980). The final results of the study have five different theories: paradigm of disconfirmation outlooks, the theory of comparative degree, equity theory, norms as a benchmark criterion, theory of perceptual disparity. This model has become the most widely recognized model of business in today's business world.

# **Customer Word of Mouth**

Nowadays, there is no denying that most consumers want to seek trust from their products or services before making a purchase decision. That trust is collected from the opinions and experiences of people who have purchased or used products or services previously such as relatives, friends, etc. For those reasons, the definition of word of mouth was born. Indeed, the definition of word of mouth was mentioned very early in the studies of the 1990s and not just one. Dean and Lang (2008) defined that word of mouth is a dialogue connection between consumers with each other through communication, which may be about merchandise, a brand, or a service that they have purchased or used before.

Word of mouth especially plays an important role in service business enterprises because services are intangible products that are evaluated based on the experience or reputation of the business. With the growing and increasing share of the service industry, customers who make the decision to use the service need a lot of advice or suggestions from people around who have experienced the service. Moreover, customers tend to be more reliable when talking to each other than when communicating with service companies, which highlights the important role of word of mouth.

The effect of word of mouth seems to be growing as fast as the digital revolution has amplified and accelerated to reach the target which it is not simply a formality action of association between people. Today, word of mouth can be the association from one person to many people, for example, a product or service reviews posted online or comments published through social networks. Customers are often overwhelmed and anxious because there are too many choices for a service, which leads them to be more skeptical about the accuracy of the advertising and marketing of service companies. Therefore, every business needs to understand to better use the knowledge of word of mouth

### **Customer Trust**

Customer trust was studied in a lot of different fields typically as in business, medicine, and psychology and this concept in each area is not exactly the same. Customer trust can be understood as the confidence of some organizations and businesses that customers believe they will get what they want (Deutsch, 1958). For a customer who is willing to "trust" a business when using a product or service of that business,

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customers often rely on their past experience and satisfaction conduct interaction with the business. In addition, Robinson (1996) defines that the customer delegates their expectations, beliefs, and expectations to the trustee, in particular, the businesses they are and want to use, will bring benefits, advantages or at least not cause disadvantages for them.

For service providers, it is sometimes impossible to retain customer satisfaction, as this factor is often risky and does not guarantee that customers will commit to purchasing or using long-term service for any supplier. Instead, service firms should focus on other factors which have equally effective such as customer trust to keep customers (Morgan and Hunt, 1994). In addition, trust has a direct relationship or repurchasing intention (Ribbink, Van Riel, Liljander and Streukens, 2004) which is proven through customer trust, typically, will increase as a business acquires a credible brand that has a significant sales. In all situations, customer trustworthy is built over a long time, through interactions between individuals or business partners. Therefore, service providers must be ready to accelerate the confidence-building process by establishing the necessary plans, resources, and efforts so customers can feel safety and relax.

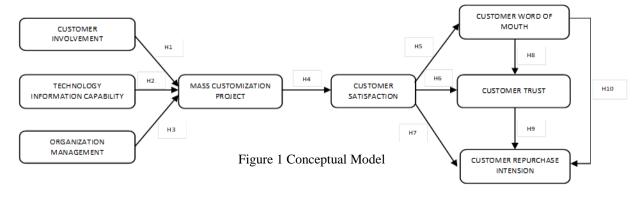
## **Customer Re-purchasing intention**

The definition of repurchase intention in a way that is understandable is the decision of the customer to engage in the purchase or re-use of a service provider again (Hume, Mort and Winzar, 2007). In other words, according to Peyrot and Doren (1994) repurchase intention is the actual behavior of consumers when buying or using the same service product more than once and is a potential repeat purchase. Jackson and Bund (1985) pointed out that "repurchase intention" as a "customer behavioral intention" so that suppliers can measure the current trend of continuity, thereby proposing the possibility of increasing or decreasing the number services provided.

The measurement of repurchase intention is usually collected from existing customer surveys of a business. It is possible to evaluate customer trends when purchasing the same product or service, the same brand from same company. Purchasing intentions also play a role in mediating their attitudes towards a particular product or service and their actual buying behavior (Ajzen and Fishbein, 1977). In addition, earlier studies have concluded the effect connection between the client who is satisfied and their repurchase tendency. Henkel et al., (2006) argue that in service enterprises, the customer wish to re-using the service is quite high when customer satisfaction is positive. Furthermore, studies by Kandampully, (1998) also mentions that businesses must strive to maintain high-quality service levels to get the target of customer satisfaction through making them repurchase.

#### Conceptual Model and Hypothesis Development

A hypothesis model structural is developed and shown in Figure 1. Through that, we built the hypothesis to test the model



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In the past, there has been a lot of research on the linkages between the dimensions that influence the good performance of mass customization, including three main elements: customer involvement, organization management, technology information capability. In fact, in the logistics service industry, there is a significant relationship link these dimensions and the high efficiency of a mass customization (Lau, 2008). For that reason, the higher level of three factors leads to better improvement of the mass customization project (Hart 1995; Kotha 1995).

There are a lot of ways to look at and evaluate success factors, but in this article, according to Lau (2008), we are concerned with the three factors mentioned previously: customer involvement, technology information capability, and organization management, we tested the following hypotheses:

- H1: The level of customer involvement positively influences on the mass customization project.
- H2: The level of technology information positively impacts on the mass customization project.
- H3: The level of organization management has a positive effect on the mass customization project.

Besides some evidence that mass customization increases customer satisfaction due to the benefits of meeting the need of each customer. There are further research studies about the relation of mass customization and customer satisfaction. The study by Alhstrom and Westbrook (1999) examined through the survey result from the manufacturing companies in the UK and concludes that the benefits of mass customization project for firms implement make significant increases in satisfaction customer. In addition, with similar conclusions, Tu, Vonderembse, and RaguNathan (2001) found that the firms able to successfully implement mass customization projects will create high value and more benefits for customers. So, we continue to test the next hypothesis in this study:

H4: The performance level of mass customization project positively effects on customer satisfaction.

In the logistics service industry, the support of the firm makes customers satisfied is a prerequisite to determining whether the customer intends to reuse the company services again or not. In the report by Tsai, Jaw, Huang, and Chen (2006) showed in clearly that satisfied clients are more able to carry on their interest and relation with a particular firm than the customer who dissatisfied with the performance of service. Also the same opinion, the study of Szymanski and Henard (2001) also support this idea. In addition, the reflection that a company must fully meet the complex and diverse requirements of its customers also brings the trust of customers (Gul, 2014). In the same sense, when a customer satisfies they will provide optimistic word-of-mouth to the firm, giving the firm the ultimate benefit, and recommending the service again to the present customer and even potential customers (Taghizadeh, Taghipourian and Khazaei, 2013). Finally, with research by Henkel et al., (2006) if the customer is satisfied enough with the firm's service, they will always be willing to re-use the service. With this close relationship, we decided to tested the following hypotheses

- H5: The performance level of customer satisfaction has a positive influence on customer word of mouth.
- H6: The performance level of customer satisfaction positively impacts on customer trust.
- H7: The performance level of customer satisfaction has a positive effect on customer re-purchase intention.

Although it is not strange to talk about the relationship between the customer word of mouth and the customer trust, there are only a few studies of the opposite side. Mutinda and Mayaka (2012) found that more than half of new clients of a company were affected by Word-of-Mouth. These customers use direct communication behavior to evaluate or exchange information precisely about service (Parra et al., 2011). That is synonymous, it indicates that customer use word-of-mouth communicates with each other will

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affect a customer trustworthy in a business and indirectly influence the customer's intention to use the service (Scarinci and Pearce, 2012). The next hypothesis we will tested in this study is:

H8: The performance level of customer word of mouth positively effects on customer trust.

Chiu, Vanselow, Kramer, Edery (2008) concluded in their study that re-purchase intentions are often improved on the experience of buying and using the goods or services of the customer and the trust of the service provider. In addition, results-based studies have also supported this conclusion by Kwek, Lau, and Tan (2010) also found that service providers should give the right information about the service to improve the trust of the customer. Besides, the client transmits their using service experience by word of mouth also exerts a persuade influence on customer re-purchase purpose. When customers feel the quality of service exceeds expectations, they will tend to experience it again or introduce to other potential customers (Liu and Lee, 2016).

H9: The performance level of customer trust has a positive affection on customer re-purchase intention.

H10: The performance level of customer word of mouth has a positive effect on customer re-purchase intention.

# Methodology

#### Research development and database collection

The study is a descriptive search for evidence supporting whether or not an influential relationship exists between the success factors and the mass customization project. From that, determine whether a company implementing a mass customization project in association with customer satisfaction and from a customer who satisfied the service whether or not an optimistic relationship with the customer trustworthy and repurchase intention in the logistics industry, helping logistics companies survive and develop in the fierce competition of service market today.

The database used to evaluate in this study was collected and converted from surveys of clients who have used or are still using logistics services in two markets Vietnam and Myanmar respectively of two companies BPL Logistics Co. and Indo-Trans Logistics Corporation. To make it easier to complete customer surveys, this study has two versions of the survey questionnaire in Vietnamese and English, which gives the respondent the ability to choose which version they prefer, easiest to understand and have the most accurate answer their experience when using logistics services. In addition, the surveys were utilized by design a Google docs survey form, then distributed through mail surveys or social software applications. The reason we choose the online method because it is convenient for participants as well as saving time collected. As an advanced technology, it can allow researchers to design, conduct and analyze their investigations at a much smaller cost and time.

The questionnaire is designed in detail and split into two parts. The first one was designed and refined to relevant the logistics industry to capture the respondents information about the success of the three factors (customer involvement, organization management, technology information capability) when performing a mass customization project, then determine the influence of two factors, respectively, the service mass customization project and customer satisfaction, or the relationship connection between the word of mouth, the trustworthy, and the purchase again purpose. The second part is designed to collect and statistics the demographic characteristics profile of the respondents. We obtained 423 responds from customers using logistics service, 221 of them from Vietnam and 202 from Myanmar. Among them, 12 responses have not been completed. Finally, the remaining 411 responded with valid information.

In this study, the theoretical model uses linear structural relations modeling (LISREL) as a basic and data processing techniques Statistica 10.0 combined with LISREL 8.0 and Excel 2013 conducted the test

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through the following procedure. Firstly, using Excel 2013 to run the covariance matrix to helps determine the distinction between the factors in the model and it is also the input data of the next step. Then, this study used the confirmation factor analysis (CFA) technique to find out coefficients prove model fit. Finally, test evaluate-value and t-value in structural equation modeling (SEM) to more rigorously figure out the composite reliability of concepts, test the structural modeling hypotheses and the overall suitability model. In which, both CFA analysis and SEM were performed by running LISREL 8.0 statistical program

#### Results

Table 1 is a detailed demographic profile. There are 47.7% males and 52.3% females participate in this study. Most of the survey respondents were between 18 and 45-year-olds, in particular, from 18 to 25-year-olds accounted 29.7%, 37.2% for 26 to 35-year-olds, 18.5% respondents have the age from 36 to 45. Age group under 18-year-olds has no respondents because the surveyed audience is the customers of the two logistics companies mentioned above who are working or running partner companies. With the concentration in the above age groups, the number of respondents who have married status (64.2%) is higher than those who are still single (35.8%).

In one month, the average customer using the service less than five times accounted for 58.6%. Service using ranged from 5 to 10 times, accounting for 19% and more than 10 times accounting for 22.4%. This indicates that the customers of the two companies used to make the survey sample have a high frequency of using the service. The final data result also show that there are 411 respondents, of which 233 (54.3%) were Vietnamese and 188 (45.7%) were Myanmar. In addition, the table also shows that respondents included in the survey had a high average income, typically earning from US\$500 to over US\$1000, accounting that have 67.1% respondents belong to this group.

Table 1 Descriptive demographic of respondents

Characteristics	Count (person)	Percent (%)	Characteristics	Count (person)	Percent (%)	
Frequency table: GEN (Gender)			Frequency table: NAT (Nation)			
Male	196	47.7	Vietnam	223	54.3	
Female	215	52.3	Myanmar	188	45.7	
Frequency table: AGE (Age)			Frequency table: MAR (Marital status)			
<18	0	0	Single	147	35.8	
18-25	122	29.7	Married	264	64.2	
26-35	153	37.2	Frequency table: allowance)	INC (Monthl	y income/	
36-45	76	18.5	< US\$250	108	26.3	
46-55	39	9.5	US\$251 - US\$500	27	6.6	
>55	21	5.1	US\$501- US\$750	100	24.3	
	TIME (How ofted during the month)	n do you use	US\$751- US\$1000	90	21.9	
5 times	241	58.6	>US\$1000	86	20.9	
5-10 times	78	19				
>10 times	92	22.4				

The covariance matrix that we utilized for input data are given in Table 2 for determination factors model. Three affect factors (Lau, 2008; Hart, 1995; Kotha, 1995), mass customization project (Alhstrom and Westbrook, 1999), customer satisfaction and the others factors affecting re-purchase intention (Tsai, Jaw, Huang, and Chen, 2006; Gul, 2014; Scarinci and Pearce, 2012; Liu & Lee, 2016). Selective based on the results obtained from previous studies, the elements from proposed model are best selected for inclusion.

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Table 2 Input covariance matrix of hypothesis model

	CIN	TEC	ORN	MCU	CUS	CWM	CUT	CRP
CIN	0.731							
TEC	0.165	0.451						
ORN	0.067	0.016	0.758					
MCU	0.022	0.059	0.301	0.440				
CUS	-0.031	0.011	0.065	0.176	0.497			
CWM	-0.013	0.020	0.061	0.103	0.235	0.435		
CUT	0.014	-0.013	0.070	0.023	0.060	0.052	0.779	
CRP	0.040	-0.001	0.073	0.035	0.051	0.018	0.489	0.694

#### **Confirmatory Factor Analysis Approach**

In this section, we conducted a CFA analysis using LISREL 8.0 software to estimate the suitability of factors in model. Table 3 shows the goodness of fit values and statistical theories in accordance with this study. The first column represents the goodness of fit theories and their symbols. The second column shows the target coefficients that expected to be achieved. The remaining column is index values calculated after using the statistical program of the original hypothesis model.

Statistical results for the conclusion that the original hypothesis fit the data has a specific value of  $\chi^2/df = 1.05$  (<3) and it is too low to negate the null hypothesis of a good fit (p=0.40), GFI = 0.990 (should be greater than 0.90 ), RMSEA = 0.011 (should be less than 0.05), AGFI = 0.977 should be less than 0.08), PGFI = 0.413 (should be greater than 0.90). Therefore, this model has a good fit indices and is considered acceptable.

Table 3 Goodness-of-fit index from statistics measurement

Fit measures	Statistics measurement target	Values	
$\chi^2$ (df)	Smaller grades is better	15.72 7(15)	
$\chi^2/\mathrm{df}$	Minimum grades: 1.0	1.05	
	Maximum grades: 3.0		
p-value	p-value > 0.05	P=0.400	
GFI	GFI > 0.90	0.990	
RMSEA	RMSEA < 0.08	0.011	
AGFI	AGFI > 0.90	0.977	
SRMR	SRMR < 0.08	0.031	
PGFI	PGFI > 0.90	0.413	

#### **Hypotheses Testing with Structural Equation Model**

After testing the fit of the model by CFA which was clearly mentioned at previous part, structural equation modeling (SEM) was run and performed to judge the original hypothesis model by using maximum likelihood (ML) method to estimating the value and calculating t-value. Figure 2 shows the estimated value and t-value in the initial hypothesis model. The results show that the model has a high suitability with data  $\chi^2 = 15.727$ , df = 15 and significant (p = 0.40), RMSEA = 0.011 (should be less than 0.05).

As shown in the figure 2, in the hypotheses that comprise the three factors influencing the success of the mass customization project, the customer involvement factor (estimate value = -0.04, t-value = -1.04) has no positive effect participate in the mass customization project, so that hypothesis 1 is not supported. In contrast, the other two factors in sequence is the technology information capability (estimated value = 0.13, t-value = 0.40, t-valu

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on the mass customization project, hypothesis 2 is supported and also the same with hypothesis 3. The outcome of the influence between mass customization project and customer satisfaction (estimate value = 0.40, t-value = 8.09) concludes that hypothesis 4 is supported. In other words, the higher performance level of mass customization project leads to better customer satisfaction.

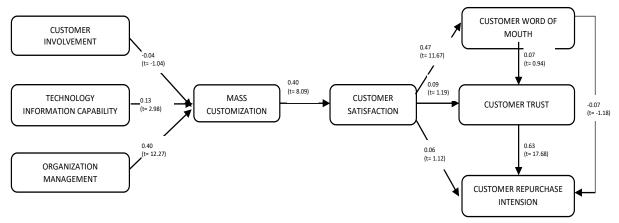


Figure 2 Estimated value and t-value in the hypothesis model

Although the results showing that the customer satisfaction factor affects the customer word of mouth (estimated value = 0.47, t-value = 11.67), two other are customer trust factors (estimated value = 0.09, t-value = 1.19) and the customer re-purchase intention (estimated value = 0.06, t-value = 1.12) gives the exact opposite result. Consequently, hypothesis 5 is supported while hypothesis 6 and hypothesis 7 are rejected. Similarly, the customer word of mouth (estimated value = 0.07, t-value = 0.94) also did not have an optimistic effect on customer trustworthy which synonymous that hypothesis 8 in model was also rejected. Finally, comparing the impact relationships of two factors are customer trust factors (estimated value = 0.63, t-value = 17.68) and customer word of mouth (estimated value = -0.07, t-value = -1.18) with customer re-purchase intention, only customer trust will affect re-purchase intention, synonymous that the hypothesis 9 is supported and hypothesis 10 is denied. Table 4 below shows more clearly the hypothesis test results through indicators.

Table 4.4 Results of running structural modeling equation (SEM) model

Independent variable	Dependent variable	Hypothesis	Estimate value	T-value	Result
CIN		H1	-0.04	-1.04	Rejected
TEC	MCU	H2	0.13	2.98	Supported
ORN		Н3	0.40	12.27	Supported
MCU	CUS	H4	0.40	8.09	Supported
	CWM	H5	0.47	11.67	Supported
CUS	CUT	Н6	0.09	1.19	Rejected
	CRP	H7	0.06	1.12	Rejected
CWM	CUT	H8	0.07	0.94	Rejected
CUT	CRP	H9	0.63	17.68	Supported
CWM	CKF	H10	-0.07	-1.18	Rejected

# **Conclusion and Discussion**

This study attempts try to identify factors affecting mass customization and the impact on customer repurchase intention in logistics service companies, help companies gain experience in developing quality services to satisfy the variety of customers requirement.

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Three factors were selected and extracted from previous studies (Lau, 2008; Hart, 1995; Kotha, 1995). Following the final outcome, two elements include technology information capability and organization management have had a positive impact on the mass customization project (supposed in hypothesis 2 and hypothesis 3), this means that the customer thinks that for a company to implement a mass customization project, information technology and management organizations are indispensable, the ability of information technology to handle orders or shipping details in the fastest and most accurate way. In addition, the company's management team closely supports conversion of information and reduces unnecessary costs. However, the customer involvement factor (supposed in hypothesis 1) has the opposite effect, this completely rejects the hypothesis in Lau (2008) study. The reason for this rejection is customer involvement can help firm's clients identify new service projects and help the company with the dissemination of the project (mentioned to here as the mass customization project), can make new innovations faster on the market. However, customers only comment on what they have experienced and cannot reflect on the use of new projects. Therefore, when the company does not find out more about the customer and understand their needs, but directly carry out the project for new customers, this will reduce the impact of customer involvement on the mass customization project.

The results also note that the mass customization project has an optimistic effect on customer satisfaction (supposed in hypothesis 4), which proves that the benefits of the company using mass customization project are absolutely sufficient to satisfying customer requirements. It asserts that the original hypothesis of Alhstrom and Westbrook, (1999); Tu, Vonderembse and RaguNathan (2001) is correct. As a result, customers are more and more satisfied with logistics services of the company.

In this study, the relationship was no strange of customer satisfaction element and the other is word of mouth communication element (supposed in hypothesis 5) also has a strong influence. In other words, customers tend to give positive feedback and introduce their company's logistics services to others. In contrast, not like previous studies that support the relation connect between customer satisfaction and customer trust (Gul, 2014; Wetsch 2005) and customer repurchase intention (Henkel, Houchaime, Locatelli, Singh, and Zeithaml, 2006; Taghizadeh, Taghipourian and Khazaei 2012). In this study, the results point to the rejection of the hypothesis (supposed in hypothesis 6 and hypothesis 7). The result synonymous that, to increase customer trust and repurchase intention, increasing their satisfaction with service quality is not enough. A customer can be satisfied with the logistics service, but the customer is also very vulnerable to change when have external influences affect their perceptions of the firm's quality such as conflicting opinions which have a negative meaning or other competitive strategies of rival companies make customers feel unconvincing and do not desire to contact again with the service.

Similarly result, the customer word of mouth element has no impact on customer trust (supposed in hypothesis 8), this also refutes the theory (Scarinci and Pearce, 2012). Customer trust is a factor built into the long-term relationship between the clients and the service firm. So if a customer has used many times and is satisfied with the logistics of a company, their trust in the company is very solid. Conversions negative from the customer word of mouth are sometimes not reliable enough for the consumer to make their decision not to trust anymore.

Finally, the influence of the customer trust on the customer repurchase (supposed in hypothesis 9) is also strong and positive. Customers think that once they trust the quality of firm's logistics services, they will be ready to repurchase the service again. This hypothesis also was supported by Kwek, Lau, and Tan (2010), Chiu et al., (2008). Although the customer trust has positive results, the customer word of mouth component does not produce the desired result, in particular it does not affect customer repurchase intention (supposed in hypothesis 10). When deciding to use a logistics service, customers must first investigate and think carefully about the purchase decision. Traditionally, the customer word of mouth may have bad or good affects the repurchase intent of the customer. But for this study, the customer word of mouth results have no effect on customer repurchase intention. This may be due to sample surveys, survey respondents who are typically successful entrepreneurs, or executives of partner companies. With that

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ability, they have full confidence in their ability to recognize and knowledge of the decision to use the service or repurchase intention, leading to their being unaffected by the customer word of mouth.

# **Limitations and Suggestions**

Since this study uses a questionnaire to survey consists of closed questions which the answers are available in advance to easily for respondents answer questions and facilitate convenience in statistical data. However, this makes the answers of the respondents pre-defined and limited in response options which were set up in the questionnaire. These contradictions stem from the fact that we use data from internet surveys and e-mails, leading that this study does not cover the number of customers who are less or not usually to use the network.

Using a sample of 411 clients of two logistics service companies in Vietnam and Myanmar, this study did not represent the entire population of customers who also used the services of the two companies. Therefore, future research should focus on identifying larger sample size targets.

In addition, in this study we emphasis on the direct effects of the factors without regard to the variables, the measurements applied in this study were essentially from previous research, so that they may have some shortcomings and that should be supplement and improve in future research.

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