



# FACING THE CHALLENGE OF INDUSTRIAL REVOLUTION 4.0 BY TAKING A PRELIMINARY PHASE CONCERNING WITH MANAGEMENT ISSUES

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**Facing the Challenge of Industrial Revolution 4.0 by Taking a Preliminary  
Phase Concerning with Management Issues**

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## Preface

For this book, we particularly highlight the issue of collaborative innovation in the era of Industrial Revolution 4.0: Accounting and Finance Review. The book is resulted from The International Seminar on Business, Economics, Social Sciences and Technology (ISBEST) 2018 hosted by The Faculty of Economics Universitas Terbuka. The theme is an adaptation of the technology disruption that has shifted as a result of the Industrial Revolution 4.0. The era is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres, which then affects almost every industry globally. The disruption heralds a transformation of the entire systems of production, management, and governance, hence, forcing the economic society to reexamine the way they do business that leads up to continuous innovations.

Disruptive innovation refers to an innovation that creates a new market and value network and eventually disrupts an existing market and value network, displacing established market leaders. Across all industries, there is clear evidence that technologies that underpin Industry 4.0 have a major impact on businesses, customer expectations, product enhancement, and collaborative innovations. In other words, it is all about how new technologies are transforming products and services and increase their value.

Based on these reasons, this book aims to share ideas in the area of management business, particularly on how facing the challenge of industrial revolution 4.0 in the economic society could be strengthened to sustain the competitive advantage in the era of the Industrial Revolution 4.0. Through this book, we would like to encourage collaborative innovation in the area of management business.

Jakarta, December 2018

Amalia Kusuma Wardini



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## EDITORIAL

### FACING CHALLENGES IN INDUSTRIAL REVOLUTION 4.0 BY TAKING A PRELIMINARY STEP CONCERNING MANAGEMENT ISSUES

Industrial Revolution 4.0, which has sparked a heated debate among scholars, practitioners and the government, is now becoming a centre of discussion in seminars, whose constructive outcomes are forcing involved stakeholders to act on it and take a preliminary step to face the challenges with the outmost readiness. To take part in this groundbreaking Industrial Revolution 4.0, the faculty of economics of Universitas Terbuka (Indonesian Open University), takes on its academic responsibility to disperse knowledge to students and wider society in the form of academic articles discussing strategic management issues from different perspectives.

Dominant trends that affect the business landscape in the modern world is the revolutionary development of Information Communication Technology (ICT), which impacts many aspects of life on a grand scale, especially the Higher Education (HE) institutions in regards knowledge distribution, scholarly publication and patent application, as well as facilitating access to information and science development. In general, HE institutions in Indonesia should be doing gradual shifting from research institution to become entrepreneurial university. In the article with the title: *Facing Industrial Revolution 4.0 Through The Empowerment Of Higher Education Institutions Towards Entrepreneurial Universities* by **Mohammad Nasoha**, HE institutions should be encouraged to move towards an entrepreneurial mindset that is able to create public value by emphasizing learning orientation, organizational and entrepreneurial orientation and collaborative network.

Changing paradigm from HE institutions to entrepreneurial university in facing the era of Industrial Revolution 4.0 is not an easy task, but there are strategic steps that must be taken. Optimizing ICT to support learning process can be an initial step to improve the quality of service for stakeholders (students, society and clients). This issue was addressed by **Andy Mulyana** in his article entitled: *Higher Education facing challenges in Industrial*

*Revolution 4.0 by implementing e-learning system: A behavioral intention model.* This research involved 1.252 students as the participants of e-learning in Management department. This research was looking at the impacts of three independent variables, i.e. system quality, content information, and service quality, on satisfaction and behavior in online tutorial participation. Interesting result in this study is that the quality of system, content information, and service have not optimally fulfilled the needs/demands of participants that affects perceived satisfaction and intention to use.

In relation to ICT optimization, establishing a quality website can be a strong selling point for an institution. In the article by **Ginta Ginting**, with the title: *Improving Universitas Terbuka service quality to sustain in the era of Industrial Revolution through an integrative model of online/website experience: A structural modeling approach*, has identified three-step flow variables: 1) independent variables consisting of interactivity, usability, connectedness, challenge, skill, telepresence, and perceived benefit; 2) component variables consisting of functionality, psychological, content/marketing; and 3) outcome variables consisting of satisfaction, trust and behavioral intention. Using SEM-LISREL from 364 respondents, this research model was able to prove 15 out of 20 hypotheses.

Strengthening the position of Universitas Terbuka to move towards Cyber University requires a lot of effort, especially in the digitalization of all learning process delivery. In line with this is the article by **Andi Sylvana** and **Murtiadi Awaluddin**, entitled *Strategic steps to develop Open University graduates' competitiveness as a solution to face the era of Industrial Revolution 4.0*. In the article, it is postulated that there are two steps to create competitiveness: one is by curriculum reform that suits the needs of digital era and another is by constantly making innovation in the teaching learning.

The challenge in the era of Industrial Revolution 4.0 does not only influence the education sector. The business sector must also be ready to anticipate the challenges in a strategic manner. Business practitioners are now offering online service that is claimed to solve the problem in Industrial Revolution 4.0. The article by Radeswandri entitled, *An empirical investigation of behavioral intention in the contex of e-shopping as an initial attempt to face the era of Industrial Revolution 4.0* investigates the effects of e-service quality on e-satisfaction as well as the impact on behavioral

intention. Focusing on e-service can be an initial step to face the era of Industrial Revolution 4.0. Insights from this study is that behavioral intention among online shopping users is high, which means that service quality and satisfaction provided by the vendors are increasingly significant. **Wiwin Siswantini** and **Soekiyono** in their article entitled: *The effect of price, product and service quality, and customer satisfaction on purchasing decisions: A case of Indonesian online motorcycle taxi* investigates the factors affecting purchase behavior among online delivery application users. The findings show that there is a positive influence on price, product quality, service quality and customer satisfaction on the purchasing decisions.

Preliminary steps to face challenges in the era of Industrial Revolution 4.0 is to build loyalty among customers. **Dewi Fadila** et al. in their article *The impact of Integrated Marketing Communication (IMC) and Consumer Perceived Value on consumer loyalty to Islamic Bank in Palembang* attempted to fill in the research gap regarding integrated marketing communication and consumer perceived value in Sharia banks. Their study found that IMC has an important role in Sharia banks but it is the consumer perceived value that becomes the dominant variable influencing loyalty. **Sri Lestari Pujiastuti** in her article *The effect of service quality on customer loyalty among Ibis hotel customers in Surakarta* found that loyalty can be fostered by building trust, customer satisfaction, and/or quality of service. The emphasis of this study is that quality service is the dominant factor surpassing the influence from any other variables that modulate loyalty.

To build customer loyalty, hence to stay competitive and survive, trust must become the business credo.

**Sri Ismulyati** in her writing entitled: *The importance of human resources development to face the era of Industrial Revolution 4.0: Trust-based modeling for social security management agency in Indonesia* aims to find out how far the public trust in the Health and Social Security Management Agency/BPJS Healthcare is integrated into the concept of service value, customer value and corporate image. Empirical evidence indicates that public trust among outpatient customers is not optimal. Hypothesis test results indicate that service quality has not been able to significantly influence image creation and trust. The pessimism is due to poor



image and customers rated BPJS service quality low. Practical implication would be for BPJS to improve their service quality.

Tourism sector has become one of the most important sectors to support the national economy. In fact, it is the sector to be relied upon in facing the era of Industrial Revolution 4.0 through the digitalization of Small Medium Enterprises. **Ni Wayan Marsha** and **Tamjuddin** in their article with the title *Alternative Tourism Development in Sembalun Village, East Lombok* has given insights that participating local communities is a crucial factor in the development of alternative tourism. By using SWOT analysis and IFAS (Internal Factors Analysis Summary), the researchers stated that strategies should take local wisdom into account in order to make development sustainable and meaningful. In relation to this green campaign, **Zainur Hidayah et.al** in their article: *Successful factors of green management implementation* presented an interesting point of view that the scope of green management activities is not only on environmental aspects but should also cover all aspects by involving all units within the organization. Another key to success is that planning and measuring process should also involve the implementation of research and development.

The description above is the summary of research by the academic staff in various institutions. This book was written as part of the International Seminar on Business, Economics, Social Sciences and Technology (ISBEST) 2018, with the over-arching theme: *Collaborative innovation of economic society in the era of Industrial Revolution 4.0* that was held on 5 December 2018 in Central Park Hotel Jakarta. This publication is expected to prompt strategic thinking in Management to face the era of Industrial Revolution 4.0. I hope this book will become a platform to launch constructive, creative and innovative thinking so that practitioners in all sectors can be “the actor” and not just “the follower”.



## **FACING INDUSTRIAL REVOLUTION 4.0 THROUGH THE EMPOWERMENT OF HIGHER EDUCATION INSTITUTIONS TOWARDS ENTREPRENEURIAL UNIVERSITIES**

**Mohamad Nasoha & Ginta Ginting**

### **INTRODUCTION**

The demands of modern world which are colored by a knowledge based economy encourage institutions to operate entrepreneurially. One of the new trends that affect the business landscape in the modern world is the highly revolutionary development of Information Communication Technology/ICT known as industrial revolution 4.0. The impact of ICT is very large on the speed of production, distribution of knowledge, the increasing publication of scholars, increasing patent application, and facilitating access to science and information (The World Bank, 2002). The development of a country utilized the superiority of knowledge economy is highly determined by how far the country can quickly adjust to capability and resources owned in accommodating changes in ICT (Barney, 1991; Guerrero & Urbano, 2010).

Currently, particularly in Indonesia, institutions in private sector can be declared to have succeeded in developing strategies to utilizing opportunities of the knowledge based economy era. For example, the development of internet which is increasingly evenly distributed throughout Indonesia has encouraged the development of e-commerce. Internet has become a part of lifestyles of Indonesian society. If we notice at this time, the number of transactions of e-commerce increases sharply. Indonesia Commerce Association (Yuswohady and Gani, 2015) stated that internet users in Indonesia in 2012 amounted to 63 million people or 24% of total population. This number kept increasing. The number amounted to 82 million, 107 million in 2014, and 139 million (55.8% of total population) in 2015. The development of e-commerce is marked by the proliferation of transportation services that utilize application such as “Gojek” and “Uber Taxi”. Other example, PT. Fujitso whose products are computers (hardware and software) is highly concerned with the presence of IoT (Internet of Things) to accelerate product innovation based on Human Centric Intelligent/HCI.

Unlike private sector, institutions that are operated in public sector always face obstacles to be able to develop rapidly because they still maintain classical value, and traditional aspects. As stated by Kirby (2006) “*public sector often faces sort of barriers to entrepreneurial activity as their in the private sector*”. Higher education institutions as public sectors are considered by some to be unable to provide optimal impact in meeting the needs of industries and businesses. This condition raises demands to operate entrepreneurially, leading to commercialization of research result to encourage the acceleration of innovation. Higher education institutions must be encouraged towards an entrepreneurial state of mind. According to Clark (2004), cultural aspects such as ideas, beliefs, and values must be able to reflect high cultural intensity that can lead to confident self-image and strong reputation so as to encourage to be more developed. Implicitly, higher education institutions in the era of knowledge economy must have a high public orientation. Outcome of an organization’s success in building public value can be measured with satisfaction, commitment, memory orientation, superior organization performance compared to other organizations (Wood, 2008; Moore, 2003).

The advantage of entrepreneurially university is that it can build public value. Public value is the value for the public, meaning the presence of the university can provide positive benefits for public. Wood et al., (2008) stated that public value “reflects an organization’s department objective to create value in certain way”. Higher education institution as public organization must have a high public value orientation. In the context of higher education institution in Indonesia, most of people consider that they still cannot implement their goals to improve the welfare of community optimally. This condition is marked by the quality of graduates that are not ready to enter the world of work and research results that are less qualified (Intan in Kompas, January 19, 2016). There are many higher education institutions which are in fact public sectors that still maintain the status quo because of concerns about failure. Traditional box that is still widely adopted by the public sector namely “comfortable zone” that is not in accordance with the implementation of entrepreneurial aspects that always try to take advantage of the opportunity as optimally as possible by innovating, taking risks and being proactive.

Higher education institutions are considered by many to have not implemented entrepreneurship or have not shown entrepreneurial orientation. According to several experts (Zhou, 2008; Kirby, 2006; Clark, 2004), there are several reasons that cause this condition, namely: a) hierarchical structures, b) impersonal relationships, c) limited entrepreneurial talents, d) strict supervision to always comply with the procedures and regulations set by the government, and e) inadequate compensation methods. This situation causes higher education to always face different traditional problems in contrast with institutions/organizations in private sector. Kirby (2006) explained that “... *most academics see their role as teachers and researchers and not as entrepreneurs, and many university managers are concerned about the likely negative impact on their institution’s research performance if their leading academics become involved in entrepreneurial activity*”. This means that almost all academics assess their role as teaching staff and researchers not as entrepreneurs, and the leaders are always concerned about negative impact toward institution’s research performance if involved in entrepreneurial activities because it can lead to aspect of commercialization.

This issue has caused complex problems and it that have not been able to be resolved so far. Levine (2009) argued that the success to apply entrepreneurial university by the commercialization of research result and technology transfer through patent, licensing and university –based business startups can have a positive influence, namely “the false promises in selling academic commercialism”. However Zhou (2008) emphasized that entrepreneurship in higher education institutions will not always lead to commercialization by conducting activities such as: becoming supporting agency for the development of small and medium industries, providing scientific supports for public problems through various legal and expertise assistance (professional consultants).

To be able to build corporate entrepreneurship, there are various obstacles faced by higher education institutions, as stated by Zhou (2008), namely: 1) universities do not have adequate resources and research results that can provide advantageous knowledge for society, 2) collaboration between universities and industries that is still limited in solving problems related to the need of technology in companies, 3) most of research results are difficult to be transferred and applied to industries, particularly for small

and medium level. Several higher education institutions in European and American countries stated that they succeeded in transforming by conducting diversification of funding aspect. A research result by Kirby (2006) provides information on the transformation from government perspective that shifts to a perspective of utilization of alternative income sources sourcing from: a) profit patent, b) supports of large companies, c) public agency support, d) fund help from alumni, and e) professional associations.

In the context of Indonesia, higher education institutions should feel challenged to be able to implement entrepreneurship so as to provide more benefits for the world of business and society. Academic world cannot be underestimated, whereas faculties and departments in universities basically can be categorized as corporate. This means, principally the management can be applied corporately. As stated by Gibb et al. (2009), *“academics are perhaps more similar to entrepreneurs than might be first expected. Where they differ most is in their propensity to take risks, suggesting the need to create a secure environment in which is perceived to be minimized”*. In short, academicians are probable to be compared to entrepreneur, where the main emphasize is to conduct beneficial things for environment and society.

Until today, higher education institutions in Indonesia are considered by some has not yet to provide optimal benefits for the development of business and society. There are around 5.600 research results of higher education institutions that have been published internationally in 2015. This number was still minor considering that Indonesia has more than 4000 universities (Kompas, January 2016). In addition, the role of higher education institutions in Indonesia as innovation agents is still limited. Universities need to be encouraged to increase their research to generate innovation that can be implemented.

In short, the creation of public value should be supported by organizations that have entrepreneurial orientation. Entrepreneurial orientation is a strategic orientation that reflects innovation, proactive, and quality of the courage in taking risks that affects the growth and performance of companies (Fairoz, 2010). Next, Chen et al., (2011) stated that entrepreneurial orientation is related to entrepreneurial process, whereas entrepreneurial orientation is a result of the shift in the stereotype of the old business practice and building something new, innovative, oriented to the

courage to take risk as economic behavior. Triple Helix—building partnership between universities-industry-government—is a tool to grow entrepreneurship in higher education institutions. (ACDP, August 2013).

Besides entrepreneurship aspect, network opportunity is a crucial surfacing issue in taking advantage of network resources from stakeholders to overcome the limitation of institutions. Network collaboration becomes a determinant key so that higher education institutions are able to share resources and capability. According to several experts (Matos & Afsarmanesh, 2006; Bititci et al., 2004), collaborative network represents knowledge driven society, and collaborations occurred in network can provide several advantages that increasing competitive skills, including: a) facilitate access to new knowledge; b) sharing risks and resources; c) cooperating in mutually increasing skills and capacities of each party to increase competencies; d) obtaining resource supports when facing limited resources). The latest concept of collaborative Networks (Mircea, 2015; Xiaomi et al, 2014) emphasizes on the tremendous potential of collaborative network to develop various collaborative and innovative capacity building and generate inter-organization tacit knowledge. So, through collaboration, there will be innovation acceleration driven through sharing and contribution in individual and collective developments. Similar opinion is stated by Piller et al., (2011), that the network collaboration concept by utilizing community as a form of network resources. From the opinion of these experts, in overall, collaborative network has several important determinants, namely: access to new knowledge, generate inter-organization tacit knowledge, sharing, utilizing community and network resources. The importance to build network has been implemented in several universities in developed countries such as United Kingdom, AS and Singapore by making efforts: a) building relationships with business communities, and b) building partnership to develop innovations centers.

The phenomenon that still appears in higher education institutions is learning orientation that is not yet optimal. The important values that shape learning orientation are: organizational commitment, togetherness in the vision of learning, and openness to accept new thinking. This learning orientation that is not yet optimal will cause difficulties for entrepreneurial universities to achieve their vision and mission. As Zhou (2008) stated, "An

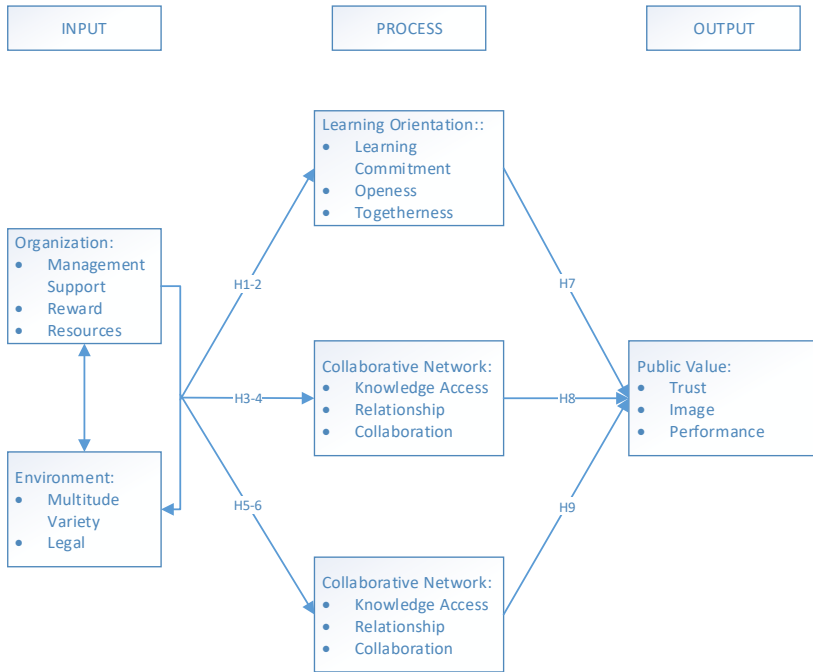
entrepreneurial university must have three missions: teaching, research, and service the economy through entrepreneurship activity and continually participating in society's technological innovation." Facts on the ground show that the concept of Triple Helix, which is the collaboration of university-industry-government, has not been able to encourage new innovations (ACDP Indonesia, 2013).

Furthermore, to be able to encourage the transformation of entrepreneurship-oriented higher education institutions, it is necessary to support the existence of the organization, namely the availability of resources. According to some experts (Sykes, 1992; Morris & Jones, 1993; Wood et al, 2008), institutional support in terms of funding, adequate compensation systems, and support from management can encourage entrepreneurial behavior in individuals within the organization. Not only in terms of organization, rapidly changing environmental factors characterized by technological change, competition and industrial growth can be powerful driving factors for forming entrepreneurially behavior. In Indonesia, this phenomenon is still being debated because there are indications that there are still limitations of educational institutions in terms of resources and lack of management (Bambang, 2009). There are indications that educational institutions are slow to respond to environmental changes so that they cannot take advantage of opportunities (Siswo, 2012).

This paper presents a modeling of entrepreneurial university. This modeling can be adopted by other universities so that it can play a strategic role in encouraging innovation, learning entrepreneurship, and applicable quality research which is an important key in the knowledge economy society especially facing industry 4.0.

The conceptual framework is illustrated to the correlated dimensions, attributes are shown in *Figure 1*.





**Figure 1 Conceptual Model**

Following hypotesis were developed (H1 - H9 ) based on the previous study (Lumpkin & Dess, 2001; Floyd & Lane, 2000; Hornsbye & Kuratko, 2010; Kuratko, 2005; Fairoz et al, 2010; Farsi, 2012; Miller & Friesen, 1983; Sinkula & Baker, 2006; Senge, 2006; Salamsaden, 2011)

Hipotesis 1-2 : Organization and environment influences Learning Organizationn

Hipotesis 3-4 : Organization and Environment influences Collaborative Network

Hipotesis 5-6 : Organization and Environment influences Entrepreneurial Orientation

Hipotesis 7 : Learning Organization influences Public Value

Hipotesis 8 : Collaborative Network influences Public Value

Hipotesis 9 : Entrepreneurial Orientation influences Public Value

## METHODS

The method used in this study is verification (Cooper and Schindler 2011, Hair et al. 2013). To obtain research data, a survey method is used by taking a sample of the population, namely the middle managers of higher education institutions. For the purposes of this study, the unit of analysis is the heads of departments in higher education institutions (universities). To measure the research variables, the following indicators have been developed: 1) Organizational variables are used in three dimensions, namely management support (openness, mutual support and clear goal orientation); reward (performance, incentives, salary); and resources (human resources , professional and financial); 2) Two dimensions for environmental variables are used: multitude variety from stakeholders (expectations, contributions and relationships); legal (legal and justification aspects); 3) For entrepreneurial orientation, three dimensions are used, namely: innovativeness (new ideas, creativity, and development); proactive (market opportunity, competitive advantage); and 4) public value orientation uses two-dimensional images (impressions and beliefs) and trust (credibility, competence and benevolence). The sampling technique uses is convenience random sampling, namely the middle managers of universities in several regions in Indonesia.

## RESULTS

The number of sample participation in this research is 146 people. Respondents involved in this study came from public universities (47%) and private universities (53%). Data was collected from June-August 2016 using a questionnaire. The majority of respondents came from private universities (53%) followed by public universities (47%) where 58.3% are male and the rest are female. Respondents who were officials at the middle manager level at universities (Vice Dean, Heads of Departments and Heads of Study Programs) were from various regions including those dominated by Central Java (23.9%), followed by West Java and DKI Jakarta at 19.2% and other regions. It can be stated that this research respondent is quite representative

on behalf of Indonesia. In terms of age, most are in the range of 30-44 years (84.9%).

After considering the profile of respondent , we are now in position to show the hypothesis results with the explanation see *Table 1*.

**Table 1 Influences between Variables**

Path	Path Coefficient	t	t table	Conclusion
organization → learning orientation (Hipotesis 1)	0,58	11,1	1.96	Significant (Hypothesis is accepted)
environment → learning orientation (Hipotesis 2)	0,32	5,9	1.96	Significant (Hypothesis is accepted)
organization impact to collaborative network (Hipotesis 3)	0,67	12,3	1.96	Significant (Hypothesis is accepted)
environment → collaborative network (Hipotesis 4)	0,18	3,1	1.96	Significant (Hypothesis is accepted)
organization → entrepreneurial orientation (Hipotesis 5)	0,34	4,7	1.96	Significant (Hypothesis is accepted)
environment → entrepreneurial orientation (Hipotesis 6)	0,49	8,1	1.96	Significant (Hypothesis is accepted)
learning orientation → public value (Hipotesis 7)	0,27	3,9	1.96	Significant (Hypothesis is accepted)
collaborative network → public value (Hipotesis 8)	0,07	0,9	1.96	Not Significant (Hypothesis is rejected)

Path	Path Coefficient	t	t table	Conclusion
entrepreneurial orientation → public value (Hipotesis 9)	0,54	7,4	1.96	Significant (Hypothesis is accepted)

**Sources: Author**

*The first upshot* from figure 2, clearly shows that all hypotheses examined were validated and positively substantiated by the analyses, except collaborative network toward public value. Environment and organization affected learning orientation (**H1-2**), Environment and organization affected Collaborative Network (**H3-4**), Environment and organization affected entrepreneurial orientation (**H5-6**). Moreover learning organization and entrepreneurial orientation gives a significant affect toward public value (**H8 and H9**). However network collaboration insignificantly influence to the public value (**H7**).

This study successfully proved that organizations that are built from three important dimensions such as management support, reward and resources can improve learning orientation, collaborative network, and entrepreneurial orientation among middle manager in higher education institutions in Indonesia. The strongest influence is on entrepreneurial orientation (0.49). Viewed from the aspect of the environment, it was successful to prove that an environment built from two important dimensions in this study such as legal aspects and stakeholders could increase learning orientation, collaborative network, and entrepreneurial orientation among middle manager in higher education institutions in Indonesia, where the greatest influence is on learning orientation (0.32).

This research also has succeeded in proving that entrepreneurial orientation, which is built from three important dimensions, such as innovation, risk taking, and proactive, has been proven to improve public value (performance) of middle manager in the higher education. This study has also succeeded in proving that commitment to learning, open to new thinking, and togetherness of vision are proven to increase public value (performance). However, this study did not succeed in proving that collaborative networks that are built from three important dimensions in this

study such as resources and knowledge access, relationships, and collaboration cannot increase public value (performance) of middle manager in the higher education. Test hypotheses of the effect of collaborative network on public value are insignificant, meaning that the ability to build networks by collaborating with various parties (stakeholders) in order to access knowledge and build relationships, and it is apparently not strong enough to influence public value (trust, image, and performance)

The essence of research result can be stated that the knowledge based economy era, triggered by, among other things like industrial revolution 4.0, the development of ICT, encourages higher education institutions (faculty manager) to be able to utilize their resources so that they can strengthen their role as an innovation agent. By becoming an entrepreneurial university, higher education institutions through their faculty's manager can utilize the results of research and technology transfer through patents, licensing and professional consultants for the advancement of industry and the business world. Actually it is not easy for higher education institutions to become entrepreneurial universities because they still face various obstacles to limited resources and collaboration with the industrial world that is not yet optimal. For this reason, it is necessary to develop a strategic step that can move all parties at the middle manager level (Faculties, Departments and Study Programs). The strength of the element of middle managers such as the Dean, Assistant Dean, Head of the Department and Head of the Study Program plays a strategic role in encouraging entrepreneurial behavior and utilizing entrepreneurial opportunities. According to Diefenbach (2011), Middle managers are now seen at the locus of corporate entrepreneurship. Their roles of championing, synthesizing, facilitating, and implementing make them a particularly interesting unit of analysis. Consequently, the model of how they are embedded in the corporate entrepreneurship process has been established. Similar opinion from Wooldridge et al, (2008), middle managers play a special role in the organization because of its position as mediation among various groups. They can communicate initiatives to top management and are generally able to shape the organization's strategy in terms of facilitation, reporting and implementation. In the public sector, middle managers are rated as the most entrepreneurial.

The middle manager has potential role to encourage teaching staff / lecturers should feel challenged to be able to implement entrepreneurship in

order to provide more benefits to the business world and society. The academic world cannot be under-estimated, where the lecturers can be categorized as corporate co-operations, meaning that the management can in principle be applied in a corporate manner. As stated by Zhou et al. (2008), that academician is perhaps more similar to entrepreneurs than might be first expected. Where they differ most is in their propensity to take risks, suggesting the need to create a secure environment in which is perceived to be minimized. This means that academics are likely to be equated with entrepreneurs, where the main emphasis is on doing things that benefit the environment and society.

## RECOMMENDATION

The model proposed can answer the research gaps resulted from research results of 2 experts, namely: 1) Aracil et al (2013), that needs and obstacles to make more entrepreneurial universities and the importance of measurement criteria; 2) Farsi et al. (2012) affirmed the need to focus on optimizing optimal environment factor in order to build a strong entrepreneurial university. Almost all of hypotheses testing are proven to have significant influence, except collaborative network toward public value.

In the future, this modeling can be used as a reference for conducting field studies, so that concrete facts in the field on the “possibility to achieve entrepreneurial university in Indonesia” can be obtained, particularly with regards to collaborative network variable to be able to generate a comprehensive model. Therefore in the future, higher education institutions in Indonesia can build public value in providing satisfaction for stakeholders and more importantly as innovation agent for improving the welfare of the community.

For future scientific implications, the following matters need to be conducted: 1) identification of variables (indicators) for collaborative network construct that is affected by organizational and environmental factors cannot affect public value, 2) a research model is developed which is directed to find a more applicative (programs, activities), 3) identification of respondents’ characteristics whether they have been distributed proportionally.

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**HIGHER EDUCATION FACING CHALLENGES  
OF INDUSTRIAL REVOLUTION 4.0  
BY EMPOWERING E-LEARNING SYSTEM:  
BEHAVIORAL INTENTION MODEL**

**Andy Mulyana & Irmawaty**

**INTRODUCTION**

Online tutorial held by Universitas Terbuka (UT/Open University) is an application of e-learning offered for students to help the learning process. The use of e-learning could increase learning effectiveness of students, extend range, and increase teaching learning process. Online tutorial is a web based tutorial service and followed by students through internet network. It provides benefit for students because learning is designed to be more communicative and interactive, as well as provision of optimal learning assistance service.

The success of online tutorial is strongly affected by three important components, namely tutors, students, and supporting facilities. A tutor is demanded to know techniques and strategies used so that interaction aspects can run optimally. To be able to perform his/her role well, there are four functions that must be performed by a tutor, namely as: 1) manager, shown by commitment and professionalism, 2) fasilitator provides a responsible learning, provides feedback and assist students to develop study skills. 3) assessor/evaluator, giving an assessment of student assignments. 4) mentor, making students enthusiastic and actively participate.

The implementation of online tutorial is said to be successful if the level of active participation of students is high. Several factors which can affect student involvement in online tutorial is the ability to use internet, concern and time allocation (Juleha, 2007). Student involvement in online tutorial is closely related to the role of tutors to encourage students to become active learners through the rapid development of contact intensity, communication, and feedback. Online tutorial requires reliable IT infrastructure support because of its responsive internet design, where technology becomes the basis of instructional design to alter online tutorial into adaptive learning behavioral.

Ever since online tutorial was offered in 2001, there are still many challenges to increase quality. Several empirical studies on effectiveness of online tutorial from several study programs of Universitas Terbuka generate various findings in the field, include 1) students had difficulties to access, 2) participation was low due to limited internet facilities, 3) Tutors had yet optimal to manage online tutorial indicated by late uploading initiation, less provide feedback and less responsive to discussion forum, and 4) interaction is low between Tutor and participants (Fatia et al, 2012, Dewatisari, et al, 2010, Budiwati, 2007).

The challenge to increase the quality of online tutorial in the future is increasing particularly for Management Study Program because since 2015.1 it has to involve outsourcing lecturers to become the tutors for Tuton. The need to involve outsourcing lecturers is based on the details as follows: there are 40 online tutorial subjects offered by Management Study Program in 2015.1, where for each subjects, there are 5 to 20 classes held (for each class maximum 200 students). There are 428 classes in total followed by students of 2015.1. Based on Statement Letter of Rector, every lecturer/tutor of subjects in Management Study Program must manage 4 Tuton classes, so that the number of classes that can be managed is only 200 classes. There are over 228 classes taught by 53 outsourcing lecturers as tutors.

The success of online tutorial implementation will be affected by readiness of tutors in managing Tuton. There are three important steps in online tutorial management, including preparation, implementation, and evaluation. To implement online tutorial effectively, tutors are required to prepare material, understand the procedure and guidance, as well as attend training. In the implementation step, tutors are required to prepare and send 8 initiation materials (8 weeks), assign assignments (3 times), discuss and provide feedback for students. After online tutorial implementation, tutors must provide assessment. Tutors who have the ability in terms of content and information system infrastructure support become two important factors that affect online tutorial quality.

In terms of participation, the quality of online tutorial can be measured from perceived satisfaction that affects the intention to use, such as recommending and encouraging friends/relatives to participate, spreading positive benefits perceived from online tutorial, and intention to use to support

the learning process. Perceived satisfaction is defined as the feeling of satisfied because what is expected to exceed reality (Kotler, 2010). The main determinant factor of customer satisfaction is customer perception toward service quality (Zeithalm & Bitner, 2000). If reviewed further, providing customer satisfaction can be done by the company through the increase of service quality. According to Kotler (2010), there are several approaches that can be taken, namely: 1) reducing the gaps between management and customers. 2) the company must be able to build a shared commitment to create a vision in improving the service process. 3) giving opportunities for customers to submit complaints by forming a complaint and and suggestion system, for example with a toll free hotline. 4) developing and implementing accountable, proactive, dan partnership marketing in accordance to marketing situation.

Behavioral intention is an important mediator variable related to behavior in affecting the actual use. Theories using behavioral attention construct includes Theory of Reasoned Action (TRA) (Ajzen,1975); Theory of Planned Behavior (TPB) (Ajzen dan Fishbein, 1980); Decomposed TPB (Taylor and Todd, 1995) and Technology Acceptance Model (TAM) (Davis,1989). Behavioral intention is a variable that causes a behavior of an attitude and becomes an influence mediator for motivational factors that have an impact on behavior. In addition, intention also shows how hard someone dares to try, how much effort someone planned to do, and the most influential intention with the next behavior, namely the real use of a product/service (Ajzen dan Icek, 1991). The intention to do a behavior (intention to use) is the tendency of someone to choose to do or not take an action. This intention is determined by the degree to which the individual has a positive attitude towards a particular behavior, and the extent to which he chooses to do this behavior gets support from other people who influence his life. TPB concludes that the goal was the dominant factor in determining the decision to act or not. All factors that can influence real behavior are manifestations of indirect influence on behavioral goals. In the context of behavioral use of technology, two experts namely Davis (1989) and Davis and Ventakesh (1991) suggested Technology Acceptance Model (TAM) use three important constructs as predictors that can influence intention, namely: perceived

usefulness, perceived ease of use, and attitude. TAM is widely used to predict a person's behavior in relation to the use of technology.

Intention to use from online tutorial participants can be influenced by three determinants, namely quality information, quality system, and service quality. In the context of e-learning, the quality of information shows the quality of content. The quality of information is measured using the dimensions of accuracy, completeness, efficiency, relevance, and timeliness of information (Roca et al, 2006). Information quality intended in this study is the user's perception of the quality of information on online tutorial. The measurement of information quality used is usefulness, accurate, and relevance. Service quality can be categorized as support provided by instructors and technicians so that the learning process runs smoothly. Cheng (2012) defines service quality as “as the degree to which a user perceives that the overall quality of services”. The study defines service quality as quality perceived by online tutorial participants while interacting with instructors. The dimensions used to measure service quality are reliability, responsiveness and empathy.

Modeling for evaluating online tutorial quality is measured through student acceptance. This modeling is expected to be able to answer the phenomenon as well as the research gap in order to develop strategies to maintain sustainability by reviewing five important determinants, namely behavioral intention, perceived satisfaction, service quality, system quality, and information quality. The conceptual framework is illustrated and the variables related to the correlated dimension/attributes are shown in Figure 1.

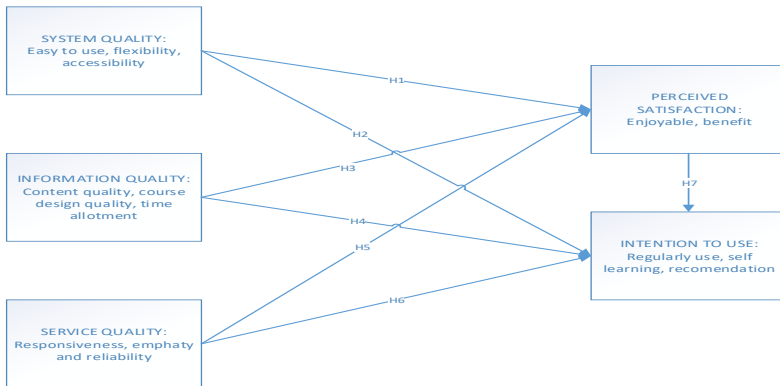
**Based on the model, the following hypotheses are proposed:**

1. Quality system, service quality, and information quality partially influence perceived satisfaction (Hypotheses 1-6)
2. Perceived satisfaction influence intention to use (Hypotheses 1)

## **METHODS**

The method used in this study is descriptive and verification (Cooper and Schindler 2011, Aaker et al, 2011). From the research method used to measure about the effect of information quality, system quality and service quality on perceived satisfaction and its impact on the intention to use by

online tutorial participants. To obtain research data, a survey method is used by taking samples from the populatio of online tutorial participants in 2015.1 and 2015.2 from the management study program. To clarify the testing of the proposed hypothesis, the operationalization variables used are as follows: 1) Quality system, is the quality of the information technology system used, seen from the perception of users ofonline tutorial,with dimensions: ease of use, flexibility, and accessibility, 2) Information quality, is the user's perception of the quality of information on Tuton, dimensions: content quality, course design quality, and time allotment. 3) Service quality, is the quality of service felt by participants during their interaction with instructors, dimensions: responsiveness, empathy, reliability, 4) Perceived Satisfaction, is the assessment of Tuton participants on the interaction of the system and the benefits obtained, dimensions: enjoyable, benefits, 5) Intention to use, is the intention to use online tutorial as self-learning and recommend positive things in the surrounding environment, dimensions: regularly use (self) learning and recommendation.



**Figure 2 Conceptual Framework**

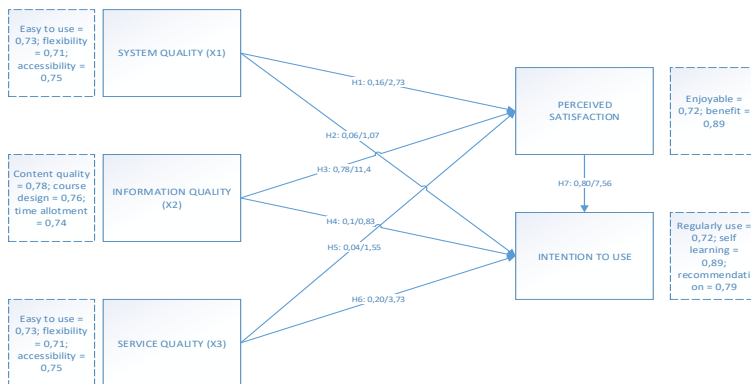
The sample selection method is done by proportional-random sampling (Sekaran, 2009; Cooper & Schindler, 2011). Determination of research samples used recommendations from Hair et al (2013). The sample size was determined based on the maximum number of arrows pointing at construct, then in this study amounted to 7. With a significance level of 5%, the

minimum number of samples was **80 respondents**. Distributions are based on proportional allocation, namely equal distribution based on course taken by the participants.

## RESULTS

The number of respondents, namely students of Faculty of Economy in Management Study Programs who participated in this study is **1252 people**, as participants of online tutorial. Based on the gender, female respondents were 51% and men 49%. In terms of age, some respondents were above 21 years old (83%), dominated by participants aged 21-25 years (37.6%). In terms of UPBJJ-UT (UT's regional office) where respondents originated, it shows that almost all of UPBJJ-UT is represented, including overseas UPBJJ-UT. In terms of frequency, respondents are dominated by students from five UPBJJ-UT, including Jakarta (15.3%), Bandung (5.8%) followed by UPBJJ-UT Bandung, Bogor and Batam reaching 5.8 %. Profiles of respondent indicate that sample data is quite representative to represent population, which are all students of Management Study Program who participates in online tutorial.

After considering the profile of respondent, we are now in position to show the hypothesis results and the loading factors analysis with the explanation (see Figure 3 and Table 2)



Source: Author

Figure 3 Hypotheses Testing Results



**Table 2 Effect between Variables**

Path	Path Coefficient	R Square	t	t table	Conclusion
System quality → perceived satisfaction	0.16	2.56%	2.73	1.96	Significant (Hypothesis is accepted)
System quality → intention to use	0.06	0.36%	1.07	1.96	Not Significant (Hypothesis is rejected)
Information quality → perceived satisfaction	0.78	60.84%	11.40	1.96	Significant (Hypothesis is accepted)
Information quality → intention to use	0.10	1%	0.83	1.96	(Hypothesis is rejected)
Service quality → perceived satisfaction	0.04	0.16%	1.55	1.96	(Hypothesis is rejected)
Service quality → intention to use	0.20	4%	3.73	1.96	Significant (Hypothesis is accepted)
Perceived service → intention to use	0.80	64	7.56	1.96	Significant (Hypothesis is accepted)

**Sources: Author**

The first upshot from Figure 3 was related to the resulting loading factors of the model. Overall all indicators can be said to have good reliability (> 0.70). The second upshot clearly show that 4 hyptheses examined were validated and positively substantiated by the analysis (significant influences). Other 3 Hyptheses was not insignificant. The finding of this study model can be described as follows:

1. This study can prove that system quality can affect perceived satisfaction, meaning the convenience of students as online tutorial participants, include choosing subjects that they want to learn, discussion, access of whenever and wherever as well as simple usage, overall can affect the satisfaction in utilizing online tutorial. Participants of online tutorial felt satisfied, where the satisfaction is represented by the benefits perceive, namely helping in understanding module, providing online learning experience, and responsive tutor support while interacting.
2. Quality sytem does not have a significant effect on the intention use. This finding indicates online tutorial participants in choosing subjects they want to learn, discussion, access of wherever and whenever as well as simple usage in overall have yet to provide a significant effect on the following matters, including the desire to reuse online tutorial, reluctant to recommend and encourage to other parties (friends) to use online tutorial, and not spreading positive things about online tutorial to other people.
3. Information quality have a significant effect on perceived satisfaction. This means that the information quality in online tutorial, namely in terms of substance, material presentation, aspect of interest in learning online process, the ease to discuss and structured schedule, over all have a strong effect on perceived satisfaction. The satisfaction of students as online tutorial user is represented by the benefits perceived, namely helping to understand module, providing online learning experience, and responsive tutor supports while interacting.
4. This study is not succeeded in proving that information quality has a significant effect on intention use. This finding indicates that the information quality on online tutorial, namely in terms of substance, material presentation, aspect of interest in online learning process, the ease to discuss, and structured schedule, overall has yet to pose a significant effect on the intention to use. This means, information quality is perceived by students of online tutorial participants not be able to give a significant effect on the following matters, including the desire to reuse online tutorial, reluctant to recommend and encourage to other parties

(friends) to use online tutorial, and not spreading positive things about online tutorial to other people.

5. Service quality has a significant effect on the intention to use of online tutorial. This finding indicates service quality that shows how a tutor provides feedback, give respond, and always provide solutions to students' problem influences the intention use. This means, service quality affects the following matters, including the desire to reuse online tutorial and reluctant to recommend and encourage to other parties (friends) to use online tutorial.
6. This study is not successful in proving that service quality has a significant effect on the perceived satisfaction. Service quality that shows how a tutor provides feedback, gives respond, and always provides solutions to students' problem has not been able to pose a significant effect on the perceived satisfaction. This means that service quality has not affect the satisfaction participants represented by the benefits perceived, namely helping to understand module, providing online learning experience, and responsive tutor supports while interacting.
7. Perceived satisfaction has a strong effect on the intention to use. This means the satisfaction perceived by students as online tutorial participants, represented by the benefits perceived including understand module, providing online learning experience, and responsive tutor supports while interacting, overall affects the intention to use. In this study, the Intention to use shows the the desire to reuse online tutorial, reluctant to recommend and encourage to other parties (friends) to use online tutorial.

## **CONCLUSION AND RECOMMENDATION**

The findings of this study model are able to prove three hypotheses positively and significantly, namely perceived satisfaction that is affected by system quality and information quality, intention to use that is affected by service quality and perceived satisfaction significantly towards intention use. However, three hypotheses namely system quality and information quality do not have significant effect on intention to use and service quality does not

have significant effect on intention to use. These findings indicate that the varied assessment of 1252 respondents, include of students whose lecturers are not UT lecturers (outsourcing lecturers), show that the quality of system, information and service is yet to be optimal in meeting the needs/wants of online tutorial participants which impacts on satisfaction dan intention to use.

Based on the finding above, there are suggestions that can be used to increase the quality of online tutorial to give positive impact in supporting the learning process of students in Universitas Terbuka's Management Study Program including:

1. Encouraging tutors to actively interact with students. Tutors must have a high commitment to serve students. This finding indicate there is a need for evaluation and monitoring mechanism towards tutor performance.
2. A reward and punishment system is required, meaning outsourcing tutors who do not do their job as tutors of online tutorial must be warned and replaced by other tutors.
3. The need for more intensive training mechanism, so that outsourcing tutors have skills regarding information technology.
4. Recruiting competence outsourcing tutors by considering the qualification (Master's Degree), origin of university, GPA and teaching experience.

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## **THE IMPORTANCE OF IMPROVING UNIVERSITAS TERBUKA SERVICE QUALITY FOR SUSTAINING IN THE ERA OF INDUSTRIAL REVOLUTION THROUGH PROPOSING AN INTEGRATIVE MODEL OF ONLINE/WEBSITE EXPERIENCE: STRUCTURAL MODELLING APPROACH**

**Ginta Ginting**

### **BACKGROUND**

The development of internet which is more evenly distributed throughout Indonesia has encouraged the development of e-Commerce. Currently, internet has become a part of lifestyle of Indonesian people. Indonesia Internet Service Provider Association/APJJI (in Yuswohady and Gani, 2015, p. 269) stated that internet users in Indonesia in 2012 reached 63 million people or 24% of the total population. This number increased, that in 2013 the number reaches 82 million, in 2014 107 million, and in 2015 was expected to reach 139 million (55.8% of the total population). The highest number of internet user still concentrates in Java Island, followed by Sumatera, Bali-Nusa Tenggara, Boreno, Sulawesi, and Eastern Indonesia. Demographically, almost 76% of internet user is under the age of 35; therefore, it can be said that the drivers of internet use are young people. They are a group of active young people who are active on social media, like to shop online, watch video on Youtube, and often change gadgets such as smartphones, wifi tablets, laptops and 3G tablets.

This internet development provides an opportunity for corporations to be able to offer products and services through web-based application. The identification of components of website quality can be a starting step to explore online customer experience. Experiences perceived by customers are not merely related to a part of website components, but should be seen as a cumulative outcome of exposure served service providers. According to Novak et al. (2000) and Rose et al (2012), customer experience need to be viewed holistically, so that service provider can obtain a complete picture on things that can affect user assessment. As stated by Novak (2000) that “creating a compelling online environment for Web consumers will have

numerous positive consequences for commercial Web providers". Statements from several experts (Drake, 2001; Kelley & Davis 1994) show the importance of creating memorable experience for users that can be summarized as follows: 1) can have a strong impact on strong word-of-mouth; 2) provide opportunities for service providers to add differential value through complete information on the products/services offered; 3) can become an advantage key to compete in internet era today. According to Varhoef (2009), creating superior customer experience is the main goal of corporations at this time that emphasizes on the aspects of comfort, value and quality. Starbuck success in opening outlets throughout the world is by creating a distinctive customer experience.

The findings of research results by Mc Kinsey (2016) show that consumer intention to purchase a product/service within e-commerce landscape is growing. According to Gil et al (2009) and Gounaris et al (2008), service providers must be able to offer service experiences to customer if they want to succeed in business which impacts on intention to use and positive word of mouth. Behavioral intention is a variable that causes the behavior of an attitude and mediates various motivational factors that impact on the behavior (Cronin et al, 2000). In addition, the intention also shows how hard someone dares to try, how much effort someone has planned to do, and which intention is most influential with subsequent behavior namely the behavior of real use of a product/service (Ajzen dan Icek, 1991).

Several studies (Lovelock, 2011; Parasuraman, 2009 and Zeithalm, 2000) have proved that behavioral intention is strongly affected by customer satisfaction. The intention of customer to do repeat action is affected by satisfaction level. In the context of e-shopping, service experience in doing online transaction activity affects satisfaction. Satisfaction perceived by customers when conducting online transaction activity is the satisfaction generated by interesting web displays and the ease to find information in terms of payment and delivery. The level of satisfaction perceived by customers will impact on their behavioral intention in the forms of word of mouth, purchase intention and the desire to re-conduct transaction through internet. Factor of trust can also become an important determinant that can affect behavioral intention. This trust aspect can become a resistance for the development of online buying behavior because due to disadvantage aspect



as well as other negative impacts. Verhoef et al (2009) stated that “Online customers display low trust levels for web-based merchants (hackers breaking into company databases and stealing credit card numbers) and that is an important reason why many customers do not shop online”. Therefore, it can be stated that the outcome of customer experience (online/web) includes customer satisfaction, trust dan behavioral intention (Rose et al, 2101; Boyer et al, 2006). Hence, it can be stated that the satisfaction of online/website users service provider as a result of evaluation and impression of website performance. On the other hand, trust is associated to uncertainty feeling in conducting transaction due to distance separation with service provider. Satisfaction and trust towards web performance impacts on the intention to use ( Rose et al., Constantinides, 2004).

By considering the importance of outcome customer experience, service providers need to consider the dynamic character of users in virtual marketplace. Therefore, attention needs to be focused on a holistic concept development. The holistic concept proposed as a model is an answer of the previous research gap from several experts who put more emphasize on behavior aspect (Contantinidies, 2004; Straus & Frost, 2009). A holistic conceptual model in this study utilizes integrating framework using three antecedent variables that show flow experience when using Website, namely: 1) functionality website as an element associated with the usability, interactivity and connectedness; 2) psychological website as an element associated with challenge, skill and telepresence, and 3) content consisting of 2 elements, perceived benefit and marketing mix. This holistic concept combines the models from several experts (Novak, 2000; Rose et al, 2012, Verhoef, 2009, Kotler & Keller, 2010; Kauferis et al, 2002, Walter,2006)

The point is, the modeling proposed in this study is more focused on antecedents and consequences of online/web experience, whereas previous studies were more focused on managerial and outcome aspects, so this study will explore based on theoretical perspective. The limitation from the results of empirical studies on online/web experience emphasized more on strategic aspect requires a theory-based conceptual framework which becomes a stimulus and basis to conduct this research. This is in line with what Constantinides (2004) stated, that “the web experience must be regarded as a dynamic and evolving subject rather than a static one; developments in the

virtual marketplace, changing customer technographics and technological innovation will present e-marketers with new tools and methods for enhancing their customers' online experience".

This study investigates the facts on the field by using holistic conceptual model. The object of this study is the website of Universitas Terbuka, with students of UT and general public as users. This research is intended to build a comprehensive theory of online/web customer experience by focusing on the aspects of antecedent and consequences. The conceptual framework is illustrated to the correlated dimensions. attributes are shown in **Figure 4**.

Following hypothesis were developed (**H1-H21**) based on the previous study: Bloemers, 2002; Critober et al, 2007; Cronin et al, 2000; Davis, 1989; Grayson et al, 2008; Lee & Lin, 2005; Noval et al, 2003; Rust & Oliver, 1994; Schmit, 1999; Shamsadani et al, 2008; O Keefe et al, 1998).

#### **Antecedents Toward Component**

**H1-3** : Interactivity, Usability Connectedness influence Functionality

**H4-6** : Challenge, Skill, Telepresence influence Psychological

**H7-8** : Perceived Benefit, Aesthetic influence Content/Marketing Mix

#### **Component Toward Outcome**

**H 9** : Psychological influence Content/Marketing

**H 10** : Psychological influence Functionality

**H 11** : Psychological influence Satisfaction

**H 12** : Psychological influence Trust

**H 13** : Psychological influence Behavioral Intention

**H 14** : Functionality influence Satisfaction

**H 15** : Functionality influence Trust

**H 16** : Functionality influence Behavioral Intention

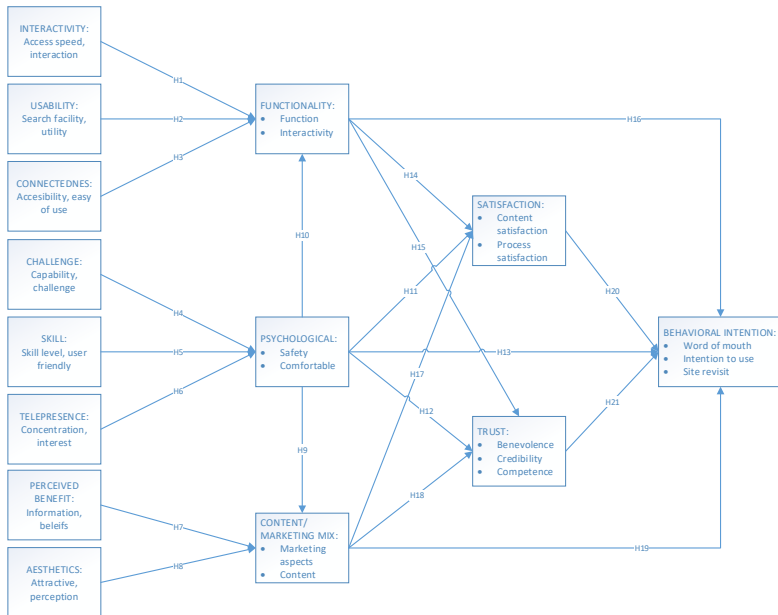
**H 17** : Content/Marketing influence Satisfaction

**H 18** : Content/Marketing influence Trust

**H 19** : Content/Marketing influence Behavioral Intention

**H 20** : Satisfaction influence Behavioral Intention

**H 21** : Trust influence Behavioral Intention



**Figure 4 Research Modelling**

**METHODS**

This study use a descriptive and verified research (Cooper and Schindler 2011; Aaker et al, 2011)). Through the quantitative model proposed, this study utilizes Structural Model that can be used to measure flow activity that can create website/online experience. Based on the research methods used, information on the effect of antecedent variable (functionality, psychology and content/marketing mix) toward the outcome variable (satisfaction, trust and behavioral intention) will be obtained. To obtain research data, survey method is used to examine website of UT as the research object. The unit analysis of this research is the users of website of UT in 2016-2017.

Sampling of this study was conducted using random sampling stratification technique on the bases of several consideration, namely: 1) sample representation so as to increase efficiency statistically, 2) appropriate data for analyzing each category (Cooper dan Schindler, 2011). The method

of sample selection was proportional-random sampling (Sekaran, 2009). Determination of research samples uses recommendation by Hair et al (2013). Sampel size was determined based on the maximum number of arrows pointing at construct (Hair et al, 2013), therefore there are 7 sample of this study. With a significance level of 5%, the minimum number of samples is 80 respondents. The distribution is based on proportional allocation, namely the distribution in proportion according to the subjects taken by the participants.

## RESULTS

The number of samples participating in this study is **364 people**. Data was collected since June-September 2017 using questionnaires. Most of the respondents work as civil servants (87%), followed by college students and private employees respectively 20% and 19%. Seen from the number of respondents participating in filling in the questionnaires, it could be stated that the number is representative enough to represent various parties accessing website of UT. The number of female respondents is bigger than male respondents, namely 64% compared to 36%. If seen from the frequency of the web of UT's access, the largest number (65%) to access is 1 to 5 times, and followed those who accessed 6-10 times, namely 19%. The number of respondents accessing more than 6 times a week is also quite large (14%). Judging from the distribution of area, respondents accessed the web of UT from Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) and several of UPBJJ/Distance Learning Program Unit of UT (Pekanbaru, Jogjakarta, Solo, Bandung, Bengkulu and Batam cities).

After considering the profile of respondent, we are now in position to show the hypothesis results of integrative model can be seen from the following table (see Table 3)

The calculation result of path coefficient of antecedent variable toward component variable shows that connectedness does not have a significant effect on. It means connectedness that shows the speed of access and interaction has yet given a significant effect on the functionality aspect of UT's website which shows interactive function and aspect. A quite string effect occurred on aesthetic toward content and challenge toward

psychological. With the value of path coefficient larger than 0.30, the effect is said to be large. Test statistics using t-test statistics. Test criteria states that null hypothesis is rejected if t-count is greater than t-table at a significance level of 5%. The result of partical hypothesis provide the value of t-count larger than the value of table (1.96) where the decision based on statistic test said that Ho hypothesis is rejected. Therefore, it can be summarized that aesthetic has a strong influence on content and challenge to psychological.

**Table 3 Result: Effects between Variables**

<b>Hypthothesis</b>	<b>Path Coefficent</b>	<b>t</b>	<b>t table</b>	<b>Conclusion</b>
Interactivity influence Functionality	0,15	3,14	1.96	Significant
Usability influence Functionality	0.26	4.50	1.96	Significant
Connectedness influence Functionality	0.09	1.78	1.96	insignificant
Challenge influence Psychological	0,34	5,01	1.96	Significant
Skill influence Psychological	0.09	1.25	1.96	insignificant
Telepresence influence Psychological	0.23	2.95	1.96	Significant
Perceived Benefit influence Content/Marketing Mix	0,25	4,15	1.96	Significant
Aesthetic influence	0.32	5.49	1.96	Significant

<b>Hypothesis</b>	<b>Path Coefficient</b>	<b>t</b>	<b>t table</b>	<b>Conclusion</b>
Content/Marketing Mix				
Content/marketing influence Functionality	0.45	2,96	1.96	Significant
Psychological influence Content/Marketing	0.25	5.14	1.96	Significant
Psychological influence functionality	0.15	4.24	1.96	Significant
Psychological influence Functionality	0.42	9.02	1.96	Significant
Psychological influence Satisfaction	0.14	2.01	1.96	Significant
Psychological influence Trust	-0.02	0.36	1.96	insignificant
Psychological influence Behavioral Intention	0.26	3.94	1.96	Significant
Functionality influence Satisfaction	0.56	9,87	1.96	Significant
Functionality influence Trust	0.49	7.25	1.96	Significant
Functionality influence Behavioral Intention	0.27	3.63	1.96	Significant

<b>Hypothesis</b>	<b>Path Coefficient</b>	<b>t</b>	<b>t table</b>	<b>Conclusion</b>
Content/Marketing influence Satisfaction	0.52	10.86	1.96	Significant
Content/Marketing influence Trust	0.49	7.25	1.96	Significant
Content/Marketing influence Behavioral Intention	0.14	1.93	1.96	Insignificant
Satisfaction influence Behavioral Intention	0.43	3,94	1.96	Significant
Trust influence Behavioral Intention	0.18	2.72	1.96	Significant

If is specified from each sub variable in the modeling (Antecedent to Component) then it can be stated that this research succeeded in proving that interactivity (speed of access and interaction) and usability (benefits and search facilities) can affect functionality (function and interactive). This means that if interactivity and usability on UT's website is improved, it will have a big effect on functionality. No less important is the aspect of the challenge, skill and telepresence in this study are proved to have a positive effect on psychological (safety and comfort). This means UT web users feel the challenge, have the skills and interest in the appearance and information on the web so that it has a strong impact on psychology. The aspect of perceived benefit (information and beliefs) and aesthetic (aesthetics and perception) also proved to have a significant effect on content (substance and marketing). This means that the benefits felt by UT web users and the appearance of an attractive website turned out to be significant enough to influence content/marketing.

The effect of the functionality on behavioral intention and trust shows significant influence is strong enough. This means that the functionality aspect on the UT web that shows aspects of functionality and interaction has a strong influence on the level of trust and desire to use UT's website and recommend to others. If the aspect of functionality can be increased higher it will have a positive impact on the trust and reliance of UT web users.

Another interesting finding is the psychological aspect has a significant effect on satisfaction and functionality and content. This means that the security and comfort aspects of the website users can be felt so that it affects the satisfaction of users and other aspects. However, this study cannot prove significantly the psychological influence on trust. This finding indicates that the security and comfort aspects offered by UT web users have not been able to significantly make users believe in the credibility and competence of UT. In terms of content, obtaining findings in the field can affect satisfaction and trust, meaning that the aspects of marketing and the substance created in informative features on the UT website can make users feel satisfied and trust in UT's credibility.

Holistic Concepts (Research Gap) using integrating variable cannot be comprehensively fulfilled (4 variables that do not show significant influence) are: 1) Effect of Connectedness on Functionality, 2) Effect of Content on Behavioral Intention, 3) Psychological Effects on Trusts, and 4) skill effect on Psychological.

## CONCLUSION AND RECOMMENDATIONS

The model of this research can prove most of hypothesis tests (17 hypotheses) out of 21 hypotheses proposed. The model of this research can be accepted as valid to be developed for future researches. There are 4 hypothesis tests that shown insignificant results. Results of hypothesis tests that have significant effect, ranging from **antecedent – component – outcome**, show that there are two variable relations that show a strong effect, namely content to satisfaction and trust. This finding indicates that the content developed on UT's website has able to provide satisfaction and trust for customers. If this content aspect is increased, it will be able to increase customer satisfaction and trust from UT's website users. This finding is in



line with respondents' answer on the effectiveness of information on website that tends to be on a high rating (7-9) with scale of 7. This means the information presented is very effective (beneficial) supported by the speed and ease of access as well as user friendly that is easy to operate.

To develop a more comprehensive model of "flow experience", it is necessary to pay attention to insignificant variable relationship by considering several important matters as follow: 1) characteristics of responden (proportion of involent all users of UT's website; 2) distribution of respondent, and 3) conducting comparative studies with equivalent analysis unit.

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## STRATEGIC STEPS TOWARDS THE OPEN UNIVERSITY GRADUATES DEVELOPMENT OF THE COMPETITIVENESS OF A SOLUTION TO FACE INDUSTRIAL REVOLUTION 4.0 ERA

Andi Sylvana, Murtiadi Awaluddin

### INTRODUCTION

In the era of information technology development is very rapid, as now, all countries in the world including Indonesia make adjustments to the transformation in various fields. This transformation process is a process that can change the pattern of community life than conventional patterns towards people with digital technology. Changes are very visible today is the demand of the labor that has been adapted to the conditions of the revolution 4.0 based on Cyber Physical System which outlines a combination of three domains, namely digital, physical, and biological. Characterized by the emergence of the functions of artificial intelligence (artificial intelligence), mobile supercomputing, intelligent robots, self-driving cars, brain neuro-technological enhancements, the era of big data requiring cybersecurity capabilities,

The industrial revolution 4.0 have the characteristics that blend technology with society and the human body, robotics, quantum computing, biotechnology, 3D printing, vehicle automation, internet, virtual and physical systems cooperate globally. Michael Hartel (2015), *"Today in all social areas, extensive digital skills are a key qualification. Like reading, writing and arithmetic, information and communication technologies (ICT), above all the Internet, represent a cultural technique "*, the statement makes it clear that digital skills aligned with the basic qualification in general of reading, writing, arithmetic that must be mastered by anyone not with the exception of educators and learners. Facing the world of work changes are no longer predictable linear fashion, and also, in the face of the industrial revolution 4.0.

Competitiveness is efficiency and effectiveness that has the right targets in determining the direction and outcome targets to be achieved which covers the ultimate goal and the ultimate achievement in the face of competition.

Sumihardjo (2008), provides an explanation of the term competitiveness, namely: "The word power in a meaningful sentence force competitiveness, and the word competitiveness means achieving more than the other, or different from the others in terms of quality, or have certain advantages. This means that competitiveness can mean the power to try to be better than the other or both excel at certain things that a person, a group or a particular institution. Furthermore Sumihardjo (2008), suggests that *the competitiveness include: (1) the ability to strengthen its market position, (2) the ability to connect with its environment, (3) the ability to improve performance without stopping, and (4) the ability to enforce a favorable position*". Competitiveness is formed apart due to internal factors, as well as external factors (facilities, support, etc.). In that sense, the concept of UT graduates competitiveness in this paper is defined as the ability, performance, talent, or achievements that are owned and shown by the graduates of UT exceeds or above the average graduate in addition to UT in accordance with the demands of the revolution 4.0.

Since the establishment of the Open University (UT) in 1984, Open Distance Learning (ODL) has been utilizing the modular instructional technology and radio broadcasts. ODL technology later evolved continue to use new technology such as the internet in the age of globalization. Demands of the times today is directing a person to not stutter technologies, including the internet did not stutter. By him, one of the efforts to increase the competitiveness of graduates UT is to equip them with the skills to use and master today's technology, namely the Internet. Some online services have been available on the UT website ([www.ut.ac.id](http://www.ut.ac.id)), among which is the online UT comprising: online learning (including online tutorials), smart teacher, digital libraries, online bookstores, e-Humanities, and learning object repository. The latter was holding Pandora (PAN Asia Networking Distance and Open Resource Access) with the focus on A Repository of Reusable Learning Object for Distance learning in Asia). Currently, UT intensify the use of information technology (IT) to improve the academic quality of support services mainly in the study and evaluation of learning outcomes. It also carried out an increase in the accessibility of students to UT teaching materials online through a digital library and e-bookstore. Therefore, in 2008, UT to improve service by offering face-to-face tutorials, online tutorials, e-

book store to all students and provide free catalogs to all students who register with an online exam at UPBJJ-UT. From UT diverse range of services and has been based IT are expected to be directly proportional to the competitiveness that has been generated mainly located in this 4.0 era, but in fact the competitiveness of some of the alumni still not optimally adapted to the development of science and technology, especially alumni UPBJJ corners. That requires a strategic step for the university open towards the development of competitiveness of graduates as a way of addressing the industrial revolution 4.0.

## LITERATURE REVIEW

### *Industrial Revolution*

Industrialization is seen as a right step in answering a portrait of the history of world poverty. Industrialization facilitate the work done and in turn reduce hunger through food security, provide availability will need clothes, and the need for a place to stay for some certain circles. Furthermore, giving people a longer life expectancy. Although initially sacrificed some other community members so that it appears the social gap and produce environmental damage, but in the end the industrialization brought wealth as well as the convenience of living because it is surrounded by the equipment user-friendly technologies (Judith Felicia, 2018).

- a. The first industrial revolution (the Industrial Revolution 1.0) starting at age 18-19 is about 1764 with the invention of steam engine by James Watt. These findings have an impact on jobs in the manufacture of products that are usually performed by animal power and human power, which is equipped with simple equipment, then switch to using a steam-powered engine. As a result, the goods can be produced in a relatively short time so abundant with inexpensive price resulting economic growth of urban communities and suburbs, and with a population growth who need a place to stay widespread. This marked the start of the era of mechanization
- b. The second industrial revolution (the Industrial Revolution 2.0) years 1870-1914. This era begins on the results of research conducted by Faraday and Maxwell in respect of the merger of forces between the

magnetic system with the electrical system of the moving machine production process as well as the discovery of a conveyor belt that is used in the assembly process in a variety of industries, so as to produce in large quantities (mass production) , Electrical Era was born. 2.0 In the industrial revolution characterized by the development of mechanical power, steel, oil, electricity (up to now there are 17% of the world without electricity), mass production, telephone, incandescent lamps, cables, car engines, ketenagkerjaan.

- c. Third industrial revolution (the Industrial Revolution 3.0) in 1980 until now, marked by the digital revolution or the computer, the change from analog to digital technology, semi-conductor, main frame, PC, internet, automation, ICT, communication patterns and circulation of information in society , In this era is also the discovery of a robot that can replace human labor in the assembly process but still be controlled by human operators. Thus, the shift to an era of automation. Despite the fact that it is still around 50% of the world lack access to the Internet.
- d. 4.0 Industrial Revolution occurs when a robot that is already connected to the computer system, equipped with machine learning algorithms that can learn and control the robot itself without input from human operators or known by the term artificial Intellegence (AI). Furthermore, AI is associated with internet based society. Basically, the industrial revolution 4.0 represents the union of the online world with the production industry, so it is a digital industrial revolution. 4.0 The industrial revolution in the business world have an impact on jobs in the community and positions in organizations that exist today, which will not exist anymore in the next 50 years, Xing & Marwala (2016).

The industrial revolution begins with finding technologies that facilitate the success of human life, and later cause problems troubling. The unrest comes from its impact in society, namely the loss of some specific types of work, although the ability to predict and from previous experience, it is anticipated will bring new types of employment. However, it is suspected that the era of digitization as a result of technological changes of the industrial revolution 4.0, compared to the previous industrial revolution, has found a new pattern when a disruptive technology (disruptive technology) are present



so fast and change the order of the world of work, the world of industry and business. Schmidt and Cohen (2014) suggested that in future job that requires physical presence diminished and will be much more work is automated. People will compete for jobs across the country due to globalization diluting local monopoly. In the distribution activity, the shorter the corporate supply chain enable consumers to purchase goods produced elsewhere in the world and the goods ordered from far to arrive at their destination within thousands of kilometers using online transactions. Thus, company or organization must understand how technology moves major changes in the business area. Brynjolfsson and McAfee, (2014) believed that technological change has to finish jobs faster than creating jobs.

Marr (2017) revealed that there are three main areas in a business that requires access to i4.0 in the era of big data, namely improving decision making, improving operations, and the monetizing of the data:

a. Improving decision making

Big Data enables companies to collect better market and customer Intelligence. With the ever-increasing amount of the data available, companies are gaining much better insights into what customers want, what they use (and how), how they purchase goods, and what they think of Reviews those goods and services. And this information can be used to the make better decisions across all areas of the business, from product and service design to sales and marketing and aftercare.

b. Improving Operations

Big Data helps companies gain Efficiencies and improve Reviews their operations. From tracking machine performance to optimizing delivery Routes to even recruiting the very best talent, big data can improve internal efficiency and operations for almost any type of business and in many different departments. Companies have even started using sensors to track employee movements, stress, health, and even who they converse with and the tone of voice they use, and that using the data to improve employee satisfaction and productivity.

c. The Monetizing of the data

Also Data Provides the opportunity for companies to build big data into Reviews their product-thereby offering monetizing the the data itself.

### *Millennial Generation in the Age of Revolution 4.0*

Millennial generation is the generation that was born in the range of 1980-2000, most of the generation Y (born in 1980) and part of the generation Z (born in 2000). This generation is known as the generation that is very close to the information and communication technology, namely through the internet surfing the internet to obtain information and communicate through social media. Striking differences with previous generations shown in a decision tree. Predecessor require a high confidence will first be something you want to have, so it requires him to check and find more information on the ground conditions before making a decision. While generation Y and Z are able to quickly make decisions only see it through the internet. Similarly, the source of the information, whether the information most commonly to a scientific nature, everything is done by searching on the internet. Whereas previous generations obtain information from various sources, such as: reading the print media to get the 'opinions', see the television to get the latest news, listen to the radio for information in connection with the advertising, even visiting the library to obtain a scientific reading materials.

In connection with the generation Y and Z conducted by Alvara Research Center cited by Muhammad (2017) revealed three excellent characters millennial generation, namely: a) creative: think out of the box, rich in ideas and concepts, b) confidence: confidence that dare to express their opinions, c).connected: social skills in the community. However, research conducted by Okthariza (2017) on the perception of the millennial generation in Indonesia find the majority of young children Indonesia believe the negative impact brought about globalization and free markets is much greater than the upside to be had. Also, the majority of young children Indonesia believes that the entry of goods from abroad bad for them, but they are the biggest gadget users in the country. In addition, the majority of Indonesian young people believe that globalization is a source of growing consumerism and individualism, weakening religious teachings, as well as undermine the sense of nationalism to the state. In conclusion, high social media users in Indonesia are not accompanied by a positive attitude towards the practice of tolerance. It is linked to the level of education the better it will provide the ability to accurately sort out and digest the information heap.

The problem is, young children higher education are concentrated in large cities. In many places in this country, the difficulty of access to education is still a crucial issue that hinders the development of human resources. This survey was also proof of an urban bias regarding this millennial generation. So, in terms of socio-economic behavior, in general, Indonesia millennial generation is no different than the previous generation. It is linked to the level of education the better it will provide the ability to accurately sort out and digest the information heap. The problem is, young children in higher education are concentrated in large cities. In many places in this country, the difficulty of access to education is still a crucial issue that hinders the development of human resources. This survey was also proof of an urban bias regarding this millennial generation. So, in terms of socio-economic behavior, in general, Indonesia millennial generation is no different than the previous generation. It is linked to the level of education the better it will provide the ability to accurately sort out and digest the information heap. In many places in this country, the difficulty of access to education is still a crucial issue that hinders the development of human resources. This survey was also proof of an urban bias regarding this millennial generation. So, in terms of socio-economic behavior, in general, Indonesia millennial generation is no different than the previous generation. This survey was also proof of an urban bias regarding this millennial generation. So, in terms of socio-economic behavior, in general, Indonesia millennial generation is no different than the previous generation. This survey was also proof of an urban bias regarding this millennial generation. So, in terms of socio-economic behavior, in general, Indonesia millennial generation is no different than the previous generation. This survey was also proof of an urban bias regarding this millennial generation. So, in terms of socio-economic behavior, in general, Indonesia millennial generation is no different than the previous generation.

In connection with working conditions that are appropriate for the millennial generation, of cultural life is predictable that they will choose to work freelance, that is not time-bound and not bound work rules in the company. The main thing for the millennial generation is having lots of connections and relationships, to develop skills that can make their creative work. The tendency of freelance work can be predicted from the presence of certain people in the previous generation which exhibits such as the millennial generation today. They chose to have their own business, so it can accept orders directly from individual consumers. But not a few who work

on orders from the company or organization. With increasing competition in the digital age and the increasing employment of the millennial generation, the jobs that require creativity and digital-based can be handed over to them to be done at home or in a cafe or in certain other places as desired. By collaborating, companies can gain creative ideas that come from outside the company. Such cooperation can make the company more efficient but also more creative. Thus, in the future, the company may still have the employees of the previous generation who worked in the office with the office hours as specific

### ***Challenges Industrial Revolution 4.0 in Higher Education Institutions***

The world of work in the era of the Industrial Revolution 4.0 is the integration of Internet use in all lines of production in the industrial world that use technology and information. The characteristics of the industrial revolution era include; digitization, Optimization and customization production, automation and adaptation, the interaction between man and machine, value added services and business, the automatic exchange of data and communication, as well as the use of information technology. The changes were impacting on the character of the work. The skills necessary to also change. These challenges must be anticipated through the transformation of the Indonesian labor market taking into account the climate change business and industry, changes in employment and skills needs.

The challenge facing the government and universities is how to prepare and chart workforce of graduate institution in the era of industrial revolution 4.0. Required an adjustment of the curriculum and educational methods in the direction of change in the business climate, an increasingly competitive industry and keep abreast of technological and scientific knowledge. Universities should strengthen the ability to respond to the needs of the world of work, business and industry with innovation and interdisciplinary curriculum. The present development has changed the landscape of economic, social, political, cultural and national level, even globally. For that college should be a milestone in disruptive innovation. Changing the mindset, the workings of the organization, productivity, discipline, progressive, and open to change, aggressive in innovation. One way is to create a curriculum and teaching methods are flexible and contextual. Universities and colleges

must be able to conduct through various research and innovation. New ways must be developed. The desire of students and teachers to innovate must be grown.

Universities as institutions of formal education are expected to produce competent graduates who are prepared for business and industry are growing along with advances in technology. Job skills, adaptability and dynamic mindset are a challenge for Indonesia's human resources, which should be obtained during formal education in universities. Quantity is no longer a key indicator for a university in achieving success, but how to improve the quality of its graduates. The success of a country in the face of the industrial revolution 4.0 is closely related to innovation created by quality resources, so the College shall be able to answer the challenge to face the technological advances and competitive workforce.

#### ***Strategic Steps Towards Development Open University Competitiveness Era Graduates Facing Solutions As the Industrial Revolution 4.0***

As a consideration in formulating a strategic step towards the development of the competitiveness of UT graduates, Research and Technology Ministry of Higher Education (2018) explains that there are five essential elements that should be a concern and will be implemented to boost economic growth and competitiveness of the nation in the era of the Industrial Revolution 4.0, namely:

1. Preparation of learning systems more innovative in universities such as adjustment of the learning curriculum, and improve students' ability in terms of data Information Technology (IT), Operational Technology (OT), the Internet of Things (IOT), and Big Data Analytic, integrating physical objects, digital and humans to produce competitive graduates and skilled, especially in the aspect of data literacy, literacy and human technological literacy.
2. Reconstruction policies of higher education institutions that are adaptive and responsive to the industrial revolution 4.0 in developing transdisciplinary science and study programs are needed. In addition, starting begun all Cyber University program, such as distance learning lecture system, thus reducing the intensity of the meeting of faculty and

students. Cyber University is eventually expected to be a solution for the nation's children in remote areas to reach high-quality education.

3. Preparation of human resources, especially lecturers and researchers and engineers are responsive, adaptive and reliable to deal with the industrial revolution 4.0. In addition, the renovation of infrastructure and the development of education infrastructure, research and innovation is also needed to sustain the quality of education, research and innovation.
4. Breakthroughs in research and development that supports the Industrial Revolution 4.0 and ecosystem research and development to improve the quality and quantity of research and development in universities, R & D institutions, LPNK, Industry and Society.
5. Breakthrough innovation system and strengthening innovation to improve industrial productivity and enhance technology-based startup companies.

So, the main challenges facing Universitas Terbuka (UT) that prepare graduates or workers with competence in accordance with the needs of the digital era so as to develop the potential and competitiveness of business as well as to the international order. In the stage of maturity) UT needs to consider factors into competitive advantage, namely: a) revise the curriculum to understand the needs of people in the digital era, b) stay focused on innovation in teaching and learning, c) focus on student involvement in the company's activities in the field of research (research based learning).

## 1. Curriculum

**Curriculum:** the curriculum is closely related to what they should be taught to students (what to teach), the World Economic Forum in 2016 stated there are two key ingredients: a) there is a growing consensus that forward looking curriculum must focus on: the linguistic, mathematical and technological literacies all job roles will require in the future; ensuring ability to make-inter-disciplinary connections; developing global citizenship values, Including empathy and character; employability of non-cognitive skills such as problem solving, critical thinking, project management and creativity. b) there is a consensus that curriculum must be: updated and adapted based on insights and forecasting regarding the evolution of local and global labor

markets and trends in skill demands; developed and revised collaboratively, with input from all relevant stakeholders.

According to the World Economic Forum 2016 in connection with the curriculum at the College, that 'the heart of any "future-ready" education curricula are designed to impart knowledge and skills that have purchase in the modern workplace. Furthermore, what is also very important is to teach how to learn, the World Economic Forum stated: ... *through experience - led approaches just as much as instruction - led one, and by empowering students to be life long learners who take reviews their ownership of upskilling through reviews their lifetime.* By teaching how to learn, it will form an independent personality. The impact, learners do not need to be constantly present in face to face meetings. What is needed is the 'guidance' for a specific assignment do learners wherever they intend to finish it.

So, reorientation of the curriculum will deliberate to cross-scientific learning activity because of a problem in the era of the Industrial Revolution 4.0 can not be solved only with a science course. By strengthening the learning patterns of multi and trans-disciplinary approach would get bore of college graduates who have high competitiveness. In addition to the curriculum and teaching methods, on the other hand, output UT should have an entrepreneurial spirit to create new jobs. UT graduates are required not only able to work in companies and other institutions, but also create new jobs by taking advantage of opportunities arising from the Industrial Revolution 4.0. Therefore, each graduate must have competencies that qualified to compete globally.

## **2. Stay focused on innovation in teaching and learning**

Learning in the era of the Industrial Revolution 4.0 are grouped into three models: the conventional model of face-to-face; online models and automation; as well as blended learning models (Kemendikti, 2018). To help improve the competitiveness in today's digital age, than the appropriate learning models to be implemented is a model of blended learning. Blended learning model of integrating Web-based online learning (e-learning) and learning face-to-face in the classroom or in the laboratory. Lalima and Dangwal (2017) calls blended learning as an innovative effort that combines the advantages of learning in the classroom (offline) and online.

UT is currently implemented innovate in learning model. Start of applying self-learning models, offering learning resources source, reading materials, follow the tutorial face to face and Online Tutorial. In addition to using materials provided by UT, students can also take the initiative to use a library, radio, and television, as well as using other learning resources such as instructional materials with the help of computer programs and audio/video. With the adoption of the rapidly evolving technology, the learning process is expected to be carried out with more interactive.

### **3. Focus on student involvement in research activities in the field of the company (research based learning).**

The understanding of the real business world to students is necessary, it is intended that the students understand the issues that arise in the business world. For those reasons, do a research collaboration-based community service by involving lecturers together with the students in the company or a specific location to understand and discuss alternative solutions, so expect research activities and community services that contribute in the form of problem-solving in the company concerned. The way it also can be used as the settlement of the problem when it stated that future research activities will have a very tight competition.

## **CONCLUSION**

Based on the description above, it can be concluded that the Industrial Revolution 4.0 deliberating tremendous changes in several areas such as: lifestyle, industry, labor market, and education. The world of work in the era of the Industrial Revolution 4.0 is the integration of Internet use in all lines of production in the industrial world that use technology and information. The characteristics of the industrial revolution era include; digitization, Optimization and customization production, automation and adaptation, the interaction between man and machine, value added services and business, the automatic exchange of data and communication, as well as the use of information technology. The changes were impacting on the character of the work. In facing future of industrial revolution UT as higher institution need to implement three strategy namely: a) revise the curriculum to understand



the needs of people in the digital era, b) stay focused on innovation in teaching and learning, c) focus on student involvement in the company's activities in the field of research (research based learning).

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## **AN EMPIRICAL INVESTIGATION BEHAVIORAL INTENTION IN THE CONTEX OF E-SHOPPING AS THE EARLIER STAGE TO CONFRONT ERA INDUSTRIAL REVOLUTION**

**Radeswandri**

### **INTRODUCTION**

The development of internet which is increasingly throughout Indonesia has encouraged the development of e-commerce. Internet has become a part of the lifestyle of Indonesian society. If we look at this time, e-commerce transactions increase sharply. Researches by The Nielsen Global Survey (2014) and IDEA (2015) show that on-line shopping provides substantial benefits for consumer, namely: 1) customers can look for information on the product/service online to check the service product, 2) online shopping offers comfort in shopping particularly for consumers who have limited time as well as the availability of product information and review of price comparison, 3) time saving, 4) there is no need to travel to shop, 5) shopping items are delivered home, 6) consumers can compare many products. The same research result shows that there are three major driving factors why Indonesian consumers use only shopping, namely: 1) able to see product/service online before purchasing, 2) read consumers' comments who have purchased a certain product/service, 3) conduct a research on a product before purchasing.

Although e-business trend indicates a positive condition; however, majority of consumers still feel reluctant to shop online. Based on several researches (Indonesia Commerce Association, 2015 and The Nielsen Global Survey of e-commerce), there are several concerns from consumers in shopping online: 1) the low desire to touch and see a product directly, 2) feel unsure about the quality of products offered, 3) the high amount of shipping cost and additional costs for shipping, 4) shopping through website are often confusing, 5) concerns about giving credit card information online to other people. The most extreme condition is there are consumers who never of using internet for shopping.

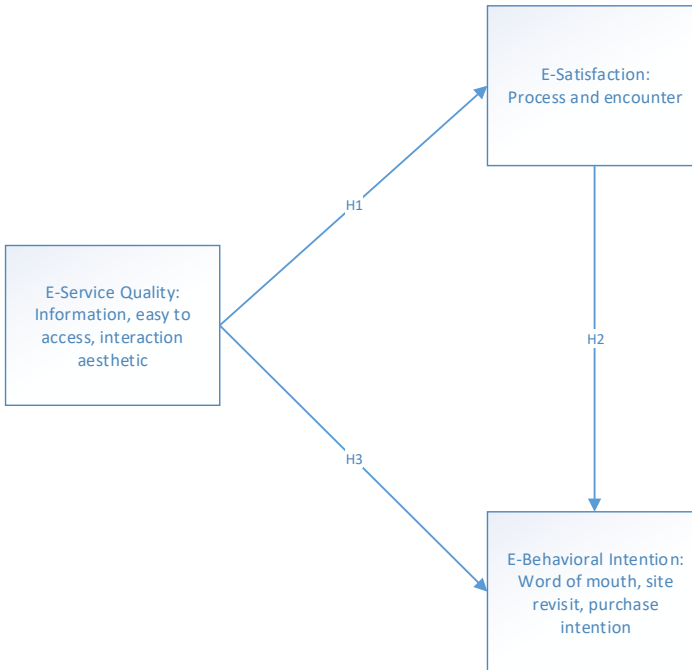
Based on researches conducted by several experts (Mosahab et al, 2010; Gil et al, 2009, Gounaris, 2008), understanding consumer behavior in purchasing process still becomes a challenge for online business actors. Until today, there is consumer resistance toward online shopping model. Understanding deeper consumer behavior is an important strategy for entrepreneurs to be able to give offer to the want/needs and hopes of consumers. The key to be the leader in business is the ability to identify and understand what consumer want, always keeping abreast of the change of consumer behavior and apply tactics that build a long-term relationship with consumers. Gounaris et al (2008) stated that “to be successful in fiercely competitive environment, e-companies need to develop an appropriate differentiating strategy. A key component of such a strategy needs to focus on service and relationships that demonstrate a company’s appreciation of its customer”.

To be able to succeed in facing a tight competition environment, companies who run in e-business should be able to develop appropriate strategies to be different from competitors. An important component of a strategy is to be able to demonstrate appreciation to consumers. If this can be done, it is expected to encourage behavioral intention. Behavioral intention shows how far intention or willingness of consumers to buy a product/service (Cronin et al, 2000). Behavioral intention is a variable that drives a behavior of an attitude and becomes an influencing mediator for various motivational factors that impact on behaviors. In addition, intention also shows how hard someone dares to try, how much effort someone has planned to do, and the most influential desire with subsequent behavior, namely behavior of real use of product/service (Ajzen and Icek, 1991). Consumer intention to do repeat buying is affected by the level of satisfaction. In the context of e-shopping, service experience during transaction affects satisfaction. A study conducted by Boston Consulting Group (2001) shows that consumers will feel satisfied for several things, namely product delivery, customer service and product return. The determinant factor of satisfaction level is the service quality provided. A study related to e-business by Collier and Bienstock (2006) is able to identify some factors that increase service quality, including: the quality of process/interaction, and the quality of outcome and recovery.

Although the relation between service quality, customer satisfaction and behavioral intention has been used as a research model in many studies in service literatures (Zeithalm, 2013, Lovelock, 2010, Parasuraman 2009), yet the development of model conceptual and research is still rare to be conducted in the context of e-business. e-business (e-shopping) shows a different environment and shopping atmosphere with traditional shopping channel (Hoffman and Novak, 1996). Therefore, the paradigm of classic marketing, theories and activities as well as consumer attitude and behaviors need to be reevaluated on the new context. The results of several latest empirical studies (Gil et al, 2009, and Gounaris et al, 2008) show there are differences in marketing constructs in the context of e-business. These situations encourage researchers to conduct studies using constructs of e-service quality and e-satisfaction, and their impact on behavioral intention. The gap of this study is strengthened by opinion by Zeithalm et al (2013) that "...we have urgent future of research to pay particular attention to the concept of electronic service quality and its associated consequences. Studying such relationship will provide both academic and practitioners with more comprehensive understanding of the relevant phenomena..".

Besides the research gaps, the results of several studies indicate that in the context of e-business there are still obstacles to its implementation. According to Gil et al (2009) and Gounaris et al, (2008), complaints made by costumers reached 80% because it is poor service quality that disappoints customers. Research results by Nielsen Consultant (2014) show that payment safety is still a major obstacle that affects customer trust because there is a concern credit card misuse. Item delivery is also still a concern for consumer because the high cost that has to be paid.

The aim of the study is therefore to asses how far e-service quality can boost the accelaration of e-satisfaction and impact to e-behavioral intention in e-commerce (see Figure 5)



**Figure 5 Conceptual Framework**

This model is based on the idea that consumer intention to continue doing online transaction is strongly influenced by service experience represented by service quality. e-customer satisfaction is highly affected by e-service quality. Service quality provided by e-business actors must be able to provide several important aspects, namely: easy to access information, easy to access, interaction and aesthetic aspects. Satisfaction perceived by consumers by the time of online transaction is the satisfaction generated by an attractive web display and the easy to find information, as well as satisfaction in payment and delivery. The level of satisfaction perceived by consumers will affect behavioral intention in the forms of: word of mouth, purchase intention and the willingness to re-conduct transaction through internet.

Following hypotheses were developed ( $H_1 - H_3$ ), based on the previous study by: Gile t al, 2009; Cristobal et al, 2007; Gounaris & Dimitriadis, 2008;

Groonroos, 1990; Lee & Lin, 2005; Hackman et al, 2006; Chang & Wildt, 1994.

Hypotheses 1 : e-service quality has a positive effect on e-satisfaction

Hypotheses 2 : e-satisfaction has a positive effect on behavioral intention,

Hypotheses 3 : e-service quality affects behavioral intention

## **METHODS**

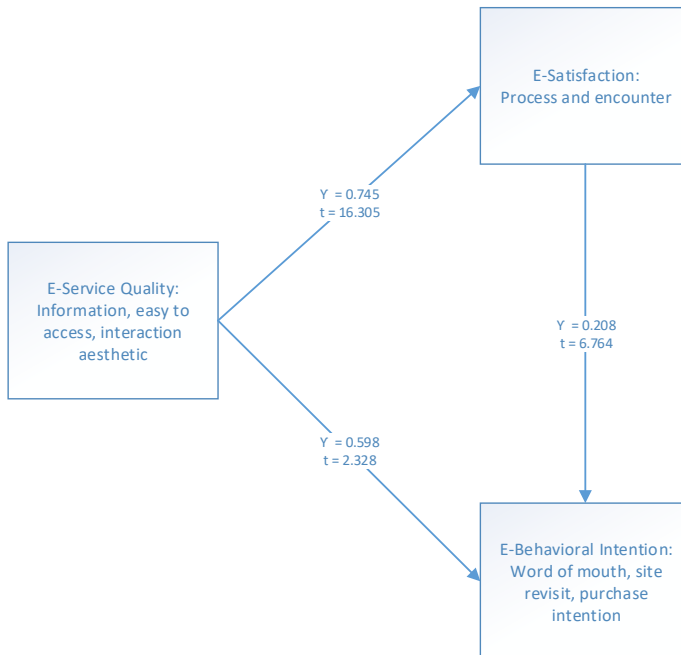
The Method used in this study is verification using explanatory research (Sekaran et al, 2009; Cooper & Schindler, 2009), which is to explain the nature of causal relationships through hypothesis testing. There are three variables namely e-service quality, e-satisfaction and behavioral intention. Variable of e-service quality is measured using four dimensions, information, user-friendly, interaction-adaptation, and aesthetics. e-satisfaction variable is measured using two dimensions, aesthetic, satisfaction on content-web and satisfaction on process. Behavioral intention is measured using three dimensions, word of mouth, purchase intention and site revisit. Population of this study is online shopping users. Study sample is taken as convenience random sampling. The determination of study sample was conducted using recommendation by Hair et al (2013). Sample size was determined based on the maximum number of arrows pointing at construct, therefore the number of sample size of this study is 5. With the level of significance of 5%, the minimum number of samples is 80 respondents. Analysis tool used is Partial Least Square/PLS.

## **RESULTS**

The number of samples participating in the study is 150 people. Data was collected from June-August 2016 using questionnaires. The data shows most of respondents are college students (26.7%), followed by entrepreneurs (50%) followed by civil servants (18.7%) and others (4.4%). Most of respondents are female (61.3%) and the rest are male. Respondents were online shopping users from various vendors who came from various regions, including West Java and Bogor, Depok, Tangerang, Bekasi cities (23.3%

respectively) followed by DKI Jakarta (20%), Central Java (16.7%), and other regions. In terms of age, most are in the range < 24-44 years (86%).

The result of hypothesis testing shows that all variables have significant effect (Figure 2). e-service quality affects e-satisfaction of 0.745, e-service quality affects e-satisfaction with a strong influence. This study is able to prove that e-service quality affects e-satisfaction which indicates the satisfaction level perceived by consumers when doing transactions (shopping, buying and delivery) when a process of purchase decision happens. The finding of this research supports the research results of several experts (Lee and Lin, 2005; Shamdasani, 2008, Cristobal et al, 2007).



**Figure 6 Recapitulation of Hypothesis Testing Results**

The important finding of this study is able to show that in e-shopping environment, online shopping can provide different experience than traditional off-line shopping in several terms, namely interacting with e-store



(site navigation, information availability and content, graphics) and when sales are carried out or orders are received ( product delivery, product operation).

Next, e-service quality has a strong influence on behavioral intention (0.598), meaning that consumers think that service providers of e-Shopping have been able to offer quality service so as to impact on behavioral intention. e-service quality shows how far website facilities (internet, on-line) are able to encourage consumers to do transaction (shopping, buying and delivery) of products/services effectively and efficiently. This study is in line with previous studies by Chang & Wildt, (1994); Cronnin et al, (1997); and Sweeney et al, (1999), that are successful in proving service quality as an antecedent behavioral intention.

E-satisfaction affects behavioral intention by 0.208, meaning service providers of e-shopping are assessed by consumers to have been able to offer satisfied service that impacts on behavioral intention. e-satisfaction is the satisfaction level perceived by consumers when conducting transactions (shopping, buying and delivery) when the process of purchase decision is carried out. Previous studies by Anderson and Sullivan (1993), Hackman et al (2006), Lee and Lin (2005), and Shamsadani et al (2008) are able to prove there is an indirect relationship between e-service quality to behavioral intention through customer satisfaction.

## **RECOMENDATION**

The findings of this study indicate that behavioral intention of online shopping users is considered quite high because the service quality and satisfaction provided by vendors are considered very well. Behavioral intention of online shopping users indicates a strong intention to conduct transaction through internet (e-shopping). Behavioral intention of consumers to conduct online transaction can give positive effect for vendors in which in this study indicates WOM (Word of Mouth) and purchase intention. For future researches, here are some suggestions: 1) conduct a more thorough investigation on factors of e-satisfaction that affect behavioral intention, 2) develop the study by using trust variable as intervening variable between e-service quality and behavioral intention; 3) classify vendors based on the size

and the product/service types, because there are differences in characteristics that can affect respondents' opinion on the aspects of service quality, satisfaction, and the intention to keep using online shopping.

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## THE EFFECT OF PRICE, PRODUCT QUALITY, SERVICE QUALITY, AND CUSTOMER SATISFACTION ON PURCHASING DECISIONS WITH OJEK ONLINE DELIVERY ORDER SERVICES AS MODERATING VARIABLES

Wiwin Siswantini, Soekiyono

### I. PRELIMINARY

The development of information technology in the form of cellular devices, both hardware and software, makes the development of business more creative. Kratifitas is by making an application for online transportation services. At present there are ten online transportation operators, namely Go-Jek, GrabBike, JegerTaksi, TopJek, TeknoJek, PRO-JEK, Bojek, ARGO Ojek and Bang-Ojek (<https://carisinyal.com/14/02/2018>). The ten operators are included in the top ten online transportation service operators that are popular in Indonesia.

Society increasingly recognize the existence of their online transportation and use them for various purposes. The existence of online transportation is used by people to make a profit and open employment opportunities in addition to online motorcycle taxis used also for delivery order services. Online motorcycle taxis and delivery orders make it easy for many people in various ways, one of which is ordering food and picking up goods. Online motorcycle taxi services and delivery orders are widely used by young people, especially women. They just call, wait at home or work, no need to queue and get stuck in traffic, orders arrive at their destination, just pay and orders can be opened or enjoyed. Besides that, it also saves time and effort, and the time that should be used to go buy food or pick up goods can be used to relax or finish work

(<http://pekanbaru.tribunnews.com/14/02/2018>).

The existence of this phenomenon is interesting, because there is a shift in service to consumers. With this additional service, of course, there are also price adjustments imposed on consumers. From the consumer's point of view, price is what is given or sacrificed to get a product. The definition of the Ahtola (1984) argument includes monetary price as a lower level attribute in the multiattribute model because price is a component of "giving" a model

rather than a "get" component. Defining price as a sacrifice is consistent with the conceptualization of other pricing researchers (Chapman 1986; Mazumdar 1986; Monroe and Krishnan 1985; Zeithaml 1988). Tjiptono (2001) states that prices are monetary units or other measures (including goods and services) that are exchanged in order to obtain ownership rights or use of an item or service. According to (Tjiptono, 2001) prices can also be a quality indicator where high quality products will be sold at high prices. Prices can affect consumers in making decisions to purchase a product.

Products are characteristics of products or services that depend on their ability to satisfy customer needs that are stated or implied. A product usually has two types of benefits, namely functional benefits and psychological benefits (Nitisusastro, 2012). According to Kotler and Armstrong (2008) are characteristics of a product or service that depends on its ability to satisfy customer needs that are expressed or implied. According to Borden (1964) perceptions of the product include product planning, policies and procedures related to the product line to be offered such as quality, design, etc., the market for sale: who, where, when, and in what number, and research programs and development of new product policies.

Another important factor that determines purchasing is service. With the start of business competition, making companies improve themselves by creating marketing promotion programs, one of which prioritizes service. This service program requires all employees not only to serve customers but also to pay attention, responsiveness to consumers, operator competence (competence), friendliness (courtesy), communication (communication) operators must be proficient, operators are required to be smart in understanding customer (understanding the customer) so that the company is required to conduct special education on its employees about quality service standards.

According to Gronroos (1984) service is an activity or series of activities that are invisible (inaccessible), which occur as a result of interactions between consumers and employees, or other things provided by service providers intended to solve problems consumer or customer. Quality of service encourages customers to commit to products and services of a company so that it has an impact on increasing market share of a product. Quality of service is very crucial in maintaining customers for a long time.

Companies that have superior services will be able to maximize the company's financial performance (Gilbert et al., 2004). Lupiyoadi (2001) mentions the main factors that need to be considered in relation to customer satisfaction, among others: consumers will feel satisfied when they get good service or in accordance with expectations.

Customer satisfaction factors are several things including services that meet consumer expectations, attractive service facilities, and strategic places that will complement customer satisfaction. Customer satisfaction makes it loyal and makes repeated purchases continuously. Generally loyal customers are like promotional tools that will share their experiences and recommend to others. As the customer satisfaction theory delivered by Widodo (2012) states that the characteristic feature of satisfied customers is someone who returns to buy, and will tell others about his good experience with the products he uses. Consumers buy a product not because the product is physical but because of the benefits of the product purchased.

The existence of affordable prices, product quality, service quality and customer satisfaction are the basic considerations of a consumer making a purchasing decision. According to Kotler (2003) that purchasing decisions by consumers are decisions made through five stages, namely the introduction of problems, information seeking, assessment of alternative consumers using information to evaluate alternative brands in the set of thoughts, purchasing decisions of a consumer's decision to change, suspend, or cancel decision-buying, much influenced by one's risk views, buying behavior after product purchase, consumers will experience a certain level of satisfaction or dissatisfaction. The existence of stages in decision making is possible for variables that strengthen decision making or weaken decision making. One of the factors that can be used as a moderating variable is technology, such as the results of a study by Kuo (2013) which found that technological readiness can be a moderating variable. Therefore in this study discussed the influence of Price, Product Quality, Service Quality, and Customer Satisfaction on Purchasing Decisions with Ojek Online Delivery Order Services as Moderating Variables

## II. STUDY OF LITERATURE, HYPOTHESIS AND MODEL DEVELOPMENT

### 1. Relationship between Price and Purchase Decision

Price is the sum of all values that consumers exchange in order to obtain benefits (from) owning or using goods or services (Kotler and Armstrong, 2008). Consumers will feel that the price is in accordance with the goods or services received and affects the purchasing decisions later on. This is in accordance with Tan's (2011) study which states that there is a price effect on purchasing decisions. Other studies that also produced a positive price effect on purchasing decisions were made by Hariadi (2015) and Satit et.al (2012). From this information, it can be assumed that there is a price relationship with consumer decisions in purchasing with a delivery order service, so the hypothesis is arranged as follows.

H<sub>1</sub>: There is a positive price effect on purchasing decisions.

### 2. Relationship between Product Quality and Purchasing Decision

A consumer buys a product because it has confidence that the product purchased is quality in accordance with the expectations of the product. Product quality is the characteristic of a product or service that depends on its ability to satisfy customer needs that are stated or implied (Kotler and Armstrong, 2008). According to Evelina et al. (2013) can be seen that product quality has a positive effect on consumer decisions in buying products. Likewise with the Weenas study (2013), Kodu (2013) produced a positive effect on product quality on purchasing decisions. From the statement, it is strongly suspected that there is a relationship between product quality and consumer decisions, so the hypothesis is formulated as follows:

H<sub>2</sub>: There is a positive influence on product quality on purchasing decisions.

### 3. Relationship between Product Quality and Purchasing Decision

The company provides services to consumers, with good service consumers will be happy in making transactions so they will decide to return to the transaction at a later time. Service quality is the level of excellence expected and control over the level of excellence, to fulfill customer desires (Wyckof and Lovelock, in Ratminto and Winarsih, 2005). Zeithaml et.al



(1996) defines service quality as a consumer measurement of the good or superiority of overall service. And according to Parasuraman et. al. 1996, service quality as a general assessment or attitude related to the superiority or excellence of a service. Based on Weenas research (2013), Kodu (2013) can be seen that there is a positive influence on service quality on purchasing decisions. From the statement, it is strongly suspected that there is a relationship between the quality of service and the purchasing decision, so the hypothesis is arranged as follows:

H<sub>3</sub>: There is a positive influence on the quality of service on purchasing decisions.

#### **4. Relationship between Satisfaction and Purchasing Decision**

Based on research by Foedjiawati, F., & Samuel, H. (2005) there is an influence of consumer satisfaction on brand loyalty. Consumers who are loyal to a brand will return to make a purchase. According to Hidayat (2016), it can be seen that there is an influence of consumer satisfaction on consumer decisions in making purchases. From the statement, it is strongly suspected that there is a relationship between satisfaction and consumer decisions, so the research hypothesis is arranged as follows:

H<sub>4</sub>: There is a positive influence on consumer satisfaction on purchasing decisions.

#### **5. The use of online motorcycle technology as moderating variable price with the purchase decision**

Moderation in relationships between variables can weaken or strengthen relationships between variables (Ghozali, 2005). According to Kuo (2013) who found that technological readiness can be a moderating variable of relationships between variables. Therefore in this study try to put the motorcycle taxi technology online as a moderating variable, so the research hypothesis is as follows:

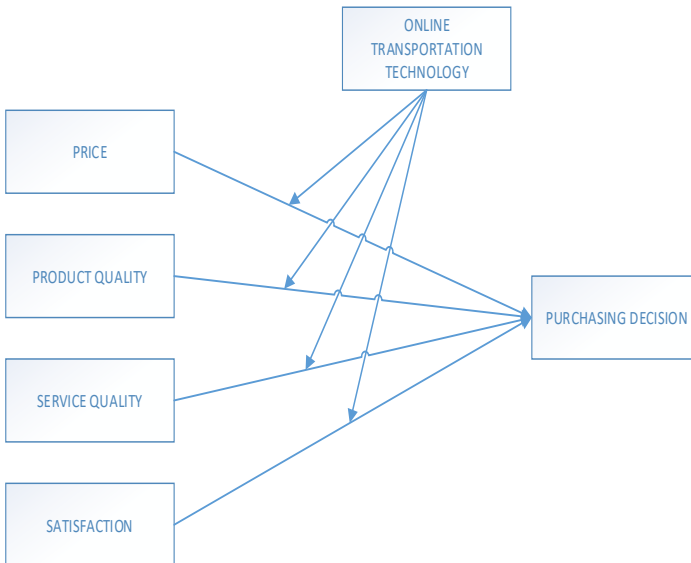
H<sub>5</sub> : The use of online motorcycle taxi technology can be a moderating variable in price variables with purchasing decisions.

H<sub>6</sub> : The use of online motorcycle taxi technology can be a moderating variable in product quality variables with purchasing decisions.

H<sub>7</sub> : The use of online motorcycle taxi technology can be a moderating variable in service quality variables with purchasing decisions.

H<sub>8</sub> : The use of online motorcycle taxi technology can be a moderating variable in customer satisfaction with purchasing decisions.

Model penelitian dan hipotesis di atas dapat digambarkan dalam bagan model penelitian sebagai berikut:



**Figure 7 Development of Research Models**

### III. RESEARCH DESIGN AND ANALYSIS METHOD

#### A. Research Design

The type of research used is the survey method using questionnaires. The object under study is restaurant consumers who buy directly and buy with the help of an application for delivery orders. Primary data taken is data on respondents' perceptions of price, product quality, service quality, customer satisfaction and purchasing decisions. The sample size in this study was

determined according to the analytical method of Structural Equation Modeling (SEM). Sample size is recommended if the method of analysis using SEM is five times the number of research items. Sampling is done by cluster random sampling method, which is grouped based on purchase transactions, namely direct buying as many as 130 respondents and buying with a delivery order of 130 respondents.

## B. Analysis Method

To test the validity, it is done by using confirmatory factor analysis (CFA) with the AMOS 22 program. With this approach, a measurement item is said to be valid if the relationship between latent constructs and items used to measure it has more critical ratios (CR or t-count). large or equal to t-table value (Ferdinand, 2005).

Reliability test, where the value of reliability received is  $\geq 0.70$ . Reliability test in SEM can be obtained through the formula:

$$\text{Construct-Reliability} = \frac{(\sum \text{standardized Loading})^2}{(\sum \text{standardized Loading})^2 + \sum \varepsilon_j}$$

*Standardized loading* can be obtained from AMOS output, by looking at the value of standardized *regression weight* of each construct against the indicator. While  $\varepsilon_j$  is a *measurement error* of each indicator, calculated by the formula:  $\varepsilon_j = 1 - (\text{standardized loading})^2$

*Variance Extract*, where the acceptable value is  $\geq 0.50$ . The formula used is as follows:

$$\text{Variance Extract} = \frac{\sum \text{standardized Loading}^2}{\sum \text{standardized Loading}^2 + \sum \varepsilon_j}$$

The analysis in this study uses Structural Equation Modeling (SEM). Testing the first hypothesis up to the sixth hypothesis is done by looking at the value of Critical Ratio (CR), (Ferdinand, 2005). The hypothesis is accepted if the positive path coefficient and  $CR > t$  table or  $p < 0.05$ .

## IV. RESEARCH RESULT

### 1. *Convergent Validity, Variance Extracted and Discriminant Validity*

#### a. *Convergent validity*

Based on the standardized output results, the loading estimate is above 0.7 and is statistically significant. Therefore all indicators in this study can be used as a measure of research variables.

#### b. *Variance extracted*

Summary of *variance extract* calculations can be seen in Table 4.

**Table 4**  
**The results of the *variance extract* calculation**

Variable	Variance Extracted (AVE)	Discriminant Validity
Price	0,696	0,835
Quality Product	0,663	0,814
Service Quality	0,753	0,868
Customer Satisfaction	0,710	0,842
Purchasing Decision	0,687	0,829

The results of variance extract measurements ranged from 0.663 to 0.753. The value of the variance extract is more than 0.5, so the value of the extract variance is in accordance with the recommended variance extract value which is greater than the value of 0.5.

#### c. *Constuct reliability*

Calculation *constuct reliability* can be seen in Table 5.

**Table 5 The results of the calculation *constuct reliability***

No	Variabel	<i>Constuct reliability</i>
1	Price (H)	0,902
2	Quality Product (Kprod)	0,887
3	Service Quality (Kpel)	0,938
4	Customer Satisfaction (Kkep)	0,964
5	Purchasing Decision (Kep)	0,898

Berd Based on the results of the calculation of the *constuct reliability* in Table 5 the data obtained by the value of reliability between 0.887 to 0.964. Based on Table 5, it can be seen that all variables have met the requirements of *constucts reliability* with a value of more than 0.7.

**d. Discriminant Validity**

The value of the square root AVE for each variable and the correlation value between the squared constructs are presented in Table 6.

**Table 6 Results of testing *Discriminant Validity***

	<b>H</b>	<b>Kprod</b>	<b>Kpel</b>	<b>Kkep</b>	<b>Kep</b>
H	<b>0,835</b>				
Kprod	0,315	<b>0,814</b>			
Kpel	0,114	0,209	<b>0,868</b>		
Kkep	0,166	0,171	0,214	<b>0,842</b>	
Kep	0,367	0,445	0,446	0,302	<b>0,829</b>

**Description: Diagonal thick numbers are AVE roots**

Based on Table 6 it can be concluded that the research variable has a high discriminant validity value. This is indicated by the root value of AVE which is greater than the correlation between constructs. High discriminant validity shows a construct different from other constructs. This shows one unique construct when compared to other constructs (Ghozali, 2008).

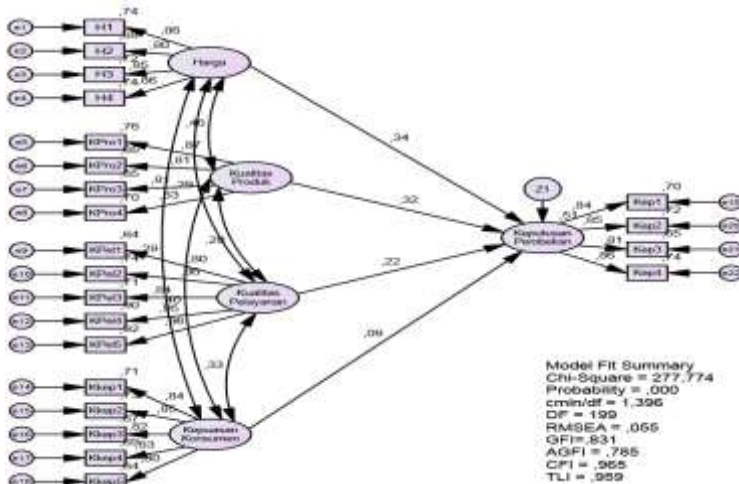
**2. Structural Equation Modelling (SEM)**

*Structural Equation Modelling (SEM)* is used to test relationships between variables. In this study there are two models of *Structural Equation Modeling (SEM)*, the first model is the model with the purchase decision without the help of delivery order technology, while the second model is with the purchase decision without the help of delivery order technology. The result of *Structural Equation Modeling (SEM)* analysis model 1 can be seen in Table 7.

**Table 7**  
**Regression weight Structural Equation Modeling price, product quality, service quality, customer satisfaction, and purchasing decisions Model 1**

Variable Relationship		Estimate	S.E.	C.R.	P
Purchase Decision	Price	,310	,082	3,798	0,000
Purchase Decision	Quality Product	,306	,090	3,409	0,000
Purchase Decision	Service Quality	,198	,070	2,823	0,005
Purchase Decision	Customer Satisfaction	,092	,083	1,110	0,267

Based on Table 7 the structural equation can be made follows:  
 $Ke_p = 0,310H + 0,306 K_{prod} + 0,198K_{pel} + 0,092K_{kep} + Z_1$



**Figure 8**  
**Analysis of Structural Equation Modeling results (Model 1)**

The Feasibility Test Index Model 1 can be seen in Table 8.

**Table 8**  
**Model Feasibility Index (Goodness-of-fit Index) Structural Equation Modeling price, product quality, service quality, customer satisfaction, and Model 1 purchasing decisions**

Goodness of fit index	Cut-of value	Hasil analisis	Evaluasi Model
$\chi^2$ -Chi-square	232,91	277,774	Marginal
Significancy probability	$\geq 0.05$	0,000	Marginal
RMSEA	$\leq 0.08$	0,055	Good
GFI	$\geq 0.90$	0,831	Marginal
AGFI	$\geq 0.90$	0,785	Marginal
CMIN/DF	$\leq 2.00$	1,396	Good
TLI	$\geq 0.95$	0,959	Good
CFI	$\geq 0.95$	0,965	Good

Based on Table 8, it can be seen that the value of  $\chi^2$ -Chi-square count is 277,774, while  $\chi^2$ -Chi-square table is 232,91, so that  $\chi^2$ -Chi-square counts  $<$   $\chi^2$ -Chi-square table with *probability significance* of 0,000 . This means that the *Structural Equation Modeling* model belongs to the marginal category. Likewise, based on GFI and AGFI, it is included in the marginal category because it is less than 0.9. Based on other *Goodness-of-fit Index* assessment indicators, which are based on RMSEA, CMIN / DF, TLI and CFI the models are included in the good category, because they have met the specified requirements.

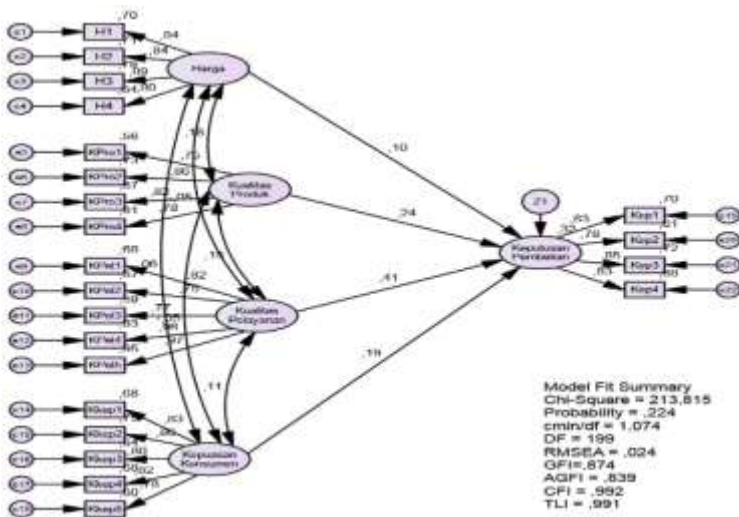
After the model is analyzed through confirmatory factor analysis, then each indicator in the fit model can be used to define latent constructs, so that full SEM models can be analyzed. The results of processing can be seen in Figure 2 and Table 9.

**Table 9.**  
**Regression weight Structural Equation Modeling price, product quality, service quality, customer satisfaction, and Model 2 purchasing decisions**

Variable Relationship	Estimate	S.E.	C.R.	P
Purchase Decision Price	,098	,085	1,132	,258
Purchase Decision Product Quality	,244	,091	2,654	,008
Purchase Decision Service Quality	,407	,071	4,740	,000
Purchase Decision Customer Satisfaction	,187	,091	2,174	,030

Based on Table 6 the structural equation can be made as follows:

$$Kep=0,098H+0,244Kprod +0,407Kpel+0,187Kkep + Z_1$$



**Figure 9**  
**Analysis results of Structural Equation Modelling (Model 2)**



The Feasibility Test Index Model can be seen in Table 10.

**Table 10**  
**Model Feasibility Index (*Goodness-of-fit Index*) Structural Equation Modeling price, product quality, service quality, customer satisfaction, and Model 2 purchasing decisions**

Goodness of fit index	Cut-of value	Hasil analisis	Evaluasi Model
$\chi^2$ -Chi-square	232,91	213,815	Good
Significance probability	$\geq 0.05$	0,224	Good
RMSEA	$\leq 0.08$	0,024	Good
GFI	$\geq 0.90$	0,874	Marginal
AGFI	$\geq 0.90$	0,839	Marginal
CMIN/DF	$\leq 2.00$	1,074	Good
TLI	$\geq 0.95$	0,991	Good
CFI	$\geq 0.95$	0,992	Good

Based on Table 7, it can be seen that the value of  $\chi^2$ -Chi-square counts at 277,774, while  $\chi^2$ -Chi-square table is 213,815, so that  $\chi^2$ -Chi-square counts  $< \chi^2$ -Chi-square table with *probability significance* of 0,224. This means that the *Structural Equation Modeling* model is included in the good category. Likewise, based on RMSEA, CMIN / DF, TLI and CFI produce good values. However, based on GFI and AGFI, it is included in the marginal category because it is less than 0.9. Although marginal but still acceptable, because it shows a value close to 0.9.

### 3. Hypothesis Testing

#### a. *The effect of price on purchase decision*

Based on Table 4, it can be seen that the variable path coefficient of the purchase decision is 0.310. Based on Table 6, it can be seen that the variable path coefficient of the purchasing decision is 0.098. This means that there is a positive influence of the price variable on purchasing decisions, meaning that the better the consumer's perception of the price, the stronger it will be

to make a decision to make a purchase or transact with an online motorcycle taxi service.

In Table 6 shows the value of CR 3,798 with  $P = 0,000$ . This means that there is a significant positive effect of prices on purchasing decisions. This shows the consumers who make purchases with delivery order prices affect the purchasing decision. This means that prices are sensitive to purchasing decisions. The better the consumer's perception of the price, the stronger the decision is made. In Table 6 shows the value of CR 1.132 with  $P = 0.258$ . This shows that consumers who make a purchase with a delivery order price have no effect on purchasing decisions. So even though it is more expensive to use a delivery order, it still makes transactions because of needs and lifestyle. Thus the first hypothesis which states that there is a positive effect of prices on acceptable purchasing decisions.

#### ***b. Effect of product quality on purchasing decisions***

Based on Table 4, it can be seen that the variable path coefficient of product quality on purchasing decisions is 0.306. Based on Table 6, it can be seen that the variable path coefficient of product quality on purchasing decisions is 0.244. This means that there is a positive influence of product quality variables on purchasing decisions, meaning that the better the consumer's perception of product quality, the stronger it will be to make decisions to make purchases or transact with online motorcycle taxi.

In Table 4 shows the value of CR 3.409 with  $P = 0,000$ . This means that there is a significant positive effect of product quality on purchasing decisions. This shows the consumers who make purchases with a delivery order of product quality has an effect on purchasing decisions. This means that product quality is sensitive to purchasing decisions. The better the consumer's perception of product quality, the stronger in making decisions. In Table 6 shows the value of CR 2.654 with  $P = 0.008$ . This shows the consumers who make purchases with a delivery order of product quality has an effect on purchasing decisions. So consumers need goods that are purchased in a quality state when they reach consumers. Thus the second hypothesis which states that there is a positive influence on product quality on acceptable purchasing decisions.

***c. Effect of service quality on purchasing decisions***

Based on Table 4, it can be seen that the variable path coefficient of service quality on purchasing decisions is 0.198. Based on Table 6, it can be seen that the variable path coefficient of service quality on purchasing decisions is 0.407. This means that there is a positive effect of the variable Quality of service on purchasing decisions, meaning that the better the consumer's perception of service quality, the stronger it will be to make decisions to make purchases or transact with online motorcycle taxi services.

In Table 4 shows the value of CR 2,823 with  $P = 0,005$ . This means that there is a significant positive effect of service quality on purchasing decisions. This shows that consumers who make purchases with delivery orders of service quality have an effect on purchasing decisions. This means that the quality of service is sensitive to purchasing decisions. The better the consumer's perception of the quality of service, the stronger in making decisions. In Table 6 shows the value of CR 4.740 with  $P = 0,000$ . This shows that consumers who make purchases with delivery orders of service quality have an effect on purchasing decisions. So consumers still need good service so that consumers make purchasing decisions quickly. Thus the third hypothesis which states there is a positive influence on the quality of service on acceptable purchasing decisions.

***d. Effect of consumer satisfaction on purchasing decisions***

Based on Table 4, it can be seen that the variable path coefficient of consumer satisfaction with purchasing decisions is 0.092. Based on Table 6 it can be seen that the variable path coefficient of consumer satisfaction with purchasing decisions is 0.187. This means that there is a positive influence from the consumer satisfaction variable on purchasing decisions, meaning that the better the consumer's perception of customer satisfaction, the stronger it will be to make a decision to make a purchase or transact with an online motorcycle taxi service..

In Table 4 shows the value of CR 1.110 with  $P = 0.267$ . This means that there is no significant effect of customer satisfaction on purchasing decisions. This shows that consumers who make purchases with a delivery order of customer satisfaction influence the purchasing decision. This means that customer satisfaction is sensitive not to purchasing decisions. Or even though

the consumer is not satisfied but still makes a purchase, because the delivery order decision is indeed done because of an emergency condition, so that it cannot conduct transactions directly. In Table 6 shows the value of CR 2.174 with  $P = 0.030$ . This shows that consumers who make purchases with a delivery order of customer satisfaction influence the purchasing decision. Thus the fourth hypothesis which states there is a positive influence of consumer satisfaction on acceptable purchasing decisions.

#### *e. Moderation*

The results of path analysis using AMOS SEM can be compared in one table as listed in Table 11

**Table 11 Moderation Analysis Results with sub groups**

Variable relationship	Without Delivery Order		Delivery Order	
	C.R.	P	C.R.	P
Price	3,798	0,000	1,132	,258
Product Quality	3,409	0,000	2,654	,008
Service Quality	2,823	0,005	4,740	,000
Customer Satisfaction	1,110	0,267	2,174	,030

Based on Table 11, it can be seen without delivery order the price becomes unaffected or the effect weakens, so the use of delivery orders cannot be a moderating variable between price and purchasing decisions. Product quality variables affect purchasing decisions without delivery orders or delivery orders. So the use of delivery orders cannot be a moderating variable between product quality and purchasing decisions. Variable service quality and customer satisfaction indicate an increase in influence after using a delivery order. This is indicated by an increase in the CR value and a smaller P value. So the use of delivery orders is able to be a moderating variable between service quality variables and customer satisfaction with purchasing decisions. The use of delivery orders can increase or strengthen the influence of service quality and customer satisfaction with purchasing decisions.

Based on the results of the moderation test, it shows that the use of online motorcycle taxi application technology cannot be a moderating variable of price variables with purchasing decisions, so the fifth hypothesis is rejected. The results of the moderation test also show that the use of online motorcycle taxi application technology cannot be a moderating variable in product quality variables with purchasing decisions, so the sixth hypothesis is rejected. The use of online motorcycle taxi application technology can be a moderating variable in service quality variables with purchasing decisions, as well as the use of online motorcycle taxi application technology can be a variable moderating variable customer satisfaction with purchasing decisions. So the seventh and eighth hypothesis is accepted.

#### **4. Discussion**

The results of the study indicate that there is a price effect on purchasing decisions. The results of respondents' evaluations indicate that respondents have a good perception of prices. The good perception shows that consumers feel that the prices are affordable, the suitability of product quality, price competitiveness and suitability for benefits. A good perception of the price makes consumers tend to be happy in determining the purchase, even without the help of a delivery order. This is in accordance with Tan (2011), Hariadi (2015) and Satit et.al (2012) research. However, when there is a booking facility with a delivery order, it turns out that the price does not affect the purchasing decision, the consistency of the results of this study with the previous research still exists, because in previous studies it was without moderation variables..

Product quality includes variables that influence purchasing decisions, either by using delivery orders or not using delivery orders. This shows that consumers expect goods that are received either obtained from direct purchases or from delivery orders in a state of quality, or quality in accordance with the standards promised and expected by consumers. The results of this study are consistent with Evelina et al. (2013), Weenas (2013) and Kodu (2013) which states that product quality has a positive effect on consumer decisions in buying products.

Service quality includes variables that influence purchasing decisions, either by using delivery orders or not using delivery orders. This shows

consumers expect good and good quality services obtained from direct purchases or from delivery orders, or services that are in accordance with the standards promised and expected by consumers. The results of this study are consistent with Weenas (2013) and Kodu (2013) which states that there is a positive influence on service quality on purchasing decisions.

Satisfied consumers also strengthen purchasing decisions, this is indicated by the results of the analysis, it is known that the use of delivery order technology applications can make satisfied consumers stronger for decision making. The results of this study are consistent with the research of Hidayat (2016) which states that consumer satisfaction affects consumer decisions in making purchases.

## **V. CONCLUSIONS AND IMPLICATIONS**

### **A. Conclusion**

Based on the hypothesis of the results of the discussion in this study, it can be concluded as follows:

1. There is a positive effect of prices on purchasing decisions.
2. There is a positive influence on product quality on purchasing decisions.
3. There is a positive influence on the quality of service on purchasing decisions.
4. There is a positive influence on consumer satisfaction on purchasing decisions.
5. The use of online motorcycle taxi application technology cannot be a moderating variable in price variables with purchasing decisions.
6. The use of online motorcycle taxi application technology cannot be a moderating variable in product quality variables with purchasing decisions.
7. The use of online motorcycle taxi application technology can be a moderating variable in service quality variables with purchasing decisions.
8. The use of online motorcycle taxi application technology can be a variable moderating variable of customer satisfaction with purchasing decisions.

## B. Implications

1. For customers without delivery orders, purchase decisions can be increased through improved perception of prices, product quality and service quality.
2. For customers who order with the help of technology, the delivery order application will be stronger in decision making, purchasing products with improved product quality, service quality and increasing customer satisfaction.
3. For consumers who buy with the help of technology, the delivery order application can be considered more in terms of service quality and customer satisfaction, because they feel stronger in making purchasing decisions if the service is more qualified and they feel more satisfied.

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## INTEGRATED MARKETING COMMUNICATION (IMC) AND CONSUMER PERCEIVED VALUE TO CONSUMER LOYALTY IN ISLAMIC BANK ON PALEMBANG CITY

Dewi Fadila, Diah Natalisa, Syamsurijal, Zakaria Wahab

### INTRODUCTION

According to Constitution Law No. 7/1992 about Banking System at March 25, 1992 Indonesia used dual banking system that conduct Sharia Bank (Bank of Indonesia, 2016). Bank Muamalat Indonesia became the first Sharia Bank that started development of Sharia Bank in Indonesia. Indonesian consumer interested to Sharia Bank when economic crisis crash that caused many conventional banks collapse and closed in the 1997-1998, but sharia bank has positive and better performance than conventional bank (Suhel, 2012). In 2013, Indonesian Sharia Bank became *The Biggest Retail Islamic Banking* in the world. Indonesian Sharia Bank became *un-doubtful* and *applicabel* Sharia Bank to be a reference and role model for Sharia banks in the world.

Indonesian Sharia Bank face challenge as the biggest muslim population in the world but the number of Sharia bank consumer in Indonesia only 18,75% and the rest still rely on conventional bank (beritasatu.com, 2015). Market share of Sharia bank in Indonesia about 5%, in Malaysia market share of sharia bank about 50% (detik finance, 2016).

To increase market share company can create and maintain consumer loyalty (Kotler, 2010). Consumer loyalty is the company's ability to grow and develop, so promotion and integrated communication are effective tool to build consumer loyalty (Goncalves, 1998). Customer loyalty influenced by company's integrated communication to consumers (Pritandhari, 2014). Integrated Marketing communication affects bank consumer loyalty (Pritandhari, et.al, 2014), consumer insurances and banks (Ball, Simões Coelho, & Machás, 2004) and cellular cards (Yuniaris, 2011). Consumer loyalty can be created by finding consumer perceived value (Neil, 2007). The higher value that obtained by a customer, it caused the higher the consumer loyalty that will create an emotional bond and positive feelings in building relationships. Without emotional connection, the relationship is a mechanical

activity and the consumer has no reason to be loyal (Barnes, 2004; Robinette, 2001).

Past studies were conducted to determine the effect of IMC and customer value on loyalty, but restrict number of research conducted on sharia banking. There is unclear what kind of integrated marketing communication that conduct to Sharia banking. Consumer perceive value on sharia banking are vague. Between IMC and consumer perceived value, what's the dominant variable that influence consumer loyalty?

## **METHODS**

Past studies were conducted to determine the effect of IMC to consumer loyalty (Pritandhari, Riani, & Laksmi, 2014), Ball, Simoes Coelho and Machas, 2004 and Yuniaris, 2011) but restrict number of research conducted on sharia banking. Sharia banking different from conventional bank, so sharia banking need different IMC (Yousaf, 2016). As know consumer perceived value influenced to consumer loyalty (Karjaluo, et.al, 2012), (Rahi, 2016, Rasheed and Abadi, 2014) but not clear what indicator for consumer perceived value on Sharia banking. Khoirunnisa (2001) argue to include religious values in Sharia bank but has not been linked to customer loyalty. And if IMC and consumer perceived value influenced consumer loyalty simustanously, what is the dominant variable?.

This research was a pilot research that conduct to explore influence of integrated marketing communication and consumer perceived value to consumer loyalty in Islamic Banks. This research involved 120 respondents from an Regional Sharia Bank that South Sumatera and Bangka Belitung Sharia Bank. According to Roscoe on Ferdinand (2014) sample size sufficients range as 30-500 samples. This research used multivariate analysis that minimum sample size is 30 (Sugiyono, 2008). Because this research have three variables, IMC and consumer perceived value as independent variables and consumer loyalty as dependent variable. This research is an explanatory research that explain the influence of IMC and consumer perceive value to consumer loyalty in Sharia Bank. This pilot research also to identify the integrated marketing communication in Sharia Bank and religious value in Sharia bank. This research also to provide influenced of integrated marketing

communication and consumer perceive value to consumer loyalty. This research used validity and reliability test before conduct regression analysis.

## RESULTS

Before regression analysis, data should pass validity and reliability test by Statistical Product and Service Solution program (See Table 1).

**Table 12 Validity Test**

<b>Variable</b>	<b>Indicators</b>	<b>R<sub>hit</sub></b>	<b>R<sub>stat</sub></b>	<b>Explanation</b>
IMC (X1)	1. Honest & simple advertisement	0,504	0,1509	Valid
	2. Fair offering promotion	0,512	0,1509	Valid
	3. Informative bank staff	0,474	0,1509	Valid
	4. Participate on Sharia bank Exhibition	0,492	0,1509	Valid
Consumer perceived value (X2)	1. Bank installment	0,650	0,1509	Valid
	2. Professionalism of bank staff	0,532	0,1509	Valid
	3. Functional value of sharia rule	0,651	0,1509	Valid
	4. Emotional value	0,709	0,1509	Valid
	5. Social value	0,698	0,1509	Valid
Consumer loyalty (Y)	1. Long lasting consumer	0,772	0,1509	Valid
	2. Consumer resistance	0,825	0,1509	Valid
	3. Word of mouth	0,810	0,1509	Valid

**Table 13 Reliability Test**

<b>Variables</b>	<b>Cronbah's Alpha</b>
IMC (X <sub>1</sub> )	0,705
Consumer perceived value (X <sub>2</sub> )	0,842
Consumer loyalty (Y)	0,896

Table 1 show that, all indicators are valid because it have  $R_{hit} > R_{stat}$  and all of indicator are reliable. It means all of indicator consistent and stability, because Cronbach's alpha of all variable bigger than 0,5. Table 1 also show that the indicators were appropriate to measure IMC, Consumer perceived value and consumer loyalty. This means that to measure IMC sharia banks can be used indicators honest and simple advertisement, fair offering promotion, informative bank staff and participate on sharia bank exhibition.

Sharia bank should conduct honest and simple advertisement. This according to Hasan (2010) that sharia bank promotion prohibit to fake testimonial, advertisement that not according real condition and lie adverstiment. Those are breaking akhlakul karimah, not according to Islamic ethics. In Islamic ethics, seller and buyers in the same position. Sellers provide appropriate product information, do not over and fake or lie promises. Consumer perceived value indicators are bank installment, professionalism of bank staff, profit sharing according sharia rule, emotional value and social value. In this research find that consumer convinience used sharia bank because they used profit sharing according sharia rule, not interest that prohibit in Islam. This is religious value that argue by Khairunnisa. Then if consumer gain profit sharing and not interest rate, they would has convinience feeling because they were not involved with riba, and the money were clean, halalalan thoyyibah. The convinience feeling was the next value after functional value of sharia, that known as emotional value. Be a consumer of sharia bank would be good point of consumer social value. Consumer loyalty indicator as similiar to many past research. Long lasting consumer, consumer resistance and word of mouth are indicator of loyalty that according to Oliver (1996), Fadila, et.al. (2017)

The regression formula and analysis result can be seen in Table 14.

**Table 14 Regression Analysis**

Variables	Standardized coefficients	t	Sig
	Beta		
Constant		3,556	0,001
tot_imc	0,051	0,422	0,674
tot_value	0,502	4,158	0,000
	R	0,542	
	R square	0,294	

Equation formula of regression analysis was:

$$Y = a + b_1 X_1 + b_2 X_2$$

Which:

a = Constanta

$b_1, b_2$  = Coefficient

Y = Dependent variable, consumer loyalty

$X_1$  = Independent variable, IMC

$x_2$  = Independent variable, consumer perceived value

Regression equation

$$\text{Loyalty} = 0,051 \text{ IMC} + 0,502 \text{ Consumer Perceived value}$$

The dominant variable in this research is consumer perceived value. Consumer perceived value has positive impact and significant to consumer loyalty. The bigger consumer perceived value so the bigger consumer loyalty. According to Laws of Loyalty (Griffin, 2003), sharia bank should build employee loyalty. This is because employee loyalty increases, it will provide good service to customers so that customer loyalty will increase. Islamic banks must take care of existing customers keep them satisfaction and comfort so never try to switch to competitors. This is because the cost of gain new customers is greater than maintaining cost of existing customers. 80% of the company's revenue is obtained from 20% of existing customers, loyal customers. So that loyal customers lower maintenance costs which will produce 80% of the company's income. Companies must maintain customer databases to provide personal attention to customers. For examples, giving birthday greetings to customers through short messages services and e-mail, offering new products to loyal customers before launching the advertising program, etc. Companies can develop communication interactions such as websites where customers can comment on Islamic bank content, services, or write reviews on banking products.

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## **THE EFFECT OF SERVICE QUALITY ON CUSTOMER LOYALTY WITH CUSTOMER SATISFACTION AND TRUST AS AN EDUCATION IN IBIS HOTEL CUSTOMERS IN SURAKARTA**

**Sri Lestari Pujiastuti**

### **INTRODUCTION**

In the last few years the development of tourism has experienced recovery. This is indicated by the increase in tourist visits both from foreign tourists and domestic tourists. This increase was also offset by the increasing number of star hotels in Indonesia in general and in Surakarta in particular. This condition is an opportunity, but it is also a challenge for the hotel business, so businesses in this sector are becoming increasingly competitive. One hotel that tries to seize the opportunity is the Ibis Hotel. The hotel is a three-star hotel in Surakarta. The hotel is currently trying to compete to win the market segment of this very tight four-star hotel. Hotel Ibis Surakarta is one of the three star hotels located in the center of Surakarta city. The hotel is close to the busy main road and within walking distance of shops, markets and restaurants. By offering 152 modern rooms complete with LCD TV, plus a bar and meeting room, all hotel employees serve in a friendly manner.

Because this hospitality service business is more closely related to services, service quality factors can be the main benchmark of customer satisfaction, which in turn can affect customer loyalty to the company. The research conducted by Parasuraman et al. (1990) suggested that offering service quality is a fundamental strategy for success and survival in a tight business environment. Service quality and customer satisfaction are closely related to orientation results (outcomes) is the focus of discussion in the theory and practice of marketing. The service quality of customer satisfaction and affective commitment will have a direct impact on customer loyalty. Positive or good service quality will influence customer satisfaction, which is reflected in smaller complaints and affective commitment and sustained commitment. Service and support to customers can be interpreted as a form of service that gives satisfaction to its customers, so that customers always remember. By providing a positive image in the eyes of customers of services with controlled and affordable costs so that customers are motivated and motivated to work together to play an active role in implementing good service.

In principle, customer satisfaction is a management approach which is a structured system to create total and overall participation in the ranks of the organization in planning and implementing a continuous improvement process to give satisfaction to customers. Market research indicates that service quality also has a significant impact on customer satisfaction, loyalty, retention and purchasing decisions for goods/services and even the company's financial performance. However to build customer trust and loyalty and retain consumers, previous service providers must focus on service quality first, during and after transactions (Ming Wang, 2003). This has become an important issue in the service provider environment. When customers use services, they will be more focused as they receive service quality. Therefore, the quality of service and satisfaction is also an important issue in this study. So based on the explanation of the above phenomenon, the research is conducted to determine the extent of the influence of service quality variables on customer loyalty with variable customer satisfaction and trust as mediators.

## **METHODS**

The research method used is a quantitative and explorative approach. Judging from its objectives, this study is categorized into research testing hypotheses. Methods of data collection in this study, by way of primary data collection by giving questions to respondents through a questionnaire. In this study, the sample used was taken as many as 250 customers of the Ibis Surakarta Hotel who had visited the hotel at least 2 times. The design of this research framework will be analyzed using Path Analysis method.

To find out the analysis of the role of mediation of customer satisfaction and trust in the model of the relationship of service quality to customer loyalty, path analysis was used. The intensity of influence in the path analysis model is shown by the effect coefficient or path coefficient. This coefficient of influence is the same as the "beta" coefficient of a standardized regression analysis model. SPSS can issue a standardized or unstandardized regression model estimation, so path analysis can be carried out using the output. The design of the model in Figure 1 is based on the regression model equation as follows:

$$M_1 = i_1 + aX + e_1 \quad [1]$$

$$M_2 = i_2 + b_1M_1 + b_2X + e_2 \quad [2]$$

$$Y = i_3 + c_1M_1 + c_2M_2 + c_3X + e_3 \quad [3]$$

Keterangan:

X = Servicquality

Y = Customer loyalty

M<sub>1</sub> = Customersatisfaction

I = intercept in regression model

M<sub>2</sub> = Trust

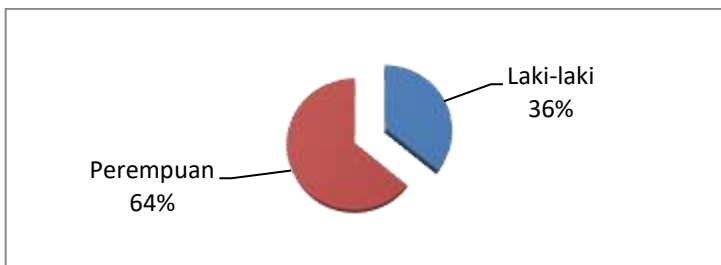
a, b, c = coefficient regression

## RESULT

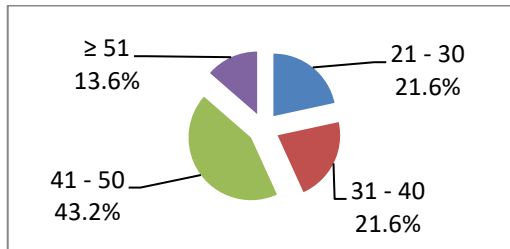
### 1. Characteristics of Respondents

Based on Chart 1, it is known that most of the respondents are female, that is equal to 64%. While the remaining 36% of respondents are male.

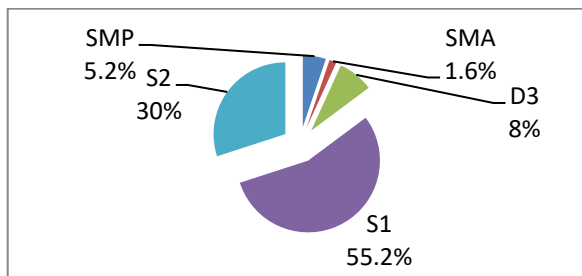
**Figure 10 Respondents Based on Sex**



For respondents based on age, from Figure 10 above it is known that as many as 43.2% of respondents have age 41-50 years. Whereas for respondents who have ages 21-30 years and 31-40 years, each of them is 21.6%, and the remaining 13.6% are respondents who have age  $\geq 51$  years.

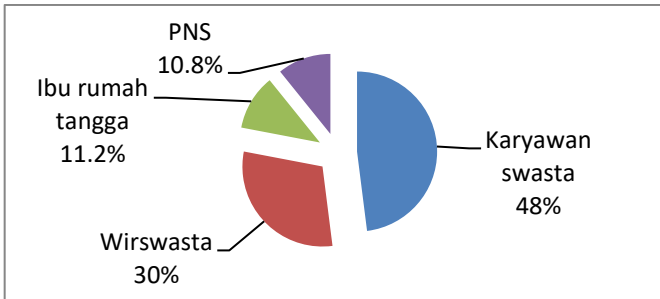
**Figure 11 Respondents Based on Age**

Based on Figure 11, it is known that the majority of respondents in this study were respondents who had the last S1 education, which amounted to 55.2%. While respondents who have S2 education as much as 30% and the rest are respondents who have the last education D3, high school and junior high school, each of 8%, 1.6% and 5.2%.

**Figure 12 Respondents Based on Recent Education**

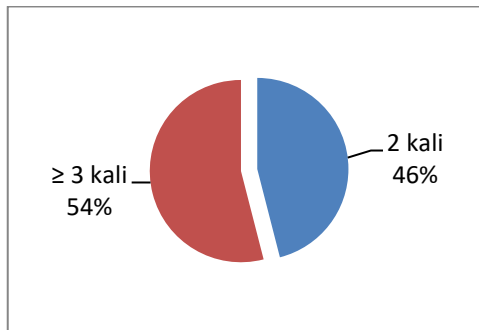
For respondents by type of work, from Figure 12 above it is known that as many as 48% of respondents have a type of work as private employees. While for respondents who have the type of work as entrepreneurs as much as 30%, and the remaining 11.2% are respondents who have the type of work as housewives and as many as 10.8% for respondents who have the type of work as civil servants.

**Figure 13 Respondents based on the type of Work**



Based on Figure 13, it is known that the most respondents in this study are respondents who have a frequency of staying  $\geq 3$  times, which is equal to 54%. While respondents who have a frequency of staying 2 times as much as 46%

**Figure 14 Respondets Based on the Frequency of Stay**



## 1. Hypothesis Testing

### a. *Service quality has a positive effect on customer loyalty*

In Table 15, it can be seen that the service quality variable has a t-test statistic value of 16.059 with a probability below 0.05, so the service quality variable influences customer loyalty. The higher the quality of service, the higher customer loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of the

services provided. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 51\%$ ).

**Table 15**  
**Results of Regression of Service Quality on Customer Loyalty**

Variable	Coefficient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Constanta	3.932		0.796	4.941	0.000
Service quality	0.176	0.714	0.011	16.059	0.000
$R^2 = 0.510$ ; Adjusted $R^2 = 0.508$ ; $F = 257.890$ ; Sig. $F = 0.000$					

*Source: data from SPSS processing*

**b. Service quality has a positive effect on customer satisfaction**

From Table 16, it can be seen that the service quality variable has a t-test statistic value of 21.46 with a probability below 0.05, so the service quality variable influences customer satisfaction. The higher the quality of service, the higher the level of customer satisfaction. In other words, service satisfaction depends on the appreciation of the respondent in accepting a number of indicators of the services provided. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 65\%$ ).

**Table 16**  
**Results of Regression of Service Quality on Customer Satisfaction**

Variable	Coefficient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	-0.338		0.460	-0.734	0.463
Service quality	0.136	0.806	0.006	21.468	0.00
$R^2 = 0.650$ ; Adjusted $R^2 = 0.649$ ; $F = 460.893$ ; Sig. $F = 0.000$					

*Source: data from SPSS processing*

*c. Service quality has a positive effect on trust*

From Table 17, it can be seen that the service quality variable has a t test statistic value of 18.124 with a probability below 0.05, so the service quality variable influences trust. The higher the quality of service, the higher the level of trust. In other words, customer trust depends on the appreciation of the respondent in accepting a number of indicators of the services provided. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 57\%$ ).

**Table 17**  
**Results of Regression on Service Quality on Trust**

Variable	Coefficient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	2.417		0.604	4.003	0.000
Service quality	0.151	0.755	0.008	18.124	0.000
$R^2 = 0.570$ ; Adjusted $R^2 = 0.568$ ; $F = 328.484$ ; Sig. $F = 0.000$					

*Source: data from SPSS processing*

*d. Customer satisfaction has a positive effect on customer loyalty*

From Table 18, it can be seen that the customer satisfaction variable has a t test statistic value of 19,679 with a probability below 0.05, so that the variable customer satisfaction affects customer loyalty. The higher customer satisfaction, the higher customer loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of satisfaction. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 61\%$ ).

**Table 18**  
**Results of Regression of Customer Satisfaction on Customer Loyalty**

Variable	Coefficient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	5.814		0.556	10.449	0.000
Customer satisfaction	1.140	0.781	0.058	19.679	0.000
$R^2 = 0.610$ ; Adjusted $R^2 = 0.608$ ; $F = 387.281$ ; Sig. $F = 0.000$					

*Source: data from SPSS processing*

*e. Customer satisfaction has a positive effect on trust*

In Table 19, it can be seen that the customer satisfaction variable has a t test value of 19.605 with a probability below 0.05, so that the variable customer satisfaction affects customer trust. The higher customer satisfaction, the higher the level of customer trust. In other words, customer trust depends on the appreciation of the respondent in accepting a number of indicators of satisfaction. This empirical reality preference is quite supported by the level of model determination ( $R^2 = 60.8\%$ ).

**Table 19**  
**Results of Regression on Customer Satisfaction on Trust**

Variable	Coefficient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	4.541		0.452	10.052	0.000
Customer Satisfaction	0.922	0.780	0.047	19.605	0.000
R <sup>2</sup> = 0.608; Adjusted R <sup>2</sup> = 0.606; F = 384.361; Sig. F = 0.000					

*Source: data from SPSS processing*

*f. Trust has a positive effect on customer loyalty*

From Table 20, it can be seen that the customer trust varibel has a t test statistic value of 16,516 with a probability below 0.05, s the variable of customer trust has an effect on customer loyalty. The higher the customer's trust, the higher customer loyalty. In other words, customer loyalty depends on the appreciation of the respondents in accepting a number of indicators of trust. This empirical reality preference is quite supported by the level of model determination ( $R^2 = 52.4\%$ ).

**Table 20**  
**Results of Regression of Trust on Customer Loyalty**

Variable	Coefficient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	4.744		0.725	6.540	0.000
Trust	0.893	0.724	0.054	16.516	0.000
R <sup>2</sup> = 0.524; Adjusted R <sup>2</sup> = 0.522; F = 272.773; Sig. F = 0.000					

*Source: data from SPSS processing*



*g. Service quality has a positive effect on customer loyalty with customer satisfaction as a mediator*

From Table 21, it is known that the service quality variable has a t-test statistic value of 3.688 and the customer satisfaction variable has a t-test value of 8,958, both with a probability below 0.05, so that service quality and customer satisfaction have an effect together or alone on customer loyalty. By using regression results where service quality affects satisfaction, the higher the quality of service, increasing customer satisfaction, and further increasing customer loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of service indicators and satisfaction given. This empirical reality preference is quite supported by the level of model determination ( $R^2 = 63\%$ ).

**Table 21**  
**Results of Regression of Service Quality on Customer Loyalty with Customer Satisfaction as Mediator**

Variable	Coeffient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	4.222		0.693	6.0.87	0.000
Service quality	0.059	0.241	0.016	3.688	0.000
Customer satisfaction	0.856	0.586	0.096	8.958	0.000
$R^2= 0.630$ ; Adjusted $R^2 = 0.627$ ; $F = 210.278$ ; Sig. $F = 0.000$					

**Source: data from SPSS processing**

*h. Service quality has a positive effect on customer loyalty with trust as a mediator*

From Table 22, it is known that the service quality variable has a t value test statistic of 6.268 and the customer trust variable has a t-test statistic value of 6.907, both with a probability below 0.05, so that service quality and customer trust have an effect on customer loyalty on their own. . By using regression results where service quality affects trust, the higher the quality of service, increase customer trust, and further increase customer loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of service and trust given. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 58.9\%$ ).

**Table 22**  
**Results of Regression of Service Quality on Customer Loyalty with Trust as Mediator**

Variable	Coeffient Regression		Std. Error	t	Sig.
	Unstandardized	B			
Konstanta	2.651		0.753	3.519	0.001
Service quality	0.096	0.390	0.015	6.268	0.000
Trust	0.530	0.430	0.077	6.907	0.000
R <sup>2</sup> = 0.589; Adjusted R <sup>2</sup> = 0.586; F = 177.088; Sig. F = 0.000					

**Source: data from SPSS processing**

*i. Service quality has a positive effect on customer loyalty with customer satisfaction and trust as mediators.*

From Table 23, it is known that the service quality variable has a t test statistic value of 2.262; the customer satisfaction variable has a t-test statistic value of 6.579; and the trust variable has a value of t 3.811 test statistic, all three with a probability below 0.05, so that service quality, customer satisfaction and trust have an effect both jointly and individually on customer loyalty. The level of determination of this regression model is 65.1%.

**Table 23**  
**Results of Regression of Service Quality on Customer Loyalty with Customer Satisfaction and Trust as Mediators**

Variable	Coeffient Regression		Std. Error	t	Sig.
	Unstandardized	$\beta$			
Konstanta	3.435		0.706	4.865	0.000
Service quality	0.038	0.153	0.017	2.262	0.025
Customer satisfaction	0.682	0.467	0.104	6.579	0.000
Trust	0.301	0.244	0.079	3.811	0.000
R <sup>2</sup> = 0.651; Adjusted R <sup>2</sup> = 0.646; F = 152.699; Sig. F = 0.000					

**Source: data from SPSS processing**

### 3. Path Analysis

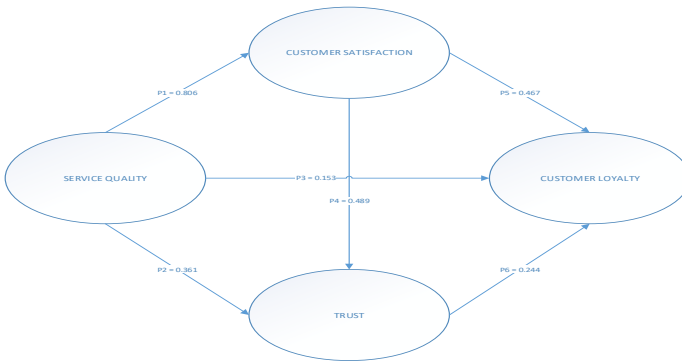
By using the results in the regression model [1] and [2], we can describe the pattern of influence of the three variables (service quality, customer satisfaction and trust) on customer loyalty as follows:

- a. Customer loyalty is influenced by trust. The effect of trust on customer loyalty is 0.244. This number is the direct coefficient of influence of trust in customer loyalty and also is the beta coefficient for the trust variable in the regression model [3].
- b. Customer loyalty is influenced by customer satisfaction. The direct effect of customer satisfaction on customer loyalty is 0.467 (Figure 1 or customer satisfaction beta coefficient in the regression model [3]). In addition, customer satisfaction also influences trust (direct influence = 0.489). Therefore, trust has an effect on customer loyalty, then customer satisfaction will also indirectly affect customer loyalty, that is through its influence on the trust variable. This indirect effect is  $0.489 \times 0.244 = 0.119$ . Thus the total effect of customer satisfaction on customer loyalty is  $0.467 + 0.119 = 0.586$ . So the influence of customer satisfaction on customer loyalty is 0.586.
- c. Customer loyalty is influenced by the quality of service. The direct effect of service quality on customer loyalty is 0.153 (Figure 1). In addition, there are also indirect influences. In this case, there are three lines of indirect influence on service quality on customer loyalty:
  - 1) Quality of service pelanggan customer satisfaction  $\rightarrow$  customer loyalty  
In this case, if service quality increases, customer satisfaction increases and customer loyalty increases. The magnitude of the indirect effect of this pathway is  $0.806 \times 0.467 = 0.376$ .
  - 2) Quality of service pelanggan customer satisfaction  $\rightarrow$  trust  $\rightarrow$  customer loyalty  
In this case, if service quality increases, customer satisfaction increases, trust also increases, then customer loyalty also increases. The magnitude of the indirect effect of this pathway is  $0.806 \times 0.489 \times 0.244 = 0.096$ .

3) Service quality  $\rightarrow$  trust  $\rightarrow$  customer loyalty

In this case, if service quality increases, trust increases, then customer loyalty also increases. The magnitude of the indirect effect of this pathway is  $0.361 \times 0.244 = 0.088$ .

The total influence of service quality on customer loyalty is  $0.153 + 0.376 + 0.096 + 0.088 = 0.714$ .



**Figure 15 Results of Path Analysis**

So, based on the results of the path analysis above, customer loyalty is influenced (respectively from the most dominant) by service quality (0.714), customer satisfaction (0.586) and trust (0.244).

The correlation between the three variables (service quality, customer satisfaction and trust) towards customer loyalty is 0.714, 0.724 and 0.781, respectively (Table 10). If this correlation value is compared with the value of the total effect of each variable on customer loyalty, it will be seen how much the correlation part really is the total influence of the variable. In summary, the decomposition of the correlation section of the three variables on customer loyalty becomes part of the direct influence, indirect influence, and total influence, as well as the remaining influence, are presented in Table 10.

The rest of the correlation section in Table 10 column 6, shows the mediating effect of variable customer satisfaction and trust variables. With the mediating effect of these two variables, the correlation of service quality

to customer loyalty has been largely reduced by the model to its total influence. In this case, most of the influence of service quality on customer loyalty is through the role of customer satisfaction and trust in the model. In other words, mediating customer satisfaction and effective trust in the model (customer satisfaction and successful trust in delivering the influence of service quality on customer loyalty).

**Table 24**  
**Correlation Distribution of Service Quality, Customer Satisfaction, and Customer Trust in Customer Loyalty**

Variable	Correlation	Effect			Remaining Effect	Information
		Direct	indirect	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service quality	0.714	0.153	0.561	0.714	0.000	There is no influence from other factors outside the model
Customer satisfaction	0.724	0.467	0.119	0.586	0.138	Is the influence of other variables through customer satisfaction, including service quality
Trust	0.781	0.244	0.000	0.244	0.537	Is the influence of other variables through trust, namely service quality and customer satisfaction

*Source: data from SPSS processing*

### Discussion

- a. *Service quality has a positive effect on customer loyalty*: based on data processing, it is known that service quality has a probability below 0.05 so that it can be interpreted that service quality variables influence customer loyalty. The higher the quality of service, the higher customer

loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of the services provided. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 51\%$ ). The results of this study are in accordance with the study conducted by Parasuraman et al. (1988) who found a positive and significant relationship between perceptions of service quality and the desire to recommend to others. Other researchers, Zeithaml, Berry and Parasuraman (1996) suggest that there is a positive relationship between service quality and customer loyalty. Giving recommendations for a product or service from customers to others is a reflection of the high customer loyalty (Arndt, 1967).

- b. ***Service quality has a positive effect on customer satisfaction:*** based on data processing, it is known that service quality has a probability below 0.05 so that it can be interpreted that service quality variables influence customer satisfaction. The higher the quality of service, the higher the level of customer satisfaction. In other words, service satisfaction depends on the appreciation of the respondent in accepting a number of indicators of the services provided. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 65\%$ ). The results of this study are consistent with the study conducted by Kassim and Abdullah (2010) who found that perceptions of service quality have a positive influence on customer satisfaction. According to Parasuraman (1988), the higher the level of perceived service quality, the more customer satisfaction increases. The statement confirms the existence of a close relationship between service quality and customer satisfaction. In addition, Parasuraman (1985), Sabihaini (2000), Murwati R. (2003) in research on customer service level analysis of the five dimensions of service quality in general have a positive and significant effect on the variable customer satisfaction.
- c. ***Service quality has a positive effect on trust:*** based on data processing, it is known that service quality has a probability below 0.05 so that it can be interpreted that service quality variables affect customer trust. The higher the quality of service, the higher the level of customer trust. In other words, customer trust depends on the appreciation of the respondent in accepting a number of indicators of the services provided.

This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 57\%$ ). The results of this study are in accordance with the Gronroos et al. (2000) who suggested that the quality elements of e-service are expected to influence e-trust directly, because they represent trust signals that convey trust from the site and the system to customers (Corritore et al, 2003). In a review of studies on online trust, Grabner-Krauter and Kalusha (2003) even interpreted e-quality as a determinant of trust, trust, trust, and intention to repurchase as an intention to trust each other. Strength relations and relationship marketing have received limited attention in the literature in the context of the quality of online services, a concept called e-trust has received attention (Ribbink et al., 2004).

- d. ***Customer satisfaction has a positive effect on customer loyalty:*** based on data processing, it is known that customer satisfaction has a probability below 0.05 so that it can be interpreted that the variable customer satisfaction affects customer loyalty. The higher customer satisfaction, the higher customer loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of satisfaction. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 61\%$ ). The results of this study are in accordance with the study of Martin et al. (2007) who found that customer satisfaction has a positive effect on customer loyalty. According to Wooruff in Yang et al. (2003), customer satisfaction is defined as all positive or negative feelings regarding the value of services received from service providers. Companies need to monitor and increase the level of customer satisfaction. The higher the level of customer satisfaction, the more likely the customer remains loyal to us (Kotler, 2003).
- e. ***Customer satisfaction has a positive effect on trust:*** based on data processing, it is known that customer satisfaction has a probability below 0.05 so that it can be interpreted that the variable customer satisfaction affects customer trust. The higher customer satisfaction, the higher the level of customer trust. In other words, customer trust depends on the appreciation of the respondent in accepting a number of indicators of satisfaction. This empirical reality preference is quite supported by the

level of model determination ( $R^2 = 60.8\%$ ). The results of this study are in accordance with the studies of Chauduri and Holbrook (2001) which suggest that satisfaction has a positive effect on trust, namely by reducing customer uncertainty/doubt towards the company. Trust can be formed if the customer feels satisfied with the brand or level of service received and intends to continue the relationship (Selnes, 1993).

- f. ***Trust has a positive effect on customer loyalty:*** based on data processing, it is known that customer trust has a probability below 0.05 so that it can be interpreted that the variable customer trust has an effect on customer loyalty. The higher the customer's trust, the higher customer loyalty. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of trust. This empirical reality preference is quite supported by the level of model determination ( $R^2 = 52.4\%$ ). The results of this study are in accordance with the study of Morgan and Hunt (1994) which suggested that loyalty is a continuous process as a result of the formation of trust in the brand. Previous research said that trust is a driver (driver) that influences brand loyalty (Chauduri and Holbrook, 2001; Lau and Lee, 1999). This opinion is reinforced by O'Shaughnessy in Lau and Lee (1999), who argues that the main thing that underlies loyalty is trust. As a consequence, if the trust in a particular brand is high, it can be said that it will continue to loyalty to the brand.
- g. ***Service quality has a positive effect on customer loyalty with customer satisfaction as a mediator:*** based on data processing, it is known that the service quality variable has a t-test statistic value of 3.688 and the customer satisfaction variable has a t-test value of 8,958, both with a probability below 0.05, so that service quality and customer satisfaction have a joint or individual effect on loyalty customer. In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of service indicators and satisfaction given. This empirical reality preference is quite supported by the level of model determination ( $R^2 = 63\%$ ).
- h. ***Service quality has a positive effect on customer loyalty with trust as a mediator:*** Based on data processing, it is known that the service quality variable has a t-test value of 6.268 and the customer trust variable has a



t-test statistic of 6.907, both with probabilities below 0.05, so that service quality and customer trust have an effect on or on their own to customer loyalty . In other words, customer loyalty depends on the appreciation of the respondent in accepting a number of indicators of service and trust given. This empirical reality preference is quite supported by the level of determination of the model ( $R^2 = 58.9\%$ ).

- i. **Service quality has a positive effect on customer loyalty with customer satisfaction and trust as mediators:** based on data processing, it is known that service quality variables have t test statistic value 2.262; the customer satisfaction variable has a t-test statistic value of 6.579; and the trust variable has a value of t 3.811 test statistic, all three with a probability below 0.05, so that service quality, customer satisfaction and trust have an effect both jointly and individually on customer loyalty. The level of determination of this regression model is 65.1%. Based on their own influence (direct influence), the higher the quality of service, the higher customer loyalty, *ceteris paribus*. The higher customer satisfaction, the higher customer loyalty, *ceteris paribus*. Likewise, the higher the trust, the higher customer loyalty, *ceteris paribus*. This means that the higher the quality of service, customer satisfaction and trust will have an influence on the higher level of customer loyalty.

This result is in accordance with the research conducted by Zeithaml, Berry and Parasuraman (1996) in Thureau (2002), which suggests that there is a positive relationship between service quality and customer loyalty. Giving recommendations for a product or service from customers to others is a reflection of the high customer loyalty (Arndt, 1967). The important element of loyalty is the existence of support for products or services that are manifested in the communication of one's positive experience. Parasuraman et al. (1988) found a positive and significant relationship between perceptions of service quality and the desire to recommend to others. This relationship of quality-satisfaction-behavior intention is consistent with generally accepted cognitive chains of causal results of evaluation of emotional responses-behavior (Oliver, 1997). In addition to service quality not only affects loyalty through satisfaction but also directly. Many studies have modeled service

quality as a precursor to behavioral intentions and found significant relationships (Bitner, 1990; Boulding et al., 1993; Zeithaml et al., 1996).

Furthermore, Loyalty can be formed if the customer feels satisfied with the brand or level of service received and intends to continue the relationship (Selnes, 1993). Customers can be loyal because of a large transition barrier with technical, economic or psychological factors; which is felt expensive or difficult to switch to other service supervisors (Fornell, 1992). The relationship between satisfaction and loyalty has been examined in several studies, namely: Fornell (1992); Cronin and Taylor (1992); Boulding et al. (1993) and Selnes (1993) in their study found a positive influence between satisfaction and loyalty. Loyalty is a continuous process as a result of the formation of trust in the brand (Morgan and Hunt, 1994). Previous research said that trust is a driver (driver) that influences brand loyalty (Chaudhuri and Holbrook, 2001; Lau and Lee, 1999). This opinion is reinforced by O'Shaughnessy in Lau and Lee (1999) who argues that the main thing that underlies loyalty is trust. As a consequence, if the trust in a particular brand is high, it can be said that it will continue to loyalty to the brand. Loyalty will provide many benefits for the company, including the repetition of purchases and recommendations regarding the brand to friends and acquaintances (Lau and Lee, 1999).

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results of data analysis, several conclusions that can be taken from this study are as follows: a) Customer loyalty is influenced in a row from the most dominant by service quality, customer satisfaction and trust, b) Customer satisfaction is an effective mediating variable for the influence of service quality on customer trust and loyalty. c) Trust is an effective mediating variable for the influence of service quality and customer satisfaction on customer loyalty. d) Based on the path analysis that has been done, it is known that customer loyalty is influenced (successively from the most dominant) by service quality, customer satisfaction and trust.

Moreover, the pattern of influence of the three variables (service quality, customer satisfaction and trust) on customer loyalty, can be described as follows: a) Customer loyalty is influenced by trust. The effect of trust on

customer loyalty is same with the direct coefficient of influence of trust in customer loyalty, b) Customer loyalty is influenced by customer satisfaction. In this case, the higher customer satisfaction, the higher customer loyalty. In addition, customer satisfaction also influences trust with direct influence. Therefore, trust has an effect on customer loyalty, then customer satisfaction will also indirectly affect customer loyalty, that is through its influence on the trust variable. Customer loyalty is influenced by the quality of service. In addition, there are also indirect influences. In this case, there are three lines of indirect influence on service quality on customer loyalty.

1. Quality of service  $\rightarrow$  customer satisfaction  $\rightarrow$  customer loyalty.  
In this case, if service quality increases, customer satisfaction increases and customer loyalty increases.
2. Quality of service  $\rightarrow$  customer satisfaction  $\rightarrow$  trust  $\rightarrow$  customer loyalty  
In this case, if service quality increases, customer satisfaction increases, trust also increases, then customer loyalty also increases.
3. Quality of service  $\rightarrow$  trust  $\rightarrow$  customer loyalty  
In this case, if service quality increases, trust increases, then customer loyalty also increases.

The correlation between the three variables (service quality, customer satisfaction and trust) to customer loyalty is fully the effect of total service quality on customer loyalty, divided by a correlation, total influence and general influence of other factors, and then divided into correlation, influence of total and the influence of other variables through trust, namely service quality and customer satisfaction.

Based on the results of research that has been obtained, the suggestions for further research are as follows: a) for Ibis Hotels in Surakarta to pay more attention and can increase the variables that affect customer loyalty, namely customer satisfaction and customer trust, b) Customer satisfaction is an important factor in the hospitality industry, it is recommended that hotel managers always make innovations in providing services to customers, as well as improving existing physical facilities so that consumers get good service in accordance with their expectations aimed at increasing customer satisfaction, c) Based on the research conducted, the most important question in assessing the quality of Ibis hotel services is "Your requests are met by Ibis

hotel staff" and "The experience and professionalism of the hotel is satisfying". Based on this, these things must be maintained and improved so that customer satisfaction is maintained.

For further research, it is expected to complete the limitations of this study, including:

1. The development of the variables studied on customer loyalty is not only collided with service quality, customer trust and satisfaction, but can be broadly developed in finding other studies that can increase customer loyalty. For example by adding an image variable or brand image, so that it can be examined whether the image or brand image of the hotel can increase customer loyalty.
2. Increase the sample above 200 respondents or even more so that the results achieved can be expected to be more optimal and can reveal reality according to conditions in the field.

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## **THE IMPORTANCE OF HUMAN RESOURCES DEVELOPMENT TO FACE ERA OF INDUSTRIAL REVOLUTION : TRUST BASED MODELLING FOR SOCIAL SECURITY MANAGEMENT AGENCY IN INDONESIA**

**Sri Ismulyati & Any Meilani**

### **INTRODUCTION**

Health and Social Security Management Agency as the executor of the National Health Insurance Foundation (BPJS) program within 2 years received public appreciation because it could help the Indonesian people to be able to access health services easily and cheaply. But on the other hand, in implementation BPJS there are still many weaknesses that have not met the expected quality. This is indicated by the persistence of complaints from the public that lead to an unfavorable image of public services carried out by the government apparatus. Based on the results of research by IPSOS Business Consulting Indonesia, it shows that many people do not know about the implementation of BPJS and the benefits of the program. This indicates that there is still a lot of homework to be done in implementing the program from the upstream to the downstream side.

The main factor that causes significant obstacles in the implementation of BPJS is undersupply in terms of health facilities. There are currently 22,739 health facilities serving BPJS patients but there are still many health facilities, especially the private sector, which are reluctant to join because of the low reimbursement rates in the INA BCG mechanism (Rumengan et al, 2015). Fees that are too low are considered not ideal for realizing decent health services. BPJS as the organizer must be able to attract health workers who join BPJS to serve all participants targeted at 100% by 2019. Furthermore, the availability of health facilities and medical personnel in Indonesia is still below standard and is one of the barriers to the world of health in Indonesia in general, in terms of infrastructure number of hospitals, beds that are only 4:100 people, the number of trained medical personnel is minimal, ie 0.2 doctors per 1000 people which is the lowest ratio compared to other countries (Rahmah, 2016).

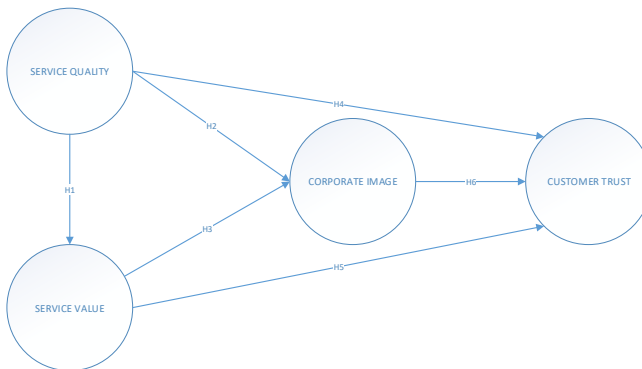


The implementation of this social health insurance scheme has put great pressure on health care providers because of the increasing number of BPJS members. This is further aggravated by referral systems from primary health facilities to advanced health facilities (hospitals) that are not optimal. Medical personnel at primary health facilities such as health centers and clinics have a tendency to refer patients to hospitals to save operational costs. From the patient's side, they prefer to be referred to the hospital because of the quality of primary health facilities that are considered not optimal by BPJS patients. This results in a build-up of patients and long waiting times as well as a lack of quality services provided by medical personnel in hospitals. The unpreparedness of infrastructure in handling larger patient volumes has drawn a lot of criticism from various parties. Some employees of private companies that previously were under private insurance schemes can enjoy mid-tier health services. But after the government requires the private sector to join the BPJS program, private employees now have to queue with other BPJS participants and cannot enjoy better benefits as before. In addition, private employees also have to pay a double premium for BPJS private insurance funds owned. These various factors ultimately make private employees refuse to join the BPJS program to the quality of the BPJS program implementation so that the quality of program implementation increases and runs smoothly.

Various problems that still indicate the lack of optimal BPJS services can lead to distortion of public trust. The BPJS implementation time span is almost 4 years. It is suspected that the level of public trust in the benefits of the JKN program is still low because there are still many aspects of service that must be improved and various supporting elements in the program still need a serious improvement. To build a positive image, BPJS needs to focus on delivering service value by emphasizing on strengthening institutional capacity on an ongoing basis by providing adequate health services in terms of quantity and quality at an efficient cost. In addition, the synergy of all relevant parties is the key to optimal BPJS implementation. Starting from the participants, health service providers, the government to the health equipment industry players must provide full support for the program which is a mandate from the country's constitution in order to achieve better health services.

To be able to build a positive image, then delivering value is not enough; it needs to be supported by the creation of optimal service quality. BPJS is actually a major revolution in the world of Indonesian health, but this change must be accompanied by quality improvements to achieve the main goal of improving the health status of the Indonesian people. Service quality is the spearhead of the success of BPJS to be able to meet the expected quality. Consumer complaints indicate there are still shortcomings or problems in the implementation of BPJS such as the length of the queue to wait for doctor services and taking a long time consuming drug.

This paper investigates the facts on the field how far customer trust modeling can detect customer quality review, service value and corporate image of BPJS. The conceptual framework shown in Figure 16.



**Figure 16 Proposed Conceptual Model**

The proposed model is based on the idea that BPJS Healthcare program is included in the classification of services with a high level of trust which is characterized by uncertainty and risk. Patients or their families (users) do not have professional knowledge to assess the quality of services provided during service and even after receiving services. Users evaluate the quality of health services based on interactions or what is called a service meeting with health care provider (doctors). Value of services needs to be supported by reliable human resources, namely medical staff, medical support staff, administrative staff, technology and adequate infrastructure. In essence, BPJS members

have the right to get health services in the form of adequate hospital services. The value of services that are in accordance with the needs of care according to health service standards will have an impact on increasing the level of community health and able to improve the image of the hospital as a public health service provider. Community experience regarding the hospital is in the form of an assessment of the performance of the service value and images received by users both, from hospital institutions and hospital staff.

Service quality and service value that can be created through the process of interaction between service providers (doctors, administrative staff, hospitals) developed optimally will further strengthen the image hospitals who provide BPJS service. The behavior of interactions between doctors and patients is an instrument in developing effective relationships with patients and increasing trust in them (service providers). With the good interaction between health service providers, in this case the hospital with service users, the service user and the hospital will benefit. This experience will develop by word of mouth, giving rise to an opinion and can strengthen the trust of the community.

The following hypothesis were developed ( $H_1-H_6$ ) based on the previous study (Gronroos, 2000; Zeithalm, 2013; Fandy, 2014; Heinonen, 2007; Chahal, 2010; Lovelock, 2011; Payne, 2008; Gronroos & Anika, 2011; Parasuraman, 1988; Nguyen & Gaston, 2001).

H1 : Service quality has a positive effect on the image of BPJS program

H2 : Service quality and service value have a positive effect on the image BPJS program, both partially.

H3 : Image affects public trust in the BPJS program

H4 : Service quality and service value affect trust partially

H5 : Service value affects BPJS program trust

H6 : Quality of service affects BPJS program trust

## **METHODS**

Methods used in this research are descriptive and verification (Cooper and Schindler 2011). The population of this study is BPJS users who were outpatient from various regions in Indonesia. Sampling in this study was carried out by random sampling stratification technique. Research samples

were determined based on the recommendation from Hair et al. (2014). The sample size is determined based on the maximum number of arrows pointing at the construct (Hair et al (2014), so in this study the sample size amounts to 6. With a significance level of 5%, then the minimum sample is **100** respondents. Distribution was carried out based on proportional allocation, namely comparable distribution according to subjects taken by participants.

Research variables are measured using dimensions and indicators, namely: 1) service quality is measured using three dimensions, namely responsiveness, reliability and empathy; 2) service quality variables are measured in two dimensions, namely the interaction between the organization and the customer and the value creation process; 3) corporate image is measured using two dimensions, namely impression and belief; 4) customer trust is measured using three dimensions of benevolence, credibility and competence. Analysis is conducted using Partial Least Square method (Vinzi, 2010) with consideration of the number of samples that are not too large and the use of convenience sampling.

## RESULTS

The number of samples participating in the study is 150 people. Data was collected from June-August 2016 using questionnaires. The data shows most of respondents are entrepreneurs (53%), followed by cibil servants (48%) and students (13.3%). Most of respondents are male (54.3%) and the rest are male. Respondents came from various regions, including DKI Jakarta (26.7%), Central Java (23,3%), followed by West Java (16,7%) and other regions.

After considering the profile of respondent , we are now in position to show the hypothesis results with the explanation see **Figure 17** and **Table 25**.

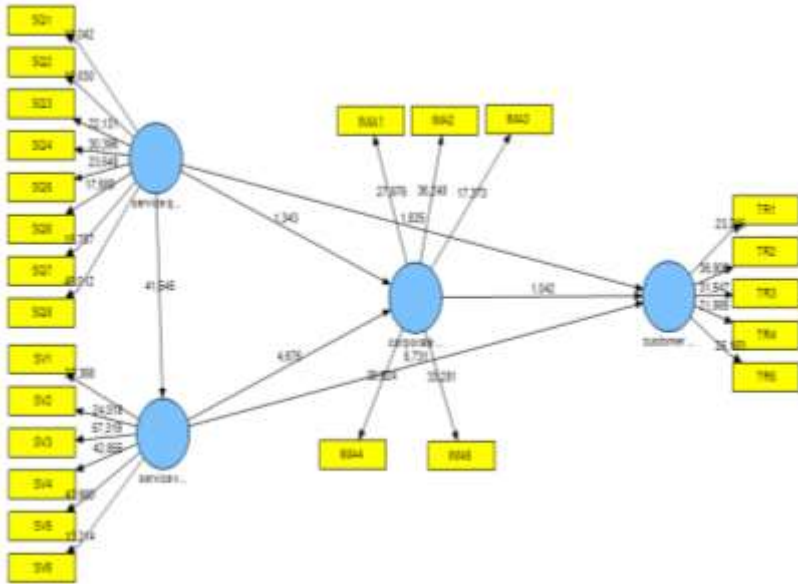


Figure 17 Research Modelling

Table 25  
The Influence of Variable

Hypotheses	Path Coefficient	t	t table	Conclusion
Service quality influence Service Value (H <sub>1</sub> )	0,878	41,545	1.96	Significant
Service quality influence Corporate Image (H <sub>2</sub> )	0,199	1,343	1.96	Insignificant
Service Value influence Corporate Image (H <sub>3</sub> )	0,598	4,675	1.96	Significant
Service quality influence Customer Trust (H <sub>4</sub> )	0,190	1,825	1.96	Insignificant
Service Value influence Customer Trust (H <sub>5</sub> )	0,641	5,371	1.96	Significant
Corporate Value influence Customer Trust (H <sub>6</sub> )	0,110	1,042	1.96	Insignificant

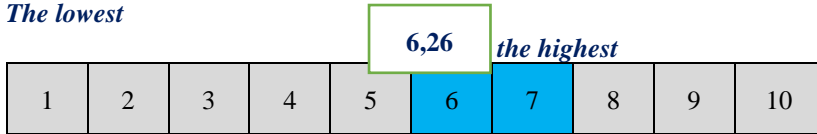
**The first upshot** clearly shows that not all hypotheses examined were validated and positively substantiated by the analyses. There are 3 hypotheses prove significant: 1) Service quality significantly influence Service Value ( $H_1$ ), Service Value significantly influence Corporate Image ( $H_3$ ), and Corporate Value significantly influence Customer Trust ( $H_5$ ), However other 3 hypotheses are insignificant: 1) Service quality insignificantly influence Corporate Image ( $H_2$ ), , 2) Service quality insignificantly influence Customer Trust ( $H_4$ ), and 3) Corporate Value insignificantly influence customer trust ( $H_6$ ). The finding of this study model can be described as follows:

1. Service quality affects BPJS program image strongly (0.878), service value of outpatient service of BPJS perceived by customers is highly affected by service quality. Service value shows the benefit and sacrifices of service users when using a service. The findings of this study are in line with several experts, namely Nordgern, (2009) and Pavlou & Fygenson (2006) who have proved that service quality can create value for customers which impacts on customer satisfaction. This means, the increased service quality of BPJS program will create positive value for the program members.
2. Service value affects corporate image strongly (0.598), this means service quality has is closely related to the formation of corporate image. This study can explore the facts in the field that the image of BPJS can be built because the outpatients who are BPJS participants at the hospital feel that they get great benefits (service value). The image of BPJS that is formed through impressions and beliefs can build a positive image in the eyes of its users. This study supports several results of research conducted by Worcester (1997) which had proven that increasing the quality of service values affects the corporate image. The empirical study of Herstein and Zviling (2010) and Brady et al (1999) found the fact in the field that the success of the company's marketing strategies and tactics can affect the company's image, where the creation of service value as a service element is part of the marketing strategy.
3. The effect of service value affects customer trust strongly (0.641), meaning that service value in the form of benefits perceived by consumer has a strong influence on customer trust. Customer trust demonstrates customer confidence in the integrity and reliability of services offered by

businesses. This study supports the results of research from the context of research health services from Gaur et al (2011) who successfully proved that the results of interactions between patients and doctors can create shared values that can affect user trust (customer trust). Huang (2006) stated that if consumers get the service values that are in line with what is expected, they will communicate their experience to a broad audience that can build trust. Trust is formed if the interaction process between service providers and consumers can create value that can provide benefits. From the various research results, a proposition can be developed, namely if BPJS service providers can create good service value for BPJS participants, it will have a positive impact on trust.

However, this modeling found the results of a hypothesis test that was not significant, meaning that there was a relationship between variables that has a weak influence, namely: 1) Service quality does not have a significant effect (0.119), meaning that BPJS participants considered that the quality of services provided by hospitals had not been able to build a positive image. Service quality has a very close relationship with the formation of corporate image. This research can explore the facts in the field that the image of BPJS has not been optimally built due to imperfect service quality. 2) Service quality does not have a significant effect on trust (0.199), meaning that BPJS participants consider that the quality of services provided by hospitals has not been able to build BPJS patient confidence. 3) Corporate image has no significant effect on customer trust (0.110), meaning that BPJS participants consider that the image of BPJS is still considered not good enough to build customer trust. This means that there is an indication that BPJS's corporate image is still considered low so that it is not enough to build consumer confidence.

The results of the hypothesis testing support the findings in the field which show the opinions of respondents regarding the desire of BPJS participants to keep reusing outpatient services that is not too high, **only 6.26 (range 1-10)** see Figure 3. These findings indicate that there are still aspects of services that are not optimal, which raises doubts for some BPJS participants.

*The lowest***Figure 18****Assessment Range of Willingness to Keep Using BPJS Services****CONCLUSION AND RECOMENDATION**

From the modeling in this study, interesting findings based on the facts on the ground are aspects of service quality that are considered not optimal by BPJS outpatients, so that they have a negative impact on corporate image and customer trust. This condition caused doubts from BPJS participants to continue to use the service. To find out more about the findings, there are several suggestions, namely: 1) further research is needed to find information about the service quality of "hospital inpatient services" and compare with the service quality of "hospital outpatient services". '2) conducting researches related to the desire to use BPJS in the future, 3) conducting researches on a broader scale and sample proportional representation of the population.

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## ALTERNATIVE TOURISM DEVELOPMENT IN SEMBALUN VILLAGE, EAST LOMBOK

Ni Wayan Marsha Satyarini & Tamjuddin

### 1. INTRODUCTION

Tourism is a whole series of activities related to the movement of people who travel or stop by from their homes to one or several destinations outside their neighborhood driven by several needs without intending to make a living (Gunn, C.A, 2002). The tourism industry is one of the largest industries in the world, therefore tourism development is expected to improve the economy, which in turn will improve the welfare of the community of the area where such development is undertaken. Moreover, tourism can also contribute to preservation of nature, culture, and the environment, in a sustainable manner (Evita et al., 2012:109). Developing tourism strategies from mass tourism to alternative tourism are wise manners towards sustainable tourism (Parma, 2010: 46).

One of the areas with natural beauty and very strong culture in Indonesia is the island of Lombok, West Nusa Tenggara. In Lombok, there is Mount Rinjani, an area that has been officially declared a global geopark by the UNESCO Global Geoparks. One of the climbing routes which tourists can take is through Sembalun Village. The Provincial Government and Regency Government of East Lombok have entered into partnership and worked in conjunction in an integrated manner to build Sembalun Village as the entrance for domestic and foreign tourists to Rinjani Geopark. Sembalun Village has a lot of tourism potential where there is room for improvement, starting from its culture to its nature. Adopting the concept of alternative tourism, Sembalun Village can develop its tourism potential without damaging the environment and in a sustainable manner. To develop potential requires good management and knowledge of the environment around the tourist area in order to facilitate development of such tourism potential based on the predetermined targets that is adjusted to environmental conditions of the area in competition with other tourist areas around Sembalun Village.

Based on the foregoing, the main problems facing alternative tourism in Sembalun Village are:

1. Is Sembalun Village worth designation as a destination of alternative tourism?
2. What are strategies to develop Sembalun Village as alternative tourism?

## 2. LITERATURE REVIEW

### 2.1. Alternative Tourism

According to Mieczkowski (1995:459), tourism is classified into two, i.e. mass tourism and alternative tourism (alternative tourism). The first is conventional, standard, and on a large scale. The latter consists of five types, which are:

1. Cultural tourism;
2. Educational tourism;
3. Science tourism;
4. Adventure tourism;
5. Agro tourism, all of which constitute nature tourism or ecotourism.

In a broad sense, alternative tourism is as a form of tourism that is compatible with nature, social aspects, and society as well as that allows interactions and various experiences between tourists and the community and interactions and various experiences between tourists and the local community.

### 2.2. Tourism Destination Development Strategies

According to Mazilu (2012: 94), the elements for development or creating of tourism destinations consists of the main elements as follows attractions, entertainment, accessibility, human resources, image and price.

As one of the important strategies in an effort to find and develop new products or markets, or both, to pursue growth and increase sales, profitability, and flexibility, diversification strategies can be done in three ways (Tjiptono 1997:132), they are:

- a. Concentric Diversification, where new products introduced have something to do with the marketing and technology of the existing products.
- b. Horizontal Diversification, where the company add new products that have nothing to do with the ones that have existed earlier.
- c. Conglomerate Diversification, where the company add new products that have nothing to do with the existing ones, but are sold to the same customers.

## 3. METHODS

This is qualitative descriptive research employing a snowball sampling technique. Snowball sampling is a probability sampling technique under the condition that initial respondents are selected randomly. The subsequent respondents are selected based on directions or information from the initial respondents. This process can be carried out in sequence based on

directions from the previous respondents (Sugiarto et al., 2015:200). This research was limited to the scope of the Sembalun village, East Lombok, Indonesia and interviews were limited to local communities and government officials involved in Sembalun village tourism development

The analytical methods used were SWOT analysis, IFAS (Internal Factors Analysis Summary), EFAS (External Factors Analysis Summary), SWOT matrix analysis to design development strategies, and SWOT Quadrant Mapping to determine the position of the potential of local wisdom-based agrotourism of Sembalun Lawang Village as alternative tourism.

## 4. RESULTS

### 4.1. SWOT Analysis

This SWOT analysis is based on logic and can maximize strengths and opportunities, but can simultaneously minimize weaknesses and threats. The analysis considers internal environmental factors in the forms of strengths and weaknesses as well as the external environment in the forms of opportunities and threats to be faced. The analysis in the context of development of alternative tourism in Sembalun Village includes among others:

#### a. Strengths

1. Sembalun Village has been well-known all around the globe as it is situated at the foot of a mountain, which is the valley of Mount Rinjani
2. The largest garlic producer in the Island of Lombok
3. Having virgin natural scenery
4. Having vast agricultural areas
5. Hospitality of the local community
6. The agrotourism area is one of the main entrances to Mount Rinjani national park
7. There are numerous studies on agrotourism development
8. The tourism destination has a strategic location, which is at the foot of Mount Rinjani
9. Financial/banking institutions has a favorable role

#### b. Weaknesses

1. Tourism-awareness culture, the importance of conservation, and a clean environment
2. Lack of facilities in the form of restaurants/stalls where tourists can get what they need
3. Lack of facilities in the form of street lights
4. Skills to manage flagships (garlic, strawberry, coffee, and so on)
5. Tourism development, demands, and carrying capacity are not

- proportional to the availability of local human resources.
6. The handicrafts or souvenirs sold are limited.
  7. It is hard for tourists to access the destination (public transportation)
  8. Demands for training have not been integrated for general services
  9. Limited human resources capacity and skills
- c. Opportunities
1. The agro area gets the Government's attention
  2. The buffer village closest to Mount Rinjani Geopark
  3. Tourists can enjoy nature without having to climb up Mount Rinjani (alternative tourism)
  4. Development of marketing technology
  5. Flagships are marketed to other cities.
  6. Diversification of agricultural products
  7. Development of agricultural technology
  8. Tourist visits increase on weekends.
  9. Investors have chances in the development of agrotourism
- d. Threats
1. Lack of attention towards a shift in local wisdom and culture due to a high number of newcomers
  2. The emergence of people running agrotourism business without any filter
  3. Spatial planning and use of space
  4. Natural disasters and mitigation preparedness to deal with such disasters
  5. Coordination with relevant institutions in connection with development of agrotourism
  6. The assistance programs carried out do not perform well.
  7. Procurement of programs that fail to hit the targets established by the Government or other relevant parties

#### 4.2. Internal Factors Analysis Summary (IFAS)

In this case, determine scores for each factor on a scale of 1.0 (the most significant) to 0.0 (insignificant). Then, the second step is to calculate the rating for each factor on a scale of 4 (outstanding) to 1 (poor). Afterwards, the third step is to multiply the score and the rating to obtain the weighting factor. Lastly, add the weighting scores up to get the weighting score of the company/tourism. This total value shows how a particular company/tourism reacts to its internal strategic factors.

Table 26. IFAS Results

Internal Strategic Factor	Score	Rating	Value (score x rating)
<i>Strengths</i>			
Sembalun Village has been well-known all around the globe as it is situated at the foot of a mountain, which is the valley of Mount Rinjani	0.07	4	0.26
The largest garlic producer in the Island of Lombok	0.07	4	0.26
Having virgin natural scenery	0.07	4	0.26
Having vast agricultural areas	0.05	3	0.15
Hospitality of the local community	0.05	3	0.15
The agrotourism area is one of the main entrances to Mount Rinjani national park	0.07	4	0.26
There are numerous studies on agrotourism development	0.03	2	0.06
The tourism destination has a strategic location	0.07	4	0.26
Financial/banking institutions has a role supported by facilities in the form of ATMs to provide cash	0.05	3	0.15
			<b>1.81</b>
<i>weakness</i>			
Tourism-awareness culture, the importance of conservation, and a clean environment	0.07	4	0.26
Lack of facilities in the form of restaurants/stalls where tourists can get what they need	0.05	3	0.15
Lack of facilities in the form of street lights	0.05	3	0.15
Skills to manage flagships (garlic, strawberry, coffee, and so on)	0.05	3	0.15
Tourism development, demands, and carrying capacity are not proportional to the availability of local human resources.	0.07	4	0.26

Internal Strategic Factor	Score	Rating	Value (score x rating)
The handicrafts or souvenirs sold are limited.	0.07	4	0.26
It is hard for tourists to access the destination (public transportation).	0.05	3	0.15
Demands for training have not been integrated for general services.	0.07	4	0.26
Limited HR capacity and skills	0.03	2	0.06
			<b>1.70</b>
<b>Total</b>	<b>1.00</b>		<b>5.32</b>
Strength-Weakness Differential			<b>0.11</b>

### 4.3. External Factors Analysis Summary (EFAS)

In this case, determine scores for each factor on a scale of 1.0 (the most significant) to 0.0 (insignificant). Then, the second step is to calculate the rating for each factor on a scale of 4 (outstanding) to 1 (poor). Afterwards, the third step is to multiply the score and the rating to obtain the weighting factor. Lastly, add the weighting scores up to get the weighting score of the company/tourism. This total value shows how a particular company/tourism reacts to its internal strategic factors.

Table 27. EFAS Results

External Strategy Factor	Score	Rating	Value (score x rating)
<i>Opportunities</i>			
The agro area gets the Government's attention.	0.08	4	0.30
The buffer village is situated closest to Mount Rinjani Geopark.	0.08	4	0.30
Tourists can enjoy nature without having to climb up Mount Rinjani (alternative tourism).	0.08	4	0.30
Development of marketing technology	0.06	3	0.17
Flagships are marketed to other cities.	0.06	3	0.17
Diversification of agricultural products	0.06	3	0.17
Development of agricultural technology	0.06	3	0.17



External Strategy Factor	Score	Rating	Value (score x rating)
Tourist visits rise on weekends.	0.06	3	0.17
Investors have chances in the development of agrotourism	0.06	3	0.17
			<b>1.92</b>
<i>Threats</i>			
Lack of attention towards a shift in local wisdom and culture due to a high number of newcomers	0.08	4	0.30
The emergence of people running agrotourism business without any filter	0.08	4	0.30
Spatial planning and use of space	0.08	4	0.30
Natural disasters and mitigation preparedness to deal with such disasters	0.06	3	0.17
Coordination with relevant institutions in connection with development of agrotourism	0.06	3	0.17
The assistance programs carried out do not perform well.	0.04	2	0.07
Procurement of programs that fail to hit the targets established by the Government or other parties	0.08	4	0.30
			<b>1.62</b>
<b>Total</b>	<b>1.00</b>		<b>3.54</b>
Opportunity-Threat Differential			<b>0.30</b>

#### 4.4. SWOT Matrix Analysis

According to Rangkuti (2016:88), there are four types of strategies that will emerge from the SWOT matrix, which are the SO Strategies (Strengths-Opportunities), ST Strategies (Strengths-Threats), WO Strategies (Weaknesses-Opportunities), and WT Strategies (Threats-Weaknesses).

##### a. Strengths-Opportunities

1. Promoting the tourism potential of Sembalun Village, which is developing agrotourism that includes Sembalun's perfect position at the bottom of the slopes of Mount Rinjani, the wonderful beauty of the panorama, an extensive carpet of green rice fields and plantations, and the main entrance to Mount Rinjani to get more support from the Government as the buffer village of Mount Rinjani Geopark;
2. Developing various types of technology used for processing and marketing agricultural products produced, especially garlic that can be processed into alternative products rather than simply marketing it as raw materials; and
3. Providing education and training for communities in a friendly

manner and financial/banking institutions in support of alternative tourism, especially agrotourism thus in turn increasing the number of tourists and improve the welfare of the local community.

- b. Strengths-Threats
  1. Providing education and training for communities in order that their local wisdom and agricultural products remain Sembalun Tourism Village's flagships; and
  2. Conducting intensive training and assistance for managerial arrangements in order to improve the management of Sembalun Tourist Village.
- c. Weaknesses-Opportunities
  1. Improving tourism supporting facilities and infrastructure that are adjusted and supportive of geographical location, tourism activities and activities of local communities in Sembalun Village;
  2. Increasing awareness and HR quality of the local community in accordance with the potential of Sembalun Tourism Village; and
  3. Improving quality of the skills to deal with the management of flagships and tourism carrying capacity by making various innovations to increase the number of tourist arrivals.
- d. Weaknesses-Threats
  1. Building good facilities and infrastructures so as to attract local indigenous people to continue to survive in the tourism sector; and
  2. Providing various types of training and management for the community to improve the quality of the community which in turn can persuade the Government to carry out assistance programs

#### 4.5. SWOT Quadrant Mapping

After calculating the total scores for the Internal Factors Analysis Summary (IFAS) and External Factors Analysis (EFAS), the position of the x-axis can be determined based on the IFAS matrix while the position of the y-axis can be determined based on the EFAS matrix using the following formulas:

- a.  $X = \text{Total Strength} - \text{Total Weakness}$   
 $X = 1.81 - 1.70$   
 $X = 0.11$
- b.  $Y = \text{Total Opportunity} - \text{Total Threat}$   
 $Y = 1.92 - 1.62$   
 $Y = 0.30$

The SWOT analysis compares the factors *opportunities-threats* with *strengths-weaknesses*. Results of the analysis identify that the alternative

tourism of Sembalun Village falls into Quadrant I, which is a very favorable position. Sembalun Village has internal strengths and opportunities, therefore, using the strentabgths it has, it can take advantage of the existing opportunities by turning such opportunities into an advantage. The strategy that must be applied in such a condition is to support an aggressive growth policy (growth-oriented strategies).

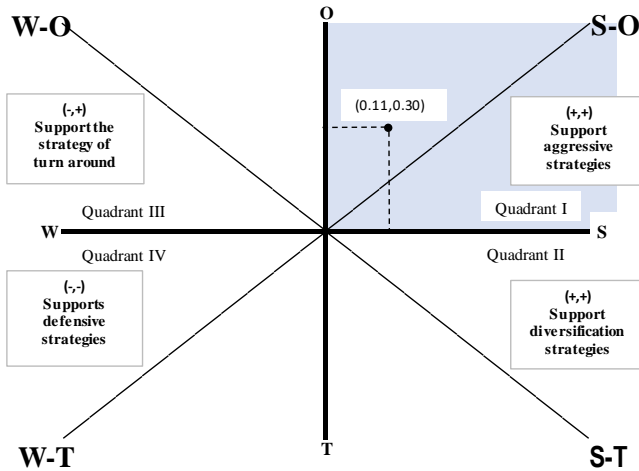


Figure 19. SWOT Quadrant Mapping Results

## 5. CONCLUSIONS AND SUGGESTIONS

### 5.1. Conclusions

Based on findings of the research on development of alternative tourism in Sembalun Village, it can be concluded that Sembalun is more suitable for more specific development, i.e. agrotourism development supported by the Government and the local community itself. However, based on data processing, it can be concluded that to develop alternative tourism, there are four strategies that can be used, which are Strengths-Opportunities (SO), Strengths-Threats (ST), Weaknesses-Opportunities (WO), and Threats-Weaknesses (WT). Moreover, results of the SWOT quadrant mapping suggest that alternative tourism development falls into Quadrant I, which means that such development is incompatible with aggressive strategies with concentric diversification, which means that new products introduced are relevant to the marketing and technology of the existing products. Aggressive strategies in tourism development includes

efforts that contribute to the growth in the number of tourist visits (frequency of visits and origin of tourists), assets (tourist objects and attractions, supporting infrastructure and facilities), and income (fees received and the amount of money spent) in the future.

## 5.2. Suggestions

As the resulting quadrant based on the SWOT quadrant mapping is Quadrant I (Strengths-Opportunities), therefore the strategies adopted are:

- a. Promoting the tourism potential of Sembalun Village, which is developing agrotourism that includes Sembalun's perfect position at the bottom of the slopes of Mount Rinjani, the wonderful beauty of the panorama, an extensive carpet of green rice fields and plantations, and the main entrance to Mount Rinjani to get more support from the Government as the buffer village of Mount Rinjani Geopark;
- b. Developing various types of technology used for processing and marketing agricultural products produced, especially garlic that can be processed into alternative products rather than simply marketing it as raw materials; and
- c. Providing education and training for communities in a friendly manner and financial/banking institutions in support of alternative tourism, especially agrotourism thus in turn increasing the number of tourists and improve the welfare of the local community.

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## SUCCESSFUL FACTORS OF GREEN MANAGEMENT IMPLEMENTATION

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### I. INTRODUCTION

There is a tendency that shows the decreasing quality and quantity of natural resources and environment. Climate change occurs along with the thinning blanket of atmosphere. In addition, global warming becomes the result of natural resources that will impact on the externality of industrial waste and that will cause natural resources degradation and environment destruction.

Customer's care and awareness on environmental destruction have created new opportunity and new market for environmental friendly products. Fairfield and Benson (2011) stated that green economy can be performed in environmental efficiency development and environmental footprint reduction through energy conservation and emission, pollution and industrial waste reduction. Besides, we need to perform innovative product improvement, brand and market development. On the other side, government as a regulator has pushed proper green economy based on three forces, they are competitiveness, legitimation (to improve credibility or avoid the law) and social responsibility.

Meanwhile, there are some efforts that decrease the pollution increasing and to defend natural resources as a legal law and rule in many countries. Chien (2014) stated that to reduce natural resources, China has applied some regulations, such as; Environmental Impact Assessment Act, Air Pollution Control Act Noise Control Act, Water Pollution Control Act, Marine Pollution Control Act Waste Disposal Act, Resource recycling Act, Soil and Groundwater Pollution Remediation Act, Enforcement Rules, Toxic Chemical Substances Control Act, etc. Although, there are some regulations in China, the implementations of these acts for related organizations are diverse. Organizations in Taiwan have experienced income decreasing as a result cost increasing when they implement environmental management (Chien, 2014). Similar statement also said by Brooks (2005), that environmental management implementation needs a great cost and this condition is not in balance with financial aspect improvement.

Roy and Gosh (2011) in their study on organizations in Asia showed that economic performance and environmental reporting difference do not have significant relationship. Furthermore, their study showed that

environmental practice and environmental reporting have negative relationship. On the contrary, various studies do not show clear trend about voluntarily environmental reporting and dependence on economic performance. It supports Zhu and Sarkis (2004) that stated organizational size do not have an impact to environmental performance. Meanwhile, environmental performance is really influenced by GSCM practice. In general, environmental practice will positively and negatively impact on their relationship. Aggarwal (2013) stated that the relationship between environmental practice and economic performance have a positive impact (8 studies), negative impact (3studies) and various (5 studies). It can be concluded that the relationship between environmental practice and financial performance is positive. It is based on environmental implementation that will impact on the relationship among stakeholders, reputational improvement labor dependence, cost reduction and efficiency improvement as well as capital access improvement.

Different opinion stated by Cormier and Magnan (2007). They stated that the result of environmental practice showed positive and significant impact on economic performance (Soubhia , Jabbour, 2015) for organizations in Germany. Yet, for organizations in France and Canada, environmental practice does not give positive and significant impact. In general, for environmental reporting, it will impact on share price increasing. Oba, Fodio (2012) in their study showed that organizations in Nigeria found out that there is a positive relationship between environmental responsibility and financial performance.

According to Schaaltegger and Synnstedvt (2002), the difference in the result of green management implementation is caused by different theoretical field which is used to view the relationship between economic performance and environment. Environmental and economic performance will be determined by the way of organizational implementation and its achievement based on green management explanation. Hart (1997) stated that there are three steps to reach continuous environmental management: (1) pollution prevention, an effort to solve and overcome environmental externality before the pollution occurs, (2) product stewardship, an effort to manage environmental externality and its impact in continuous product, (3) clean technology. Zhu and Sarkis (2004) stated that the success of environmental management implementation is not only influenced by organizational relationship but also its environmental management itself. Brito (2008) stated that the measurement of organizational performance must be changed through reorganizational movement which is suited with its new target to overcome the problems. Luthra, Garg (2013) stated that successful

organization in running environmental management will provide contribution to the development of organizational performance, and they will surely have capable partner to reduce environmental impact without increasing cost and lowering product quality. Gupta (1995) stated that the impact of a product on an environment does not happen only once but it will happen as long as the products life cycle. In this condition, environmental management is not individually performed but it will become a relationship among organization, customer, partner, government and the stakeholder (Gupta, 1995; Hart, 1997). When environmental management becomes communal responsibility, Green Supply Chain Management (GSCM) will become a solution to reduce environmental impact. It will involve with the entire supply chain (green Zelbst, 2012). It is supported by Vachon and Kalssen (2007) who stated that the concept of green supply chain is a general activity that will be used in an organization to minimize its impact on natural environmental. Supply chain has a role to keep and maintain business sustainability by developing organizational ability which is based on information and external environment. Srivastava (2007) stated that the reduction or elimination of dangerous pollution such as dangerous chemical material, emission and energy can be performed as long as SCM will always repair product design, raw material both from its source and product distribution to end customers. Yet, the implementation of environmental management is not that simple, the environmental implementation of GSCM consists of two phases: they are strategic and operational phase.

Based on the explanations above, there is a research gap which is related with environmental management practice. Some previous studies found out that environmental management practice will bring negative impact (Roy and Ghost, 2011, Braymer, Brooks, 2005)), meanwhile the study (Cormier and Magnan, 2007) and Oba Fodio (2012) found a contrary results. Unmanaged environmental degradation and destruction will impact in organizational performance (Aggarwal, 2013). Meanwhile, Gonzales-Benito and Gonzales-Benito (2005) stated that the different result in implementation measurement of environmental management practice is caused by 1) proceeding environmental practice and 2) organizational performance measurement.

Besides, Gonzales-Benito and Gonzales Benito (2005) also stated that the implementation of environmental management practice can only be seen in a stage that shows the process of environmental management which is running in an organization and we can see the direct impact of it on organizational performance. The research problem is: How to measure the



environmental management practice so as to bring positive impact on organizational performance?

This study aims to formulate on how the implementation of environmental management practice that will positively impact on organizational performance. Therefore, we will use balanced scorecard as tool to measure the relationship between environmental management and organizational performance. Kaplan and Norton (1996) stated that a thing cannot be vividly measured will bring difficulties for us to manage. Besides, Zhu and Sarkis (2008) stated the importance of research related with the implementation of environmental management practice.

## II. METHOD

This study uses qualitative approach as its method and organization as its research object. Purposive sampling method is used based on criteria that an organization gets a green or golden rating from PROPER measurement. Triangulation will be used as many sources to research object. Therefore, documentation and observation are also performed as a material to perform analytical tool and result discussion.

**Table 28 Respondent**

No.	Responden Penelitian				
	Perusahaan	Pengajuan	Tanggapan	PIC	Jabatan
1	The Body Shop	√	Diterima	Kukuh	Humas TBS
2	PLTU Tanjung Jati	√	Diterima	Ika Safitri	Manajer Lingkungan
3	Unilever Ind	√	Diterima	Maya Tamimi	Head Sustainabel Department
4	Biofarma	√	Tdk Dijawab		
5	Nokia Int	√	Tdk Dijawab		
6	Hotel Sopyan	√	Tdk Dijawab		

## III. RESULT AND DISCUSSION

The success of an organization to perform environmental management or green management really depends on organizational achievement from this project. When organizational green management is only pushed by a desire to fulfill government rule, the implication of running green management will only reach lawful aspect and it won't touch economy or incentive aspect that will be got from organizations and the implementation of green a management. On the other side, green management organization as a way of live from an organization which applies it, will make it as a proper tool to win

the competition that will finally impact on economy performance and organizational innovation.

Besides, organizational success in running green management program is also determined by the scope of green management itself. Green management consist of three aspects, they are sewage management, energy saving and green building. These three aspects are separated, these three aspects aims to keep natural resource both in a way that reduce the use of natural resource and maintain natural resource. When an organization needs to reduce production cost that will push low cost strategy, an organization needs to review the use of unwanted energy in an organization by designing a cost saving building or searching more efficient production process from both the uses of energy source and dangerous waste that will endanger the existing natural resource. It is performed by PT PLNTU Tanjung Jati.

Organization's serious action to perform green management program will be reflected in how an organization allocate its budget on the action. When an organization evaluate that green management becomes strength of an organizational or product, the position and unit rate as the performer of green management in an organization will be a reflection to measure on how an organization reflects this thing. When organizational structure does not have responsible unit to perform green management program, the elimination from the program will only be seen on legal aspect to evaluate organizational obedience of government rule. It will not reach the economy implication and organizations' competitiveness. Organization that implicitly states their responsibility as green management performer in their organizational structure will cover economy, and social cultural aspect. The higher this responsibility in an organization the larger its allocated budget to perform this program and it will finally demand a larger result from running budget.

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