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## Comprehending Leadership Patterns with focus on Servant Leadership

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### Abstract

*Leadership is the art of motivating a group of people to act towards achieving a specific goal. Leadership style is the method and approach of providing direction, implementing plans and motivating people. It is the sum total of explicit and implicit actions performed by the leader. The study investigates the different leadership styles in the organisation and a country wise classification of how leadership style varies across different nations. This is on the basis of factors like power distance, equality and decision making process. This paper also touches upon certain dark aspects of leadership. The method of collecting data constitutes of primary and secondary research. Primary research has been done by the way of unstructured face to face interview, telephonic interview and interview through emails, while secondary research includes books, journals, articles, magazines and online blogs.*

*Keywords— Leadership, Leadership Styles, Servant Leadership, HR Leadership, Consensual Decision Making, All Pervasive, Collaborator, Problem Solver, Architect*

### Abstrak

Kepemimpinan adalah seni memotivasi sekelompok orang untuk bertindak untuk mencapai tujuan tertentu. Gaya kepemimpinan adalah metode dan pendekatan dalam memberikan arahan, melaksanakan rencana, dan memotivasi orang. Ini adalah jumlah total tindakan eksplisit dan implisit yang dilakukan oleh pemimpin. Studi ini menyelidiki gaya kepemimpinan yang berbeda dalam organisasi dan klasifikasi berdasarkan negara tentang bagaimana gaya kepemimpinan bervariasi di berbagai negara. Ini berdasarkan faktor-faktor seperti jarak kekuasaan, kesetaraan, dan proses pengambilan keputusan. Makalah ini juga menyinggung aspek gelap tertentu dari kepemimpinan. Metode pengumpulan data merupakan penelitian primer dan sekunder. Penelitian primer dilakukan dengan cara wawancara tatap muka tidak terstruktur, wawancara melalui telepon dan wawancara melalui email, sedangkan penelitian sekunder meliputi buku, jurnal, artikel, majalah dan blog online.

**Kata kunci—** Kepemimpinan, Gaya Kepemimpinan, Kepemimpinan SDM Kolaborator, Pemecah Masalah, Arsitek

## I. INTRODUCTION

Leadership is a practice by which a person can express, direct and influence the behaviour and work of others towards achievement of precise goals in a given situation. It is the skill of a manager to persuade the subordinates to work with assurance and enthusiasm. It is an all-pervasive function. It is instrumental for every organisation whether be it corporate, academic, sports, politics or fashion industry to have a leader. A leader paves the way for his/her followers. The followers follow the footsteps of their leader. The leaders are the enablers for organisational effectiveness in the long run. We can say that a leader exhibits different leadership styles in the organisation. A new approach of leadership called the servant leadership is getting popular these days which stresses on serving people first then thinking about business later. This style of leadership replaces the self-interest with service to others. This paper also brings into account several dark tendencies of leadership which are related to their behavioural characteristics.

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## II. HYPOTHESIS DEVELOPMENT

### A. *Emerging Styles of Leadership*

Bill Taylor, in his article “The 4 Leadership Styles, and How to Identify Yours” has classified the 4 emerging leadership styles which are as follows The Classic Entrepreneur, John Doerr describes this type of leadership style as “more than anyone thinks possible with less than anyone thinks possible.” This type of leaders cares about the values their company stands for but is more interested in getting ROI. Such types of leaders are conscious about the economic value and KPIs. They love to create good products and steer their company to new heights but when it comes to making important decisions about mergers and acquisitions, or selling a company they back their decision by thorough financial calculations. These leaders being old school tend to make cautious moves and every action they take is backed by suitable justification to the question “How do we benefit from this move?” (Taylor, 2016).

The Modern Missionary, such kind of leaders look into the social aspect of life. They view competition as a process of creating something unique and beautiful out of it rather than winning over the competitors. These leaders are passionate about human values and such values hold precedence over economic and financial outcomes. This style of leadership is heavily influenced by philanthropy. Leaders here give more emphasis on the impact they are making in the society and might even let go of certain projects which does not resonate with the company values in spite of being lucrative in nature. Such kind of leaders establishes a company with a cause. They have traits of servant leadership in themselves. (Taylor, 2016). The Problem Solver, such leaders focus more on the end goal rather than the cause. They believe in the power of expertise and experience. They are the first ones to identify new opportunities and brainstorm new ideas to confront difficulties. These leaders are more realistic and they tend to discuss the problems with their colleagues, superiors and also rely on their judgement and expertise. They are good forecasters and they aim to rebuild the organization using modern technology in order to establish them in the industry. (Taylor, 2016).

The Solution Finder, these leaders are the “hidden gems” of the organisation. They are the humblest people in the organisation. They always take help from their colleagues and consider their advice instrumental in reaching the goals of the organisation. Such leaders believe that everyone in the organisation is collectively responsible for the fulfilment of the organisation’s goals and objectives. These leaders bring the spirit of “we” and “us” in the organization. They are good motivators and they tend to align the individual goals of the employees with the goals of the organization. They influence people around them to be ambitious and down to earth. (Taylor, 2016).

Alex Hill, Liz Mellon, Ben Laker and Jules Goddard in their article “The One Type of Leader Who Can Turn Around a Failing School” have classified the 5 types of leaders as follows: The Surgeons (cut and redirect):- These leaders are the problem identifiers and solvers. They quickly identify what’s wrong and redirect all the resources to fixing the immediate problem. They believe that an organisation fails when the employees are not performing well. If they remove the poor performers and make the others work hard, the performance of the organisation will improve. They have a strong mind and follow discipline. They think that it is their responsibility to bring the organisation back in track with new rules and hard work. They invest more in senior employees due to their experience in the organisation, fire the poor performers, cut out the non-essential activities and trim the organisational hierarchy. These moves are taken by them in order to address the most pressing issue. Surgeon leaders are decisive and incisive. (Hill Alex.et.al, 2016).

The Soldiers (trim and tighten), these leaders love discipline and order. They hate wastage of any kind and focus on costs and deadlines. They are persistent, cost-cutting and task-focused leaders. As a cost-cutting measure, they cut down all the non-essential and support activities, introduce automation and start using cheaper supplies. Such leaders have a high profile inside the organisation but are hardly known outside as they fail to create an impact in the organisation. Soldier leaders create an environment of fear and uncertainty which de-motivate the employees. Their severe cost cutting measures helps to enhance the financial performance but delay in investments is detrimental to the health of the organisation in the long run. (Hill Alex.et.al, 2016). : The Accountants (invest and grow):- These leaders believe in numbers and think “If we’re bigger, we’ll be stronger”. They seek ways to enhance revenue and make the organisation bigger and better. Such leaders are resourceful, systematic and opportunists. They look for ways in which the organization can tap new resources, acquire enterprises, invest in new ventures, and improve the existing organizational facilities with the view of intensifying the long term organizational performance. Accountant leaders bring a significant improvement in the revenue of the organization. (Hill Alex.et.al, 2016).

The Philosophers (debate and discuss):- These leaders are passionate about teaching and debating. They believe that an organisation fails because it is not teaching its employees properly. They consider themselves as experienced teachers rather than leaders. They are great observers and they take a deep interest in the interests,

activities, performance of the employees. These leaders are slow and often consider organisational improvement as a time consuming and transformational process. (Hill Alex.et.al, 2016). The Architects (redesign and transform): - They are the transformational leaders who quietly redesign the organisation and create a positive impact in the community that it serves. They are those leaders who “get things done rather than sit around drinking coffee. They are intuitive, humble and visionary leaders who believe that an organisation fails as it’s poorly designed. Therefore, such leaders set out to redesign the organisation and create the right environment for the employees at all levels. These leaders forecast future opportunities, bring about a positive change in the employee behaviour, enhance revenue and improve coaching and leadership within the organisation. Being great visionaries, such leaders take a 360-degree view of the organisation, its stakeholders, the customers, the competitors, the suppliers, the government, and the society as a whole. With their work, they leave behind a legacy for the future generations to follow. (Hill Alex.et.al, 2016). Tomas Chamorro-Premuzic and Michael Sanger’s article “What Leadership Looks Like in Different Cultures” (HBR: May 6, 2016) talks about the classification of leaders on the basis of decision making and communication style. (Maner, 2016)

#### *B. On the basis of Decision Making*

A synchronized leader accurately integrates organization, project and people. They draw the organizational plans in the form of different projects and assign these projects to the people. Constant follow up is the most essential feature of this type of leadership style. These leaders also seek for consensus from the people to arrive at a common decision. Synchronized leaders tend to be more cautious and are more focused on potential threats than rewards. (Maner, 2016). This type of leader is more prevalent in regions like Northeast Asia (e.g., Mainland China, South Korea, and Japan), Indonesia, Thailand, the UAE, and much of Latin America (Mexico, Brazil, Colombia, Chile). (Maner, 2016).

An opportunist leader self-initiates and demonstrates elasticity on the ways to achieve the goal in order to be more liked by the people. They are motivated risk takers and tend to squeeze every opportunity that comes in the way. They are good listeners and they fully comprehend the power of listening to his or her people. They are good examples of servant leaders. They are less concerned about the spotlight and they find joy in serving people. Such leaders understand the value of relationships and consider them as the building blocks of an organization. They are willing risk takers and they look forward to leaving their mark on the world and add value to others on the way. (Maner, 2016). This type of leader is found in Germanic and Nordic Europe (Germany, the Netherlands, Denmark, Norway), the UK, Western countries on which the UK had substantial cultural influence (the U.S., Australia, and New Zealand), and Asian countries that based their governing and economic institutions on the British model (India, Singapore, Malaysia, Hong Kong).(Maner, 2016)

#### *C. On the basis of Communication Style*

Straight-Shooting Leader, this type of leader is honest and open in his business dealings. They are very transparent while communicating to their subordinates. They clearly spell out what is expected from the subordinates and measure their performance as per the stated standards and make them aware of the deviations in their performance. Impromptu performance review meetings help such leaders to understand the work of the subordinates better. Such leaders are honest and they possess integrity which is very valuable in business, as people may be more willing to do business with someone they perceive as trustworthy. This type of leadership is found in Northeast Asia and countries like the Netherlands. (Maner, 2016).

Diplomatic Leader, this type of leadership style comprises of leaders with good communication skill and they know the art of careful communication in order to get along well with people. They are polite and agreeable and tend to keep conversations pleasant. Diplomatic leadership involves negotiating, representing interests and policies, speaking publicly and resolving conflicts. (Maner, 2016). In places like New Zealand, Sweden, Canada, and much of Latin America, this type of leadership style prevails. (Maner, 2016)

#### *D. Servant Leadership*

Servant leadership is a tried and tested leadership style which focuses on creating a shift from managing for results to designing environment to create results. (Greenleaf, 1977). Robert Greenleaf first coined the phrase “Servant leadership” in the 1970s. It is a form of leadership which replaces the self-interest with service to others.. Servant leaders demonstrate a range of 9 key attributes – listening, self-awareness, foresight, empathy, persuasion, stewardship, healing, conceptualisation and community. Servant leadership is about transformation and future focus and adopting its leadership principles compliments responsive ways of working really well. Due to this the nature of working in the workplace has changed drastically. Our leaders need to change in order to maximize delivery in customer value and to adapt to new circumstances. According to Economist Intelligence Unit, the top 3 emerging requirements are ability to motivate, ability to work well across cultures and geographical boundaries, and ability to facilitate change (Agile, 2016).

### E. *The Dark side of leadership*

Passive-aggressive leaders are cynical individuals who find faults in everything and procrastinate the work given to them. They are the 'resisters' of the group and are purposely unproductive. There are two reasons behind their resistance- fear of failure and fear of success. They fear that success could raise the bar of expectations from the superiors which could eventually lead to the fear of failure. Passive-aggressive leaders are always bitter and critical. Their aversion to conflict creates a great deal of conflict. (Maner, 2016) Such leaders enjoy the perks of the leadership position but fear any kind of responsibility. They consider "others" responsible for failure and themselves attributable to success. Due to the constant battle with their inner selves, there is often an outburst of emotions in the form of anger and frustration. When things do not go as per their desires, they tend to be verbally abusive and act in manners which are not socially and professionally acceptable. (Maner, 2016).

Randall S. Peterson and S. Wiley Wakeman in their article "The Type of Narcissist That Can Make a Good Leader" talks about Narcissist leadership is a leadership style where the leader is only interested in him. They prioritize themselves at the cost of others. Arrogance, authority and aggression are the principle characteristics of this leadership style. Narcissism is described as unhealthy and destructive. It is fuelled by the love for power and admiration. (Peterson et al., 2017). A study published in the journal 'Personality and Social Psychology Bulletin' suggests that narcissist leaders usually take charge of a leaderless group. Narcissist leaders are a big mystery for the organization. On one hand they are charismatic leaders having an impressive vision for the organization. On the other hand, they tend to flare up when their expertise is not accurately explained. "I", "me" and "myself" are the 3 most important words for a narcissist leader. They have to face many challenges like- stubborn conflict, high staff turnover due to the inability to sympathize and share credit, debate and confusion due to the reluctance to explain themselves to others. Narcissist leaders are valuable when change is being introduced but trouble otherwise. (Peterson et al., 2017).

Researchers have studied three main characteristics of incompetent leaders. They can be classified as:-

1. "moving away behaviour"- which creates distance from others through hyper- emotionality, diminished communication, and disbelief that erodes trust
2. "moving against behaviour" - which overshadows and influences people while ennobling the self;
3. "moving toward behaviour"- which includes being sycophantic, overly compliant, and hesitant to take chances or stand up for one's team. (Gregory, 2018)

Absentee leaders are the silent killers of the organization. No action is taken against such leaders because the organisation always has some other leader whose behaviour is more deviant. The negative impact created by absentee leaders is hard to detect and the symptoms of damage take a long time to appear.

### F. *Leadership practices across select countries*

Leadership style in Japan- hierarchical (more attention given to the rank and status of the person), a mixture of hierarchical leadership style with consensual decision making, "nemawashi"— the practice of speaking with each individual stakeholder before a meeting in order to shape the group decision and develop agreement in advance, "ringi" - which involves passing a proposal around level by level, starting at the bottom and then working through the layers of middle and senior management before arriving at the top. (Meyer 2017).

Leadership style in America-egalitarian (equality for all), biggest leadership trend in Western Europe and USA has been abandoning the hierarchical leadership style for a more egalitarian style of leadership, the egalitarian leadership style replaces command and control with empowerment, MBO, 360-degree feedback, open door policies, flat organizational structure are some key features of this style of leadership, creativity and innovation are the end products of such a leadership style, Americans believe in quick decision making, so the decision making power is usually vested in the boss. The boss may consult his team in the decision making process but the final decision is taken by him. (top down approach or small d of decision making) (Emmerick 2008).

Leadership style in China – In China the egalitarian leadership style is a major flop as the employees depend upon their managers for orders or commands. They just tend to follow instruction of their superiors. They perceive their managers to be arrogant when they are given the freedom to take independent decisions. (Emmerick 2008) Leadership style in India, Mexico, Morocco and Russia – Here the leader follows a top down approach while making decisions. The decisions are made quickly but they are subject to change as new ideas or inputs emerge.

The decision is not the firm commitment but subject to change depending upon the circumstances.(Emmerick 2008). Leadership style in Germany, Japan, the Netherlands, and Sweden –The decision making is consensual (Big D). Here a lot of people are involved in the decision making process and it involves a lot of negotiation to reach a common ground. However, once the decision is made, implementation is surprisingly quick. (Largest car manufacturers in the world) (Meyer 2017). Leadership style in France, Finland and Argentina- The leadership is autocratic, directive and non-participative in nature. (Emmerick 2008).

### III. CONCLUSION

On the successful completion of this research paper, I have been able to identify a lot of emerging leadership styles. The leadership styles also vary across nations. It was seen that the countries in the Eastern hemisphere follow a hierarchical leadership style whereas the western nations follow a more egalitarian leadership style. The western nations follow a series of initiatives like open door policies, 360-degree feedback mechanism, flat organization structure to name a few which are typical characteristics of an egalitarian leadership style. On the other hand, the eastern nations follow a top down, hierarchical leadership style where power and authority play pivotal roles in shaping up this leadership style.

The style of leadership also varies greatly from organisation to organisation. All the interviewed leaders considered the leader as the pivot of their team. Creating a culture for the empowerment of the youth is important for the leaders.

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## An Agent Based Model of Creative Social Entrepreneurship Behaviour in The Context of Creative Economy

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### Abstract

*This paper presents an agent-based model that illustrates creative-social entrepreneurial behaviour and its impact on socio-economic development and local resources sustainability. This study conducted an agent-based model simulation test to demonstrate the potential of the model developed through a literature review. The model approach assumes the interactions between agents are influenced by three purposes, which are profit entrepreneur, social entrepreneur and hybrid entrepreneur. The process is captured from the ability of entrepreneurial creativity in exploiting and conserving local resources. The results show the success of a dynamic model in integrating characteristics and creative-social entrepreneurial behaviour. The final model used as a reference to validate the impact and the relationship of creative-social entrepreneurial action on the socio-economic development and sustainability of a region's local resources*

*Keywords— Creative-social Entrepreneurship, Agent Based Model, Hybrid Entrepreneurs, Socio-Economic Development Local Resources Sustainability*

### Abstrak

Makalah ini menyajikan model berbasis agen yang menggambarkan perilaku wirausaha kreatif-sosial serta dampaknya terhadap pembangunan sosial-ekonomi dan keberlangsungan sumber daya lokal suatu daerah. Penelitian ini melakukan tes simulasi model berbasis agen untuk menggambarkan potensi dari model yang dikembangkan melalui kajian literatur. Pendekatan model mengasumsikan pergerakan antar agen dipengaruhi oleh tiga tujuan dasar yang dimiliki oleh entrepreneur yaitu ekonomi, sosial dan hybrid. Tinjauan proses dilihat dari kemampuan kreativitas wirausaha dalam melakukan eksploitasi dan pelestarian sumber daya lokal yang dimiliki suatu daerah. Hasil penelitian memperlihatkan keberhasilan model yang dinamis dalam mengintegrasikan antara karakteristik dan perilaku wirausaha kreatif-sosial. Model akhir dari penelitian ini juga digunakan sebagai acuan untuk memvalidasi dampak dan pengaruh hubungan perilaku wirausaha kreatif-sosial terhadap pengembangan sosial ekonomi dan keberlangsungan sumber daya lokal suatu daerah.

Kata kunci— wirausaha kreatif-sosial, agent-based model, hybrid entrepreneurs, pembangunan sosial-ekonomi, keberlangsungan sumber daya lokal

## I. INTRODUCTION

The creative economy is driven by three resources, namely the number of innovative human resources, abundant renewable natural resources and unique and diverse sources of cultural heritage. All three are the driving forces for sustainable creative economic growth (OPUS-BEKRAF, 2017). Creative human resources in this research is a person that used creativity to create changes in society. Mirzanti, Simatupang, & Larso (2015) states that “entrepreneurship is an important breakthrough in the development of the creative economy so that it can have a major impact on the economic quality of a country”. Most of the entrepreneur literature agreed that the

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concept of entrepreneurship is a process of generating ideas and creations then manifested in the form of economic activity. An entrepreneur requires the motivation to move it to be active in carrying out an innovation related to create a business and make a profit (Pratoon & Savatsomboon 2012). Drucker (2014) also explains entrepreneurship definition as “nature, character, and characteristics inherent in someone who has a strong will to realize innovative ideas into the real world of business and can develop them strongly”. While, other perspectives believe entrepreneurship plays an essential role in the development of social mission in creating changes, in a new term called as social innovation (Bornstein & Davis, 2010; Sen, 2007; Mulyaningsih & Dhewanto, 2013). Therefore, entrepreneurial behaviour is related to the activities driven by the characteristic of the values and needs that motivate entrepreneur to participate.

This study used data from previous research to do the simulation with an agent-based model. Most study related to entrepreneurial behaviour used the theoretical concept of “Theory of Planned Behaviour” based on Ajzen (1985;1991). There are several models of entrepreneurship behaviours towards socio-economic growth for examples Zahra (1993) that focusing entrepreneurship on firm behaviour, Bujor & Avasilcai focusing on creative entrepreneur behaviour. Previous research focusing on social entrepreneurship behaviour (Abu-Saifan,2012; Mulyaningsih & Dhewanto, 2013; Abdou & El-Ebrashi, 2015). Therefore, this research used the resources-based theory as a concept to build the model (Alvarez & Busenitz, 2001). This research tries to develop a model of entrepreneurship behaviour to fill the gap between creative and social entrepreneurship behaviour by Wells (2016). We believe that local resources need to sustain and renewable to create economic values. Therefore, this research aims to test the creative-social entrepreneurship behavioural model by simulating the interaction between variables treated as an agent. We use Agent-Based Model to test the model. We analyze the model by testing the correlation between variables such as entrepreneur characteristic, local resource/environment on entrepreneurial behaviour and socio-economic development. The finding of this study offers contributions on enlarging theoretical and practical perspectives related to inclusive entrepreneurship concept.

## II. LITERATURE REVIEW

### A. *Organizational Culture and Employee Performance*

Entrepreneurship is not only about designing business plans and establishing new businesses but also about how to be creative and innovative to support economic growth and sustain the environment (Wennekers & Thurik, 1999; Carree & Thurik, 2010; Mulyaningsih & Dhewanto, 2013). Entrepreneurship is a science that examines the spirit of creativity and courage to take a risk to realize the ideas (Bujor & Avasilcai, 2014). Previous literature from Wells (2016) studied about creative-social entrepreneurship axiology. Jaleesa Wells (2015) defines creative social enterprise as organizations concerned with the beneficial effects of enterprise intentions on creative and social activities (the hybrid values). Her research synthesized creative-social enterprise (CSE) values based on the intersection between the theories of creative entrepreneurship and social entrepreneurship.

### B. *Compensation and Employee Performance*

Entrepreneurial behaviour process carried out by a person to obtain a change in new behaviour, as a result of his own experience in interaction with his environment (Wulleman & Hudon, 2016; Permatasari & Agustina, 2018). Local resources, including the heritage, not only need to exploit but also need to sustain. This research model also adopts the model of entrepreneurship behaviour impact on economic growth in the multi-level analysis (Wennekers & Thurik, 1999). This research assumes that the characteristics of creativity and social mission or called empathy are essential characteristics that need to be the attributes of creative-social entrepreneurship.

The character of the creative-social entrepreneur is influence by values of creative social entrepreneurship such as creative, social and enterprise (Wells, 2016). Entrepreneurship value is often used on defining entrepreneurial intention and the opportunity search. The results show that the characters can be determined as an innovator, initiative taker, leader and risk-taker. The results are still related to the Littunen (2000) found that “the characteristic of an entrepreneur is the good nose of business, the desire to take a risk, the ability to identify business opportunities, the ability to correct errors effectively and ability to grasp profitable opportunities”. Bornstein & Davis (2010) define a social entrepreneur as a person who understands social problems and uses the ability of entrepreneurship to make social change. Social value on action process of exploitation, the opportunity shows that empowerment as the primary key of the characteristic (Kraus, 2017).

In contrast, creative values are dominant in the decision to exploit the opportunity. Creativity process will contribute to innovation by creating new ideas in developing business (Amabile, 2012). Therefore, creativity

values are used by the entrepreneur in managing the resources and delivered social change in their entrepreneurial activity.

### C. Organizational Culture and Organizational Commitment

Socio-economic development is the process that involved local governments and communities in encouraging and triggering business activities to create jobs. Socio-economic development is known as the impact of implementation on the economic conditions in the rural area (Athiyaman et al., 2007). While, according to World Bank Group (2016), socio-economic development is a process whereby development actors, working collectively with partners from the public, private and non-government sectors, to create changes and better conditions for economic growth and employment opportunities. Economic development focus on how local government and community-based groups manage existing resources and enter into the arrangement to create new jobs and stimulate local economic activities (Gawlik, 2015; Kania, 2020). The main characteristic of resources focuses on using the potential of local human, institutional and physical resources. While Baierl et al. (2014) define social changes occur in humans and society caused by development activities are referred to as social impacts. The social effects that arise are caused by activities such as programs, projects or policies that are applied to the community (Gawlik, 2015). Based on those previous facts, we develop a model of creative-social entrepreneurship behaviour to test by an agent-based model (Figure 1).

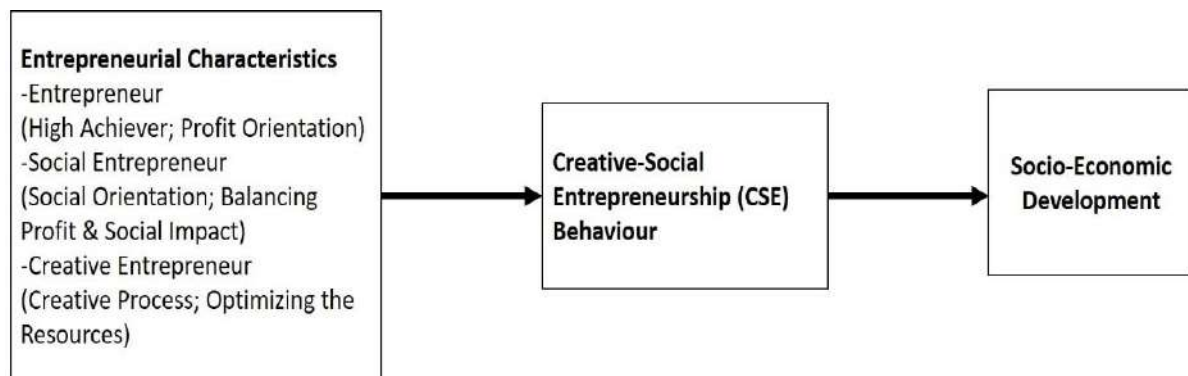


Figure 1. Creative Social Entrepreneurship Behaviour Value Framework (Permatasari et al., 2021)

### D. Compensation and Organizational Commitment

Agent-Based Modelling (ABM) define as a computational model for simulating the interaction between the actors (individual, organizational or the elements of the system). ABM is one of the approaches to do simulation modelling. Model is a representation of an object or actual situation (Bonabeau, 2002). The model shows direct and indirect relationships and reciprocal links in terms of cause and effect. At the same time, simulation is a reliable analysis tool for planning, designing, and controlling complex system processes (Wilensky & Rand, 2015). Simulation models can help describe the situation that occurs when a decision is applied. Therefore, ABM has the advantage to be applied to systems composed of different individuals who interact with one another (North & Macal, 2007). In social research, Agent-based Modelling also used for experiments by looking at the bottom-up approach of how the interaction of individual behaviours can influence system behaviour.

## III. RESEARCH METHODOLOGY

This research method in this study used an Agent-Based Model (ABM). ABM is a computer-based simulation to model all behaviours of entities (agents) involved in the real world in the hope that interactions between entities can produce or illustrate critical traits that can be used again as tools for explanation or prediction in making decisions in the real world (North, & Macal, 2007; Ramadhan et al., 2013). The ABM approach uses the following steps (1) Model Design: Identifying agents and behavioural theories of agents, identify relationships between agents and look for views about interactions between agents, looking for data needs between related agents. (2) Validate the agent behaviour model. This part shows in model explanation. (3) Run the model and analyze the output of the model that has been made. This method was chosen based on benchmarking research such as

resources common pool sustainability by Schill et al. (2016), creativity in context of rural development (Malik et al., 2015) and entrepreneurship behaviour by Alvarez & Busenitz (2001) and Audretsch & Keilbach (2004). The ABM, tools of analysis used for this research using the net logo (Wilensky & Rand, 2015).

#### A. Model Design

The components model is shown in Table 1. There are three types of agents; the first is an entrepreneur that has strong to exploit local resources to gain profit. The second is a social entrepreneur that has an orientation to balance the profit and social values in their activities. The third is a creative-social entrepreneur that focuses on sustaining resources and exploiting the values (social, economic, enterprise). The other inputs that use as characteristics of CSE (agent controls) are creativity and empathy. The interaction process between the agents categorize into three factors, which are environment, activities (exploit and sustain) and behavioural controls the number of local resources and year of exploitation (thick). The outputs from the model show the process results which are determined from CSE growth, wealth rates and the number of local resources.

Table 1. The components of CSE Behaviour Model

INPUTS	PROCESS	OUTPUTS
<b>Type of Agents</b>	<b>Environment</b>	
Creative Entrepreneur (profit orientation)	The availability of Local Resources Access & Infrastructure	
Social Entrepreneur (social orientation)		
Creative-Social Entrepreneur (hybrid)	<b>CSE Behaviour</b>	<b>Socio-economic Development</b>
	To Produce → Exploit/Explore	Entrepreneur Growth rates Wealth rates (GINI Index) Strengthening local resources
<b>Agent Controls</b>	To Share → Sustain	
Empathy		
Creativity	<b>Behavioural Controls</b>	
	Qty-Local Resources	
	Year-exploit/explore	

#### B. Agents

An agent is a component in the system that has the status of attributes, behaviour, and can make decisions (Wilensky & Rand, 2015). There are three types of agents shown in the net logo as a “person”:

- 1) *Agent, a person-> Entrepreneur, demonstrated with the colour yellow.*  
Entrepreneur character is a person with high achiever in creating profit. This character of entrepreneurs has an intention to exploit the resources with a high level of creativity and less empathy.
- 2) *Agent b person-> Social Entrepreneur showed with the colour blue.*  
Social Entrepreneur is a person that has a character of creating social values, focusing on balancing equal life of society (social welfare) and solving the social problems. The profile also has an intention in creating economic values (profit). This character of entrepreneurs has a purpose balancing the resources with a high level of empathy but a lower level of creativity.
- 3) *Agent b person-> Creative Social Entrepreneur (CSE) shown with colour green*

Creative social Entrepreneur (CSE) is a person that has a character of creating social values and economic values also sustaining the resources. The resources can be visually seen as local resources of natural resources, heritage etc. The difference with other is CSE used their creativity to renewable the resources with valued-added creation (sustain and regrowth).

The simulation setup agents:

- 1) Three hundred (300) of entrepreneur that has high achiever on profit with characteristic level of creativity seven (7) and level of empathy one (1).
- 2) Fifty (50) social entrepreneur that have characteristic social changes with the level of creativity two (2) and level of empathy six (6).
- 3) 10 CSE that have characteristic creative and social changes with the level of creativity two (2) and level of empathy (six) 6.

### C. Interaction

The interaction between the agents is visual the behaviour between the type of agents (agent to agent) and agent to the environment (local resources). The interaction of agents caused the changes in behaviour from entrepreneur profit or social entrepreneur to be CSE. The action is controlled by year of exploit.

### D. User interface

Figure 2 shows the CSE model user interface for the simulation.

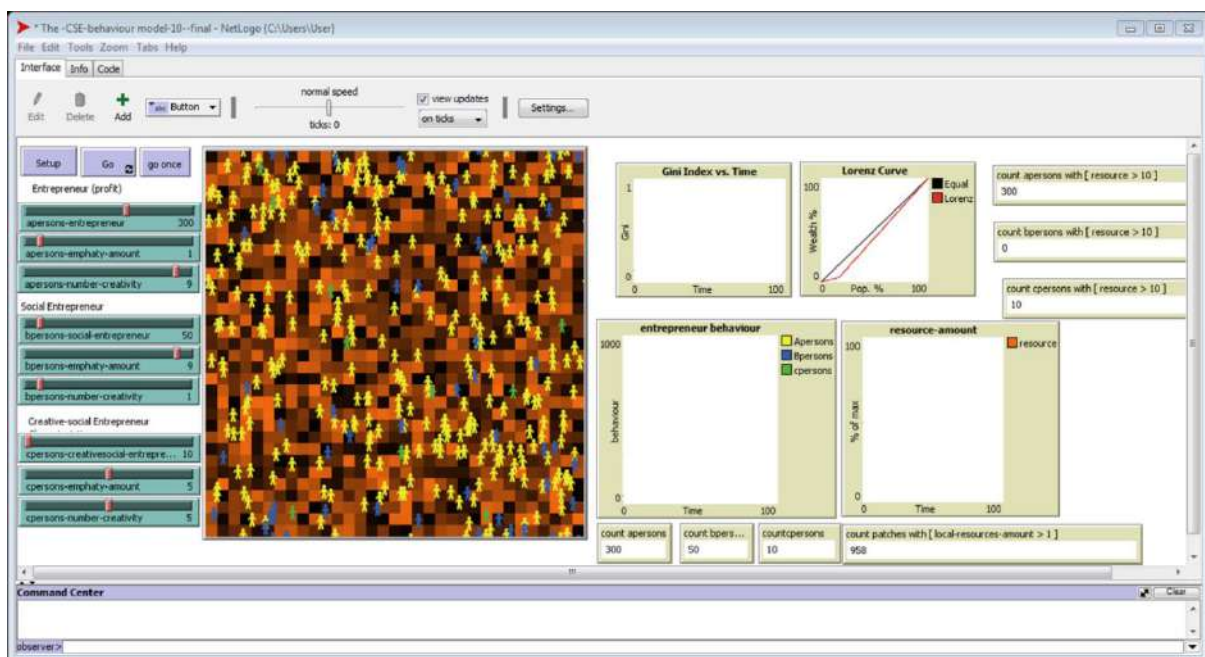


Figure 2. CSE Model User Interface

### E. Environment

The environment is related to local resources' availability, access and infrastructure. The local resources are a patch with a colour of orange. The environment changes caused by the interaction behaviour or activities between agents such as exploitation and sustainability. Interaction between agents and environment is controlled by the number of local resources and the year of exploitation. The environment changes will show in the graph (Figure 2) which are local resources (growth), the increasing number of entrepreneurial behaviour and GINI index (equality of welfare) and Lorenz curve.

F. Flow chart

Figure 3 shows the flow chart that develops in the simulation. First, we set up the environment into local resources, characteristics and GINI Index. Second, set up three types of agents. The process continues with two major activities, such as exploit and sustain. The role of exploit means that the model will increase the frequencies of local resource exploitation and decrease the number of local resources. In contrast, the part of the sustained process will raise the local resources and balance the frequencies of exploitation. The output of the resources will impact behavioural changes that sow in the output monitors.

IV. RESULTS AND DISCUSSION

A. Model Explanation

The function of the model can be classified into three categories, namely descriptive, predictive, normative/perspective models (Ragsdale, 2010). In this research, the model is designed to describe creative-social entrepreneurial behaviour in the context of the creative economy. All of the agents will interact with each other and influence each other to changes becoming creative-social entrepreneurship. Each of the entrepreneurs also interacts with local resources. The model assumes that the characteristics of CSE social consist of creative and entrepreneurial values (Wells, 2016). The characteristic will influence agent towards creative entrepreneurial behaviour. The behaviour of CSE will drive socio-economic growth. We assume that the characteristic of creativity will stimulate innovation and create changes. Entrepreneur as an agent will become more productive and innovate. The other character, empathy, we expect it will drive the entrepreneur to keep the sustainability of local resources.

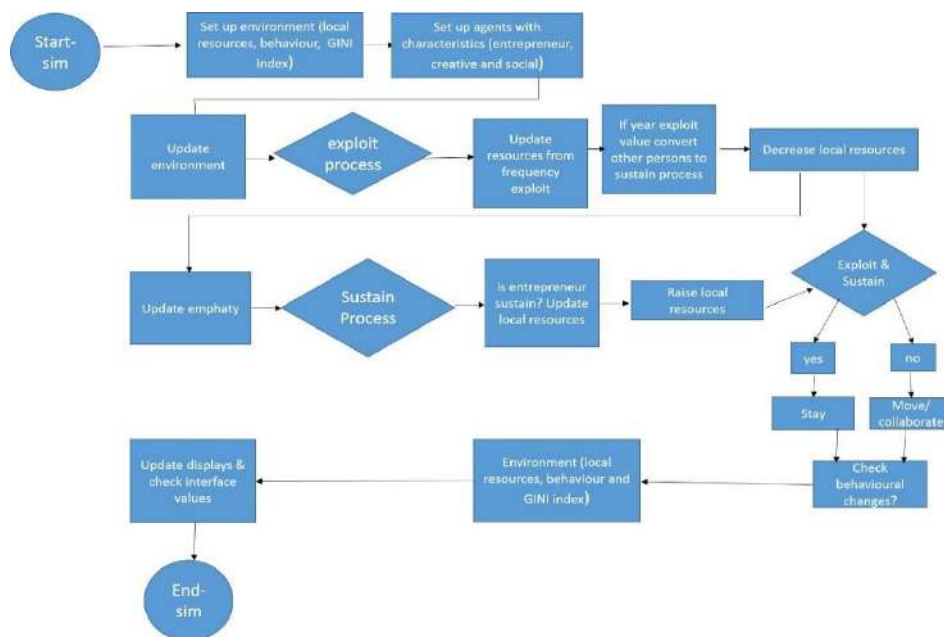


Figure 3. CSE Model User Interface

B. Model result and analysis

During the simulation, we change the control variable of empathy and creativity to verify the different type of agents range between 1-10. For an entrepreneur, we choose level 1 for empathy and 9 for creativity. At the same time, it becomes the opposite for creativity elements. We were also set the number of environment control, such as the number of local resources, the procedures of exploitation and sustainability. The results show that creativity is a fundamental rule on innovation. This study focuses on the creative process that leads creative-social

entrepreneur in producing social innovation. The social innovation will strengthen the concept of a creative-social entrepreneurship behaviour model. We verified the model based on the literature review regarding entrepreneurship behaviour and simulated five-time and have the same results (Figure 4).

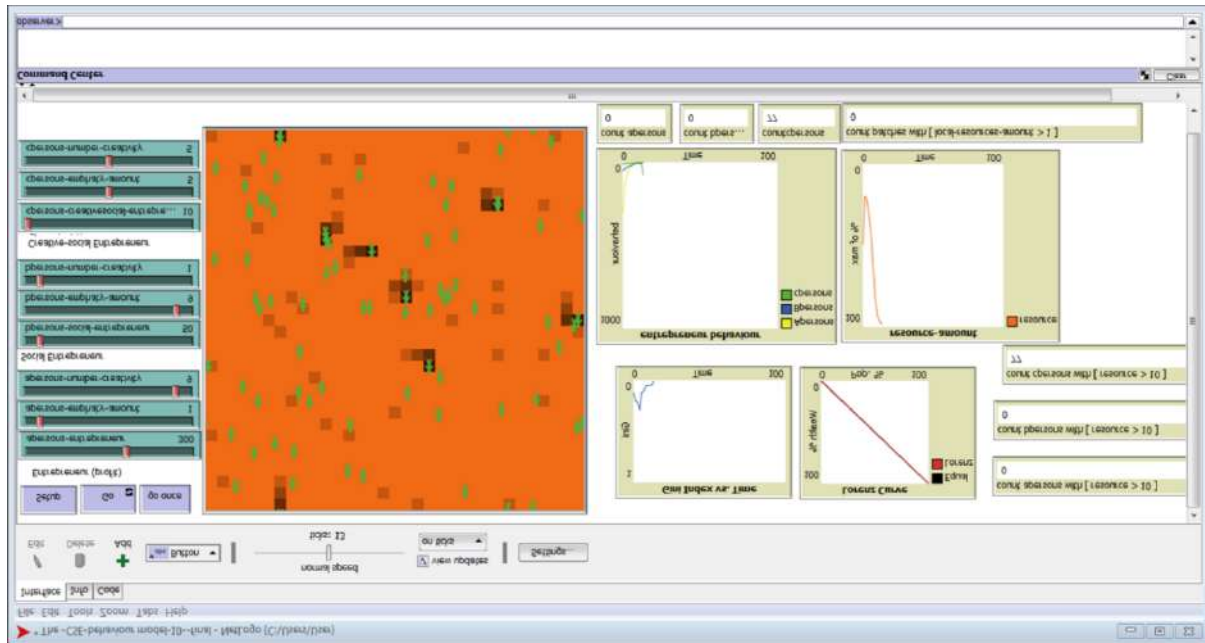


Figure 4. Research Model User Interface

The results show that the characteristic of CSE consists of creative, social and enterprise values. Those values transform to an element of creativity and empathy as an indicator. The simulation results show that CSE behaviour influence another entrepreneur to follow the activities of CSE or they die (Figure 5). The differences in creativity and empathy level pushed CSE to become innovator by creating another local resource.

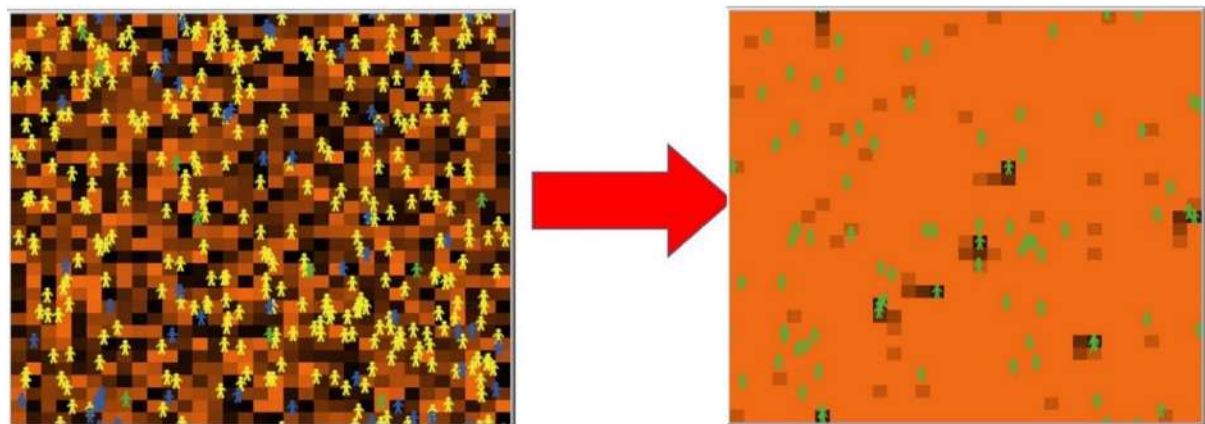


Figure 5. The Results of CSE Behaviour (Simulation)

As we can see in Figure 6, they have two option “if the resources already limit” so the other type of entrepreneur (blue and yellow) simulated die or transform to CSE. The interaction between agents proved to increase the number of entrepreneurs behaviour. The simulation shows in the between thicks 11-13, or it can simulate as years (1 thick=1 year). There are still few entrepreneurs of creative-social entrepreneur that sustain the resources (more than 30). They lived and kept sustaining the resources. The results of the environment as an output can be seen in Figure 6. The results show that inequality of wealth can be achieved if the number of CSE

high or low. In this case, the results show that the behaviour of CSE proven to strengthen local resources. The model of creative-social entrepreneurship behaviour is proven to have an impact on socio-economic development.

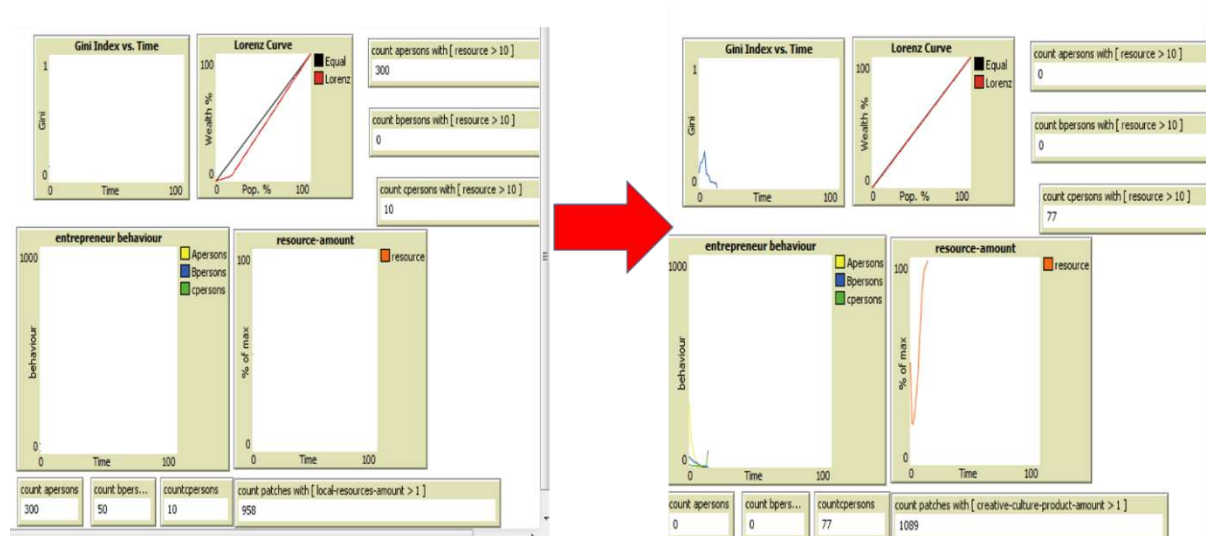


Figure 6. Research Model User Interface

### C. Discussion and Implication

Models and simulations of social-creative entrepreneurial behaviour identified by each agent are believed to have a real impact on socio-economic development in the system. However, the simulation results are only able to show the potential effects of each different entrepreneurial character. The social-creative entrepreneurial behaviour model in this study only includes the factors which are considered to have the most significant influence on socio-economic impacts; namely the difference in character/orientation, the number of entrepreneurs and the number of local resources available. The parameter values listed in the table are not real values but are only indications to see the direction of value change (Pablo-Martí et al., 2013). Based on the ABM simulation results, there are significant differences in the parameters between the scenarios. All the characteristics have not the same goals on balancing economic and social values. Social entrepreneur characteristic focus on pursuing social values (Bornstein & Davis, 2010). While most of the entrepreneurs concerned on profit. Even though the behaviour of CSE will produce social value, sustain the resources and create economic values. Social entrepreneurship characteristic is connected to the elements of creativity. Amabile (2011) stated which creative thinking skill to solve the problems. Creativity as abilities to develop new ideas on problem-solving and transform it into opportunity. According to Drucker (2014), creativity on entrepreneurship is abilities to combine new things and see the connection between elements. The other characteristic of entrepreneurs, including initiative, assertiveness, social orientation, commitment to communities. Therefore, the goals of CSE more concerned about balancing economic and social values (hybrid) (Wells, 2016; Permatasari et al., 2019).

This study found that three characteristic agents will influence entrepreneurial behaviour to support socio-economic development in the local area. The three characters correlate with one another and are systemic. This condition has implications on local resources sustainability (Wulleman & Hudon, 2016). However, among these three characters, the creative-social entrepreneur is considered the most potential to increase socio-economic impact (Athiyaman et al., 2007). Creative-social entrepreneur (CSE) commitment to used local resources is an advantage. Creative-social entrepreneur characteristic supports the statement “dominant economic values need not necessarily exclude social or other values. But the realities of the competitive market economy seem to require tolerance of these values” (Timmons, 1978). It also becomes a vital factor to determine creative-social entrepreneur based on three values such as social, creative and enterprise (Wells, 2016). Therefore, the existence of creative-social entrepreneurial behaviour will significantly determine the behaviour of other entrepreneurs, and its presence will increase the social-economic impact on the local area.

## V. CONCLUSION

The analysis shows the model can produce simulation outputs for the impact on socio-economic development. Creativity and empathy are the characteristics of an entrepreneur that related to the behaviour of a creative social entrepreneur. From the simulation creative-social entrepreneurship of the term of creativity and empathy proven to be critical value as indicators that make characteristics of CSE were the difference. Even though the analysis using an agent-based model is a computational model, but the simulation can give new insight into the multi-level analysis. The finding shows creative-social entrepreneurial behaviour has a significant role in supporting socio-economic development in the local area. However, this research only showed a small part of the ability of agent-based modelling in illustrating the relationship of entrepreneurial characteristics on entrepreneurial behaviour and its impact on socio-economic development. The accuracy of the model output is still in the annual range. The model needs to develop and validating with the evidence. In future research, we will continue to do a qualitative study to explore other attributes of entrepreneurship as new variables. Through this modelling, the results will help academician and policymaker to test a social-creative entrepreneurial behaviour model design before applying it to the real world. For further research, it is hoped that agent-based modelling can be used to design the model that exploit creative-social entrepreneurs.

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## The Influence Of User-Generated Content To Consumer-Based Brand Equity Through Involvement In Indonesia's Top Brand Lipstic Consumer

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### Abstract

Since 2000's content marketing began to develop and become a buzzword lately. Nowadays, content marketing is a standard practice of business and one who do not use that will be left behind. The current democratization of information is expressed mainly through User-Generated Content (UGC), so that the media model becomes more user-centric. This study attempts to discuss the effect of UGC on consumer-based brand equity (CBBE) through involvement. UGC in this study is represented through variables that motivate it, namely co-creation, empowerment, community, and self-concept. The population in this study is Top Brand lipstick consumers who have watched the UGC of those brands. Data was collected using questionnaire that distributed online and 121 data were obtained. After analyzed using SEM PLS, the results are: 1) co-creation has positive effect on involvement; 2) self-concept has positive effect on involvement; 3) involvement has a positive effect on CBBE; 4) UGC has a substantial influence on involvement; 5) UGC and involvement have a moderate influence on CBBE.

**Keywords**— brand equity; consumer-based brand equity; content marketing; involvement; user-generated content

### Abstrak

Content marketing sejak tahun 2000 mulai berkembang dan menjadi buzzword akhir-akhir ini. Content marketing menjadi praktek standar perusahaan-perusahaan saat ini, dan perusahaan yang tidak menggunakannya akan tertinggal. Demokratisasi informasi yang terjadi saat ini utamanya diekspresikan melalui User-Generated Content (UGC), sehingga model media menjadi lebih user-centric. Penelitian ini bertujuan untuk memahami pengaruh UGC terhadap consumer-based brand equity (CBBE) melalui involvement. UGC pada penelitian ini direpresentasikan melalui variabel yang memotivasinya yaitu co-creation, empowerment, community, dan self-concept. Populasi pada penelitian ini yaitu konsumen lipstick Top Brand yang pernah menonton UGC brand tersebut. Data dikumpulkan melalui kuesioner yang disebarakan secara online dan diperoleh 121 data yang sesuai kriteria. Setelah dianalisis menggunakan SEM PLS, diperoleh hasil yaitu: 1) co-creation berpengaruh positif terhadap involvement; 2) self-concept berpengaruh positif terhadap involvement; 3) involvement berpengaruh positif terhadap CBBE; 4) UGC memiliki pengaruh substansial terhadap involvement; 5) UGC dan involvement memiliki pengaruh yang moderat terhadap CBBE.

**Kata kunci**— brand equity; consumer-based brand equity; content marketing; involvement; user-generated content

## I. INTRODUCTION

Marketing as an effort to understand the needs and human desires, need to combine many different fields, such as economics, business, psychology, sociology, or even anthropology. Basically, a marketer is required to be able to understand humans, both individually and in groups, then utilizing various factors, both internal and external, so that the sales can occur. From the pragmatic point of view, marketing as a method or technique in doing such engineering is related directly to the ongoing context. So that marketing develops from product-driven (1.0) to consumer-oriented (2.0), then develops to be human-centric (3.0) and then the development of digital technology

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is in turn changes economic conditions and digital economies emerge. All of those changes, accumulatively, makes marketing need to adapt, so marketing 4.0 then emerge. The key themes of marketing 4.0 lay in digital economics such as sharing-economy, the now-economy, omnichannel, social customer relationship management, content marketing, etc.

Nowadays, content marketing is a standard practice of business and one who do not use that will be left behind (Ruffolo, 2017). Content marketing is an approach of marketing that use content (digital content) to creates some engagement through conversation with customer, so the content need to carefully selected, planned, deliver, and amplified, to meet the targeted customers style (Kotler et al., 2017). Content marketing is mostly driven by social media, where in the previous era consumers had little choice of information except advertisements from broadcast media. However, with the democratization of information through social media, anyone could create content. It turns out that the content which generated by consumers –user-generated content (UGC)– is preferred and trusted by the other consumers. Contents in YouTube that is most watched are UGC, so is the most subscribed channels (Kotler et al., 2017).

Articles about content marketing can be traced since 2000 and since then the discussions have increased and become hottest buzzword lately (Mayer et al., 2000; Keyes, 2006; Pulizzi & Barrett, 2009; Halvorson, 2010; Handley & Chapman, 2010; Gunelius, 2011; Lieb, 2011; Nelli, 2012; Christodoulides et al., 2012; Jefferson & Tanton, 2013; Rahimia & Hassanzadeh, 2013; Slater, 2014; Ramos, 2014; Elisa & 2014 Gordini, 2014; Forrest, 2019). Content marketing is touted as a form of advertising in the era of the digital economy, ultimately aimed at generating curiosity about a brand (Kotler et al., 2017). With the democratization of information, starting with the Web 2.0 era, the role of internet users has increased, not only as consumers, but also producers of information. The role of users is becoming increasingly dominant with the presence of social media technology, so that online digital content is dominated by content generated by user (UGC).

Christodoulides et al. (2012) obtained a model about content marketing that involving UGC and analyze the content creators. This study analyzing the relationship of UGC, involvement of user, and consumer-based brand equity (CBBE). However, they suggested to test the model with different subject, that is from content viewer. The unit of analysis used in this study is the consumer of Top Brand Indonesia lipstick in 2019, namely Wardah, Revlon, Maybelline, Pixy, and Viva. Lipstick products were chosen because they are cosmetic products that are commonly used by women, are easily found anywhere, and quite a lot of the consumer that creates a content, especially online reviews.

## II. LITERATURE REVIEW

In this transition era, a new marketing approach is needed. Thus, Kotler *et al.* (2017) introduced marketing 4.0 as a continuity from marketing 3.0. The main cause of this evolution is the change of customers characteristics and nature in the face of digital economy. Marketing 4.0 need to be more human-centered, so the brands has such intimacy with the customer by humanizing the brands, have conversation through content, upscale the sales by integrating many form of channels (omnichannel), and involving customer more.

Content marketing is an approach of marketing that use content (digital content) to creates some engagement through conversation with customer, so the content need to carefully selected, planned, deliver, and amplified, to meet the targeted customers style (Kotler *et al.*, 2017). By using content marketing, the deeper connection or relationship with customer might be easier to achieve. The early UGC was marked by participatory inequality in which the parties could create only a few among others (Ochoa & Duval, 2008), so that from its origin, UGC was a niche activity and was driven by the accumulation of various things (Daugherty, Eastin, & Bright, 2008). The most frequently cited definition of UGC comes from the Organization for Economic Co-operation and Development (OECD) (2007), which defines UGC as having three main characteristics: content made publicly available via the internet; content that reflects a number of creative endeavors; and content created outside routine and professional practice.

From personal characteristics, Daugherty *et al.* (2011) state that there are three things that motivate people to consume UGC, namely attitudes towards UGC, media experience, and the desire to control. To this, it can be observed that the factors driving the creation of UGC that proposed by Christodoulides *et al.* (2012) are still relevant to various factors that motivate people to consume UGC. Therefore, in this study the same factors as Christodoulides *et al.* (2012) are used to test the research models, namely co-creation, empowerment, community, and self-concept.

Vargo & Lusch (2004) stated that co-creation is the participation of customer in creating value, at any points. Meanwhile, UGC is an online content that produced by consumer, involving collaboration with other consumer or the companies itself, and that adds value for companies (Humphreys & Grayson, 2008). In this democratize internet era, consumer has more power in determining their information consumption. The consumer perception of control can be achieved by accessing online content that other consumer creates (UGC) so it enabling them to have more connection (Harrison, Hunter & Waite, 2006) and able to define their own brand value (Christodoulides *et al.*, 2009). The study of Wathieu *et al.* (2002) stated that there are three factors that influence consumer empowerment, those are the ability to determine choices, sense of progress in decision making process, and information of the other consumer.

Social web allows communities that is not passive, rather interactive and involve in co-creation of brand value (de Chernatony & Christodoulides, 2004). It should be noted that UGC is primarily driven by digital-born or digital natives generation that characterized by young and digitally skilled, and behave differently from the previous generation (Burmam & Arnhold, 2008). Consumer can share their ideas or express themselves by involving in UGC. Consumer self-concepts influence the way they see the personality of a brand. For example, favored brands are formed, partly, by personalities that are preferred by consumers. By utilizing brands, UGC allows consumers to attract attention and to tell who they are from their own perspective (Berthon *et al.*, 2008).

Involvement influenced by three main factors, those factors are related to the characteristics of the person, the stimulus, and the situation (Zaichkowsky, 1986; Bloch & Richins, 1983). These factors can influence the level of involvement with product, advertising, or purchasing situation (Hupfer & Gardner, 1971; Krugman, 1965, 1967; Clarke & Belk 1978). Customer involvement is a significant factor in influencing customer behavior and higher involvement means higher loyalty (Jones & Sasser, 1995; Knox & Walker, 2003).

Concept of brand equity is referred as more consumers view or based on consumer (CBBE) for some researchers (Cobb-Walgren *et al.*, 1995; Sinha & Pappu, 1998; Yoo & Donthu, 2001, 2002; Yoo *et al.*, 2000; Washburn & Plank, 2002). CBBE according to Aaker (1991) is "A set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and / or to that firm's customers". Schivinski & Dabrowski (2014) measures CBBE refers to four of Aaker's five core brand equity dimensions, namely: brand awareness, brand association, perceived quality, and brand loyalty.

From those literature study, we propose five hypotheses and then arranged to the research model as follows:

H<sub>1</sub>: Co-creation has positive effect on consumer involvement with the brand through UGC.

H<sub>2</sub>: Consumer empowerment has positive effect on consumer involvement with the brand through UGC.

H<sub>3</sub>: Community has positive effect on consumer involvement with the brand through UGC.

H<sub>4</sub>: Self-concept has positive effect on consumer involvement with the brand through UGC.

H<sub>5</sub>: Consumer involvement has positive effect on consumer-based brand equity.

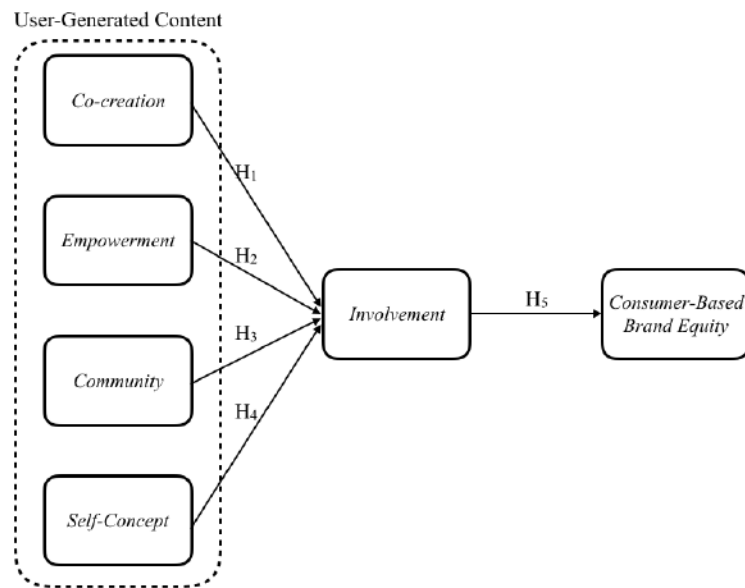


Fig. 1 Research Model

III. RESEARCH METHODOLOGY

The analysis technique used in this study is Partial Least Square (PLS) using SmartPLS 3.0 software. The population is consumers of Top Brand Indonesia's lipstick in 2019 (Wardah, Maybelline, Revlon, Pixy, Viva) who have watched UGC of those brands. The size of population is unknown because there is no data of exact number of Top Brand lipstick consumers and those who have watched the UGC. Even so, because this study uses PLS, then the minimum number of respondents can be concluded as five times of path (50 respondents). This study uses nonprobability sampling and using purposive or judgmental sampling method. Data collection was carried out using a questionnaire created in digital format using GoogleForm and distributed online. Out of 143 responses, 121 responses were chosen that fit the criteria.

The questionnaire was arranged in two parts. The first part contains respondent's characteristics and a question about whether or not they watch UGC Top Brand lipstick. If the respondent ever watched the UGC, then they proceed to the second part which contains questions about the variables. But if they has never watched the UGC, then the filling process is immediately stated as complete.

Co-creation is measured using four question items. Empowerment was measured using three questions. Community is measured using three questions. Self-concept is measured using two questions. Question items for measuring those four variables were adopted from Christodoulides *et al.* (2012) based on interval scales ranging from 1 to 7 to state the level of agreement. Whereas to measure involvement, it was adopted from Zaichkowsky (1994) using seven semantic differential scale items that has range from 1 to 7. To measure CBBE, 13 question items were adopted from Schivinski & Dabrowski (2014) with interval scale ranging from 1 to 7.

IV. RESULT OF STUDY AND DISCUSION

There are five questions related to the respondent's characteristics, namely gender, age, occupation, income, and the UGC brand that they ever watched.

Table 1. Sample Demography by Gender

Gender	Number
Male	12
Female	109

Based on gender, 109 respondents were female and 12 male respondents. This is not surprising considering the product is lipstick, a product whose designed for women. Even so, it turns out there are male respondents who have watched the UGC of lipstick.

Table 2. Sample Demography by Age

Age (years old)	Number
15 – 25	52
25 – 35	35
35 – 45	28
>45	6

Based on age, it can be seen from Table 2 that the composition of respondents is dominated by the range of 15 – 25 years old (generation Z) which is 52 respondents or 42.98% of the total respondents. The second most is the range of 25 – 35 years (generation Y) totaling 35 respondents or 28.93% of the total respondents. Respondents from generation Y and Z, or commonly referred as millennials, dominate the total respondents. This is probably because the millennials have higher technological skill, considering the generation Z is a generation that has been exposed to digital technology from birth (digital native), so does the generation Y that is growing up with digital technology. These technological skills then lead to different patterns of information seeking for each generation, where generation Y and Z prefer digital content (in this case UGC) to find information about the lipstick that they want.

Table 3. Sample Demography by Occupation

Occupation	Number
Student	17
Housewife	10
Employee	39
Entrepreneur	9
Civil servant	8
Professional	24
Others	14

Based on occupation, it can be seen from Table 3 that the most respondents work as employees that is as much as 32.23% of total respondent. The next most is of professionals and then the students. We can argue that this is because employees, professionals and students need more attractive appearance compared to housewives, entrepreneurs, civil servants and others.

Table 4. Sample Demography by Income

Income (million rupiahs per month in average)	Number
<5	88
5 – 10	26
10 – 15	3
15 – 20	3
>20	1

Respondents were also observed based on their income, in this case, average income per month. We categorized the income by interval of 5 million rupiah because generally those interval has quite a noticeable

difference, from the lifestyle, cars, house, and so on. Based on Table 4, it can be seen that the most respondents have income below 5 million rupiah. The second largest is the range of income between 5 to 10 million rupiah. If those two are added together, a total of 114 (94.21%) is obtained. This means that most respondents are in the middle to lower social class. Even so, it can be seen that although respondents are not of high social class, the need for lipstick as a support for appearance or included in lifestyle is also needed. Another thing that can be seen is that the utilization of UGC is not only for higher social class, but in the lower too. This can be a further discussion regarding content marketing and its relationship with social class.

Table 5. Sample Demography by Brand of UGC

Brand of UGC	Number
Wardah	59
Revlon	4
Maybelline	29
Pixy	9
Viva	5
Others	15

In this study, we use five lipstick brands that achieve Indonesia's Top Brand in 2019. The five brands and the brand index are: Wardah (33.2%), Revlon (9.2%), Maybelline (7.7%), Pixy (6.0%) and Viva (4.5%) (Frontier Groups, 2019). However, in this study we still offer "Other" option in order to see if there is a UGC that is not related to the five Top Brand lipsticks, or in other words, are there consumers from other brands that create or produce content. From Table 5, it can be seen that the most watched UGC is Wardah, with 59 respondents or 48.76% of the total respondents. This is relevant with the highest brand index. The second largest seen is Maybelline with 29 respondents or 23.97% of all respondents. This is different with the brand index achievement, where the second highest index brand is Revlon. Then the third largest is from the other brands as many as 15 people or 12.40% of all respondents. This is also interesting, considering the respondents in this study watched not only UGC about big brands, but also from brands that were not listed in Top Brand. This can be a subject for further discussion and research.

The description or description of the variables in this study uses the mean and standard deviation based on the division of categories from Simamora (2004). The results of data acquisition for each variable are summarized in the following table.

Table 6. Variable Means

Brand of UGC	Number	Category
Co-creation	5,195	High
Empowerment	4,849	High
Community	4,579	High
Self-Concept	4,783	High
Involvement	5,421	Very high
CBBE	5,458	Very high

SmartPLS analyzes the relationship between variables and indicators, namely measurement/outer model and structural/inner model. Measurement model is a characteristic specification that explains the relationship between latent variables and their indicators. While the structural/inner model is a characteristic specification that explains the relationship between latent variables. The first step is to do outer model testing that resulted as follow.

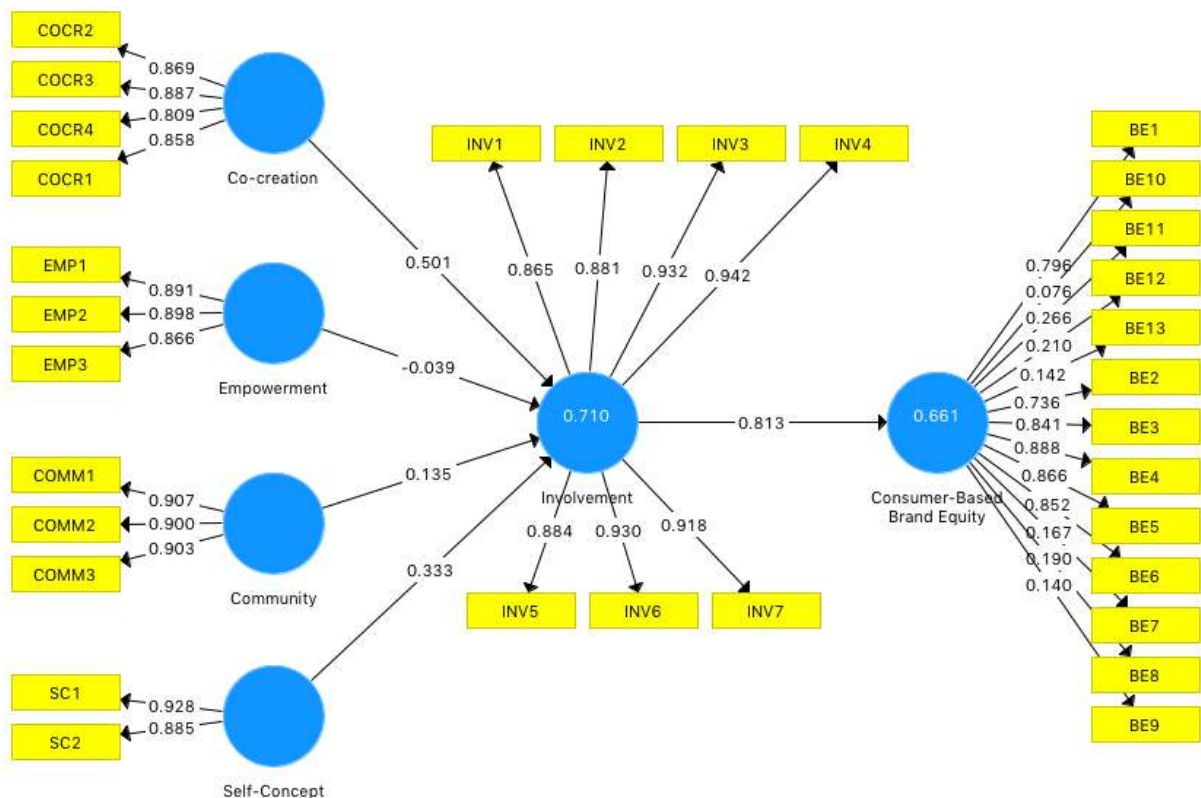


Fig. 2 Outer Model Test Result

Convergent validity is assessed based on outer loading. The criteria used for convergent validity is outer loading > 0.5. It can be seen from Figure 2 that there are 7 indicators that do not meet the convergent validity criteria, namely BE7, BE8, BE9, BE10, BE11, BE12, and BE13, so this indicator is not included in the next analysis. Then the outer loading was re-tested and found that all indicators met the convergent validity criteria.

Discriminant validity test is assessed based on cross loading measurements with the construct. Another method used to assess discriminant validity is to compare AVE roots for each construct with the correlation of all constructs in the model. The model has sufficient discriminant validity if the root of AVE for each construct is greater than the correlation of all constructs in the model, and the biggest cross loading is in the construct that it formed.

Table 7. Cross Loading Factor

Indicator item	Construct					
	Co-creation	Empowerment	Community	Self-Concept	Involvement	CBBE
COCR1	0.858	0.553	0.432	0.595	0.733	0.719
COCR2	0.869	0.664	0.587	0.645	0.658	0.680
COCR3	0.887	0.641	0.545	0.575	0.671	0.669
COCR4	0.809	0.676	0.566	0.629	0.648	0.642
EMP1	0.770	0.891	0.621	0.671	0.651	0.640
EMP2	0.606	0.898	0.761	0.729	0.634	0.534
EMP3	0.567	0.866	0.744	0.608	0.537	0.600
COMM1	0.605	0.808	0.907	0.665	0.629	0.560

COMM2	0.473	0.678	0.900	0.626	0.514	0.463
COMM3	0.583	0.664	0.903	0.653	0.613	0.591
SC1	0.700	0.699	0.646	0.928	0.755	0.715
SC2	0.583	0.678	0.663	0.885	0.605	0.581
INV1	0.717	0.679	0.621	0.669	0.865	0.677
INV2	0.690	0.566	0.523	0.662	0.882	0.815
INV3	0.758	0.637	0.610	0.736	0.933	0.774
INV4	0.793	0.629	0.586	0.682	0.942	0.766
INV5	0.662	0.641	0.635	0.713	0.884	0.672
INV6	0.711	0.596	0.582	0.676	0.930	0.733
INV7	0.700	0.645	0.598	0.677	0.918	0.740
BE1	0.685	0.709	0.672	0.688	0.723	0.782
BE2	0.573	0.465	0.404	0.558	0.535	0.751
BE3	0.629	0.508	0.450	0.503	0.603	0.848
BE4	0.761	0.715	0.643	0.725	0.787	0.888
BE5	0.620	0.421	0.385	0.524	0.679	0.877
BE6	0.680	0.485	0.412	0.585	0.717	0.863

Table 8. Correlation and Root of AVE

Variable	AVE	Root of AVE	Co-creation	Empowerment	Community	Self-Concept	Involvement	CBBE
Co-creation	0.733	0.856	0.856					
Empowerment	0.816	0.903	0.618	0.903				
Community	0.700	0.837	0.793	0.600	0.836			
Self-Concept	0.783	0.885	0.737	0.797	0.668	0.885		
Involvement	0.825	0.908	0.793	0.653	0.816	0.690	0.908	
CBBE	0.822	0.907	0.713	0.719	0.721	0.759	0.757	0.907

Based on Table 7 it can be seen that the largest cross loading is in the construct that it forms, so it can be concluded that the research indicators meet discriminant validity. Whereas based on Table 8, it can be seen that the root of AVE for each construct is greater than the correlation of all construct in the model so that it is declared valid in discriminant validity testing. In addition to the validity test, PLS also conducts a reliability test to measure the internal consistency of the measuring instrument. Reliability testing in PLS using composite reliability.

Table 9. Composite reliability

Construct	Composite reliability's score	Rule of thumb	Status
Co-creation	0.917	0.7	Reliable
Empowerment	0.916	0.7	Reliable
Community	0.930	0.7	Reliable
Self-Concept	0.902	0.7	Reliable
Involvement	0.970	0.7	Reliable
CBBE	0.933	0.7	Reliable

Based on Table 9, it can be seen that the composite reliability value of all variables is greater than 0.7, so the entire construct is declared reliable. After passing the outer model testing stage, the next stage is the analysis of structural or inner models. Assessing based on the value of R-square is used to measure the level of variation in the changes of the independent variable to the dependent variable. The higher R-square means the better the prediction model of the research proposed.

Table 10. R-square

Endogenous Construct	R-square
Involvement	0.710
CBBE	0.661

From Table 10, it can be seen that the R-square for the Involvement is 0.710, meaning that Co-creation, Empowerment, Community, and Self-Concept able to explain 71.0% of Involvement, while 29.0% is explained by other variables outside this study. R-square of Involvement (0.710) is in the substantial category. R-square for the CBBE is 0.661, meaning that Involvement, Co-creation, Empowerment, Community, and Self-Concept able to explain CBBE by 66.1%, while 33.9% is explained by other variables outside this study. R-square of CBBE (0.661) is in the moderate category.

Inter-construct causality test in PLS structural model is assessed by the path coefficient or t-values for each path to test the significance. The path coefficient or inner model score indicated by the t statistic, must be greater than 1.98 for one-tailed testing at alpha ( $\alpha$ ) 5 percent.

Table 11. Hypotheses test

Hypotheses	Path	Path coefficient	t-statistic	Decision
H <sub>1</sub>	Co-creation → Involvement	0,501	6,267	Accepted
H <sub>2</sub>	Empowerment → Involvement	-0,039	0,329	Rejected
H <sub>3</sub>	Community → Involvement	0,135	1,612	Rejected
H <sub>4</sub>	Self-Concept → Involvement	0,333	3,195	Accepted
H <sub>5</sub>	Involvement → Consumer-Based Brand Equity	0,813	26,050	Accepted

Of the five hypotheses proposed, there are two hypotheses rejected, that are H<sub>2</sub> and H<sub>3</sub>. H<sub>2</sub> (positive effect of empowerment on involvement) is rejected because the path coefficient is negative and the t statistic is less than 1.98. Whereas H<sub>3</sub> (positive effect of community on involvement) was rejected because the t statistic was less than 1.98. In contrast, H<sub>1</sub>, H<sub>4</sub>, and H<sub>5</sub> are accepted because they have positive path coefficients and the t statistic is greater than 1.98. Summary of the results of testing the research hypotheses is as follows:

- 1) H<sub>1</sub> is accepted; it means that co-creation has positive effect on consumer involvement with the brand through UGC. The more consumer perceives that a brand is co-created, the higher their involvement.

- 2)  $H_2$  is rejected; it means that consumer empowerment does not has positive effect on consumer involvement with the brand through UGC. The more consumer perceives that a brand can empower them, it does not necessarily increase their involvement with the brand through UGC.
- 3)  $H_3$  is rejected; it means that community does not has positive effect on consumer involvement with the brand through UGC. The more consumer perceives that a brand facilitates community, it does not necessarily increase their involvement with the brand through UGC.
- 4)  $H_4$  is accepted; it means that self-concept has positive effect on consumer involvement with the brand through UGC. The more consumer perceives that a brand expresses their self-concept, the higher their involvement with the brand through UGC.
- 5)  $H_5$  is accepted; it means that consumer involvement has positive effect on consumer-based brand equity. The higher the level of consumer involvement with UGC, the higher the consumer perceived brand equity.

This finding might be a consideration for the five Top Brand lipstick to pay more attention in the implementation of content marketing strategies through UGC to increase their perceived brand equity in the eyes of consumer. Another thing in the content marketing implementation are related to the company's openness in accepting input from consumers so that it allow the innovation from co-creation. Also there is need to encourage consumers to create content that is appropriate or truly expresses themselves completely.

Two of the four exogenous variables have been proved to have a significant positive effect on endogenous variables. While endogenous variables are also proved to have a positive and significant effect on other endogenous variables.

Table 12. Rank of influence by magnitude

Rank	Path	Path coefficient
1	Involvement → Consumer-Based Brand Equity	0.813
2	Co-creation → Involvement	0.501
3	Self-Concept → Involvement	0.333

The path coefficient numbers in these variables have the following meanings:

- 1) Involvement → Consumer-Based Brand Equity = 0.813, meaning that the influence of involvement on consumer-based brand equity of Top Brand lipstick consumers in Indonesia is 0.813. This means that the higher customer involved with the product through UGC, the higher their brand equity. It means that the customer perceive that the product is more valuable, has higher quality, they become more aware and associated their self with the product more. The effect of customer involvement to CBBE is substantial, means that the management need to generates more UGC to increase the involvement level of their customer so the brand would be more “valuable” in the eye of the customer and get more loyal customer.
- 2) Co-creation → Involvement = 0.501, meaning that the influence of co-creation on involvement of Top Brand lipstick consumers in Indonesia is 0.501. This means that the more customer perceived that the brand is co-created through UGC, the higher their involvement with the product. The effect of co-creation to involvement is moderate. Management need to selectively response their customer inputs from UGC and applied those inputs to the brand.
- 3) Self-Concept → Involvement = 0.333, meaning that the influence of self-concept on involvement of Top Brand lipstick consumers in Indonesia is 0.333. This means that the more customer perceives that the brand expresses their self-concept, the higher their involvement with the product through UGC. This effect is considered as weak, means that management should not concern a lot with how their brand talk about their customer’s self-concept in UGC, just keep an adequate level of self-concept; more general, not too personal. This is probably because most customer is more influenced rather than influencing, so the self-concept is something dynamic, influenced with other self-concept, mainly of influencer.

## V. CONCLUSIONS AND SUGGESTION

This study aims to understand the relationship of UGC to Customer-Based Brand Equity, in the eye of the viewer, as it has bigger number than the creator. We tested a model from previous research but with different side of view. From this study, we find that UGC dimensions has effect on CBBE mediated by involvement level of customer. From the study of consumer of Indonesia Top Brand lipstick we able to draw some conclusions. First, the dimension of UGC that has significant influence on involvement are co-creation and self-concept. Second, the influence of co-creation on involvement is positive and considered as moderate with magnitude of 0.50. Third, the influence of self-concept on involvement is positive and considered as weak with magnitude of 0.333. Fourth, involvement has significant and positive effect on CBBE with magnitude of 0.813 which considered as substantial. Fifth, the contribution of UGC dimensions in explaining involvement is considered as substantial with R-square of 0.701. Sixth, the UGC dimensions and involvement altogether has moderate contribution in explaining CBBE with R-square of 0.661.

This study has some limitations and need further research. First, we only tested the same model that has been proposed earlier from previous research, this model could be developed more with some motivational factors of viewer to watch UGC. Second, we only test the model in a narrow scope, that is consumer of product of lipstick. Future research could expand the scope to other industry to get more understanding, considering that nowadays many different industries, from cosmetics to smartphone, has content created by their customer. Third, we're not test the loop path as proposed from the previous research of Christodoulides *et al.* (2012), future research could take this path into consideration. Fourth, we suggest that it might be necessary to examine the effect of age and social class on UGC and also the effect of its moderation on the model of this study. Finally, our research shows that consumer empowerment and community does not significantly influence consumer online involvement with UGC. This is quite interesting because in online world is related closely with high social interactions and able to form a particular community based on their interests. However, it was found that the community apparently had no significant effect on online consumer online involvement. Therefore, it needs to further investigated to confirm this effect.

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## Priority Policies And Program Of UIN Sunan Gunung Djati Bandung Toward World Class University

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### Abstract

*The rising global competition makes State Islamic University (UIN) Sunan Gunung Djati Bandung, to increase the quality of its institution toward World Class University. This study aims to describe the university policies and the recommended top priority programs for the next five years (2019-2023). This study was conducted in 2019 on the campus. The study used descriptive analysis and the result was analyzed based on Quacquarelli Symonds (QS) ranking. The data was gathered using a forum group discussion and field study. The field study was in the form of benchmarking on several universities in Indonesia. The result showed that the growth rate was constant, and it can be measured that UIN Sunan Gunung Djati Bandung will become World Class University by 2029; It will have score 23 and will be in the 500 QS Asia World University ranking. Through annual programs and targets, UIN Sunan Gunung Djati Bandung can achieve its goals to be a world class university.*

*Keywords—Higher Educational Institution; QS Ranking; UIN Sunan Gunung Djati; World Class University*

### Abstrak

Meningkatnya daya saing global yang dihadapi perguruan tinggi di Indonesia menjadikan Universitas Islam Negeri Sunan Gunung Djati Bandung, Jawa Barat lebih fokus lagi dalam meningkatkan kualitas lembaga menuju universitas kelas dunia (World Class University). Penelitian ini bertujuan untuk mendeskripsikan kebijakan UIN SGD Bandung beserta rekomendasi program prioritasnya untuk periode lima tahun kedepan (2019-2023). Penelitian ini dilakukan pada tahun 2019 di Kampus UIN Sunan Gunung Djati Bandung. Metode yang digunakan adalah metode deskriptif analisis yang kemudian hasilnya dianalisis berdasarkan indikator Quacquarelli Symonds (QS) Rangkaing. Teknik pengumpulan data yang dilakukan adalah melalui teknik Forum Group Discussion (FGD) dan studi lapangan berupa benchmarking ke beberapa universitas di Indonesia. Hasil penelitian menunjukkan bahwa jika diasumsikan laju pertumbuhan dengan skor konstan 2, maka diprediksi bahwa UIN Sunan Gunung Djati Bandung untuk menjadi World Class University dengan memenuhi enam kriteria QS dan skor total sekitar 23 (urutan 500 QS Asia World University) dapat dicapai pada tahun 2029. Melalui rekomendasi program dan target setiap tahunnya diharapkan UIN Sunan Gunung Djati Bandung dapat mencapai tujuannya menjadi universitas dengan kualitas World Class University.

Kata kunci—Institusi Pendidikan Tinggi; QS Rangkaing; UIN Sunan Gunung Djati; Universitas Kelas Dunia

## I. INTRODUCTION

The rapid growth and the development of the global economy enable a new trend in the education industry. Many universities aim to achieve world-class universities that can be recognized internationally. Nowadays, universities are struggling to become world-class globally (Shin & Kehm, 2012) and instead, Yudkevich et al. (2015) state that global university rankings like “the Olympic games of higher education”. Indeed, some educational institutions claimed themselves as a world-class university (Altbach, 2004; Deem et al., 2008 that will allow some effects on the meaning of university (Byun et al., 2013). However, there is no sufficient confirmation on that claim. That is to say, a proper comprehension of world-class university is needed. A world-class university itself is a university ranked among the top and the most prestigious academic institutions globally

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(Altbach & Balán, 2007). Writing in a similar vein, Aula & Tienari (2011) imply that a world-class university is a university with great honor and reputation internationally. Also, Ramaprasad (2011) defines the term as an institution ecology with extremely differentiated but firmly integrated visions. Hence, it has become the top goal of universities around the world, including in Indonesia.

Studying priority policies and programs is one of the important steps that can be taken toward world-class universities. In particular, the study about priority and policies of institutions can describe the national or government power (see Alperin, 2013) via science and education in a country (Yang & Welch, 2012). Furthermore, according to Tayeb et al. (2016), studying priority policies and programs at King Abdulaziz University (KAU) shows academic and institution strengths. To achieve this, KAU conducted mapping on several critical components to achieve World Class University status (Suyanti, 2011). Universities used different strategies to achieve internationalization. Several universities in Indonesia, like Universitas Indonesia and Institut Pertanian Bogor, carried out internationalization strategies through research policies. Meanwhile, Muhammadiyah University Semarang undertook website optimization (Supradono, 2010). Other universities also must have certain strategies and plan to develop their institution toward world class university further.

World Class University can be achieved using three main factors. First, it must have faculty members and students that have a high concentration of altitude. Second, it must have abundant resources, and lastly, it must have good governance (Salmi, 2009; Margison 2011). These three key factors will integrate and create three basic aspects that become indicators of a world-class status. Those factors are graduates who have high admission in the community, the quality of the research outputs, and transfer of high access technology to various information.

Each university will have different top programs and policies to accomplish these targets. Undeniably, the strategy carried out by UIN Bandung can be observed by the priority policies and programs set out by the institution. Thus, this study was aimed to describe the priority policies and programs implemented by the university to reach the goal. Wieczorek and Hekkert (2012) state that systemic steps are needed to achieve certain goals. Therefore, the results of this study are expected to ensure systemic and measurable steps of UIN Sunan Gunung Djati Bandung in achieving of the world class university indicators.

## II. RESEARCH METHOD

The study was conducted in UIN Sunan Gunung Djati Bandung in 2019. It used a qualitative approach to provide deep meaning to the data collected. The study chose this approach since instead of testing a hypothesis, it aimed to describe data, facts, and conditions or tendencies that were present instead. It also analyzed and predicted what must be carried out to achieve the expected condition in the future.

The study used the descriptive method to describe and interpret an object. In this study, the author tried to describe the objective condition of UIN Sunan Gunung Djati Bandung. After describing the institution, the author then set out the policies that will lead to the institution's target toward world class university. All information that is needed for this study was collected from different sources (primary and secondary data). Primary data were obtained from the object under study directly. The data was taken from researchers' direct observation methods as part of the strategic planning team of UIN Sunan Gunung Djati Bandung and interviews via a group discussion forum. While secondary sources are obtained from various sources, including a documentation (i.e. books, reports, and information from parties related to the material being studied). At the same time, secondary sources were achieved from various sources, including documentation. Information from stakeholders, documents, policies, and institutions.

The data analysis method used in this research is descriptive analysis; a descriptive way of analyzing data on the research variables used. Data analysis was carried out with several stages, namely data reduction, data display, inference, and verification. The analysis method of UIN Sunan Gunung Djati Bandung readiness toward world class university is to compare it with QS World University Ranking indicators. These indicators are academic, employment, students, and international component. The four indicators are the results of content validation relating to the substance of world class university indicators. The substance of the predetermined contents was confirmed to policymakers about the extent of UIN Sunan Gunung Djati Bandung availability to achieve the measurable targets. The result of the analysis of the four factors was then described as the main finding of this study.

Furthermore, the components described consisted of the objective condition of UIN Sunan Gunung Djati Bandung and its projection. It also contained recommended priority policies and programs for UIN Sunan Gunung

Djati Bandung for the period 2019-2023. After formulating the indicators from World Class University, yearly programs are then recommended for priority programs.

### III. RESULT AND DISCUSSION

#### A. *The current condition and the projection*

The current condition of Sunan Gunung Djati Bandung in 2019 can be observed from the Rector Performance Agreement in 2019. Table 1 figures out the data for this agreement. Also, the programs presented in Table 1 were supported by the budget from the Ministry of Religious Affairs. 60% of the budget was used for upgrading access, quality, relevance, and competitiveness of Islamic Higher Education. Meanwhile, 40% of the budget was for supportive programs of Education Management, and other technical tasks of Islamic Education. 56% of the budget comes from pure rupiah; 36% comes from non-tax revenue, and 8% comes from government Sharia Security. A substantial amount of funds is one of the things required to achieve World Class University. For example, the University of Chicago spent two decades and more than \$50 million. By current value, it is equivalent to \$500 million (Altbach, 2003).

Tabel 1 Performance agreement of Rector of UIN Sunan Gunung Djati Bandung  
Year 2019

No	Program	Performance Indicators	Target
		Number of new students accepted	5855 students
		Number of students who receive BIDIKMISI scholarship	1125 students
		Number of students who receive academic and achievement scholarships	184 students
		Number of students who receive <i>tahfidz</i> scholarship	47 students
		Quality and the score of institution accreditation	A
		Percentage of programs that are accredited A	45 %
		Number of programs that are accredited A	27 Programs
		Percentage of programs that are accredited B	50%
		Number of programs that are accredited B	28 Programs
		Number of programs that implement Indonesian Nasional Qualifications Framework	60 Programs
		The average number of the semester to finish the study	9 Semesters
		The average score of GPA	3,4
		Number of nationally accredited journals	13 journals
		Number of journal database subscribed	3 DataBases
		Number of the classroom in good condition (meeting standard)	250 classroom
		Number of the standard laboratory	13 Laboratories
		Number of the book collection	113000 exemplar
		Number of the e-book collection	2150 titles
		Availability of e-library	Yes
		Number of rooms for student activities	31 Rooms
		The ratio of workplace size per lecturers	3 M <sup>2</sup> : 1
		The ratio of reading space size per librarian	6 M <sup>2</sup> : 1
		The number of standard facilities and infrastructures for disabled faculty members and students	6 rooms
		The ratio of praying space size per person	0,6 M <sup>2</sup> : 1
		The percentage of teaching staff with a Doctorate level	43%
		Number of lecturers with a Doctorate level	381 People
		Percentage of certified lecturers	92%
		Number of certified lecturers	735 People
		Number of Professors	37 People
		Number of educational staff that received a postgraduate scholarship	-
		Number of lecturers that participated in an international scientific forum	248 People

Number of certified educational staff (laboratory assistant, librarian, and archivist)	3 People
Number of research/study conducted	400 pieces of research
Number of publication in nationally accredited journals	170 publication
Number of publication in internationally accredited journals	140 publication
Number of intellectual property right registered	165 intellectual property rights
Number of nationally accredited journals in the university	2 journals
The number of students that received a scholarship in Islamic basic sciences	57 students
The number of students that participated in the industrial world.	2380 students
Number of community services conducted	60 programs
Percentage of graduates that directly gained employment after graduation	42%
Number of research projects that cooperate with industry	3 Documents
Number of MoU with International institutions	6 Institutions
Number of students that received gold medals in national and international level	20 People
The availability of a strategic plan	Yes
Percentage of output volume that reached the target in RKA-KL	97%
Percentage of budget performance achievement in SMART-DJA application	95%
Number of sops produced	160 SOP
Percentage of decrease in number that becomes findings by National Audit Board (BPK)	50%
Percentage of increase in non-tax income in 2019	17,89%
The number of funding partners in Islamic higher education from the government and industry.	9 Partners

*\*RKA-KL: Rencana Kerja dan Anggaran Kementerian dan Lembaga (Ministry and agency work plans and budgets)*

Based on the 2019 condition, UIN Sunan Gunung Djati Bandung set the following targets (Table 2) to achieve world-class university status using QS Ranking. Based on Table 2, there are six targets of UIN Sunan Gunung Djati Bandung toward WCU. The targets are academic, employer reputation, citation per lecturer, lecturer student ratio, and, international student and lecturer. If the annual score increase is constantly, UIN Sunan Gunung Djati Bandung will meet 6 QS criteria by 2029. It will rank 500<sup>th</sup> Asia World University with score 23.

Table 2 Targets of UIN Sunan Gunung Djati Bandung for the next five years

Criteria	Main theme	Presentation	Target (Year)				
			2019	2020	2021	2022	2023
		40%	1	2	3	5	10
		Accredited A by National Higher Education Agency (BAN-PT) Registration for ASEA	Assessment Registration by AUN-QA	Presentation of ASEA	Accredited by AUN-QA and registration for ASIIN membership	Preparation for ASIIN visitation	Preparation and ASIIN visitation
			Registration for ASEA	Presentation of ASEA	ASEA UNINET	Participation in ASEA	Benefits from ASEA

Criteria	Main theme	Presentation	Target (Year)				
			2019	2020	2021	2022	2023
Employer reputation	Employer reputation score based on employer survey on QS database by considering the quality of the graduates	10%	UNINET and NUNI 4 (42%)	UNINET and NUNI 10 (45%)	and NUNI membership 11 (50%)	UNINET and NUNI 15 (52%)	UNINET and NUNI 20 (60%)
Citation per lecturer	Citation level per lecturer by Thomson Scientific or Scopus	20%	2 (170 citations)	8 (200 citations)	10 (250 citations)	13 (300 citations)	15 (350 citations)
Lecturer students ratio	The ratio of lecturers and students	20%	4 (1 : 40)	7 (1 : 38)	12 (1 : 36)	15 (1 : 34)	18 (1 : 32)
International students	Number of international students	5%	5 (167 students)	8 (175 students)	10 (185 students)	12 (195 students)	15 (205 students)
International lecturers	Number of international visiting lecturers and researchers.	5%	1 (2)	2 (3)	3 (4)	8 (5)	10 (6)
Skor total			2,3	5,3	7,35	10,1	13,85

\*AUN-QA: ASEAN University Network; ASIIN: Accreditation Agency for Degree Programs; BAN-PT: Badan Akreditasi Nasional Perguruan Tinggi/ National Higher Education Accreditation Agency; ASEA-UNINET: The ASEAN European Academic University Network; NUNI: Nationwide University Network in Indonesia

By browsing to QS Asia University Ranking Page (<https://www.topuniversities.com>), we can find that 22 universities in Indonesia are on the list of QS Asia University Ranking (by 19 June 2019). Furthermore, from the 22 universities, nine are on the list of QS World University Ranking. Among them are located in West Java, such as IPB, Padjajaran University, and ITB. With effort by UIN Sunan Gunung Djati Bandung to be a world class university, the number of Indonesian universities listed on the QS World University, especially in West Java, will grow. In achieving the target by 2029, UIN Sunan Gunung Djati tries to be consistent with its goal. However, there are still several challenges faced by LPTK. Chiefs among them are B accredited programs, limitation of international visiting professors, low qualification of lecturers, and lecturer language skills. Nevertheless, these issues are being tackled through certain programs by the university.

An increase in world-class university ranking lists can be realized in several ways. For example, Achsan (2014) suggested that conducting online document collaboration among higher education institutions in Indonesia can support it. Further, Setiawan (2009) believes that strategic planning on information systems in higher education institutions can help it to have the quality of WCU. Therefore, UIN Sunan Gunung Djati Bandung can implement such strategies to achieve its goal. Another way can be achieved via research publication (Tie, 2012), and the presence and mobility of international students (Findlay et al., 2012).

#### B. Recommended Priority Programs

After formulating indicators from WCU, the next step for UIN should is to integrate them into annual programs. These indicators will be realized through several recommended priority programs in the period 2019-2023, as seen in Table 3.

Table 3. Recommendation of priority programs for UIN Sunan Gunung Djati Bandung toward WCU Period 2019-2023

No	Institution	Tasks	Year	Explanation
a.		Preparing international class	2019 = 0 2020 = 1 2021 = 2 2022 = 3 2023 = 4	International class guidance is available
b.		Promotion and selection for international students	2019 = 10 people 2020 = 15 people 2021 = 20 people 2022 = 25 people 2023 = 30 people	Promotion to non ASEAN countries
c.		Promotion and selection for International lecturers	2019 = 1 people 2020 = 4 people 2021 = 7 people 2022 = 10 people 2023 = 13 people	Number of international lecturers is one of WCU Indicators
d.		International lecturer exchange cooperation	2019 = 1 program 2020 = 3 programs 2021 = 5 programs 2022 = 7 programs 2023 = 9 programs	Language and research training for lecturers
e.		International collaboration in research	2019 = 8 programs 2020 = 10 programs 2021 = 12 programs 2022 = 14 programs 2023 = 16 programs	Collaboration with professors that have good reputation
f.		Preparing students to participate in international events	2019 = 2 programs 2020 = 4 programs 2021 = 6 programs 2022 = 8 programs 2023 = 10 programs	International event participation that good reputation
g.		Student international internship program	2019 = 25 people 2020 = 35 people 2021 = 45 people 2022 = 55 people 2023 = 65 people	Listing the products of international internship
h.		International Collaboration (NUNI, AIUA, ASEA UNINET)	2019 = 25 people 2020 = 35 people 2021 = 45 people 2022 = 55 people 2023 = 65 people	Mobility programs for student and lecturer, research collaboration, scholarship for academic reputation, citation and value outbond
a.		Arabic and English training for international class lecturer candidates	2019 = 5 people 2020 = 10 people 2021 = 15 people 2022 = 20 people 2023 = 25 people	Lecturers meeting Arabic and English language standard based on standard

No	Institution	Tasks	Year	Explanation
				with good reputation
		b. Arabic and English language training for domestic student in international class	2019 = 45 people 2020 = 60 people 2021 = 75 people 2022 = 95 people 2023 = 105 people	Students meeting Arabic and English standard based on standard with good reputation
		c. Indonesian training for international students	2019 = 25 people 2020 = 50 people 2021 = 75 people 2022 = 100 people 2023 = 125 people	Students meeting Bahasa Indonesia standard based on standard with good reputation
		d. Arabic and English training for lecturers (materials for researches and articles for journals with reputation)	2019 = 10 people 2020 = 15 people 2021 = 20 people 2022 = 25 people 2023 = 30 people	
3.	Quality Assurance	International accreditation	2019 = preparation 2020 = 3 study programs 2021 = 6 study programs 2022 = 9 study programs 2023 = 12 study programs	AUN-QA submitted for 2020. ASIIN prepared for 2023
4.	Public Relation	a. Percentage of data centre	2019 = 75% 2020 = 85% 2021 = 100% 2022 = National 2023 = Asia Tenggara	2019 on second tier
		b. Percentage of social media	2019 = 50% 2020 = 60% 2021 = 70% 2022 = 80% 2023 = 90%	Formation of professional and proportional social media management team
		c. Percentage of public relation	2019 = 60% 2020 = 70% 2021 = 80% 2022 = 70% 2023 = 100%	Formation of professional and proportional public relation

Table 3 explains that the policy of priority programs toward WCU is applied to part within the institution with their own planned annual tasks and targets. International office, language center, quality assurance, and public relations can help to achieve UIN Sunan Gunung Djati's targets.. Moreover, aspects of language center, quality assurance, and public relation – with all the components of target – are increasing from year to year. Hopefully, these targets can be achieved by reviewing the current conditions. In the university which already carry World Class University there are certainly more institution in them.

The first institution is the international office. The presence of international office not only in formal education institution, but non formal educational institution has international office, even the institution is independent because this institution is an investment and is considered to have the production of financial space (Lizieri & Pain, 2014). The second institution is language center. The presence of language center can help local and international of students and lecturers for more knowing about several language. In language center of UIN is Arabic and English training for international class student and lecturer candidates, Bahasa Indonesia training for international students and arabic and english training for lecturers (materials for researches and articles for journals with reputation). The third institution is quality assurance. This institution have task is international accreditation. Global competitiveness in higher education is encourage of institution to seek international accreditation such as the country of Taiwan (Hou, 2011). If the international accreditation can improve of quality in higher education so in order to evaluate and improve quality in higher education, a model of value in higher education that connects

quality with relevance, access and investment is necessary (Blanco-Ramírez, & Berger, 2014) and this can be done by UIN Sunan Gunung Djati Bandung to improve its quality. And the last institution is public relation with three task (data center, social media and public relation). Information relating to everything of UIN Sunan Gunung Djati Bandung summarized in data center, published through social media and the search for professionals engaged in the filed of public relation. The selection of social media for delivering of information is one of the right way. Social media uses in higher education not only use as tool for teaching, but can role as learning and sharing of information (Test, 2013).

These priority programs must become common commitments so they can become realized. On a side note, the psychology part is important in this plan to support the development of World Class University. Psychology can help prepare future leaders that are highly committed to the institution (Ritz & Waldner, 2011). Furthermore, it can also help lecturers to achieve their potential. It also can partake in human resource management and help in the selection of new lecturers and staffs (Seniati, 2009).

### C. The descriptive statistics for demography variables

In this study, all the students becoming the samples respond quickly to the distribution of the link of online questionnaires on 23-25 April 2020. Below are the statistics related to the demographic variable, i.e., gender (see Table 4), and the academic information of students, i.e., batch (see Table 5) and range of grade point average (GPA) (see Table 6). Table 4 presents the number of students by denoting gender: 31 males and 33 females. Overall, the females dominantly participate in this survey (51.56%).

Table 4. The number of students by denoting gender

Gender	Number of respondents	Percentage (%)
Male	31	48.44
Female	33	51.56
Total	64	100.00

Source: The processed primary data by Microsoft Excel

Table 5 indicates the number of students by denoting batch: 1 from 2014, 2 from 2017, 32 from 2018, and 29 from 2019. Overall, the students coming from batch 2018 dominantly participate in this survey (50%).

Table 5. The number of students by denoting batch

Batch	Number of respondents	Percentage (%)
2014	1	1.56
2017	2	3.13
2018	32	50.00
2019	29	45.31
Total	64	100

Source: The processed primary data by Microsoft Excel

Table 6 exhibits the number of students by denoting three ranges of GPA: 2.51-3.00, 3.01 - 3.50, and 3.51-4.00. The total students in the first range are 16, in the second range are 21, in the third range is 27. Overall, the students with a GPA between 3.51 and 4 dominantly participate in this survey (42.19%).

Table 6. The number of students by denoting the range of GPA

The range of GPA	Number of respondents	Percentage (%)
2.51 – 3.00	16	25.00
3.01 – 3.50	21	32.81
3.51 – 4.00	27	42.19
Total	64	100

Source: The processed primary data by Microsoft Excel

#### D. The test result of validity and reliability

The validity and reliability test is useful to know the accuracy and consistency of the answer of respondents. In the validity context, the answer will be accurate on each question item if the loading factor is above 0.5 (Sholihin & Ratmono, 2013). In reliability context, the answer to the group of items will be consistent, if the Cronbach Alpha is beyond 0.7 (Ghozali, 2016).

**Table 7. The result of the validity and reliability of the dimension of service quality of online learning**

Panel A. The result of confirmatory factor analysis (CFA): the loading factor of items of system, instructor and course material, administrative and support								
The first dimension: system			The second dimension: Instructor and course material			The third dimension: administrative and support		
Code of item	Loading factor	Meaning	Code of item	Loading factor	Meaning	Code of item	Loading factor	Meaning
SYS1	0.836	Valid	ICM1	0.815	Valid	AS1	0.799	Valid
SYS2	0.867	Valid	ICM2	0.831	Valid	AS2	0.889	Valid
SYS3	0.803	Valid	ICM3	0.752	Valid	AS3	0.861	Valid
SYS4	0.838	Valid	ICM4	0.755	Valid	AS4	0.781	Valid
SYS5	0.750	Valid	ICM5	0.788	Valid	AS5	0.908	Valid
SYS6	0.681	Valid	ICM6	0.833	Valid	AS6	0.868	Valid
SYS7	0.692	Valid	ICM7	0.869	Valid	AS7	0.835	Valid
SYS8	0.733	Valid	ICM8	0.844	Valid			
			ICM9	0.777	Valid			
			ICM10	0.822	Valid			
			ICM11	0.822	Valid			
			ICM12	0.836	Valid			

Panel B. The result of Cronbach Alpha for the valid items of system, instructor and course material, administrative and support					
The first dimension: system		The second dimension: Instructor and course material		The third dimension: administrative and support	
Cronbach Alpha	Meaning	Cronbach Alpha	Meaning	Cronbach Alpha	Meaning
0.905	Reliable	0.953	Reliable	0.935	Reliable

Source: The adjusted output of Warp PLS 3

Table 7 shows the validity of test result by confirmatory factor analysis and the reliability test result by Cronbach Alpha analysis on items in three dimensions of online learning service quality.

- In the validity test result, because all the loading factor values of each item in three dimensions, the system, the instructor-and-material, the administrative-and-support, are above 0.6 (see Panel A), the answer of the respondents is valid.
- In the reliability test result context, because all the Cronbach Alpha values of the valid items in each dimension are beyond 0.7 (see Panel B), the answer of the respondents to these items is reliable.

Table 8 notifies the validity test result by confirmatory factor analysis and the reliability test result by Cronbach Alpha analysis on items in student satisfaction.

- In the validity test result, because all the loading factor values of each item for student satisfaction are above 0.7 (see Panel A), the answer of the respondents is valid.
- In the reliability test result context, because all the Cronbach Alpha values of the valid items for student satisfaction are beyond 0.7 (see Panel B), the answer of the respondents to these items is reliable.

Table 8. The result of the validity and reliability of student satisfaction

Panel A. The result of confirmatory factor analysis (CFA): the loading factor of items of student satisfaction		
Code of item	Loading factor	Meaning
SS1	0.947	Valid
SS2	0.947	Valid
SS3	0.895	Valid

Panel B. The result of Cronbach Alpha for the valid items of student satisfaction	
Cronbach Alpha	Meaning
0.922	Reliable

Source: The adjusted output of Warp PLS 3

### E. The estimation result of the research model

From the previous section, the validity and reliability test already get fulfilled. After that, the next stage is resulting in the variance-based structural equation model estimation by Warp PLS 3, shown in Table 9. From this table, the probability value of the t-statistic of OLSQ got is <0.001. Because this value is lower than a 5% significant level, the null hypothesis needs to refuse. Instead, the alternative hypothesis has to receive.

Table 9. The estimation result of the variance-based structural equation model: The effect of online learning service quality (OLSQ) on student satisfaction

Variable	Path coefficient	Standard error	t-statistic	p-value
OLSQ	0.765	0.062	12.33871	<0.001

Source: The adjusted output of Warp PLS 3

### F. Discussion

This study successfully proves that online learning service quality positively contributes to the satisfaction of the students. Therefore, this situation also supports the finding of Pham et al. (2019) and the investigation employing students from the open university that counting on the long-distance online learning, as conducted by Maria et al. (2015). Also, the result of this study is consistent with the research taking the parts of online learning, as executed by Lee (2010), Pawirosumarto (2016), Faoziah & Sembiring (2017).

Practically, this research is useful to the *Universitas Kristen Krida Wacana* starts focusing on online learning. What the university gives attention to is on the low response of strongly agree and agree. This response exists if less than 60% of respondents with two statements are available. For the dimension of the system, the follow-up action given is on SYS1, SYS5, and SYS6 (see Table 10). Based on this evidence, the responsible unit has to able:

- to make the instruction on the online website easy to track for the students
- to make the website attract the student attention
- to make the promise on the online learning website immediately achieved

Table 10. The total response of strongly agree and agree on items of the question of the system dimension

Code of item	The content of the question item	The total response of strongly agree and agree	Percentage
SYS1	The instructions on the online learning website are easy to keep an eye on.	35	54.69%
SYS2	The information on the online learning website gets always renewed.	47	73.44%
SYS3	The online learning website provides a meaningful description of courses.	45	70.31%
SYS4	The information on the online learning website can be easy to obtain for the student.	43	67.19%
SYS5	The online learning website is stylish.	25	39.06%
SYS6	The campus fulfills what it promises based on the information on the online learning website.	31	48.44%
SYS7	Accessing information on the online learning website is quick.	43	67.19%
SYS8	The information provided by the online learning website is precise.	46	71.88%

Source: The processed primary data by Microsoft Excel

For the dimension of the instructor and material, the focus of follow-up action has to be on ICM2, ICM3, ICM4, ICM5, and ICM12 (see Table 11).

- Linked to ICM2 and ICM3, the lecturer has to able to make the students understand and be interested in studying the course materials.
- Linked to ICM4 and ICM12, the lecturer should give a longer duration for the students to finish their exams and assignments. By executing it, the students have sufficient time to think to solve the hard problems.

- c. Linked to ICM5, the lecturer should quickly respond to fulfilling the student needs.

Table 11. The total response of strongly agree and agree on items of the question of the instructor and course material dimension

Code of item	The content of the question item	The total response of strongly agree and agree	Percentage
ICM1	The instructor is literally.	44	68.75%
ICM2	The course materials can be easily applied.	34	53.13%
ICM3	The course materials motivate to think.	36	56.25%
ICM4	The duration and difficulties of exams provided are rational.	33	51.56%
ICM5	The instructor gives a speedy response to what students need.	38	59.38%
ICM6	The instructor steadily gives a lecture.	47	73.44%
ICM7	The instructor prepares and organizes the materials well.	41	64.06%
ICM8	The instructor of online learning creatively creates the situation to make the student get collaboratively involved.	42	65.63%
ICM9	The instructor gives attention to the student.	42	65.63%
ICM10	Course materials give benefits to the student.	43	67.19%
ICM11	Course materials follow the development of age.	48	75.00%
ICM12	The duration and difficulties of tasks provided are rational.	36	56.25%

Source: The processed primary data by Microsoft Excel

For the dimension of the administrative and support, the focus of follow-up action has to be on AS1, AS2, AS3, AS5, AS6, and AS7 (see Table 12).

- Related to AS1, the campus has to socialize the unit facilitating online learning to the students.
- Related to AS2 and AS3, the staff members have to make the schedule related to the service.
- Related to AS5 and AS6, the campus has to give the incentive to the staff members so that they prioritize the students.
- Related to AS7, the staff members must have the flexibility of time to serve the students.

Table 12. The total response of strongly agree and agree on items of the question of the administrative and support dimension

Code of item	The content of the question item	The total response of strongly agree and agree	Percentage
AS1	The campus has a supporting service unit to facilitate online learning for the student.	29	45.31%
AS2	The staff member notifies the student when the service needed will execute.	35	54.69%
AS3	The staff member is never late to serve the student.	37	57.81%
AS4	The staff member gives the students excellent service.	41	64.06%
AS5	The staff member knows what the students need.	36	56.25%
AS6	The staff member personally gives attention to the students.	35	54.69%
AS7	The helpdesk staff member provides comfortable operating hours.	38	59.38%

Source: The processed primary data by Microsoft Excel

#### IV. CONCLUSION AND RECOMMENDATION

By focusing on priority policies and programs above, UIN Sunan Gunung Djati Bandung is expected to meet the standard criteria of QS World University Ranking by 2029. Therefore, this plan must become common will and effort among the academic community in UIN Sunan Gunung Djati Bandung without exception. Becoming World Class University is an intention and determination that is not making it up and appearing suddenly. Moreover, several benefit from this research is 1) Practically, this research can measure the readiness of UIN Sunan Gunung Djati Bandung in reaching WCU with the QS Ranking indicator, 2) Managerially, this research can map units in the UIN Sunan Gunung Djati Bandung environment to prepare themselves to fit the predetermined targets and 3) Socially, become a benchmark for other campuses to achieve WCU according to the QS Ranking indicator. In the future, the researchers recommend further research and the use of different data collection methods and methods to produce different and more comprehensive data.

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## The Role of Service Quality on Subjective Well-Being of Students, With Mediators of Satisfaction and Customer Company Identification

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### Abstract

*The level of service quality is often a shared measure between providers and users of products for transactions. High quality demands by service users can make service providers to implement an effective work culture. For service users, quality can be used as a basis for assessing satisfaction after receiving service. Using certain services can also arouse the customer's self-perception that he is fit to consume the service produced by providers who are committed to quality. High results from quality, satisfaction, and self-identification of users at service providers become the basis for users to conduct subjective well-being evaluations from time to time. The relationship between these variables was disclosed in this study. This study used a survey method, with a population of students who were still actively studying at 6 universities in DIY. A total of 166 students were selected by convenience sampling method to serve as research samples. By using regression analysis and the SPSS program, it can be proven that there is an indirect effect of service quality on subjective well-being. The results showed that satisfaction and customer-company identification have very important roles, because both variables function as mediators of the influence of service quality on subjective well-being, but satisfaction has a more dominant role than customer identification. From the results of this study it is suggested that universities need to pay attention to the closeness of the relationship with their students, but what is more important is to increase their satisfaction with overall services, such as when they are on campus*

*Keywords – service quality, satisfaction, customer-company identification, subjective well-being*

### Abstrak

Tingkat kualitas jasa sering kali menjadi ukuran bersama antara penyedia dan pengguna produk untuk bertransaksi. Tuntutan kualitas yang tinggi oleh pengguna jasa dapat menjadikan penyedia jasa untuk menerapkan budaya kerja yang efektif. Bagi pengguna jasa, kualitas bisa digunakan sebagai dasar untuk menilai kepuasannya setelah menerima jasa. Menggunakan jasa tertentu juga dapat membangkitkan persepsi diri pelanggan bahwa dirinya layak untuk mengonsumsi jasa yang dihasilkan oleh penyedia yang berkomitmen pada kualitas. Hasil yang tinggi dari kualitas, kepuasan, dan identifikasi diri pengguna pada penyedia jasa menjadi dasar pengguna untuk melakukan evaluasi kesejahteraan subyektif dari waktu ke waktu. Keterkaitan antar variabel tersebut diungkap dalam penelitian ini. Penelitian ini menggunakan metode survei, dengan populasi mahasiswa yang masih aktif kuliah di 6 perguruan tinggi di DIY. Sebanyak 166 mahasiswa dipilih dengan metode convenience sampling untuk dijadikan sebagai sampel penelitian. Dengan menggunakan analisis regresi dan program SPSS dapat dibuktikan adanya pengaruh tidak langsung kualitas jasa terhadap kesejahteraan subjektif. Hasil penelitian menunjukkan kepuasan dan identifikasi pelanggan-perusahaan mempunyai peranan yang sangat penting, karena kedua variabel berfungsi sebagai mediator dari pengaruh kualitas jasa terhadap kesejahteraan subjektif, tetapi kepuasan mempunyai peran yang lebih dominan dibandingkan identifikasi pelanggan. Dari hasil penelitian tersebut disarankan perguruan tinggi perlu memperhatikan kedekatan hubungan dengan mahasiswanya, namun yang lebih utama adalah meningkatkan kepuasan mereka kepada keseluruhan layanan, seperti ketika berada di lingkungan kampus.

Kata kunci – kualitas jasa, kepuasan, identifikasi pelanggan-perusahaan, kesejahteraan subjektif

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## I. INTRODUCTION

Nowadays education has become an important element in people's lives and has a role to improve the welfare of one's life. One level of education that is considered important at this time is the level of higher education. With increasingly diverse higher education choices, high school students will look for institutions that will provide education that helps them prepare for successful careers and lucrative jobs (Asaduzzaman et al., 2013). Therefore higher education need to pay attention to how they facilitate the needs of consumers (students).

In practice the higher education as an institution that offers educational services certainly needs to pay attention to the quality provided to its students as consumers. The service quality in an educational institution is based on the educational experience gained by students, for example it can be in the form of activities offered, facilities offered, interactions with people in the institution, and contact with institutional staff (Asaduzzaman et al., 2013). It is important for educational institutions to pay attention to the service quality provided in order to be seen well in the eyes of students, so it is hoped that this will also bring benefits to these educational institutions.

Service quality is often associated with customer satisfaction (Albari & Kartikasari, 2019). Even Su et al. (2016) and Alves & Raposo (2010) managed to prove the positive influence of service quality on satisfaction. In addition, the importance of the relationship between the two variables can be measured by its role in the subjective well-being of consumers.

Diener et al. (2003) explain that subjective well-being is a scientific analysis of how people judge their quality of life. The assessment is in the form of his emotional reaction about events, moods, their assessment of the form of their life satisfaction and how to fulfill that satisfaction. The opinion of Diener et al. identified the relationship between service quality and satisfaction with the subjective well-being of consumers.

In addition to satisfaction, high service quality can also affect the ability of consumers to identify themselves in accordance with the company's brand image (He & Li, 2011). Customer-company identification can, among other things, make consumers psychologically bound and concerned with a company (Bhattacharya & Sen 2003). In the end the level of success of customers who are able to identify themselves with the company can form subjective well-being (Su et al., 2016).

The linkages between the variables mentioned above might also apply to educational institutions, especially at the tertiary level of education, such as higher education. In addition to paying attention to the level of service quality provided according to students' expectations or not, higher education must also be able to create satisfaction with their students or foster a sense of good customer-company identification in themselves. Moreover, these three variables are likely to affect the subjective well-being of these students. The hope is that when higher education have paid attention to the four variables above, they can compete in winning or maintaining the hearts of their consumers (students).

Therefore, this study besides looking at the direct effect of service quality on subjective well-being, also seeks to see the ability of satisfaction and customer-company identification as a mediating variable of the interrelationship of the two variables. Practically the results of the research focus can then be used by higher education and other higher education to emphasize important variables that need to be maintained or improved in order to achieve the level of subjective well-being of customers.

## II. LITERATURE REVIEW

This section will explain the understanding and interrelationship between the variables of this study, namely about subjective well-being, service quality, satisfaction, and customer-company identification.

### A. *Subjective Well-being*

Subjective well-being is one's perception and experience of positive and negative emotional responses, and one's specific cognitive evaluation of life satisfaction (Proctor, 2014). Meanwhile according to Diener et al. (2003) subjective well-being is an analysis or self-evaluation of a person's quality of life over time.

Furthermore Diener et al. (2003) explain the evaluation includes a person's emotional reaction to events, moods, and their assessment of the form of satisfaction they want and how to fulfill it. Elwick & Cannizzaro (2017) agree on the need for emotional well-being, but also the need for psychological well-being through self-acceptance components, positive relationships with others, self-development, goals in life, environmental

mastery, and autonomy. Therefore, according to Elwick & Cannizzaro student welfare is also one of the main objectives that need to be considered by higher education, besides satisfaction and loyalty.

The level of subjective well-being can be influenced by various factors, such as satisfaction (Dagger & Sweeney, 2006; Akbag & Ummet, 2017; Elwick & Cannizzaro, 2017); customer-company identification (Mael & Ashforth, 1992; Su et al., 2016), and service quality (Dagger & Sweeney, 2006; Su et al., 2016).

### *B. Service Quality*

Quality can be assessed as a measure used to implement an effective culture (Shabbir et al., 2017). Quality can be used as a basis for an assessment of an entire company or its activities are running properly. In addition to the manufacturing and production industries, quality has also been widely used within the scope of the service industry. Parasuraman et al. (1985) explain that service quality is a tool to measure how well companies provide services to consumers.

Developing the results of previous studies, Parasuraman et al. (1988) explained that service quality can be described as a comparison between consumers' expectations about the services they will receive with the real services they have received. Parasuraman et al. (1988) simplified 10 (ten) dimensions to 5 (five) service quality dimensions known as SERVQUAL, namely the dimensions of reliability, responsiveness, tangible, assurance, and empathy. The first three dimensions (reliability, responsiveness, tangible) correspond to three important aspects of the results of previous studies, while the assurance and empathy dimensions are formed from the seven previous important aspects, namely competence, access, courtesy, communication, credibility, security, and understanding.

Meanwhile Cronin & Taylor (1992) explain service quality is directly affected by consumers' perceptions of the performance of companies, meaning that service quality is the performance of services provided by companies that consumers really feel. One of the main differences with the research of Parasuraman et al. (1988) is that the research of Parasuraman et al. uses measurements of the appropriateness of quality perceptions with customer expectations to obtain service quality, whereas in Cronin & Taylor's (1992) research also uses quality measurements using only the level of service quality based on customer perceptions of the performance of the service.

In the scope of education the service quality is not only important, but also a parameter of the quality of education. According to Asaduzzaman et al. (2013) service quality is the key to measuring the quality of education of a higher education, and being the main variable for higher education creates a strong perception in the minds of consumers.

Furthermore, Hutchinson et al. (2009) stated that service quality is an important antecedent for customer satisfaction. Cronin et al. (2000) and Bei & Chiao (2001) also introduced the concept of the relationship between service quality and service satisfaction. Even Cronin et al. and Bei & Chiao prove that consumers' expectations about the services they want with the services they get actually affect positively on their satisfaction. Likewise Albari & Kartikasari (2019) proved the positive influence of service quality on satisfaction. Specifically, Alves & Raposo (2010) stated that service quality as an important parameter of educational excellence has a positive influence on the satisfaction of a student. Therefore, the hypothesis is:

*H1: There is a positive effect on service quality on satisfaction*

Service quality is also often associated with customer-company identification. He & Li (2011) found that the better the service quality obtained by customers, the stronger the level of identification about the company. While Ahearne et al. (2005) suggest that service quality can also contribute to the development of customer-company identification. Thus the hypothesis formulation is:

*H2: There is a positive effect on service quality on customer-company identification*

In a study conducted by Dagger & Sweeney (2006), perceived service quality not only affects the interest in behavior, but also affects the quality of life of a consumer. The study also explained that the results of evaluations of service quality were subjective well-being. While Su et al. (2016) managed to prove the positive influence of service quality on subjective well-being, so the hypothesis of this study is:

*H3: There is a positive effect on service quality on subjective well-being*

### C. Satisfaction

Satisfaction is the level of feeling happy or disappointed after someone compares the performance of the product / service that is thought to be expected (Kotler & Keller, 2016). Parasuraman et al. (1988) explain that consumer satisfaction is related to the psychological state of consumers, in assessing the wisdom between what consumers actually get and give. While Oliver (1981) states that satisfaction is the psychological state of a person who appears when the product / service that is obtained is able to meet their needs. Whereas Bei & Chiao (2001) argue that consumer satisfaction is a condition that is felt by consumers when the performance / service results obtained can meet their expectations.

Buyers of a higher education education are students. Therefore higher education must be able to predict the needs of students. According to Asaduzzaman et al. (2013) for higher education to be able to survive, higher education need to satisfy students by providing the services they need, so that at a time when they wish to continue their education, the higher education remains their first choice.

Satisfaction is also considered to have an impact on the subjective well-being of a consumer. In their research, Dagger & Sweeney (2006) found that consumer satisfaction has an impact on consumers' perceptions of their quality of life. Though quality of life is a form of subjective well-being of a person (Dagger & Sweeney, 2006). The results of the study are corroborated by Akbag & Umme (2017), which proves that satisfaction of basic psychological needs of students has a positive effect on their subjective well-being, differentiated by gender, courage, autonomy, competence and interrelation. Meanwhile Elwick & Cannizzaro (2017) explained that when students feel satisfied with the services provided by the higher education, then that satisfaction will affect the happiness and level of welfare felt by students. Therefore, the following hypothesis is determined:

*H4: There is a positive effect of satisfaction on subjective well-being*

### D. Customer-Company Identification

Understanding of customer-company identification departs from social and organizational identification theory (Su et al., 2016). According to Mael & Ashforth (1992) social identification is the perception of one's ownership of group classifications, that is, actually or symbolically someone considers himself psychologically related to the group's fate, as people who share a common destiny in their successes and failures. While organizational identification is a person's social identification of membership in a particular organization.

Referring to this understanding, Bhattacharya & Sen (2003) said that customer-company identification is a condition of consumers who have a strong sense of the company that provides products / services to him, so that the company is already considered part of the consumer. Someone has a customer-company identification because the company has important, distinctive and lasting characteristics (Ahearne et al., 2005). The characteristics of customer-company identification, among others, can make consumers psychologically bound and care about a company (Bhattacharya & Sen, 2003). In the context of a higher education, Mael & Ashforth (1992) explained that when an alumni works for a company and he has good performance, the alumni indirectly reflects the quality level of his higher education.

The characteristic of customer-company identification is its own advantage, because customer-company identification encourages consumers to establish positive relationships with companies (Mael & Ashforth, 1992). In return the company must be able to help consumers achieve their own needs and improve their subjective well-being (Su et al., 2016). Further, Su et al. succeeded in proving that customer-company identification can positively influence subjective well-being.

With the explanation above, the formulation of the research hypothesis is:

*H5: There is a positive effect of customer-company identification on subjective well-being*

### E. Conceptual Framework

From the literature review above, a conceptual framework is proposed as shown in Figure 1.

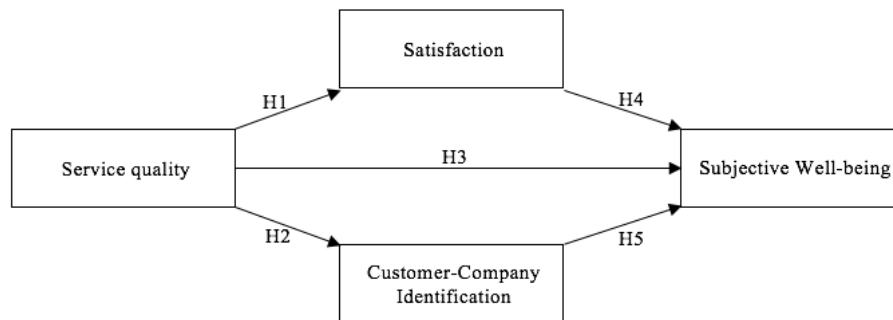


Figure 1: Research Conceptual Framework

Figure 1 shows the interrelationships between the variables described above. Service quality directly (H3) and indirectly has a positive effect on subjective well-being. The indirect effect is mediated by satisfaction (H1 and H4) and customer-company identification (H2 and H5).

### III. RESEARCH METHODS

This research is a quantitative study using survey and questionnaire methods as research data collection instruments. The research population is students who study at 6 higher education in the Special Region of Yogyakarta (DIY), namely UII, UGM, UPN, UNY, UMY and STIE YKPN. The six colleges are among the largest in DIY. As many as 166 students were included as research samples, which were obtained with the formula Lemeshow et al. (1990) and based on a 99% confidence level, and a maximum sampling deviation of 10%. Samples of students who are on campus were chosen by the convenience sampling method.

Furthermore, the operationalization of the research variables is determined in Table 1.

Based on the understanding in Table 1, data collection was carried out for 3 weeks using a questionnaire. To obtain instrument eligibility, validity and reliability tests were performed. The validity testing method uses the Pearson correlation formula, with the help of a data processing program SPSS 21.0 and a trial sample of 30 respondents. Meanwhile, to test for acceptable reliability, the Cronbach's Alpha (CA) measurement method is used for a minimum of 0.6 (Sekaran & Bougie, 2016).

Table 1: Identification of Operational Variables

Variables / indicators	Source of study
Service quality is the performance of services provided by higher education that are truly felt by students	
Facilities / physical buildings	Higher education is interesting
Keep promises to students	
Responsiveness to student requests	
Guaranteed environmental conditions	
Seriously prioritizing the interests of students	
Satisfaction is a psychological state of students that arises when their needs are met	
Overall satisfaction with Higher Education	
Satisfaction with Higher Education services	
Satisfaction when in Higher Education	
Customer-company identification is a condition of students who have a strong sense of the higher education that provides education services to him, so that the higher education is already considered part of students.	
Emotions when Higher Education are criticized.	
Want to know people's opinions about Higher Education	
Feeling to be a part of Higher Education	
Also feel successful when the Higher Education is successful.	

Feeling happy when the Higher Education was praised.  
 Feelings of shame when the Higher Education was criticized  
 Subjective well-being is the analysis or self-evaluation of a person's quality of life over time.  
 Feeling to be someone happy  
 Feel happier than his colleagues  
 Feeling you can enjoy life

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Source: literature review

The results of testing the validity of the whole statement items produce a probability of 0,000, or smaller than a very significant level of 1%. While the CA value for service quality is 0.822, satisfaction (0.870), customer-company identification (0.675), and subjective well-being (0.701). Because all items of statements and research variables are proven to be valid and reliable, the above research instruments can be used to obtain analytical data.

Data collected was analyzed by regression. The regression analysis process is carried out with 3 stages of the standardized regression model, namely as follows:

Model-1 regression analysis :  $Sat. = \beta SQ$

Model-1 regression analysis :  $CCI = \beta SQ$

Model-1 regression analysis :  $SWB = \beta_1 SQ + \beta_2 Sat. + \beta_3 CCI$

For the validation of the regression calculation six test methods are used, namely the F and t tests as well as four classic assumption tests (heteroscedasticity, multicollinearity, normality, and linearity). All of these calculations use the SPSS data processing program version 21.0.

#### IV. RESULTS AND DISCUSSION

Before being used for analysis, 166 cases of data obtained were first tested for their validity and reliability. This data quality testing method is the same as testing the validity and reliability of the instrument. The results of testing the quality of the data are listed in Table 2.

The results of the calculations in Table 2 show all the statements to reveal each variable can be obtained the probability of 0,000 or below a very significant level of 1%, or declared valid. The Cronbach's Alpha value for all variables can be obtained far above the critical limit of 0.6, or set variables. From these results it can be concluded that all statement items and research variables can be used for regression analysis.

Table 2 also explains all statements and research variables assessed by students included in the above average category with a value of 3.41 - 4.20, except for the statement of responsiveness to student demand and seriously prioritizing student interests in the service quality variable (3, 10 and 3.34) as well as emotional statement items when tertiary college students receive criticism on the customer-company identification variable (3.31).

The next stage of the analysis will be in the form of testing the research hypotheses that have been proposed at the front. The testing process uses regression analysis techniques, both simple (Models-1 and 2) and multiple (Model-3). In addition, a series of tests was carried out to strengthen the results of the regression analysis, namely the F and t tests, the VIF formula (multicollinearity), the Glejser formula (heteroscedasticity), the Kolmogorof-Smirnof formula (normality), and the Lagrange Multiplier formula (linearity).

Table 2: Recapitulation of Data Validity and Reliability Tests

Variables / indicators	Valid.	Reliab.	Mean
<i>Service quality</i>		0,909	3,50
Facilities / physical buildings Higher education is interesting	0,000		3,66
Keep promises to students	0,000		3,53
Responsiveness to student requests	0,000		3,10
Guaranteed environmental conditions	0,000		3,85
Seriously prioritizing the interests of students	0,000		3,34
<i>Satisfaction</i>		0,948	3,64
Overall satisfaction with Higher Education	0,000		3,69
Satisfaction with Higher Education services	0,000		3,52
Satisfaction when in Higher Education	0,000		3,72
<i>Customer-company identification</i>		0,817	3,75
Emotions when Higher Education are criticized.	0,000		3,31
Want to know people's opinions about Higher Education	0,000		3,78
Feeling to be a part of Higher Education	0,000		3,72
Also feel successful when the Higher Education is successful	0,000		3,92
Feeling happy when the Higher Education was praised.	0,000		3,93
Feelings of shame when the Higher Education was criticized	0,000		3,86
<i>Subjective well-being</i>		0,895	3,79
Feeling to be someone happy	0,000		3,83
Feel happier than his colleagues	0,000		3,53
Feeling you can enjoy life	0,000		4,01

Source: primary data calculation

The first regression analysis (Model-1) is a simple regression analysis to reveal the positive influence of service quality on satisfaction. The calculation results are shown in Table 3.

Table 3: Regression Model-1 with Satisfaction Dependent Variable

	$\beta$	p-t	Heterosced. (Sig.)	R <sup>2</sup>
Service quality	0,726	0,000	0,413	0,524
Normality test		0,650		
Linearity test		0,000		

Source: primary data calculation

Table 3 shows the results of the calculated probability (p) of 0,000 or less than the value of 5%. If referring to the first research hypothesis (H1), it can be proven that there is a positive influence on service quality on satisfaction.

This conclusion is strengthened by the classical assumption test. Table 3 also shows the probability of the Heteroscedasticity test and the Kolmogorov-Smirnov (K-S) test with a calculated probability value of 0.413 and 0.650, or greater than the 5% significance level. Thus the regression model is said to be good, because there are no symptoms of Heteroscedasticity but the distribution of data meets the assumption of normality. The X2 value from the Lagrange Multiplier method shows a result of 0,000 or smaller than the X2 table (197,064), so that the use of the Model-1 regression model has fulfilled the linearity assumption.

Based on the results of these tests can also be determined the value of the determinant coefficient (R2) of 0.524. This means that of all the variables that might affect satisfaction by 52.4% can be explained by service quality, as in Model-1.

Next, a simple regression analysis of Model-2 with independent service quality variables and the dependent variable is customer-company identification. Table 4 presents a recapitulation of the Model-2 regression calculation results.

Table 4: Regression Model-2 with Customer-Company Identification Dependent Variable

	$\beta$	p-t	Heterosced. (Sig.)	R <sup>2</sup>
Service quality	0,443	0,000	0,132	0,192
Normality test		0,665		
Linearity test		0,000		

Source: primary data calculation

The explanation of the calculations presented in Table 4 is relatively the same as the simple regression analysis of Model-1, both the results of the t-test, heteroscedasticity, normality, and linearity testing. All tests show significant results, so it can be concluded that the second hypothesis (H2) which mentions the positive influence of service quality on customer-company identification can be proven very significantly, namely with an effect of 19.2%.

Next is explained in Table 5, which contains the results of calculations in Model-3 regression analysis. The model is used to determine the positive influence of service quality (H3), satisfaction (H4), and customer-company identification (H5) on subjective well-being.

Table 5: Regression Model-3 with Subjective Well-being Dependent Variables

	$\beta$	p-t
Service quality	-0,022	0,4055
Satisfaction	0,406	0,000
Customer-company identification	0,295	0,000
p-F		0,000

Source: primary data calculation

The summary of calculations in Table 5 shows the value of p-F = 0,000. Because it is stated service quality, customer satisfaction, and customer-company identification have a significant positive effect on subjective well-being simultaneously. But when tested partially, it turns out that service quality has a negative beta coefficient and sig-t of 0.4055 or higher than the critical limit of significance of 0.05. Therefore H3 must be rejected, meaning that there is no positive influence on service quality on subjective well-being. Meanwhile, because the beta coefficient is positive for customer-company satisfaction and identification and sig-t is smaller (0,000) than 5%, then H4 and H5 are rejected, meaning that customer-company satisfaction and identification has a positive influence on subjective well-being. .

Therefore a regression model-3 needs to be modified, which is to prove that customer-company satisfaction and identification really have a positive influence on subjective well-being. The calculation is done by removing the service quality variable from model-3. The results of the modified calculations are presented in Table 6.

The probability values for the F-test (sig-F) and the t-test (Sig-t) in Table 6 show the results of 0,000, or less than the critical value (significance) of 5%, so the research hypotheses (H4 and H5) which state satisfaction and customer-company identification simultaneously or partially has a positive influence on subjective well-being has been proven.

Table 6: Modification of Model-3 Recapitulation with Subjective Well-being Dependent Variables

	$\beta$	p-t	VIF	Heterosced. (Sig)	r <sup>2</sup>
Satisfaction	0,391	0,000	1,296	0,798	0,153
Customer-company identification	0,292	0,000	1,296	0,667	0,092
p-F			0,000		
Normality test			0,215		
Linearity test			0,000		
Adj. R2			0,339		

Source: primary data calculation

The results of testing classic assumptions can further strengthen the conclusions above. Table 6 also shows the probability of the heteroscedasticity test and the Kolmogorov-Smirnov (K-S) test are 0.413 and 0.650, both of which are higher than the 5% significance level. Thus the regression model is said to be good, because there are no symptoms of heteroscedasticity but the distribution of data meets the assumption of normality. While for multicollinearity testing shown by the VIF value smaller than the critical value 10, it is said that there are no

significant correlation symptoms in the customer-company satisfaction and identification variables. The  $X^2$  value of the Lagrange Multiplier method shows a result of 0,000 or smaller than the  $X^2$  table (197,064), so that the use of the modified Model-3 regression model meets the linearity assumption.

Based on the results of these tests can also be determined the value of the determinant coefficient ( $R^2$ ), both total and partial. The calculation results show  $R^2$  of 0.339, meaning that of all the variables that might affect subjective well-being, then 33.9% can be explained by customer-company satisfaction and identification, while the other 66.1% is not influenced by the variables in the regression The modified Model-3. Meanwhile, if seen from the partial coefficient value, satisfaction accounts for 15.3% and customer-company identification accounts for 9.2% of the total that affects subjective well-being.

Based on the calculation of the three regression models above, obtained several results of the analysis that are appropriate or not in accordance with the hypothesis that has been stated before, so that the discussion and implications can be carried out below.

#### *A. Effect of Service Quality on Satisfaction*

The results of the linear regression calculation for model-1 found a positive and significant effect of service quality on satisfaction. This analysis has proven the suitability of the hypothesis (H1) with the empirical results of the study. These results also support the results of research and opinions of Albari & Kartikasari (2019), Alves & Raposo (2010), Bei & Chiao (2001), and Cronin et al. (2000). When combined with descriptive analysis, service quality is a variable that needs special attention by higher education to achieve student satisfaction, especially in the form of a conducive academic environment and atmosphere as well as attractive physical facilities and buildings.

#### *B. Effect of Service Quality on Customer-Company Identification*

From Model-2 it can also be proven that there is a positive and significant influence of service quality on customer-company identification (H2). With these conclusions empirical research from He & Li (2011) and Ahearne et al. (2005) became supported, so in addition to paying attention to the influence of service quality variables on satisfaction, higher education also need to pay attention to the customer-company identification of their students.

#### *C. Effect of Service Quality, Satisfaction, Customer-Company Identification on Subjective Well-being*

The results of Model-3 have two calculations. In the first calculation, it is concluded that there is a negative and insignificant influence on service quality on subjective well-being, while customer-company satisfaction and identification have succeeded in positively influencing subjective well-being. If it is related to descriptive analysis, it is possible that the negative influence of service quality is due to the low contribution of indicators that are directly related to the interests of students (responsiveness of student demand and seriously prioritizing the interests of students), while subjective well-being indicators are always valued at a high average. This possibility is reasonable, because the indicator points on customer-company satisfaction and identification are more aligned with subjective well-being than service quality variables. The second possibility is that, on average, the value of service quality and subjective well-being has a tendency that is not the opposite, if the average service quality is low, subjective well-being tends to be high, and vice versa. This condition is likely to cause service quality to be a negative and not significant effect on subjective well-being.

The results of the modification of the Model-3 regression showed satisfaction and customer-company identification proved to have a positive and significant effect on subjective well-being. From these conclusions, hypotheses H4 and H5 can be supported / proven. These results also reinforce the results of empirical research from Elwick & Cannizzaro (2017), Akbag & Ummet (2017), and Dagger & Sweeney (2006), as well as research by Su et al. (2016) and Mael & Ashforth (1992).

Furthermore, from the modification of Model-3 it can also be seen that satisfaction has a greater contribution than the customer-company identification of the subjective well-being of students. This shows that satisfaction has a more important role to be obtained by students in real contributing to their subjective well-being, compared

to waiting for the reaction or assessment of others in identifying customer-company. Therefore higher education need to pay attention to efforts to always maintain or increase student satisfaction, especially when students are on the college campus.

The results of this analysis also prove that consumer satisfaction and company-customer identification are dominant variables in the entire research model, because only with these two variables can service quality affect the subjective well-being of students, that is, as a full mediator variable. These conditions support the research of Su et al. (2016). In other words, the service quality provided by higher education will basically affect the way students think about quality of life and happiness (subjective well-being). However, the influence exerted was not immediate, but had to pass through a sense of satisfaction and a sense of attachment to the higher education (customer-company identification).

From the overall results of the analysis that has been done there are several things that need to be considered by higher education. Higher education need to improve and maintain the quality of their services. When the service quality provided is good / good students tend to feel satisfied and proud to be at the college. It will affect their quality of life, where they will tend to feel happy.

Companies engaged in services, of course need to think about how consumers feel when they get the service. Service companies should not only think profit oriented, they also need to think of more social outcomes such as the happiness of consumers when using company services. Because subjective well-being itself is a relevant outcome considered in consumers' use of services.

## V. CONCLUSIONS AND RECOMMENDATIONS

From the explanation above, it can be concluded that the research hypotheses are proven, except there is a positive direct effect of service quality on subjective well-being. The effect of service quality is only able to affect welfare, if through mediator variable satisfaction and customer-company identification. As a mediator variable, the results of the study also showed that satisfaction has a stronger / more dominant role than customer-company identification.

There are three implications from the conclusion above. First, higher education need to improve and maintain the quality of their services. When the service quality provided is good / good students tend to feel satisfied and proud to be at the college. It will affect their quality of life, where they will tend to feel happy.

Second, the research model can also be used to conduct research in other service companies. Service companies certainly need to think about how their customers feel when they get the service. Service companies can not only be profit-oriented, but they also need to think of results that are more social in nature, such as the happiness of consumers when using company services. Because subjective well-being itself is a relevant outcome considered in consumers' use of services.

Third, research models with subjective well-being variables are still relatively limited in number. Therefore, in addition to this research, it can enrich the discussion about research with similar variables, future research needs to be considered to involve variables that may be relevant and have not been included in this research model, such as trust, commitment, or customer loyalty

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## Conducting Job Analysis for University Student Ambassador and Peer Mentor

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### Abstract

*Student Ambassador and Peer Mentor are two positions, which play important role for university. Student Ambassador play role in providing information for prospective student and help new arrivals student settle in, also make the most out of their time while at University, while Peer Mentor help the student to develop student's academic track record. Both of this position must clearly know and understanding their job, tasks and responsibilities. In fact, an overload and overlapping job was experience by these two positions. Unclear and miss understanding about job and role became a root-problem. The purpose of this research is to design and analyse the job of Student Ambassador and Peer Mentor. Qualitatives used as a research method with questioner, interview, and documentation study were adopted as a collecting data method. The participants of this research are the jobholder and the supervisor of Student Ambassador and Peer Mentor. Research result is job analysis document for Student Ambassador and Peer Mentor provided and it consists of job description and job specification. Document of Student Ambassador and Peer Mentor Job Analysis has been approved the university. For future direction, effectiveness of job analysis and it relation with Student Ambassador and Peer Mentor performance must be research. Job analysis based on competences could be a suggestion for further work.*

*Keywords— Job Analysis; Job Description; Job Specification; Human Resources Management Student Ambassador; Peer-Mentor Program*

### Abstrak

Duta Mahasiswa dan Peer Mentor adalah dua posisi yang berperan penting bagi universitas. Duta Mahasiswa berperan dalam memberikan informasi bagi calon mahasiswa dan membantu mahasiswa pendatang baru beradaptasi, juga memanfaatkan waktu mereka semaksimal mungkin selama di Universitas, sementara Peer Mentor membantu mahasiswa untuk mengembangkan rekam jejak akademik mahasiswa. Kedua posisi ini harus mengetahui dan memahami dengan jelas pekerjaan, tugas dan tanggung jawabnya. Faktanya, pekerjaan yang kelebihan beban dan tumpang tindih dialami oleh kedua posisi ini. Ketidakjelasan dan ketidaktahuan tentang pekerjaan dan peran menjadi akar masalah. Tujuan dari penelitian ini adalah merancang dan menganalisis pekerjaan Duta Mahasiswa dan Peer Mentor. Metode kualitatif yang digunakan sebagai metode penelitian dengan kuisioner, wawancara, dan studi dokumentasi digunakan sebagai metode pengumpulan data. Partisipan dalam penelitian ini adalah jobholder dan supervisor dari Student Ambassador dan Peer Mentor. Hasil penelitian berupa dokumen job analysis untuk Student Ambassador dan Peer Mentor yang disediakan yang terdiri dari job description dan job spesifikasi. Dokumen Analisis Pekerjaan Duta Mahasiswa dan Peer Mentor telah disetujui universitas. Untuk arah kedepan, efektifitas analisa pekerjaan dan kaitannya dengan kinerja Duta Mahasiswa dan Peer Mentor harus diteliti. Analisis pekerjaan berdasarkan kompetensi dapat menjadi saran untuk pekerjaan selanjutnya.

*Kata kunci— Analisis Pekerjaan; Uraian Tugas; Spesifikasi pekerjaan; Duta Mahasiswa Manajemen Sumber Daya Manusia; Program Peer-Mentor*

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## I. INTRODUCTION

Human resources management is become of the most important program in order to design an effective and efficient performance from the members of organisation. The first step of human resources management is how to design the job by analysis it. Job analysis known as a systematic activity to determine the tasks, duties, and responsibilities needed for each job in organisation. Dessler (2011) define the job analysis as a systematic procedur for determining responsibility and the skill requirements required from jobs and types of people that must be employed for do some work. Bangun (2012) added that on this activity, qualification and specification also collected to know how do some job. Job analysis is very important for organization because it's a basic of human resources development (McKillip, 2001; Mathis & Jackson, 2006; Truxillo, Paronto, Collins & Sulzer, 2004; Siddique, 2004; Suthar, 2014). Job analysis will relate to all organisation development programs such as recruitment and selection, performance appraisal, training and development, up to compensation and benefit program.

Job analysis is one of important program and very necessary for human resources management. Mondy (2010) stated that job analysis is necessary if an organization renew their organization structure or add some division. MačKayová, Závadská & Sirotiaková (2010) also explained that, job analysis is needed, when a new job is generated, and also to update jobs. However, job analysis is need if an organization experiences various issues marked with symptoms such as overlapping job, unclear workflow, or even overload job (McKillip, 2001; Cascio, 2003; Ali & Aroosiya, 2010; Nyasha, et al, 2013; Suthar, et all, 2014). If an organisation does not know the component in job analysis, it will not be able to determine who is employed and how to do it, as well as who is employed or how to train them (Bangun, 2012).

The job analysis consists of job description and job specification (Bratton & Gold, 1999; Pilbeam & Corbridge, 2006; Prien, Prien & Wooten, 2003). Job description is a written statement that explains the duties, the responsibility, and key performance indicator. Mathis and Jackson (2006) implied that job description contains an outline of the roles and responsibilities of the job. Simplify, job description defines as what a job is and what the task-holder will do at the organisation. The othet component of job analysis is called as job specifications. It is describes the human characteristics needed by the person performing the job. Job specifications contain characteristics that must be owned by the holder of office (Cook, 2005; Dessler, 2006). These characteristics include experiences, sex, education, training, the abily to meet physical either mental demands. Simplify, job specifications is a list of requirement on one job title.

University WM is a private university at Surabaya. It consists of 20-study program. On of the program on this university are Student Ambassador and Peer Mentor. The Student Ambassador aim are serving and representing University WM. They will meet many new peoples such as prospective students and their parents, encourages others to get involved in University WM, answer any questions about University WM, ensuring the new arrivals student settle in, and make the most out of their time while at University. The other hand, Peer Mentor program is important program for the student. The function and role for this program which senior student must be a mentor and help for their junior student.

By the preliminary research, researcher find that the Student Ambassador and Peer Mentor haven't perform optimal oh their work. Overlap responsibilities between Student Ambassador each other the Peer Mentor do not yet have a complete understanding of their duties, responsibilities and role as mentors. Nyasha, et al (2013) states that the lack of clarity and lack of understanding of the role of a job cause the performance of the stakeholders is not optimal. Boulanger (2013) also found that the uncertainty of a job would create a decrease in job satisfaction, slow the tempo of work, and even will increase work-stress. The non-optimal performance both of the Student Ambassador and Peer Mentor demonstrated through overloading and overlapping of work, delays when it comes to meetings, and delays in task submissions.

Fountain & Newcomer (2016) states that in order to develop a successful and sustained some program in organisation, there needs to provided by clear and detailed guidance about what is their job and role. In order to make clear and detailed guidance about peer mentor job description and role, job analysis must be conducted. Meanwhile, the University WM has not yet conduct job analysis for the Student Ambassador and Peer Mentor

Based on the research background above, researcher would like to do the research about job analysis and job design. Limitations in this study is job analysis and job design on Student Ambassador and Peer Mentor at University WM. The purpose of this research is to design and analyse the job of Student Ambassador and Peer Mentor

## II. LITERATURE REVIEW

### A. *Job Analysis Definition*

Many research has defined what job analysis is. Accordingly Brannick et al. (2007), job description is set of document consist of job description to make members of organization understand clearly, accurately and specifically, also to perform their jobs well. Armstrong (2009) defined job analysis as a process of collecting, analysing, and setting out information about the contents of jobs in order to provide the basic job description and job specification. As mentioned by Raju & Banerjee (2017), job analysis is a process of determining the task that make up the job, skills, abilities, and responsibilities required for the job's holder.

Another researcher said, job analysis consists of collecting data to produce job description, job specifications, and job standards (Bratton and Gold, 2007). Therefore, a job description, job specification, and job standards are result of a job analysis (Mangaleswaran & Kirushanthan, 2015). MačKayová, Závadská & Sirotiaková (2010) stated that, job analysis must provides all necessary information relating with job which are critical to work out tasks' profiles, duties, responsibilities, criteria of job holder, and their roles.

By those definition, job analysis will explained as a systematic process consist of collecting-analysing-setting out information about job description, job specification, and job standards on some job-title to prevent misunderstand and unclear role between job's holder. The operational definition of job analysis on this research is a procedure for determining duties, job description, job specification of a Student Ambassador and Peer Mentor to avoid overload and overlapping job. The result of the job analysis on this research is Student Ambassador and Peer Mentor job description and job specification document.

### B. *Purpose & Importance of Job Analysis*

The purpose of job analysis is to establish and document about what some job-title must do. Important to be remembering, job analysis is conducted of the job, not the job's holder. The product of the job analysis is a description and specifications of the job, not a description or specification of the job's holder (I-Wei & Kleiner, 2002; Kharabe & Joseph, 2016).

Job analysis is the basic and foundation for many functions of human resources (Cascio, 1998; Bowin & Harvey, 2000; Dessler, 2006). Job analysis through job description and job specification are important to implement other human resource management activities, such as recruitment & selection process, training and development, performance appraisal, design of compensation & benefit system, etc (McKillip, 2001; Mathis & Jackson, 2004; Truxillo, Paronto; Siddique, 2004; MačKayová, Závadská & Sirotiaková, 2010; Suthar, 2014; Mangaleswaran & Kirushanthan, 2015; Levine, Sistrunk, McNutt & Gael cited by Raju & Banerjee, 2017). Job analysis is playing vital role in any strategic step in organization (I-Wei & Kleiner, 2002; Edien, 2015). Simply to say, job analysis is directly related to nearly every function of human resource departments in organizations.

Well developed job analysis document is needed to clear all the obstacle such as, overlapping & overload work, that members of organization will faced while performing their tasks and duties (Royer, 2009). Well-designed job analysis prevents unnecessary misunderstanding while members of organization doing their job (Mckillip, 2001; Mathis & Jackson, 2004; Raju & Banerjee, 2017). It also can be used in performance review of organization members in order to develop goals / objectives, standard performance, criteria evaluation, and duties to be evaluated (Kharabe & Joseph, 2006).

The importance of Student Ambassador and Peer Mentor job analysis is to provide the jobholder with clear, accurately, and specifically job analysis document. This document could prevent misunderstanding, overload and overlapping job and role between the jobholders.

### C. Job Analysis Process



Figure 1. Job Analysis Process by Mathis & Jackson (2006)

In traditional approach, job analysis process is dividing into four basic phases: (1) Planning period; (2) Preparation period; (3) Execution period; (4) Assessment period (. Meanwhile, Mathis & Jackson (2006) listed 4 stages of job analysis process as below:

### III. RESEARCH METHODOLOGY

In this research, researcher used types qualitatives research with purpose to systemactically and accurately describing facts and characteristics regarding population or fields certain, which is about job analysis in an organisation. Sources of data in this study are using primary data and secondary data. The primary data is data obtained directly from research subjects by using an instrument such as questioner and an interview. While secondary data obtained indirectly from the journal, organisation structure, organisation document, report and books related with the topic of research.

Collecting data methods were using questionnaire and interview. The questionnaire was used to obtain basic data from the jobholder and stakeholders. Meanwhile, interviews are used to sharpen and confirm data on the results of the questionnaire. In order to check the validity and consistency of research, triangulation examination technique and criteria of credibility was used. The procedure of the research was based on the process of job analysis from Mathis and Jackson (2006). They implied that job analysis is a systematic procedure that consists with four stages: (1) Planning & preparation; (2) analyzing the job; (3) job analysis draft review; and (4) job analysis document validation. For ethical approval, the institutional review board University WM of Surabaya approved this job analysis document.

### IV. RESULT AND DISCUSSION

In this study there are 10 positions that analysed, which are: Student Ambassador called Duta WM. Duta WM is consists of 9 organisation job title. All the 9 job title already analysed on this research. The 9 job title of Duta WM as Student Ambassdor are (1) PIC Duta WM; (2) Koordinator Seksi Wilayah Duta WM; (3) Anggota Seksi Wilayah Duta WM; (4) Koordinator Seksi Acara Duta WM; (5) Anggota Seksi Acara Duta WM; (6) Koordinator Media Sosial Duta WM; (7) Anggota Media Sosial Duta WM; (8) Koordinator Seksi Publikasi dan Dokumentasi Duta WM; and (9) Anggota Seksi Publikasi dan Dokumentasi Duta WM and the Peer Mentor. The job title was analysed by using job analysis stages from Mathis & Jackson (2006).

The following are the results of analysis and design work done:

A. *PIC Duta WM*

The responsibility of PIC Duta WM is for controlling all ambassador division and bridging between Duta WM and the Head of Promotion University WM. The job description of PIC Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrolment, achievements, competitions, special events to the Head of Promotion Affairs, and Seksi Wilayah every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah in putting together a promotion team in the field; (9) Coordinate among the Duta WM Section when organizing a promotional activity; (10) Coordinate the preparation of guard shift Duta WM in Student Admission / Enrolment Department during the first meeting every 1 semester; (11) Arrange the agenda, materials and plans for the date of the meeting activities for 1 semester; (12) Summarize the timeline of each activities Duta WM for 1 semester; (13) Control the timeline of activities for each division Duta WM for 1 semester; (14) Coordinating Duta WM in developing upcoming promotional concepts (brochures, souvenirs, etc.) each year (15) Lead a routine coordination meeting every 2 months with the Koordinator to evaluate the progress of the Duta WM; (16) Lead a routine coordination meeting every 3 months with all Duta WM to evaluate the progress of the Duta WM; (17) Report to the Head of Promotion of University WM every 1 semester.

The job specifications for PIC Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform team-leadership, and perform good decision-making. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

The job description of Koordinator Seksi Wilayah Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrolment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Field Coordinators in putting together a promotion team in the field; (9) Coordinate among the Duta WM Section when organizing a promotional activity; (10) Design a work program plan including the timeline of the Duta WM Seksi Wilayah every 1 semester; (11) Coordinate Anggota Seksi Wilayah Duta WM in data collection and updating information relating to student admission / enrolment, achievements (lecturers and students), information about competitions, or special events in all study programs per region to the Head of Promotion Affairs and PIC Duta WM every 3 months; (12) Coordinate the data collection and contact students from each study program per region to participate in promotional activities as needed; (13) Register and contact students from each study program per region to participate in the required promotional activities; (14) Establish communication with each Information Service Team (student admission / enrolment team, Lecturer Team, Duta WM Team, and students) per region in the campus tour activities and photo brochures; (15) Report to the PIC Duta WM every 1 semester.

The job specifications for Koordinator Seksi Wilayah Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform team-leadership, perform good decision-making, and having a wider network. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

### *B. Members of the WM Ambassador Regional Section*

Members of the WM Ambassador Regional Section is responsible for managing the information service team in each student admission/enrollment activity in their respective regions. The job description of Anggota Seksi Wilayah Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrolment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Register and update information relating to student admission/enrolment, achievements (lecturers and students), competition information, or special events in all study programs per region from all Duta WM to the Head of Promotion Affairs and PIC Duta WM every 3 months; (11) Register and contact students from each study program per region to participate in the required promotional activities; (12) Establish communication with each Information Service Team (Student Admission/Enrollment team, Lecturer Team, Duta WM Team, and students) per region in the campus tour activities and photo brochures; (13) Report to the PIC Duta WM every 1 semester.

The job specifications for Anggota Seksi Wilayah Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform good decision-making, and having a wider network. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

### *C. Koordinator Seksi Acara Duta WM*

Koordinator Seksi Acara Duta WM is responsible for coordinating every planning, implementation and evaluation of all University WM promotional activities. The job description of Koordinator Seksi Acara Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrolment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Design a plan of promotional activities including the timeline of the Seksi Acara Duta WM every 1 semester; (11) Develop concept events (including evaluations) and committees for special promotional events, such as Solo Exhibitions, High School Visits, Parents Gathering, and other University Events; (12) Coordinate the implementation of events and committees for special promotional events, such as solo exhibitions, high school visits, parents gathering, and other university events; (13) Develop concepts and timelines of training activities and provision of Information Services for Lecturers and Students for 1 semester; (14) Coordinating training activities and debriefing of Lecturer and Student Information Service Teams for 1 semester, and (15) Report to the PIC Duta WM every 1 semester.

The job specifications for Koordinator Seksi Acara Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform team-leadership, perform good decision-making, and creative. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

#### *D. Anggota Seksi Acara Duta WM*

Anggota Seksi Acara Duta WM is responsible for planning, implementation and evaluation of all University WM promotional activities. The job description of Anggota Seksi Acara Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrolment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Support the Koordinator Seksi Acara Duta WM to design a plan of promotional activities including the timeline of the Seksi Acara Duta WM every 1 semester; (11) Develop concept events (including evaluations) and committees for special promotional events, such as Solo Exhibitions, High School Visits, Parents Gathering, and other University Events; (12) running the implementation of events and committees for special promotional events, such as solo exhibitions, high school visits, parents gathering, and other university events; (13) Support the Koordinator Seksi Acara Duta WM to develop concepts and timelines of training activities and provision of Information Services for Lecturers and Students for 1 semester; (14) Support the Koordinator Seksi Acara Duta WM to coordinate training activities and debriefing of Lecturer and Student Information Service Teams for 1 semester, and (15) Report to the Koordinator Seksi Acara Duta WM every 1 semester.

The job specifications for Koordinator Seksi Acara Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform good decision-making, and creative. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

#### *E. Koordinator Media Sosial Duta WM*

Koordinator Media Sosial Duta WM is responsible for coordinating student admission/enrollment social media management. The job description of Koordinator Media Sosial Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrollment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Design a plan of promotional activities by social media including the timeline of the Media Sosial Duta WM every 1 semester; (11) Control and update the latest student admission / enrollment information on the wmpmb.com website every week; (12) Coordinate and operate student admission / enrollment official social media, including, arrange timeline for social media content to be run, arrange content, captions and hashtags that are interesting and up-to-date; (13) Coordinate and collect, edit and upload all documentation of promotional activities of all Lecturer and Student Information Service Teams in charge; (14) Answer questions or respond to statements about student admission / enrollment, Study Programs and Universities on student admission / enrollment official social media (Instagram and Facebook); (15) Coordinating the implementation of the 'Duta Njawab' content; (16) Coordinating and interacting (Follow, Like Post, Comments) with social media accounts from high school and social media accounts related to education; (17) Increase traffic and popularity of student admission / enrollment official social media; (18) Report to the PIC Duta WM every 1 semester.

The job specifications for Koordinator Media Sosial Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform team-leadership, perform good decision-making, creative, and known-well social media operating. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

#### *F. Anggota Media Sosial Duta WM*

Anggota Media Sosial Duta WM is responsible for manage student admission/enrollment social media. The job description of Anggota Media Sosial Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrollment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Support the Koordinator Media Sosial Duta WM to design a plan of promotional activities by social media including the timeline of the Media Sosial Duta WM every 1 semester; (11) Control and update the latest student admission / enrollment information on the wmpmb.com website every week; (12) Operate student admission / enrollment official social media, including, arrange timeline for social media content to be run, arrange content, captions and hashtags that are interesting and up-to-date; (13) Collect, edit and upload all documentation of promotional activities of all Lecturer and Student Information Service Teams in charge; (14) Answer questions or respond to statements about student admission / enrollment, Study Programs and Universities on student admission / enrollment official social media (Instagram and Facebook); (15) Held the implementation of the 'Duta Njawab' content; (16) Interacting (Follow, Like Post, Comments) with social media accounts from high school and social media accounts related to education; (17) Increase traffic and popularity of student admission / enrollment official social media; (18) Report to the Koordinator Media Sosial Duta WM every 1 semester.

The job specifications for Anggota Media Sosial Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform good decision-making, creative, and known-well social media operating. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

#### *G. Koordinator Seksi Publikasi dan Dokumentasi Duta WM*

Koordinator Seksi Publikasi dan Dokumentasi Duta WM is responsible for coordinating the team regarding the publication and documentation of all activities in the Duta WM program. The job description of Koordinator Seksi Publikasi dan Dokumentasi Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrollment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Design a plan of promotional activities including the timeline of the Seksi Publikasi dan Dokumentasi Duta WM every 1 semester; (11) Coordinate and design promotional needs for each change of period (backdrop, roll banners, posters); (12) Coordinate and participate in documenting every promotional activity, both photos and videos, and (13) Report to the PIC Duta WM every 1 semester.

The job specifications for Koordinator Seksi Publikasi dan Dokumentasi Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform good team-leadership, perform good decision-making, creative, and known-well graphic-design and photography. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

#### *H. Anggota Seksi Publikasi dan Dokumentasi Duta WM*

Anggota Seksi Publikasi dan Dokumentasi Duta WM is responsible for running regarding the publication and documentation of all activities in the Duta WM program. The job description of Anggota Seksi Publikasi dan Dokumentasi Duta WM are (1) Participate in all Promotion activities such as Expo, Presentation, Solo Exhibition, High School Visit, Photo Brochure, Parents Gathering, and other University Events; (2) Answering all questions related to student admission/enrollment, Study Program and University, both directly and indirectly; (3) Establish communication with Guidance and Counselling Teachers in all High Schools Collaboration in providing information about student admission / enrolment, Study Programs and Universities; (4) Help prepare all the equipment for promotional activities, such as organizing luggage, preparing brochures, souvenirs, roll banners, backdrops and all other accessories; (5) Representing the promotion team in coordination with high schools, attending Technical Meetings and structuring stands in the field related to all promotional activities; (6) Attend shifts, routine meetings and training according to a predetermined schedule; (7) Update the latest information of each study program, both regarding student admission / enrollment, achievements, competitions, special events to the Head of Promotion Affairs, and PIC Duta WM every 3 months; (8) Coordinate with the Koordinator Seksi Wilayah Duta WM in putting together a promotion team in the field; (9) Coordinate among the all Duta WM section when organizing a promotional activity; (10) Support the Design a plan of promotional activities including the timeline of the Seksi Publikasi dan Dokumentasi Duta WM every 1 semester; (11) Coordinate and design promotional needs for each change of period (backdrop, roll banners, posters); (12) Coordinate and participate in documenting every promotional activity, both photos and videos, and (13) Report to the PIC Duta WM every 1 semester.

The job specifications for Koordinator Seksi Publikasi dan Dokumentasi Duta WM are fluent communication oral and written, perform well service excellent, responsive, perform good decision-making, creative, and known-well graphic-design and photography. For the requirement are all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

#### *I. Peer Mentor*

The main job description of Peer Mentor group by two main functions, are mentoring, and administration. For the mentoring job description is consists of 6 tasks. The first task for the mentor is regularly set up meeting with mentee. Mentors must held at least, mentor-mentee meeting 4 times a month with an agenda (schedule & topic) will discuss by mentor with mentee, and make report every held a meeting. The second task is to conduct a need assessment for mentee needs at least, every 6 month. The need assessment must focus on hard-skill and soft-skills that mentee's need to be improved. The result of need assessment must be documented and report to Peer Mentor Supervisor. Report must be handover at least 5 days after held the assessment. The third task is to proposed development program for Mentee. After need assessment, Mentor should give a proposal to Mentor Supervisor about development program for Mentee. Mentor must conduct committee to design and run the program. Design program must be approved and monitoring by Supervisor. Evaluation must be held after run the program. Evaluation program report must approve by Supervisor at least, 5 days after program run. The fourth task is to motivate and encourage mentee to develop their hard-skills such as being active participate in class activity, always do their homework and task, focus with the lesson, etc; and develop their soft-skills, such as joining student organization, involved in extracurricular activities, joined any competitions, etc. The fifth task is Peer Mentor must explain to mentee about the university profile, the academic rule and system, etc. Peer Counselling to mentee if necessary will become an additional task for the Peer Mentor. The task of administration for the Peer Mentor is to report of student development progress every 3 month to Supervisor.

The specification for Peer Mentor's job are willing to do self-develop and having great commitment to participate actively in this program, proved by contract-signed. For the requirement is all student who study at University WM with second year, GPA > 3.00 of 4.00, and ever experience in any organization.

## V. CONCLUSION

Job analysis has been done to conduct proposal of job description and job specification for Peer Mentor and Duta WM as a Student Ambassador as the answer of research question. The output of this research result is the validated job analysis document. The document consists of job description, job specification for each job title. Job analysis that has been conducted must bring effect positively through the organization.

For future directions, research about effect of job analysis through the Duta WM as a Student Ambassador and Peer Mentor performance must be conduct. The process of job analysis document on this research are based on traditional process and just consisted of job description & job specification only. For develop organization sustainly, try to develop and use job analysis based on competencies.

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## The Effect of Financial Policy, Managerial Ownership, Profitability, and Company Size on Company Value in Automotive and Component Sub-Sector Companies Registered in Indonesia Stock Exchange Period 2014-2018

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### Abstract

*The aim of each company is to increase company value which can maximize shareholders' wealth. The factors that can affect the company value are financial policies consisting of investment decisions, financial leverage and dividend policies. In addition to financial policy, there are other factors that can affect a company's value, namely managerial ownership, profitability, and company size. Therefore, this study aimed to examine the effect of financial policy, managerial ownership, profitability, and company size on company value in the automotive and component sub-sector companies registered in Indonesia Stock Exchange in 2014-2018. The data analysis techniques used in this study were multiple linear regression analysis and hypothesis testing using t test, F test, and coefficient of determination. The result shows that partially investment decisions, dividend policy, managerial ownership, and company size had no effect on company value, while financial leverage and profitability had effect on company value. Simultaneously investment decisions, financial leverage, dividend policy, managerial ownership, profitability, and company size had effect on company value.*

*Keywords — Financial Policy; Managerial Ownership; Profitability; Company Size; Company Value.*

### Abstrak

Tujuan setiap perusahaan adalah meningkatkan nilai perusahaan yang dapat memaksimalkan kekayaan pemegang saham. Faktor-faktor yang dapat mempengaruhi nilai perusahaan adalah kebijakan keuangan yang terdiri dari keputusan investasi, leverage keuangan, dan kebijakan dividen. Selain kebijakan keuangan, terdapat faktor lain yang dapat mempengaruhi nilai perusahaan yaitu kepemilikan manajerial, profitabilitas, dan ukuran perusahaan. Oleh karena itu, penelitian ini bertujuan untuk menguji pengaruh kebijakan keuangan, kepemilikan manajerial, profitabilitas, dan ukuran perusahaan terhadap nilai perusahaan pada perusahaan sub sektor otomotif dan komponen yang terdaftar di Bursa Efek Indonesia tahun 2014-2018. Teknik analisis data yang digunakan dalam penelitian ini adalah analisis regresi linier berganda dan pengujian hipotesis menggunakan uji t, uji F, dan koefisien determinasi. Hasil penelitian menunjukkan bahwa secara parsial keputusan investasi, kebijakan dividen, kepemilikan manajerial, dan ukuran perusahaan tidak berpengaruh terhadap nilai perusahaan, sedangkan financial leverage dan profitabilitas berpengaruh terhadap nilai perusahaan. Secara simultan keputusan investasi, financial leverage, kebijakan dividen, kepemilikan manajerial, profitabilitas, dan ukuran perusahaan berpengaruh terhadap nilai perusahaan.

Kata kunci — Kebijakan Keuangan; Kepemilikan Manajerial; Profitabilitas; Ukuran perusahaan; Nilai Perusahaan.

## I. INTRODUCTION

According to Statistics Indonesia (2018), the economic growth of Indonesia in 2017 reached 5.07 percent and the economic growth of Indonesia in 2018 grew into 5.17 percent, higher than the achievement in 2017. The number, according to Statistics Indonesia was the highest economic growth since the past 2014. Automotive and component sub-sector was one of the important sectors that had great contribution to the economy of Indonesia. It could be seen that the contribution to Indonesian GDP in 2016 reached 10.47 percent and in 2017 in reached

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10.17 percent (kemenperin.go.id, 2019). According to IDX Statistics in various industrial sectors, automotive and component sub-sector had the highest profit among other sub-sectors from 2014 to 2018. The availability of information regarding profit of company financial statement would make investors understand about the company's performance. It was certainly done by investors to obtain investment decision alternative well to secure the sustainability of their investment value enhancement.

From 2014 to 2018, Indonesia was the greatest car market in ASEAN. The greatest sales in 2014, 2015, 2016, 2017, and 2018 occurred in Indonesia. The greatest sales occurred in 2014 reaching 1,208,019 units, in 2015 in number of 1,013,291 units, in 2016 in number of 1,061,735 units, in 2017 in number of 1,100,000 units, and in 2018 in number of 1,200,000 units (katadata.co.id, 2018). It became an attraction for Indonesia as an investment destination of some international automotive companies.

In general, each company aims to optimize their profit and their company value for the investors (Wijaya, 2017). Company value also refers to market value because if the share price of a company increases, the company value can secure the shareholders' welfare optimally (Hermawan & Mafulah, 2014). In the study, the researcher implemented Tobin's Q calculation to measure the company value. Tobin's Q can represent company performance in long term and can provide value presentation given to investors on tangible and intangible assets based on income prediction and cost flow (Shan, 2011).

There are direct and indirect factors that can affect company value. The direct factors are the factors that can directly affect company value while the indirect factors are the factors that can affect company value by passing dividend policy first. Theoretically, some factors of company characteristics can affect company value, both directly and indirectly. The factors are investment decision, financial leverage, managerial ownership, profitability, and company size. However, the study investigated the effect of the factors on company value directly (Rizkia et al., 2013).

According to Afzal and Rohman (2012), company value can be said good if the company can combine all or some of the functions available in financial management. It can be observed from a fact that if the company determines a financial decision, it will be able to give effect on other financial decisions, so it will also have effect on company value. According to Wijaya (2017:2), one of decisions that can affect company value is dividend policy. Dividend policy is a policy owned by a company aimed to determine current annual income of the company to be given to investors or whether the income will be retained as investment reserve for the following year.

Dividend payment is an information that the company is in great condition, even investors view dividend distribution as a sign that the company performance is good and it has surplus fund (Manurung, 2012:112). It can be observed from share dividend of a company in automotive and component sub-sector, namely PT Astra International Tbk:



Figure 1. Chart of Share Dividend of Astra Year 2014-2018 (Bareksa.com, 2019)

PT Astra International Tbk (ASII) distributed cash dividend in accounting year 2018 in amount of IDR 214 per share or in total amount of IDR 8.67 trillion. The dividend in accordance with the resolution of Annual General Meeting of Shareholders (AGMS) of PT Astra International Tbk included interim dividend IDR 60 per share paid on 31 October 2018. The dividend of Astra in accounting year 2018 turned out to be the highest since 2014. From

the chart above, Astra kept experiencing dividend decrease from 2014, namely IDR 177 per share in 2015 and IDR 168 per share in 2016. While Astra started to increase its dividend in 2017 into IDR 185 along with its increasingly better financial statement (Bareksa.com, 2019). Therefore, PT Astra International Tbk could give positive signal to investors to invest in the company in the following years to enhance company value in the eyes of investors (Astra.co.id, 2019). In addition to dividend policy, managerial ownership also becomes one of the factors that can affect company value (Tambalean et al., 2018). According to Swandari (2012), managerial ownership is shareholding of management of a company that can be observed from the share proportion held by the management. While managerial ownership is expected to fulfill each interest of manager and shareholder, and also a form of supervision on the policies taken by company management.

The second factor is financial leverage. Financial leverage is a company resolution taken to find fund, and reflected on the right side of financial position report that gives information about how much the proportion of liability and equity of the company is (Wijaya, 2017:1). The study conducted by Nurchanifia (2012) states that financial leverage has unidirectional effect on company value through decrease, vice versa if financial leverage decreases, it will cause increase of company value. The unidirectional effect is caused by the fact that if the debt percentage of a company is quite high, it can cause share price that is the illustration of company value decreases. For example, in automotive and component sub-sector companies, it can be observed from Table 1.

Table 1. Average Total Liability and Average Value of Tobin's Q in Automotive and Component Sub-Sectors

Description	2014	2015	2016	2017	2018
<b>Average Liability</b>	<b>Total</b> IDR 13,913	IDR 12,397	IDR 12,733	IDR 14,307	IDR 18,888
<b>Average Tobin's Q</b>	1.4383	1.3242	1.2163	1.2169	1.2047

Description: The data of total liability is expressed in billion rupiahs

Source: Financial Statement of Automotive and Component Sub-Sector Companies,  
Data Processed by the Writer (2019)

Based on some phenomena and theories above, the study aimed to test the effect on financial policy, managerial ownership, profitability, and company size of company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.

## II. LITERATURE REVIEW

### A. Company Value

The main goal of a company is to optimize company value by securing the investors' welfare. Optimizing company value can be interpreted as a way of the company to optimize company value when it enters the market or goes public (Fahmi, 2011). Company value in the study was proxied using Tobin's Q ratio. Tobin's Q is the market value of a company's asset with its replacement cost (Margaretha, 2014). While the formula of Tobin's Q is:

$$\text{Tobin's Q} = \frac{\text{Total Market Value} + \text{Total Book Value Of Liabilities}}{\text{Total Book Value Of Assets}}$$

### B. Investment Decision

Investment decision is a policy of usage of fund sourced from outside of the company from various kinds of assets (Yuliariskha, 2015). Investment decision in the study was proxied by Capital Expenditure to Book Value of Assets (CAP/BVA). CAP/BVA is used to investigate how much the growth of a company's share capital is (Dahlan in Suwandi, 2016). While the formula of CAP/BVA is:

$$\text{CAP/BVA} = \frac{\text{Total Fixed Asset (t)} - \text{Total Fixed Asset (t-1)}}{\text{Total Asset (t)}}$$

The result of the study conducted by Mardiyati et al. (2015) states that investment decision proxied by Capital Expenditure to Book Value of Asset (CAP/BVA) gives positive and significant effect on company value.

Similarly, the result of the study by Rizkia et al. (2013) states that investment decision gives positive and significant effect on company value, it indicates that the quality of investment policy in capital issuance decision making can determine share price reaction and enhance company value. The hypothesis built is:

H1: Investment decision has effect on company value.

### C. *Financial Leverage*

Financial leverage is the situation where a company uses a fund source that has fixed burden with purpose to enhance income per share (Kamaludin, 2012). Financial leverage in the study was proxied by Debt to Asset Ratio (DAR). Debt to Asset Ratio is the ratio to observe the comparison between total debt and total asset (Maulita and Tania, 2018). While the formula of DAR is:

$$DAR = \frac{\text{Total Debt}}{\text{Total Asset}}$$

The result of the study conducted by Ogolmagai (2013) states that financial leverage proxied by Debt to Asset Ratio (DAR) had no effect on company value. While the result of the study by Rizkia et al. (2013) states that financial leverage had positive effect on company value, it indicates that financial leverage can be used to enhance company value. The hypothesis built is:

H2: Financial leverage has effect on company value.

### D. *Dividend Policy*

Dividend policy is a crucial policy for a company. The company has to be able to manage the profit earned, either by distributing the profit in form of dividend or by retaining the profit, it is because the company has to survive in the middle of tight competition. In the study, dividend policy was measured using Dividend Payout Ratio (DPR). DPR is the proportion between dividend per share distributed and the profit per share (Nidar, 2016). While the formula of DPR is:

$$DPR = \frac{\text{Dividend per share}}{\text{Earning per share}}$$

Dividend payment is a strategy used so that the company experiences enhancement. Dividend payment in cash to the shareholders is considered able to enhance company value (Manurung, 2012:107).

The study conducted by Widyanti (2014) states that dividend payment has effect on company value. While the result of the study conducted by Pamungkas and Puspaningsih (2013) states that dividend payment has no effect on company value, it can be interpreted that dividend distribution cannot attract investors' attention fully to purchase shares. So, the hypothesis built is:

H3: Dividend payment has effect on company value.

### E. *Managerial Ownership*

Managerial ownership is the comparison of shareholders belonging to the management of the company involved in decision making in the company. Great managerial ownership in a company will be more effective to supervise the activities of the company (Sartono, 2010). In the study, managerial ownership was proxied by Managerial Ownership (MOWN). MOWN is a ratio showing the proportion between total shares held by the management of the company and the total circulating shares (Rizkia et al., 2013). While the formula of MOWN is:

$$MOWN = \frac{\text{Total Managerial Shares}}{\text{Total Circulating Shares}}$$

According to Budianto and Payamta (2014), optimal composition of ownership structure has effect on company performance. While the study conducted by Tambalean et al. (2018) states that managerial ownership has no significant effect on company value. However, the result of the study by Rizkia et al. (2013) states that managerial ownership has positive effect on company value. So, the hypothesis built is:

H4: Managerial ownership has effect on company value.

#### F. Profitability

Profitability is the ability of a company to earn profit in long term. The ratio is important for investors, because to make investment, investors always calculate the profit they will receive in form of dividend (Sartono, 2010). In the study, investment decision was measured using Return on Asset (ROA). ROA is the return on the company's owner's asset. While the formula of ROA is:

$$ROA = \frac{\text{Net Profit}}{\text{Total Asset}}$$

According to Mardiyati et al. (2015), profitability has effect on company value. It is because high profitability will attract future investors' attention to invest in the company.

The study conducted by Widyanti (2014) states that profitability measured by Return on Equity on company value, it is because the higher profitability ratio, the more appropriately the company calculates the profit to be received by ordinary shareholders. It can give good response to investors to take investment decision. Similarly, that result of the study by Rizkia et al. (2013) states that profitability measured by Return on Asset has positive effect on company value. So, the hypothesis built was:

H5: Profitability has effect on company value.

#### G. Company Size

Company size can determine how big or how small a company can be measured by its total assets, volume of sales, average total sales, and average total assets (Rizkia et al., (2013). In the study, company size was based on total assets, so the formula used to measure company size is as the following:

$$\text{Company Size} = \ln \text{Total Asset}$$

The study conducted by Pamungkas and Puspaningsih (2013) states that company size has no effect on company value, it can be interpreted that big company size is not always able to enhance company value. However, the result of the study by Rizkia et al. (2013) states that company size has positive effect on company value. So, the hypothesis built is:

H6: Company size has effect on company value.

While the hypothesis built to observe the effect of all variables on company value is:

H7: Dividend policy, investment decision, financial leverage, managerial ownership, profitability, and company size simultaneously have effect on company value.

### III. RESEARCH METHODS

Based on the method, the study was classified as quantitative research. The sampling technique used was purposive sampling technique. The data used in the study were secondary data. The data analysis implemented in the study was multiple linear regression. The hypothesis testing in the study applied t test, F test, and coefficient of determination. The research population is Automotive and component sub-sector companies registered in IDX year 2014-2018. The sampling technique used was purposive sampling, and 5 companies were selected as the samples.

### IV. RESULT AND DISCUSSION

#### A. Statistic Descriptive Analysis

The following is example of each operational variable based on data of PT Astra International Tbk 2014.

$$Tobin'sQ = \frac{(40.483.553.140 \times 7.425) + 115.705.000.000.000}{236.029.000.000.000} = \frac{416,295,382,064.500}{236.029.000.000.000} = 1,7637$$

$$\frac{CAP}{BVA} = \frac{41.250 - 37.862}{236.029} = 0,0144$$

$$DAR = \frac{115.705}{236.029} = 0,4902$$

$$DPR = \frac{152}{22.125.000.000.000/40.483.553.140}$$

$$MOWN = \frac{11.615.000}{40.483.553.140} = 0,0003$$

$$ROA = \frac{22.125}{236.029} = 0,0937$$

$$\text{Company Size} = \text{Ln} (\text{Rp}.236.029.000.000.000) = 33,0950$$

Tabel 2. Statistic Descriptive of Automotive and Component Sub-Sector Companies

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Investment Decision (X1)	25	-,0503	,1801	,020800	,0516169
Financial Leverage (X2)	25	,1161	,7019	,391896	,1834301
Dividend Policy (X3)	25	,0000	,5775	,178480	,1600571
Managerial Ownership (X4)	25	,0003	,2887	,076604	,1123848
Profitability (X5)	25	-,0179	,2409	,081000	,0791065
Company Size (X6)	25	28,1903	33,4737	29,954428	1,8457603
Tobin's Q (Y1)	25	,3385	4,2535	1,465080	1,0633109
Valid N (listwise)	25				

Source: Processed Data (2019)

Table 2 explains that the Tobin's Q variable has the lowest value of 0.3385 and the highest value of 4.2535 with an average of 1.4651 and a standard deviation of 1.0633. The investment decision variable has the lowest value of -0.0503 and the highest value of 0.1801 with an average value of 0.0208 and a standard deviation of 0.0516. The financial leverage variable has the lowest value of 0.1161 and the highest value of 0.7019 with an average value of 0.3919 and a standard deviation of 0.1834. The dividend policy variable has the lowest value of 0 and the highest value of 0.5775 with an average of 0.1785 and a standard deviation of 0.1601. The managerial ownership variable has the lowest value of 0.0003 and the highest value of 0.2887 with an average of 0.0766 and a standard deviation of 0.1124. The profitability variable has the lowest value of -0.0179 and the highest value of 0.2409 with an average of 0.0810 and a standard deviation of 0.0791. The firm size variable has the lowest value of 28.1903 and the highest value of 33.4737 with an average of 29.9544 and a standard deviation of 1.8458.

## B. Classical Assumption Test

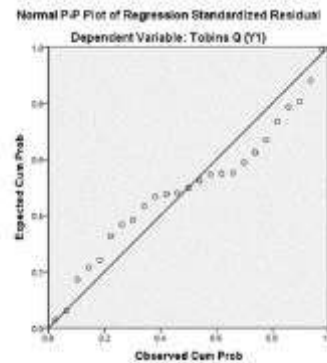


Figure 2. Scatterplot of Result of Normality Test (Processed Data, 2019)

Based on the result of normality test in Figure 2 above, it is found that the graphic display appears to meet the assumption of normality test. It is because the data only spread around the diagonal line and following the direction of the diagonal line. Therefore, it shows that the data in the study were normally distributed.

Table 3. Result of Multicollinearity Test

Coefficients <sup>a</sup>								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
	(Constant)	-.597	1.154		-.517	.611		
	Investment Decision (X1)	.618	1.048	.030	.589	.563	.902	1.109
	Financial Leverage (X2)	1.307	.429	.226	3.051	.007	.427	2.343
	Dividend Policy (X3)	-.386	.425	-.058	-.907	.376	.570	1.754
	Managerial Ownership (X4)	-.332	.587	-.035	-.565	.579	.606	1.651
	Profitability (X5)	14.018	.700	1.043	20.015	.000	.859	1.164
	Company Size (X6)	.017	.042	.029	.395	.698	.441	2.268

a. Dependent Variable: Tobin's Q (Y1)

Source: Processed Data (2019)

From the result of multicollinearity test in Table 2, it can be concluded that multicollinearity did not occur among the six variables or they were free from multicollinearity because the tolerance value of the six variables above was 0.10 and the VIF value of the six variables was lower than 10.00.

Table 4. Result of Autocorrelation Test

Runs Test	
	Unstandardized Residual
Test Value <sup>a</sup>	-.00792
Cases < Test Value	12
Cases >= Test Value	13
Total Cases	25
Number of Runs	13
Z	.000
Asymp. Sig. (2-tailed)	1.000

## a. Median

Sourced: Processed Data (2019)

From the result of autocorrelation test in Table 3 above, it is found that the value of processed data significance was higher than 0.05, namely 1.000. It indicates that the data in the study were free from autocorrelation or autocorrelation did not occur.

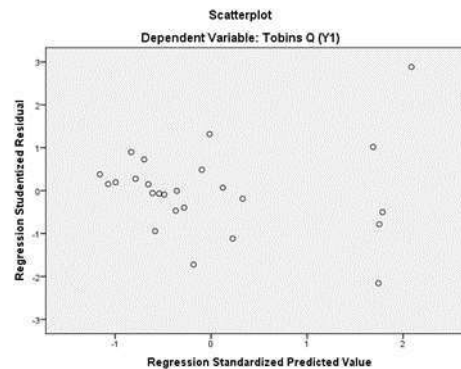


Figure 2. Result of Heteroskedasticity Test (Source: Processed Data, 2019)

Based on the result of heteroskedasticity test in Table 2 above, it is found that there is no pattern in the chart, such as wavy, converging in the middle, narrowing then widening, or otherwise widening then narrowing. Therefore, it indicates that the data in the study were free from heteroskedasticity or heteroskedasticity did not occur.

## C. Multiple Linear Regression

From the result of multiple linear regression in the table above, the equation of multiple linear regression of the study is found as the following:

$$Y = -0.597 + 0.618X_1 + 1.307X_2 - 0.386X_3 - 0.332X_4 + 14.018X_5 + 0.017X_6 \quad (1)$$

Where:

Y = Dependent variable

a = Constant

 $\beta_1 \beta_2 \beta_3 \beta_4 \beta_5 \beta_6$  = Regression coefficient $X_1 X_2 X_3 X_4 X_5 X_6$  = Independent variable

e = Error

## D. Hypothesis Testing

## a. Partial Test (t Test)

The result of partial test can be observed from Table 2, the investment decision variable proxied by Capital Expenditure to Book Value of Asset (CAP/BVA) had significant value of 0.563 > 0.05, so  $H_0$  was accepted and  $H_a$  was rejected, it illustrated that investment decision partially had no effect on company value.

Based on Table 2, the financial leverage variable proxied by Debt to Asset Ratio (DAR) had significant value of 0.007 < 0.05, so  $H_0$  was rejected and  $H_a$  was accepted, it means that financial leverage partially had effect on company value.

Based on Table 2, the dividend policy variable proxied by Dividend per Payout Ratio (PDR) had significant value of  $0.376 > 0.05$ , so  $H_0$  was accepted and  $H_a$  was rejected, it means that dividend policy partially had no effect on company value.

Based on Table 2, the managerial ownership variable proxied by Managerial Ownership (MOWN) had significant value of  $0.597 > 0.05$ , so  $H_0$  was accepted and  $H_a$  was rejected, it means that managerial ownership partially had no effect on company value.

Based on Table 2, the profitability variable proxied by Return on Assets (ROA) had significant value of  $0.000 < 0.05$ , so  $H_0$  was rejected and  $H_a$  was accepted, it means that profitability partially had effect on company value.

Based on Table 2, the company size variable proxied by Ln Total Asset had significant value of  $0.698 > 0.05$ , so  $H_0$  was accepted and  $H_a$  was rejected, it means that company size partially had no effect on company value.

#### b. Simultaneous Test (F Test)

Based on the result of simultaneous test in Table 4, it is found that the significant value in the ANOVA table was 0.000. It means that the significant value was  $0.000 < 0.05$ , so  $H_0$  was rejected and  $H_a$  was accepted, it means that there was simultaneous effect between the investment decision, financial leverage, dividend policy, managerial ownership, profitability, and company size variable on the company value variable. It means that investment decision, financial leverage, dividend policy, managerial ownership, profitability, and company size simultaneously had effect on company value.

Table 5. Result of Simultaneous Hypothesis Testing (F Test)

#### ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	25.996	6	4.333	68.443	.000 <sup>b</sup>
Residual	1.139	18	.063		
Total	27.135	24			

Source:

Processed Data, 2019

Based on the result of simultaneous testing in Table 4, it is found that the significant value in the ANOVA table was 0.000. It means the significant value  $0.000 < 0.05$ , so  $H_0$  was rejected and  $H_a$  was accepted, it means that there was simultaneous effect between the investment decision, financial leverage, dividend policy, managerial ownership, profitability, and company size variable on the company value variable. It means that investment decision, financial leverage, dividend policy, managerial ownership, profitability, and company size simultaneously had effect on company value.

#### E. Discussion

Investment decision had no effect on company value in the study, it is in line with Dewi and Wirasedana (2018). It can be caused by the absence of certainty in the future. The uncertainty can include technological changes, socioeconomic conditions, and government's policies. In making investment decision, managers have to anticipate those factors, if managers do not anticipate nor consider those factors, it can cause inappropriateness of investment decisions taken, so investment decision cannot be used as a tool to enhance company value. In addition, investment decision in the study was only observed based on the changes of fixed assets of the companies. Therefore, it could not illustrate the investment decisions taken by the companies entirely. If the assets of current year decrease, the assets of next year will not necessarily decrease, so it cannot attract investors' attention. The result of the study is different from the result of the study by Pamungkas and Puspaningsih (2013), Mardiyati et al. (2015), and Rizkia et al. (2013). The difference of samples and research period could cause the difference between current condition and the previous studies so it could also become a causing factor that investment decision had no effect on company value.

Financial leverage having effect on company value is in accordance with the study by Dewi and Wirasedana (2018) and Rizkia et al. (2013). According to Dewi and Wirasedana, financial leverage has effect on company

value, it agrees with the signal theory that states that a company that increases the amount of debt is considered sure about its future prospect. According to external parties, by increasing the amount of debt, the company is able to pay its obligations in the future or there is low business risk for shareholders, which is then responded positively by the market. In the study, financial leverage had effect on company value, it was brought by PT Astra International Tbk, PT Indo Kordsa Tbk, PT Indospring, and PT Selamat Sempurna. The four companies in the study had financial leverage of lower than 50% from 2014 to 2018. It can be interpreted that the four companies did not use much funding from debt, so the financial performance of the four companies could be said to be good. It could attract investors because less than 50% of the assets owned by the companies were funded by debt. The result of the study is not in line with the result of the study by Ogolmagai (2013) stating that financial leverage has no effect on company value.

The result of the study agrees with the result of the study by Anita and Yulianto (2016) stating that dividend policy has no effect on company value, but it does not agree with the result of the study by Mardiyati et al. (2015) stating that dividend policy has effect on company value. The result of the study conforms to the theory of Dividend Irrelevance proposed by Franco Modigliani and Merton Miller. The theory explains that dividend policy has no effect on company value. Modigliani and Miller state that company value can be affected by the performance of a company in the efforts to earn income and business risk, but the policy in distributing income in form of dividend or retained profit has no effect on company value (Sudana, 2011:168). It is also in accordance with the idea of Anita and Yulianto (2016) stating that dividend policy has no effect on company value because shareholders have a purpose to earn profit in short term, namely by earning profit through capital gain. Some shareholders have changed their mind from earning profit through dividend into earning profit through capital gain. It is because earning profit through capital gain requires shorter time than waiting for distribution of dividend from the company which requires quite long time.

The result of the study agrees with the result of the study by Tambalean et al. (2018) and the result of the study by Sukirni (2012) stating that managerial ownership has no effect on company value, but it does not agree with the result of the study by Rizkia et al. (2013) stating that managerial ownership has effect on company value. According to Sukirni (2012), managerial ownership having no effect on company value was caused by the small number of the management of the company who held shares with high percentage in the companies. The low percentage of shareholding by the management could cause the management of the company to prioritize their personal interest rather than the company's interests.

The result of the study agrees with the result of the study by Rizkia et al. (2013) and the result of the study by Mardiyati et al. (2015) stating that profitability has effect on company value, but it does not agree with the result of the study by Nugroho and Abdani (2017) stating that profitability has no effect on company value. Profitability having effect on company value is because investors have an assumption that the company can manage its equity efficiently so it can earn net profit, which gives positive impact on company value. The higher profit earned by the company, the higher company value. It is because a company with high profit can attract investors' attention, because it can lead investors to participate in increasing the demands on the company's shares (Mardiyati et al., 2015). The result of the study indicates that profitability had effect on company value, it was because only one company namely PT Gajah Tunggal Tbk in 2015 and 2018 had negative net profit or suffered from loss. While PT Astra International Tbk, PT Indo Kordsa Tbk, PT Indospring Tbk, and PT Selamat Sempurna Tbk from 2014 to 2018 always earned positive net profit or gained profit. Therefore, profitability in automotive and component sub-sector companies could attract investors' attention to invest.

The result of the study agrees with the result of the study by Rahmawati et al. (2015) and the result of the study by Herawati (2017) stating that company size has no effect on company value, but it does not agree with the result of the study by Mardiyati et al. (2015) stating that company size has effect on company value. According to Herawati, company size can be measured from its total assets. A company that has high total assets cannot guarantee to pay dividend to investors. Companies choose to maintain their profit rather than to distribute it as dividend to investors that can affect share price and company value. Therefore, it can be said that companies with high total assets cannot guarantee investors to invest in the companies. The idea of Herawati (2017) conforms to the study, which can be observed from the value of Ln Total Assets of PT Gajah Tunggal Tbk from 2014 to 2018 that had the second greatest Ln Total Assets after PT Astra International Tbk. However, in 2015, 2016, and 2018 PT Gajah Tunggal Tbk did not distribute dividend to investors. It can be said that companies with great total asset do not necessarily distribute it as dividend, so it causes company size not able to convince investors to invest.

## V. CONCLUSION

1. Investment decision has no effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
2. Financial leverage has significant effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
3. Dividend policy has no effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
4. Managerial ownership has no effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
5. Profitability has significant effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
6. Company size has no effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
7. Investment decision, financial leverage, dividend policy, managerial ownership, profitability, and company size simultaneously have effect on company value in automotive and component sub-sector companies registered in Indonesia Stock Exchange period 2014-2018.
8. From the results of this research, profitability and financial leverage have effects on firm value, therefore companies should continue to maintain the level of profit in order to attract investors' trust to keep investing in the company. Beside profitability, companies must also remain careful in using debt to carry out operational activities, because debt can be a risk for the company if the company is unable to fulfill these obligations.

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## Differences In Consumers' Attitude Towards Online Shops Based On Product Types And Consumer Characteristics And Their Influence On Repurchase Interests

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### Abstract

*The research responds to the new realities in marketing environment following the rapid development of internet and information technology. In accordance with Yadav and Pavlou's (2014) new research directions in computer-mediated environments, this research examines the relevance of market segmentation in online distribution strategies. Specifically, this research aims at analyzing: (1) the difference in consumers' attitudes towards online shops based on consumers' demographic and behavioral characteristics, (2) the difference in consumers' attitudes towards online shops depending on product type sold by the online shops, and (3) influence of attitude towards online shops on repurchase intentions. Data were collected using online and offline questionnaire to 200 respondents. Data analysis techniques include Analysis of Variance, multiple comparison, and simple linear regression. Results of the research show that demographic (gender and age) and behavioral (frequency of purchase) segmentation variables can generally explain differences in consumers' attitude towards online shops. Differences in consumers' attitudes are also shown in the cases of different product types (gadgets versus fashion) sold in the online shops. Lastly, consumers' attitudes positively affect repurchase intention.*

*Keywords— attitude; computer-mediated consumer behavior*

### Abstrak

Penelitian ini merespon realitas baru dalam lingkungan pemasaran sekarang ini, pasca perkembangan pesat teknologi informasi dan internet. Sesuai dengan proposisi Yadav dan Pavlou (2014) tentang arah baru dalam lingkungan yang dimediasi internet, penelitian ini menganalisis relevansi konsep segmentasi pasar dalam lingkungan baru ini, khususnya dalam strategi distribusi secara daring yang difasilitasi internet. Secara spesifik, penelitian ini bertujuan untuk: (1) perbedaan dalam sikap konsumen terhadap toko daring berdasarkan karakteristik demografis dan perilaku konsumen, (2) perbedaan dalam sikap konsumen terhadap toko daring berdasarkan jenis produk yang dijual oleh toko daring tersebut, dan (3) pengaruh sikap terhadap toko daring pada minat beli ulang. Data diperoleh melalui kuesioner yang disebarikan secara luring dan daring kepada 200 responden. Teknik analisis data yang digunakan adalah ANOVA, *multiple comparison*, dan regresi linear sederhana. Hasil penelitian menunjukkan bahwa karakteristik demografis (jenis kelamin dan umur) dan karakteristik perilaku (frekuensi pembelian) konsumen secara umum bias menjelaskan perbedaan sikap konsumen terhadap toko daring. Perbedaan dalam sikap konsumen juga ditunjukkan dalam kasus perbedaan jenis produk (elektronik atau fesyen) yang dijual oleh toko daring tersebut. Penelitian ini juga menyimpulkan bahwa sikap konsumen berpengaruh positif pada niat beli ulang.

Kata kunci— sikap; perilaku konsumen dimediasi komputer

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## I. INTRODUCTION

The development of information technology has brought changes in the world of commerce and especially in the retail industry. Online commerce is a business model where products are sold directly to business consumers or end consumers. As a global phenomenon, online trade growth recorded a growth of 20% and a sales turnover of US \$ 1,845 trillion in 2015. This figure represents 7.4% of total world retail sales. The share of sales via the internet is expected to continue to grow to reach more than 15% in 2020 (Dobrevá, 2016). The growth of online trade in Indonesia even recorded the fastest growth rate in the world, where in 2013 there was a growth of 73% with sales figures of US \$ 1.8 billion (Kokubo, 2014). Indonesia's trade transactions reached IDR 25.1 trillion in 2014 and is estimated to reach IDR 69.8 trillion in 2016 (<http://databps.katadata.co.id>).

The growth of online commerce that has given rise to online shops has implications for the formulation of marketing strategies. Yadav and Pavlou (2014) state that this new reality requires new directions in marketing research. Computer-mediated consumer behavior requires a new understanding of the concept of market segmentation, the level of product involvement, and consumer attitudes towards the new online retail platform.

In marketing theory, market segmentation is a strategic decision that is taken as the basis for determining target markets and formulating marketing strategies. As a marketing concept, market segmentation is one of the most established concepts, with the development of the basis of market division starting from demographics (for example: age and gender), geographic (eg rural-urban), psychographics (including self-concept and lifestyle), and behavior (which includes frequency of purchases, level of loyalty, etc.). These consumer characteristics will influence consumer attitudes and behavior (Hawkins, Motherbaugh, and Best, 2007; Kanuk, 2010). If in conventional marketing this research area has been widely explored, consumer responses based on these characteristics need a lot of research (Yadav and Pavlou, 2014).

Based on the background and significance of market segmentation studies in the context of online retail, this study aims to analyze: 1) differences in consumer attitudes towards online stores that sell electronic products (gadgets) in terms of consumer characteristics (i.e. gender, age, and frequency of purchases at online stores, 2) differences in consumer attitudes towards online stores that sell fashion in terms of consumer characteristics (namely gender, age, and frequency of purchases at online stores), and 3) the influence of consumer attitudes towards online stores on repurchase interest.

## II. LITERATURE REVIEW

Kotler and Armstrong (2008: 225) state that market segmentation is one of the most important marketing strategies. Market segmentation involves dividing the market into smaller groups of buyers with different needs, characteristics, or behaviors that may require a separate product or marketing mix. Attitude is a description of evaluation, that is, where someone likes or dislikes an object (Fishbein and Ajzen, 1975). Attitudes also represent consumers' perception of the benefits of an attitude object (Hartmann and Apaolazz Ibáñez, 2012).

Attitudes are formed as a result of direct experience about products, information from other people, or product advertisements in various media. A consumer will form an attitude towards a certain attitude object based on personal factors (individual characteristics) and stimuli characteristics (types of products as attitude objects). In this study, personal factors used were demographic segmentation variables, namely gender (male vs female), age (above and below 39 years) and the behavioral segmentation variable, namely the frequency of purchase. The characteristics of the stimuli used are the types of products sold in online stores, namely online stores that sell gadgets and online stores that sell fashion.

Consumer attitudes which are dispositions or feelings of like/ dislike towards certain types of products can be formed because of the gender of the consumer. In market segmentation, gender is a predictor that results in different attitudes and behaviors (Melnyk, van Osselaer, and Bijmolt, 2009). The formation of consumer attitudes towards online shopping activities (e-commerce) has been widely studied using various theoretical frameworks such as Theory of Planned Behavior (Han and Kim, 2018) or a model of consumer behavior that is constructed based on the experience of surfing in cyberspace (web experience) (Ricahard, et al., 2010).

In body of research on consumer behavior in online purchases, demographic characteristics of consumers are often used as predictors or factors that determine differences in consumer behavior (Hernández, Jiménez, and Martin, 2010; Rodgers and Harris, 2003). Specifically, the study of Rodgers and Harris (2003) states that gender is an important factor in studying consumer behavior. This study argues that different attitudes will be shown by different gender depending on the type of products sold by the online shop. Several articles also mention that in

terms of shopping for complementary gadgets or accessories, in general men tend to be more consumptive than women. Men tend to spend more money on gadgets and other electronic products (Anderson and Iskandar, 2014). In addition, based on the observations of researchers, in several groups buying and selling gadgets online on Facebook, such as the “Handphone and Jogja” and “Jogja City Mobile Selling and Purchasing” groups and other groups, the number of group members (members) who are male is far more than that of woman.

Meanwhile, women's more positive attitudes towards online stores can also be shaped by the types of products sold at these online stores. Hansen and Møller (2009) and Hernández, Jiménez, and Martin (2010) state that there are differences in fashion shopping behavior in terms of gender. Women tend to be more consumptive than men when it comes to fashion. Women tend to buy clothes in greater quantity than men. Women are more interested in products related to lifestyle, beauty and fashion. Men are more likely to buy only the fashion products they need (Anderson and Iskandar, 2014).

Based on these arguments, this research proposes Hypothesis 1a and Hypothesis 1b as follows.

H<sub>1a</sub>: There are differences in consumer attitudes towards online stores that sell gadgets in terms of consumer gender, where male consumers have a more positive attitude than female consumers.

H<sub>1b</sub>: There are differences in consumer attitudes towards online stores that sell fashion in terms of consumer gender, where female consumers have a more positive attitude than male consumers.

Apart from gender, another basis for demographic segmentation, namely age (or generation), can also explain differences in consumer attitudes and behavior. Hernández, Jiménez, and Martin (2010) and Scorce and Widrick (2005) specifically mention the age is a predictor of online shopping behavior, where younger ages are more likely to be technology literate. Segmentation which is based on generation identifies Generation Y or Millennial segment born between 1977-1997 (Tapscott, 2009: 23) to be more technology-savvy. This generation was born and grew up with the era of sophisticated and widely available technology. With such an environment, Generation Y which is very technology-oriented, quickly adopts new technology, and makes technology a part of their daily life. Therefore, the millennial generation (who are less than 39 years old) will have a more positive attitude towards online stores, both for the gadget and fashion product categories.

Based on these arguments, this research proposes Hypotheses 2a and H<sub>2b</sub> as follows.

H<sub>2a</sub>: There is a difference in consumer attitudes towards online stores that sell gadgets in terms of consumer age, where younger consumers ( $\leq 39$  years) have a more positive attitude than older people ( $> 39$  years).

H<sub>2b</sub>: There is a difference in consumer attitudes towards online stores that sell fashion from the age of the consumers, where younger consumers ( $\leq 39$  years) have a more positive attitude than older people ( $> 39$  years).

Characteristics of consumer behavior (behavioral segmentation) is also a relevant segmentation variable used as an explanation for differences in consumer attitudes and behavior. In this study, the behavioral segmentation variable used is frequency of purchase. As noted earlier, a person's attitude is also shaped by their previous online purchasing experience and the level of adoption of this new technology. The frequency of purchases will result in a more experienced consumer. As stated by Kumaga and Nagasawa (2015) and Monteiro and Giuliani (2017), consumer practice will result in a more positive attitude. Therefore, the higher frequency of using this online shopping mode will result in a more positive attitude, especially since the technology barrier is reduced/ no longer exists. These habitual factors tend to be general or not limited to certain product categories. Therefore, this research proposes Hypotheses H<sub>3a</sub> and H<sub>3b</sub> as follows.

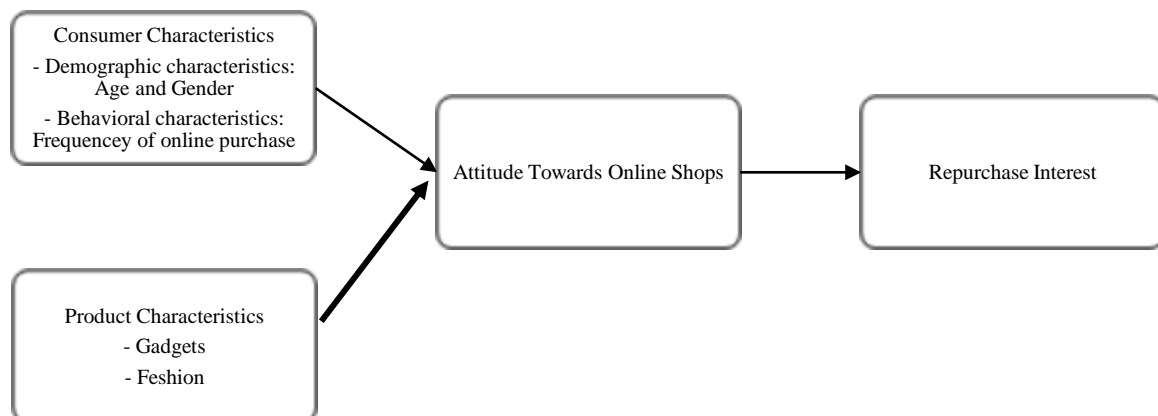
H<sub>3a</sub>: There is a difference in the attitude of consumers towards online stores that sell gadgets from the behavioral aspect, where consumers who have a higher frequency of buying online have a more positive attitude than those who buy less frequently.

H<sub>3b</sub>: There is a difference in Consumer Attitudes towards Online Stores that sell fashion from the behavioral aspect, where consumers who have a higher frequency of buying online have a more positive attitude than those who buy less frequently.

Apart from the attitude aspect, the study of consumer behavior also focuses on the behavioral aspect. Aspects of this behavior can be an interest in buying or an interest in repurchasing. Purchase interest is a person's tendency to buy a product before someone has actually made a decision to buy. In other words, purchase interest is a plan to buy a product and has the possibility that consumers will make a purchase. A marketer must know the consumer's purchase intention of a product to predict consumer interest in the future, so that marketers can continue to develop their marketing strategies effectively.

If attitude is more of a person's internal evaluation of a certain object, the study of consumer behavior is interested in the strength of attitude as a predictor of behavior. This means that attitudes affect behavior intentions or even the behavior itself. A positive attitude towards a certain object will also result in a tendency to behave in a certain way (Azjen and Fishbein, 2005; Han and Kim, 2018; Hartmann and Ibáñez, 2012; Hawkins and Mothersbough, 2007; Richard et al, 2010). If consumers have a positive attitude towards online stores, they are more likely to make purchases or repurchases at online stores. Based on these arguments, the researchers propose H<sub>4</sub> as follows.

H<sub>4</sub>: Attitudes towards Online Shops influences positively Repurchase Interest.



**Figure 1. Research Conceptual Framework (adapted from various sources)**

### III. RESEARCH METHODS

This research is a quantitative study that tests the hypothesis. In terms of the time dimension, this study is a cross-sectional study because it is carried out only at a certain period of time. The population of this study is all consumers who have made purchases online, namely in online gadget or fashion online stores. The sample in this study was as many as 100 people for each type of online stores, with a between-subjects design (which means that a sample member only fills in one type of online store). Samples were taken by non-probability, using purposive sampling technique. The criteria applied are consumers who have purchased at an online gadget/ fashion store in the last 3 (three) months. The data analyzed is primary data collected through questionnaires distributed to respondents online (using google form) and also offline.

Variable measurements are carried out by referring to the conceptual definition of variables and adaptation of measurements that have been used in other studies (Ajzen and Fishbein, 2005; Cheah, Phau, and Liang, 2015). Attitudes towards online shops are operationalized using 5 (five) items (note: in the questionnaire, the terminology is still used in English considering the popularity of the terminology): 1) I like online shops that sell gadgets/ fashion, 2) I believe in online shops that sell gadgets/ fashion, 3) I feel enthusiastic about the idea of shopping for gadgets/ fashion through online shops, 4) Gadgets/ fashion online shops are credible shopping places, 5) I feel happy shopping for gadgets/ fashion in online shops. Repurchase interest is operationalized using 5 (five) statements: 1) I will return to using gadget/ fashion online shops to meet my needs, 2) I will return to shopping for gadget/ fashion through online shops, 3) I will recommend to friends/ family to shop for gadgets/ fashion in online shops, 4) I will provide information about gadget / online fashion shops to other people, 5) I will continue to seek information about shopping for gadget / fashion in online shops. The scale used is a Likert scale with a range of 1 (strongly disagree) to 5 (strongly agree).

The instrument was tested for its validity and reliability. The validity test was conducted using Pearson's product moment correlation while the reliability test was conducting employing Cronbach's alpha. The data analysis techniques to answer the research objectives number 1-3 were Analysis of Variance and Bonferroni's post-hoc to test the mean differences between the two groups (multiple comparisons). For the fourth research question, a simple linear regression analysis was used with the independent variable (X) Attitudes towards Online Stores and the dependent variable (Y) Repurchase Interest. As a prerequisite for regression analysis, a classic assumption test, which includes a normality test and a heteroscedasticity test, was carried-out.

### IV. RESULT AND DISCUSSION

Of the 220 collected questionnaires, 200 questionnaires could be further processed because the data was complete and the respondents met the criteria as members of the sample. To ensure the fulfillment of these criteria, the questionnaire includes a screening question, namely: "Have you ever purchased goods online within the last 3 months?". The profiles of respondents are presented in Table 1. The test of the instrument fulfills the requirements in the validity and reliability test. All items in the instrument are valid and reliable so that the average value of respondents' answers for these items/ variables can be used. The average score for each item and variable is presented in Table 2.

Table 2 shows the respondent's profile which of the 100 respondents is for an online store that sells gadgets and 100 respondents for an online store that sells fashion. Respondents are distributed in each group tested, namely in terms of gender, age, and frequency of online shopping.

Table 2. Respondents' Profile

Description	Number of Respondent	
	Gadget online shop	Fashion online shop
<b>Gender</b>		
Male	53	46
Female	47	54
<b>Age</b>		
≤ 39 years old	58	56
>39 years old	42	44
<b>Frequency of shopping online (in the past year)</b>		
>12 times	35	29
5-12 times	34	27
<5 times	31	44
<b>Amount of money spent per online shop (IDR)</b>		
<100.000	34	36
100.000-500.000	41	42
501.000-1.000.000	6	18
>1.000.000		4

Source: Primary Data (processed)

The responses for each item in the questionnaire are presented in Table 3. The average score for Attitudes towards Gadget Online Stores is 3.20 and Attitudes towards Fashion Stores is 3.40. Meanwhile, the average scores for Repurchase Interest at Online Stores Selling Gadget and Fashion were 3.26 and 3.43, respectively.

Table 2: Descriptive Statistics: Mean Scores of Responses for Each Item/ Variable

Item	Indicator	Mean score for Online Shops selling Gadgets	Mean Score for Online Stores selling Fashion
<b>ATTITUDES TOWARD ONLINE SHOPS</b>			
1	Happy with <i>online shops</i>	3.37	3.48
2	Trust <i>online shops</i>	3.26	3.64
3	Excited about the idea of shopping through an online shop	3.15	3.37
4	Online shops are credible shopping places	3.14	3.37
5	Enjoy shopping at online shops	3.08	3.16
	Total	3.20	3.40

REPURCHASE INTEREST			
1.	Will return to using online shops to meet needs	3.00	3.16
2.	Will return to shopping via online shops,	2.91	3.22
3.	Will recommend to friends/ family to shop at online shops	3.34	3.42
4.	Will provide information about online shops to others	3.33	3.52
5.	Will continue to search for information about shopping in online shops	3.74	3.85
Total		3.26	3.43

Source: Primary data (processed)

If divided by group, the average score for each group is as follows (Table 3). The average score of consumer attitudes towards online stores selling devices based on gender is 3.4670 (for men) and 2.9628 (for women). The difference test on the average score in the two groups was significant ( $p \leq 0.01$ ), where the score for male respondents' Consumer Attitudes was higher. Thus  $H_{1a}$  is supported. For online stores that sell fashion, the average score for the female respondent group is higher than the average score for men. The difference is statistically significant ( $p \leq 0.01$ ) so  $H_{1b}$  is supported. The results of this study support the concept of demographic segmentation, where consumer gender can be a factor that differentiates consumer responses to certain marketing stimuli (Kotler and Keller, 2012). However, this research shows that the different responses are depended on the type of product (gadget/ fashion). So, in line with the research of Cunningham and Roberts (2006), gender as a factor explaining differences in consumer responses is not generally applicable. Differences in male vs female attitude will also depend on the type of product. Women will have more positive attitude for product categories that are liked by women, while men will have a more positive attitude towards products that are liked by men.

Table 3: Mean Scores of Consumer Attitudes by Gender

	Male	Female	Mean Difference
Online Shops That Sell Gadgets	3.4670	2.9628	0.5042 <sup>***</sup> )
Online Shops That Sell Fashion	3.1261	3.6963	-0.5702 <sup>***</sup> )

Notes:

\*\*\*) significant at  $p \leq 0,01$ ; \*\*) significant at  $p \leq 0,05$ ; \*) significant at  $p \leq 0,1$

Table 4 shows the results of the analysis of differences in consumer attitudes based on age. For online stores that sell gadgets, there is no difference in the mean score of Consumer Attitude based on age groups. Result shows that the mean score of attitude of consumers aged > 39 years is higher, but the mean difference is not significant. Thus, Hypothesis 2a is not supported. This result means that in terms of purchasing a device, age difference cannot be a factor explaining differences in consumer attitudes. During its development, online sales have been dominated by electronic products, including gadgets. The characteristics of standardized gadgets and their particular brands make comparison of prices and features in online shops are very easy to undertake. Therefore, all age groups tend to like shopping for gadgets online. This suggests that findings of empirical research on Indonesian consumers in online shopping behavior can be different compared to those from other countries' (Hansen and Møller, 2009).

For fashion, age can explain the differences in consumer attitudes towards online stores. The attitude of consumers aged  $\leq 39$  years old was significantly more positive ( $p \leq 0.01$ ) than those aged  $> 39$  years old. Therefore, Hypothesis 2b is supported. So consumer characteristic in terms of age can explain differences in consumer attitudes towards fashion stores. The differences in results for gadgets and fashion indicate that age of consumers and types of product will interact in explaining consumer attitudes. In other words, age will explain consumer response to online stores depending on the type of product sold by the online store. This is in line with findings from the studies of Hansen and Møller (2009) and Sorce, Widrick, and Perotti (2005).

Table 4: Mean Scores of Consumer Attitudes by Age

	$\leq 39$ years old	$> 39$ years old	Mean Difference
Online Stores That Sell Gadgets	3.4261	3.6963	0.2702 <sup>n.s)</sup>
Online Stores That Sell Fashion	3.6643	3.1409	0.5234 <sup>***)</sup>

Notes:

\*\*\*) significant at  $p \leq 0,01$ ; \*\*) significant at  $p \leq 0,05$ ; \*) significant at  $p \leq 0,1$ ; n.s = not significant

The results of the post-hoc Bonferroni multiple comparison analysis to examine differences in attitudes towards online stores (gadgets/ fashion) show that in general there are significant differences between groups of respondents who shop online less frequently than those who shop more frequently. However, when viewed in detail per group, for online stores selling fashion, the mean score of attitudes did not differ significantly between groups of respondents who bought with a frequency of  $< 5$  times by buying between 5-12 times. Likewise, for online stores that sell gadgets, there was a marginal difference ( $p \leq 0.1$ ) between groups that bought with a frequency of 5-12 times and those who bought  $> 12$  times (see Table 5). Based on the results of the mean-difference test, Hypotheses 3a and 3b are generally supported. These results are consistent with Kotler and Keller (2012), Kumaga and Nagasawa (2015) and Monteiro and Giuliani (2017) who state that one of the factors that determine consumer attitudes is behavioral characteristic of consumers. Consumers who buy or use certain products more often form expertise in accessing/ using the product and eventually develop a more positive attitude towards the product.

Table 5: Mean Scores of Consumer Attitudes Based on Frequency of Online Purchases

Frequency of Online Purchases (per year)	Difference in Mean Score of Attitudes	
	Online Stores That Sell Gadgets	Online Stores That Sell Fashion
Frequency $< 5$ times vis-à-vis 5-12 times	-0.52277 <sup>***)</sup>	-0.30286 <sup>n.s)</sup>
Frequency $< 5$ times vis-à-vis $> 12$ times	-0.88664 <sup>***)</sup>	-0.85408 <sup>***)</sup>
Frequency 5-12 times vis-à-vis $> 12$ times	-0.36387 <sup>*)</sup>	-0.55121 <sup>***)</sup>

Notes:

\*\*\*) significant at  $p \leq 0,01$ ; \*\*) significant at  $p \leq 0,05$ ; \*) significant at  $p \leq 0,1$ ; n.s = not significant

The results of the regression analysis for the effect of attitudes towards online stores selling gadgets on repurchase interest show a significant positive effect (regression equation:  $Y = 1.639 + 0.503X$  \*\*). Likewise, the attitudes towards online stores selling fashion influences repurchase interest, where the effect is positive and significant (regression equation:  $Y = 1.142 + 0.673X$  \*\*). Based on this regression analysis, Hypothesis 4 is

supported. The results of this study are consistent with Ajzen and Fishbein (2005) and Hawkins, Motherbaugh, and Best (2007) who state that attitude is a predictor of behavior. Someone who likes a certain product (i.e., having a positive attitude towards a product) will have a tendency to buy that product.

## V. CONCLUSION

This study results in the following conclusions. In examining the gender factor in shaping attitudes towards online stores with certain product categories, it can be concluded that: 1) there are differences in attitudes towards online stores that sell gadgets in terms of gender, where men have more positive attitudes; 2) there are differences in attitudes towards online shops that sell fashion based on gender, where women have more positive attitude. In terms of examining the 'age factors' in explaining consumers' attitude: 1) age does not explain differences in attitudes towards online stores selling gadgets (there is no difference in attitudes of consumers aged  $\leq 39$  years compared to those aged  $> 39$  years), 2) however, age explain differences in attitudes towards online stores selling fashion products, where consumers aged  $\leq 39$  years have a more positive attitude. From the behavioral aspect, the frequency of purchases through online stores can explain the difference in consumer attitudes towards online stores that sell gadgets and fashion, where consumers who buy more often are more likely to be have more positive attitudes. This study also concluded that attitude can be a predictor of behavior because attitudes toward online stores have a positive effect on repurchase interest.

Managerially, the results of this study are useful in formulating marketing policies by re-emphasizing the importance of studying consumer market segmentation. This is important because consumer characteristics will produce different attitudes and behaviors. Online sales generally target a younger group of consumers. While male and female segments are potential target markets, marketers must be more sensitive to the product categories aimed at their respective segment groups. For example, an online store that sells a type of product aimed at the male segment should choose designs, attractions, product promos, etc. that are relevant to male consumers. On the other hand, online stores selling products targeted at female consumers also need to design and offer product promotions that appeal to female consumers. This research also shows the importance of behavioral aspects because the habit of using a product will result in a more positive attitude. Managers need to design incentives aimed at consumers to try (i.e., incentives to trial), for example by providing gift promos for first-time users or attractive discounts for consumers shopping for the first time at a certain online store. The formation of a positive attitude towards online stores is very important for managers to pay attention to because it will generate repurchase interest.

For further research, various other consumer characteristics, for example in terms of psychographics which include the level of consumer innovativeness and consumer self-concept, and from geographical aspects such as urban-rural areas, can be factors to be studied. Furthermore, stimulus aspects such as product types, promotions, prices, online store designs, etc. can also be factors to be studied. Other external factors, such as the strength of the reference group, could also further explain the differences in consumer attitudes towards online stores. Finally, methodically, the research design for further research needs to analyze the interactions between these factors, so that a factorial research can be designed with design 2 (product type: gadget vs fashion) x 2 (gender: male vs female) x 2 (age: young vs old) x 3 (behavior: rare vs moderate vs frequent) which will result in 24 sub-groups. Apart from being able to examine the interactions between these factors, such research design will involve more sample members.

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## Value Proposition Design for Custom Clothing Startup Using Design Thinking Approach

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### Abstract

*There are thousands of digital-based startups in Indonesia, but only a few have sustainable business development. One of the reasons is the products created by startups are not under market needs. Fashion is one of the potential startups to develop in the digital age because it is the second-largest subsector that contributes to the Indonesian economy. In fashion, especially in customized clothing, business participants' main obstacle is low competitiveness against those who own a branded business. This situation is indicated by dissatisfaction with the quality of the service, which resulted in unfaithful users. This research aims to explore the interaction between custom clothing businesses and their users so that the concerns coming from both parties can be used as the basis for creating digital-based solutions. This research focused on exploring the interaction between tailors and sewing service users using a design thinking approach. The qualitative method is used in this research, and information is gathered using a survey strategy. Data collection is conducted by in-depth interviews with tailors and sewing service users. Besides, observation is used to understand the tailor's daily activities. The result shows that there is a concern between tailors and their users. As a digital-based solution, the proposed idea is project management with a transparent sewing service process that sewing service users can see. This research is limited to formulating digital feature ideas that can be used as the basis for designing a rapid prototype. Validation of the prototype can be conducted in the next study.*

*Keywords— Value Proposition Design, Startup, Design Thinking, Custom Clothing, Tailor.*

### Abstrak

Usaha rintisan berbasis digital di Indonesia mencapai ribuan unit, namun hanya sedikit yang usahanya dapat berkesinambungan. Salah satu penyebabnya bahwa produk yang diciptakan oleh pelaku usaha rintisan tidak sesuai dengan kebutuhan pasar. Salah satu usaha rintisan yang berpotensi untuk berkembang di era digital adalah fesyen karena menjadi subsektor terbesar kedua yang memberikan kontribusi bagi perekonomian di Indonesia. Kendala utama yang dialami oleh para pelaku usaha di bidang fesyen, terutama pakaian custom adalah daya saing yang rendah terhadap pelaku usaha yang sudah memiliki merek. Hal tersebut diindikasikan dengan ketidakpuasan akan kualitas layanan yang mengakibatkan pengguna menjadi tidak setia. Penelitian ini bertujuan untuk mengeksplorasi interaksi antara pelaku usaha pakaian custom dengan pengguna layanan sehingga keresahan dari kedua belah pihak dapat dijadikan dasar untuk menciptakan solusi berbasis digital. Fokus penelitian ini mengeksplorasi interaksi para penjahit dan pengguna jasa jahit dengan menggunakan pendekatan design thinking. Strategi survei digunakan untuk mengumpulkan informasi dengan menggunakan metodologi kualitatif. Teknik pengumpulan data yang digunakan adalah wawancara secara mendalam dengan para penjahit dan pengguna jasa jahit. Selain itu, teknik observasi digunakan untuk memahami aktivitas sehari-hari dari para penjahit. Temuan menunjukkan bahwa ada keresahan yang dialami oleh penjahit dan pengguna jasa jahit. Ide yang diusulkan sebagai solusi berbasis digital adalah berupa tahapan proses layanan jahit yang bersifat transparan dapat dilihat oleh pengguna jasa jahit. Penelitian ini dibatasi pada tahap merumuskan diagram alir dari proses tahapan menjahit yang dapat dijadikan dasar untuk merancang purwarupa. Validasi purwarupa tersebut dapat dilakukan pada penelitian selanjutnya.

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Kata kunci— Desain Proposisi Nilai, Usaha Rintisan, *Design Thinking*, *Pakaian Custom*, Penjahit

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## I. INTRODUCTION

Academics and practitioners believe that the Covid-19 pandemic has accelerated the digitalization process in Indonesia. Pandemic has opened up many opportunities to create "smart" solutions in adopting new habits in everyday life. This situation provides many opportunities for digital startups to enter various sectors of the creative economy. The creative industry maintains excellent growth in Indonesia, especially the digital creative industry since it has grown significantly throughout the year. This situation should be a significant force to bring a tremendous economic impact to Indonesia in the future. The government has also made it clear to promote Indonesia as one of the countries with the most extensive digital industry strength, with Indonesia's vision to be The Digital Energy of Asia.

Based on Masyarakat Industri Kreatif Teknologi Informasi dan Komunikasi Indonesia, known as MIKTI, Indonesian Society of Creative Industries for Information and Communication Technology, the number of startups in Indonesia in 2018 was 992. Startup distribution in Indonesia is in Jabodetabek for 522 (52.62%), Central Java for 30 (3.02%), Yogyakarta for 54 (5.44%), West Java for 44 (4.44%), East Java for 113 (11.39%), Bali & NTB for 32 (3.23%), Kalimantan for 24 (2.42%), Sulawesi for 34 (3.43%), Sumatra for 115 (11.53%), and unknown residences for 24 (2.42%). Many startups are certainly supported by the rapid use of the internet in Indonesia (MIKTI & Teknpreneur Indonesia, 2018). According to APJII (Association of Indonesian Internet Service Providers), Internet users in Indonesia reached 196.7 million people (73.7%) in the second quarter of 2020. This number increased by 25.5 million users compared to 2019 (Jatmiko, 2020).

The increasing trend of internet users in this pandemic era is one factor of the rapid flow of digitalization in various sectors in communication, transportation, trade, education, finance, and various other sectors in Indonesia. New habits adaptation has forced people to interact in different ways; online interaction has become necessary in carrying out daily activities. However, intense competition to dynamic community response is very influential on the sustainability of startups. Business continuity depends on its ability and speed to adapt to existing market conditions. Many startups failed to develop and eventually had to shut down because they could not adapt to this digital age's competitive conditions. The startups are currently reaching thousands of units, and only a few were survived.

Non-banking director, Syaifullah Agam, said that the startup's failure was caused by unskilled experts in management, technology, and financing issues (Anggono, 2019). The aspect of reaching the market is also essential because startups find and execute the solution to the problems that existed in the community, so market research must be done carefully (Movanita, 2019). Minister of Communication and Informatics (Menkominfo) of the Working Cabinet 2014-2019, Rudiantara, stated that establishing startup companies in Indonesia is still low on the international scale because most startups put more emphasis on technological intelligence. However, they forget about the market (Yadika, 2019). The startup's success rate in Indonesia is 5%, and according to the Bureau of Labor Statistic (BLS) report, about 50% of startups failed in the first four years of establishing their business, 19% of startups failed due to intense competition and 18% failed due to cost issues (Merdeka, 2019).

Understanding obstacles faced by startups is also conducted by doing interviews with six founders of startups. This interview was conducted to find out the activities carried out by the startup. The survey was performed on three startups that have joined innovation laboratories and three independently-developed startups. The result shows that the startups face three obstacles. First, startups are still looking for customers and ensuring that they are suitable for the market. Second, independently-developed startups do not seem to know and understand the right methods in performing field validation to find a match between problem and solution. Third, the startups only have a small number of members, resulting in a lack of human resources to perform field validation.

Custom clothing is an example of a fashion subsector that has an excellent opportunity to be developed. This fact can be seen from the stable public information search trends in the last five years, 2016-2020 (Googletrends, 2020). However, this subsector faced many challenges in developing the business, one of which is the lack of competition for local products compared to imported products (BEKRAF, 2020). The low competitiveness is interconnected with the many obstacles experienced by custom clothing businesses, which are between the tailors and their customers. These barriers are explored by conducting interviews with the tailors and the customers who are often using the sewing services. The result shows issues experienced from the customer's side of custom clothing: difficulty to find tailors, clothing design is not as expected, and orders are not completed on time. The

most common tailoring issues are punctuality, lack of human resources, and adaptation of clothing design. The problem's findings provide an overview of each party's needs and expectations to discover new ideas as an opportunity to find the solution.

It should be more comfortable for tailors to receive direct orders in this digital era because the information is very transparent nowadays. However, the sewing business is yet to have a particular platform, so they usually join online stores with various product and service categories. This situation provides an opportunity to create a particular platform that can connect orders directly to sewing businesses. One of the startups that already have the idea is Express Your Looks (eYours), a startup engaged in custom clothing. eYours acts as a platform that connects tailors and customers interested in custom clothing. eYours can be accessed through the website, but the service is currently closed due to many complex considerations to make it work. One of them is difficulties in communicating the complex order message from the customers to the tailors. This issue makes eYours stagnant to develop, and it is also a challenge to discover more about the main problems experienced by both customers and tailors. Exploration of this problem will be performed with a design thinking approach.

Design thinking is the proper approach to exploring the user's experience both from the customer's side and from the tailor's side. This approach can produce an in-depth picture of every concern and expectation of users who need an urgent solution. Based on the previous research, using design thinking can increase Business Intelligence's interest in providing appropriate dashboards between functions and users (Cahyadi & Prananto, 2015). Further research shows that applying the design thinking method can help design successful social entrepreneurship projects by identifying the linkages between stakeholders and social entrepreneurship (Chou, 2018). Another research designed educational teaching methods using design thinking to solve problems in tourism studies. The draft results in encouragement of creativity, innovation, selective information, and collaboration given to the students (Sándorová, 2019).

Design thinking in this research is limited to identifying, solving problems, and developing ideas. eYours is a platform that brings customers and tailors together; it provides the two users to get the right solution ideas to answer the problems faced by both parties. The purpose of this research is to figure out and ensure the main problems between the customers and the tailors, so the result of this exploration can be used as a guide to finding a digital-based solution for custom clothing services. Research questions, research objectives, and methods to answer research questions to explore the custom clothing phenomenon can be seen in Table 1.

Table 1. Research Questions, Research Objectives, and Methods

No	Research Questions	Research Objectives	Methods To Answer Research Questions
1	What are the main problems experienced by customers who use <i>custom</i> clothing services?	To analyze the problems of sewing service users	In-depth interviews and identifying into empathy maps
2	What are the main problems experienced by <i>custom</i> clothing businesses (tailors) in serving their customers?	To analyze the problems of tailors	a. In-depth interviews and identifying into empathy maps b. Observation of service process activities to make clothes in the working place of tailor business
3	What can digital-based solutions be offered by eYours in solving problems in the field of custom clothing <i>services</i> ?	To build the solutions that can be offered	Brainstorm ideas with the founding team and validate them to experts

## II. LITERATURE REVIEW

Design in various fields is not new concepts and practices (Cooper et al., 2010; Liedtka, 2015). Design's focus is slowly shifting from designing physical products to matters related to systems and organizations (Cassim, 2013). One of the books that introduce design value in management is "The Science of the Artificial," written by Herbert Simon in 1969 and was revised in 1996. The management's design thinking development center is in Silicon Valley, where the International Design Consultancy IDE and Stanford University are located (Gruber et al., 2015). Both institutions have the primary role as developers of the Design Thinking method's innovation.

IDEO continues to advance and promote design thinking through articles and books for business audiences (Brown, 2008; Brown, 2009). It was from the IDEO that the term Design Thinking first appeared.

In 2005, the Co-founder of SAP, a German software company, David Kelley, and several colleagues established The Hasso Plattner Institute of Design (HPI) at Stanford. A second HPI Institute was established at the University of Potsdam, Germany, in 2007 (Plattner et al., 2011). Both institutions have contributed significantly to design thinking development by improving structured-course curriculum, seminar offerings, free teaching materials, and design thinking research (Huber, 2017). The University of Toronto has since adopted and further developed the design thinking method (Dunne & Martin, 2006).

In many fields, the development of design impacts the continually changing definition according to the context. Some authors said that there is no universal definition of design thinking (Huber, 2017). Based on organizational context, design thinking has been implemented at various levels (Martin, 2013). In the thesis article written by Huber (2017), he found three types of managements' design thinking. The first type can be described as "IDEOs' way of working with design and innovation." IDEO played a significant role in design thinking's development. The second type is from the University of Toronto, which describes design thinking as an effective method of solving organizational problems. It proposes that this design thinking method is an essential skill in a manager's training. The third type was identified by Johansson-Sköldberg et al. in 2013, who stated design thinking as part of management theory.

Design thinking is about implementing tools and methods adapted from design practices (Cruickshank & Evans, 2012). User's Ethnographic Research can be conducted to find potential users' latent needs (Brown, 2009). Personas can collect market data and find out the user stereotypes (Tonkinwise, 2011). User journey mapping can help understand the case of a product or service's usage at various time points (Liedtka, 2015). The invention of rapid prototypes can help to clarify the proposed solution (Brown, 2009). These tools can be implemented in figuring out the problem's approach from three different points of view. First, the innovator needs to find what solution is desired from the customer's point of view. Second, the innovator needs to propose a technologically feasible solution. Third, the innovator also needs to implement and measure the potential solution through an appropriate business model (Brown, 2009). Brown described the definition of design thinking on IDEO's website as "Design thinking is a human-centered innovation method. It draws inspiration from the designer's toolkit and integrates human needs, technical possibilities, and requirements for business success". (IDEO, 2016).

Besides, design thinking uses to develop the sustainable re-design concept of a startup; it is an effort to deal with market uncertainty to re-build value proposition (Antonopoulou & Begkos, 2020). Value proposition design is considered a practice for digital startups/innovators to see the future conditions (Brem et al., 2019; Antonopoulou & Begkos, 2020). The value proposition is an essential part of the overall value creation process that supports the customer experiences development (Äyväri et al., 2016; Lanning, 2003; Payne & Frow, 2014; Sandstrom et al., 2008). The value proposition aims to match needs and jobs in achieving a suitable solution to a problem or product fit with market needs (Osterwalder et al., 2014). Therefore, startups must build a value proposition that describes an innovation model that is targeted, initiated, formulated, and implemented (Payne & Frow, 2014). It has been recognized that this value proposition provides positive meanings to consumers, self-expression, social values, and driving factors of consumer behavior (Yi et al., 2020).

The basis for developing innovation is consumer needs-centered in all business model elements (Ojasalo & Ojasalo, 2018). Therefore, startups must realize the right time to interact with consumers (Shamim et al., 2017). Some organizations emphasize that value and value creation are understood as interactions and contextual shaped by social forces, norms, and a more comprehensive network of ecosystems (Äyväri & Jyrämä, 2017). Understanding the value proposition in a business model makes it easy to map a business model related to the startup's running framework. Besides, value propositions are also used as a potential assessment for the focus of change (Kristensen & Remmen, 2019).

Design thinking is an appropriate tool to develop innovation at startup since it is a human-centered or customer-centered tool (Brown, 2009). The focus is to continuously discover potential customers' latent needs to increase the quality value proposition of its products and services (Wattanasupackoke, 2012). Design thinking as a holistic approach helps organizations drive innovation and growth (Liedtka & Ogilvie, 2011). Design thinking is used to solve complex, ambiguous, and unclear problems (Glen et al., 2015). The iterative nature of the method offers an alternative way to develop a solution (Brown, 2009) that would not work with management theories' analytical approach (Collins, 2013). Management theory focuses on stable and predictable aspects where recommendations are drawn from past incidents (Martin, 2009), while the design thinking concept uses abductive logic focusing on the question "what might happen?" (Collins, 2013).

Design thinking literature is dominated by numerous practical and pragmatic methods to support design thinkers in different and convergent design processes (Brown, 2008). Many leading companies have implemented design thinking to achieve various goals in their organizations. In the previous research, Glen et al. (2015) showed a change in passive teaching into more active problem-based learning. The design thinking approach is only used in design learning methods to improve the previous learning methods. Meanwhile, Nielsen et al. (2015) only used the design thinking approach to ensure curriculum design to bridge the present and future. The design thinking approach is also used to compare learning experiences in design learning by providing more critical framework guidance for effective designs and facilities (Mosely, 2018).

The design thinking approach is used to drive cultural transformation in creating a better outcome for internal and external stakeholders, such as Hewlett-Packard, Deloitte, and PepsiCo (Sato et al., 2010; Howard, 2012; Nooyi & Ignatius, 2015). The design thinking approach is also used to create and test new products in the health field (Brown, 2008; Carlgren et al., 2014). At Bank of America, design thinking is used to develop the customer's experience in savings (Brown, 2008) and bank services to be more accessible (Carlgren et al., 2016). In the public sector, design thinking is also used to provide adequate public services based on the user community's needs (Gruber et al., 2015).

In the field of social innovation and entrepreneurship, design thinking has been used by Bill & Melinda Gates Foundation to understand the women's needs in developing countries so initiatives actions can be carried out for the sake of their future (Gates, 2015). Chou (2018) stated that the design thinking approach is used to find the connection of social entrepreneur attributes in providing illustrations to support new methodologies in designing social entrepreneurship projects.

The 3M company used a design thinking approach to build a meaningful solution that meets users' expectations (Porcini, 2009). Proctor & Gamble used design thinking to customize their products to align with the user's needs. In Panasonic, design thinking principles are included in their new product development practices (Carlgren et al., 2016). IBM used design thinking to train its sales staff to focus more on clients (Kolko, 2015).

Design thinking applied in the research of information study focuses on user's journey with immersion phase, ideation phase, and implementation phase. The research shows that the design thinking approach can increase user experience and contribute to engaging the people to create innovation for information-related problems (Nakano, 2018). General Electric used a design thinking approach to shift business focus to software providers (Kolko, 2015). AT SAP, a German multinational software company used a design thinking approach to help the SAP team develop a rapid prototype to better communicate product ideas to the market (Holloway, 2009).

Design thinking methods in many fields impact management theory and practice; even some researchers described design thinking as the best way to be creative and innovative in the managerial field. Some researchers argued that design thinking in research needs to be further developed (Huber, 2017). Based on previous literature, design thinking is mostly applied in an established large-scaled organization of education, cultural transformation, health, finance, public services, technology and information, consumer goods, and social innovation and entrepreneurship. Few works of literature discussed using design thinking methods to test ideas proposed by a startup to meet its users' needs. This research focuses on using design thinking methods in a startup to understand the custom clothing users to find suitable ideas and propose solutions for existing problems.

### III. RESEARCH METHODOLOGY

This research starts with the preliminary data collection to understand the phenomenon for better understanding. This preliminary data is analyzed to determine the objective of the research. Next, a literature study is carried out to find gaps and determine the position of the research. A conceptual framework is formed based on related theories and previous research. The framework is created in the form of diagrams to map research flows.

The inductive approach is applied in the development of theory; this approach starts with a general topic and some unclear ideas, which will be corrected and elaborated into more precise concepts (Neuman, 2014: 70). This research was conducted because there is no ideal condition of startups in custom clothing services. Therefore it is necessary to trace the facts in the field along with the process of data collection.

The strategy used in this study is a survey. The survey gathers people's information to describe, compare, or explain knowledge, attitudes, and behaviors (Fink, 2003). The survey is commonly used in exploration and descriptive research. This research's context is surveys conducted on the subjects of decision-making, customer

satisfaction, use of services, and the likes (Sekaran & Bougie, 2016: 97). The survey is used because it investigates and collects data related to knowledge, attitudes, and behaviors in depth from tailors and their customers.

Qualitative is used as the research's method. This method is used to understand and identify patterns of behavior owned by users and assist in designing projects (Cooper, 2007: 50). This study identifies tailor and customer's issues and understands the situation experienced in custom clothing service activities.

The unit analysis of this research is carried out on individuals. The purposive sampling method is used in this research, where researchers can decide which informants represent the phenomena being studied. There are three types of informants, namely users of sewing services, tailors, and experts.

Data collection techniques used in this study are in-depth interviews and observations. Data collection steps include selecting informants, gathering information through interviews and unstructured or semi-structured observations, documents, and visual materials (Creswell & Creswell, 2018: 250).

The interview was conducted in two stages; the first stage was conducted to find out the feelings, thoughts, and behaviors of the custom clothing services. In the second stage, the interview was conducted to validate the proposed idea, a digital-based solution. In this phase, interviews are conducted to find out whether the proposed features are necessary. The experts of custom services conduct this validation. List informants can be seen in Table 2.

Table 2. Research's Informants

Sources	Criteria	Number (Person)	Stages	Types of Data Collection
Tailor	They have been in the sewing business for at least one year	6	Inspiration	Interview & Observation
Customers who use sewing services	Women Frequent use of sewing services	6	Inspiration	Interview
Expert	Sewing service has been established for at least three years Familiar with online services for at least one year	9	Ideation	Interview

Observations were performed by doing a field study and taking notes, figuring out individual behaviors and activities on the research site. The observation stage is only conducted on tailors because, in this phenomenon, tailors as service providers received many complaints from customers about their services. Therefore, it is necessary to directly observe daily activities in processing orders at the sewing place. The Observation was conducted on six tailors in one visit for more than 4 hours long. Observation focuses on sewing services stages from fabric delivery, fashion design, body measurement, patterns & cutting, sewing, fittings, adjustment, and clothing delivery.

The characteristics of observations are uncontrollable due to the absence of prior arrangements. It is non-participant observations because the researchers were not seen in the speakers' daily lives. The observations were carried out in a structured manner because researchers have determined what aspects should be obtained in these observations. This Observation is non-secret because the tailors are aware of being the object of research. (Sekaran & Bougie, 2016).

Collected data from interviews and observations are grouped into empathy maps to articulate customers' and tailors' needs. This stage is preceded by data reduction of the interview's result. Then, collected data is grouped into an empathy map based on "Think" (user's thoughts and ideas), "Feel" (understanding of user's feelings), "Do" (represent what the user does and how they behave), "Pain" (anxiety experienced by the user), and "Gain" (user's desires) (Ferreira et al., 2015).

The findings of customers' problems from the interview results were analyzed using a 5-scale negative and positive range. This scale is used to strengthen the processed result of customer and tailor's experience. The results of the analysis are presented in the form of graphs. An explanation of each scale value can be seen in Table 3.

Table 3. Description of 5-Scales Positive and Negative Ranges

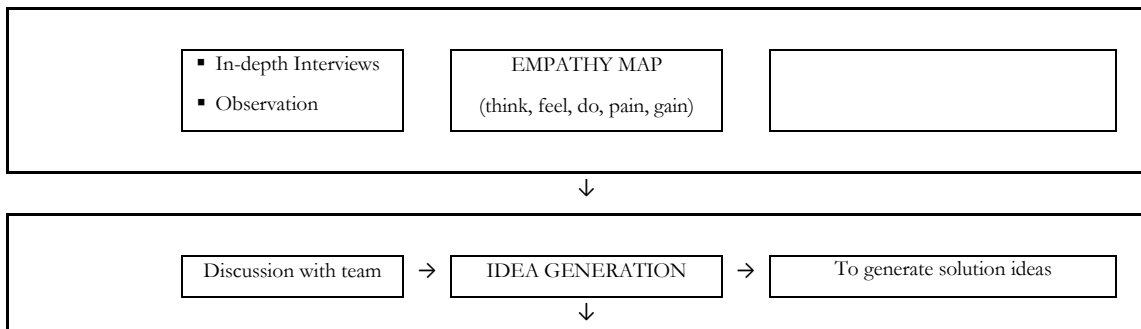
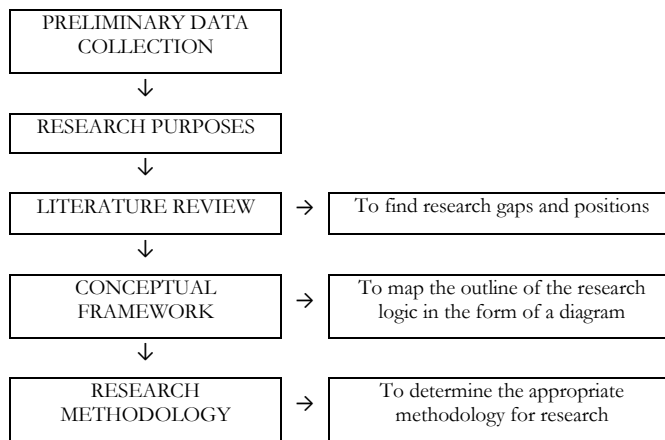
Scale	Description	Explanation
5	Very Strong Positive	Positive view with a very strong driving factor
4	Strong Positives	Positive view with strong driving factors
3	Positive	Positive view
2	Weak Positive	Positive view, but with a weak driving factor
1	Very Weak Positive	Positive view, but with a fragile driving factor
0	Neutral	Neutral
-1	Very Weak Negative	Negative views, but with a fragile driving factor
-2	Weak Negative	Negative views, but with a weak driving factor
-3	Negative	Negative views
-4	Strong Negative	Negative views with strong driving factors
-5	Very Strong Negative	Negative view with a very strong driving factor

After figuring out the problems and opportunities of the empathy map results, we proceed to enter the ideation stage, carried out by performing discussion with the founding team to develop solution ideas. After formulating the idea as a solution, validation is conducted by a short interview with the experts. This stage is performed to ensure that the proposed idea is essential. The final result of this research is the formulation of a solution concept for custom clothing startups as a guide to making prototypes.

The research results are presented and discussed to answer research questions, namely about the main problems experienced by customers and tailors and solutions to overcome the issues. The last stage is to conclude the findings and state the limitations of this research to open the opportunity to conduct another research in the future. An illustration of the research stage can be seen in Figure 1.

DESIGN THINKING

Adopted by: IDEO by Tim Brown & Jocelyn Wyatt (2010)



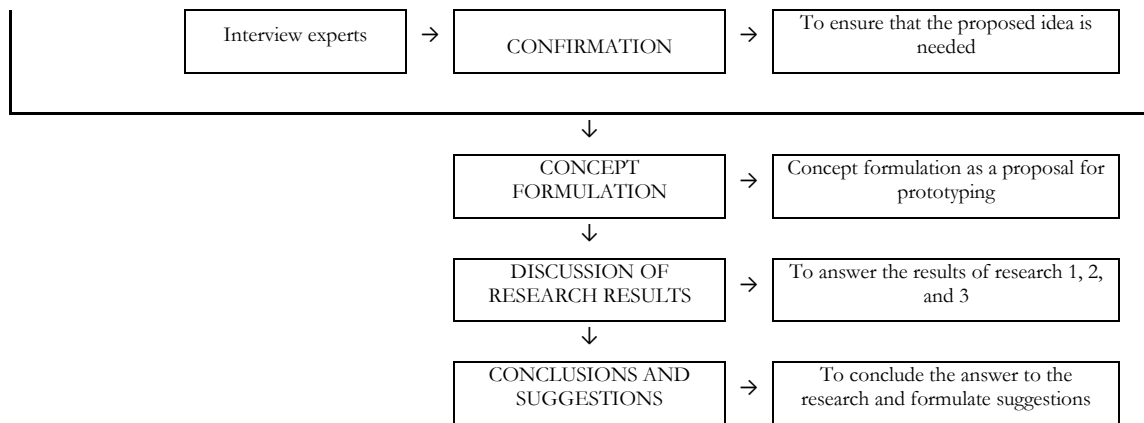


Figure 1. Research Methods

Validity and Reliability

Research validation is performed to examine the accuracy and credibility of the findings using specific procedures. Qualitative validity checks if the findings are accurate from the researchers, participants, or readers’ perspective. Qualitative reliability shows that the researchers’ approach is consistent (Creswell & Creswell, 2018: 264). The validity of this study can be seen in Table 4 (Yin, 2014).

Table 4. Validity and Reliability of Research

Testing	Description	Tactics	Research Phase
Validity Construction	To check how well the results obtained from the use of measuring instruments	Use data triangulation to build justifications	Data collection
Internal Validity	Ensuring the research has been conducted analysis logically as presented and reconstructed by researchers	Use a narrative case explanation.	Data analysis
Reliability	To check the reliability of the research.	Use the interview protocol	Data collection

IV. RESULTS AND DISCUSSION

A. Inspiration Stage

In this stage, observations were performed to see people’s experiences to identify the issues or opportunities that drive us to find the solution (Brown & Wyatt, 2010). The inspiration stage becomes an essential part of the design thinking process, the foundation for ideation. The inspiration stage is about how to frame problems, collect meaningful data, and interpret data. In this phase, Inspiration is divided into two parts, based on the user’s experience of sewing services (customers) and tailors.

1. Empathy Map Consumers

The mapping results were gained from interviews with six customers; then, the reduced data was grouped on an empathy map. The results for each consumer’s empathy map are summarized based on the customers’ most experienced things. The summary of the customer’s empathy map can be seen in Table 5.

Table 5. Summary of Customer’s Empathy Map

Customer's Empathy Map	
THINK	FEEL
a. They were afraid that the tailor did not understand the piece of information.	a. They were worried that fashion design does not match the expectation.
b. They think that some tailors did not complete the order on time.	b. They were worried about the clothing size does not fit properly.
c. They think the tailor provides fashion fitting time close to the promised day.	c. They were worried about not getting specific information from the tailor.
DO	
a. They usually meet in person with the tailor; they were communicating online to explain the fashion design.	
b. They usually try to remind the tailor about the order; they ask for an updated sewing process.	
c. They usually come to the tailor for fashion fitting time.	
PAIN	GAIN
a. They were fretful from his experience that tailors are often forgetful and late.	a. They hope the order will finish on time.
b. They were fretful clothes do not fit on the body, or some part needs to be fixed.	b. They hope the order quality meets expectation.
c. They were fretful not getting specific information from the order progress.	c. They hope to get updated information from tailors about the order progress.

After analyzing with 5-scales range, graphs of the customer's appraisal summary can be seen in Figure 2.

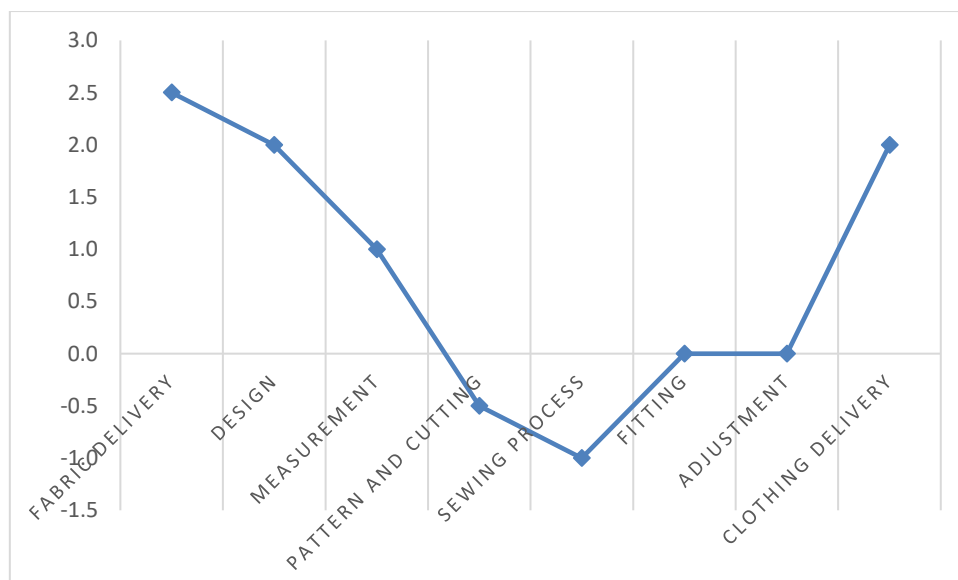


Figure 2. Customers Appraisal Summary Graphic

The result shows negative experiences in several stages of sewing. This negative appraisal is a problem faced by consumers and is the basis for developing ideas as a solution. The summary of problems from consumers can be seen in Table 6.

Table 6. Summary of Negative Ratings from Customers

Consumer	Sewing Service Stage	Problems
	Fashion Design	She had a difficult time communicating expectation when equalizing the perception.
	Pattern & Cutting	The clothing size smaller than the expectation.
	Fittings	The order completion close to the promised day; she did not do the fashion fitting time.
	Adjustment	The clothing adjustment was ineffective; she had to go back many times.
	Measurement	The tailor's note was missing; the consumer had to re-measured the body-size.
	Sewing	The order completion was over the promised-day.
	Pattern & Cutting	The sewing result was not as her expectation.
	Sewing	The order completion was over the promised-day.
	Fittings	The order close to the promised-day.
	Adjustment	The sewing result was unsatisfactory.
Consumer 4	Pattern & Cutting	The clothing size smaller than the expectation.
Consumer 5	Sewing	The tailor was late to execute the order; the tailor forgot which fabric belongs to her.
Consumer 6	Fittings	The tailor send information of fashion fitting time close to the promised-day.

Based on Table 6, the sewing service stage issues are fashion design, measurement, patterns & cutting, sewing, fittings, and adjustments. The finding shows that the tailor understands the proposed clothing design, but the outcome is not expected. This situation happens because of communication constraints between consumers and tailors, so the outcome is not fit with expectations.

The consumer had to return because the tailor lost the measuring data. Moreover, the customer's experience shows that the outcome was different from the designs or size was wrong. Another negative experience, customer's order were late, not as promised. Furthermore, fitting was requested too close to the promised day, so the measuring & adjustment were ineffective.

These conditions indicate customer's unfulfilled satisfaction. According to Kotler & Armstrong (2001), customers will experience various satisfaction levels when the product is as expected. The factor that drives the customer's satisfaction is the quality of products and services. It is concluded that the tailor experienced some issues regarding product quality and services, which caused the customer's dissatisfaction.

## 2. Empathy Map Tailor

The mapping results are gained from interviews with six tailors; the reduced data are grouped on the empathy map. Results of the empathy map for each tailor are summarized of the tailor's experiences. The empathy map summary can be seen in Table 7.

Table 7. Summary of Tailor's Empathy Map

Tailor's Empathy Map	
THINK	FEEL
a. They need to equalize the perception with consumers to note their needs.	a. They were worried that the fashion design or clothing size do not match with customer's expectations.
b. They think to divide the working schedule according to the priority date.	b. They were fretful when unable to meet the promised-day.
c. They think to send information to customers.	c. They feel disturbed when customers always asking about the order progress.
DO	
a. They usually discuss with consumers to note their needs manually on a piece of paper.	
b. They usually measure the consumer's body at working place; note the data manually on a piece of paper.	
c. They were designing, studying patterns, and cutting fabrics.	
d. They usually inform consumers about fashion fitting time; sometimes close to the promised-day.	
e. They send clothes to consumers through delivery services; sometimes the clothes are picked up by customers.	
PAIN	GAIN
a. They feel guilty when fashion design or size do not match with customer's expectation.	a. They hope capable meet consumer's expectations.
b. They often finish the order over the promised-day.	b. They hope to finish the order on time without any adjustment.
c. They find some obstacles when had to respond to all customer's messages.	c. They hope capable send order progress information without disturbing the working process.

Observation is carried out to understand the tailor's experiences interacting with the customers and the sewing process. Findings from the Observation can be seen in Table 8.

Tabel 8. Findings from The Tailor's Observations

Tailor	The Findings	Problems
Tailor 1	There was a stack of untidied fabric.	Arrangement of goods
	Measurement & size charts are scattered and mixed with other stuff.	Record documentation
	Stack of fabrics in a plastic bag.	Arrangement of goods
	Messed up measurement chart.	Record documentation

	Employees looking for measures when they are about to do patterns & cutting.	Record documentation
	Design and measurement charts mixed with customer's fabrics in a plastic bag, which stacked with other plastic bags.	Record documentation
	Scattered and missing pattern notes.	Arrangement of goods
	Confused employee searching stuff through piled-up fabrics.	Arrangement of goods
	Angry customer on the fitting session due to a design misunderstanding with the vendor.	Lack of communication
Tailor 5	Stack of fabric in a plastic bag used as a headrest.	Ethics in maintaining consumer goods
Tailor 6	The customer called asking for the fabrics send back to her, but the vehicle was overload, so the employee had to go back to bring another vehicle.	Incomplete information

Tailoring's common problem is items' arrangement, such as rolls of cloth or piles of cloth in the plastic bags. This condition makes it difficult for the tailor to operate because the fabrics are scattered. Besides, an attitude may not look ethical because tailors used the customer's property as a cushion to lean on when they were sitting.

Another issue, notes were disorganized, which made it difficult for the tailors to find the customer's measurements. Moreover, ineffective and unclear communication between tailors and customers caused some misunderstanding; the tailor had to come twice to pick up the materials. This situation is connected to the tailor's work arrangements; things were not well organized, so the service was ineffective and inefficient. Below is a quotation from the tailor:

*"As I said, by the deadlines, you have to make sure if it is urgent or not; if it is not, then we will finish it later. For schedule issues, we sometimes have trouble following the existing timelines because of human resources problems. The majority here are new employees, so they still need to learn. However, some of them went to different workplaces when after they have learned well. Task distribution is also an issue, sometimes. Some of the workers cannot do patterns; some cannot do the cutting. We have not found a solution to fulfill the orders in time and receive more orders." (P4, line 129-140).*

The condition is not ideal based on previous studies. According to (Siagian, 2014), the determining factor to increase productivity is making continuous improvements. Osada (2014) states that excellent productivity and quality are the fruits of those who care about their work and try to make it better with 5S (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke). Takashi Osada, in his book, explains the 5S: Seiri is to select and sort unused items; Seiton is to organize the workplace properly and arrange items well to make them easy to find; Seiso is maintaining the cleanliness of the workplace; Seiketsu is maintaining seiri, seiton, seiso to run continuously, and Shitsuke is a discipline in obeying the rules to shape the habits. Widiarti (2015) explained that the goal of 5S is to keep the work environment safe, clean, comfortable, and favorable. This 5S also has a positive relationship with quality and productivity.

Tailors always try to complete orders on time, but the work process is often too close to the promised day, as summarized from the interview:

*"We always try to complete it on time, even though there are many unpredictable problems at home or workplace. There are a lot of urgent matters too. That is why we always make sure whether the*

*order is urgent or not, we often work beyond the office hours. The orders have to be finished on time no matter what, even by taking an all-nighter or asking for help.” (P6, row pages 75-80).*

*“Ideally, the order needs to be finished four to seven days before the deadlines, but in reality, it usually takes about two or one days before the deadline.” (P4, line 185-186).*

Tailors also try to provide information regarding the sewing process to their customers, but this is not consistently done to every customer. As seen in the interview quotation below:

*“Usually as requested, but sometimes it is our initiative instead of their request. Usually, I send them photos as progress update, but sometimes I do not have time to do so when it is hectic. It is not the SOP, though.” (P1, line 159-163).*

*“If the customer has many orders, we usually communicate the order’s progress and make sure every detail is correct; if it is, then we proceed to cut. We are concerned because it is fatal. If it is a personal order, then we inform them when it is finished. If they asked, then we will tell them the current progress.” (P6, line 57-61).*

This condition does not meet the ideal service quality criteria based on a previous study. According to Tjiptono (2016), service quality criteria include punctuality and customer comfort regarding information availability. Customer dissatisfaction is caused by the tailor’s ineffectiveness in the sewing process, starting from material arrangements, documentation to ineffective communication.

This complex problem must be perceived from both sides to figure out the solutions in every stage: patterns, cutting, sewing, and fitting. Current problems might occur because of a missing process that caused the next stage to be hampered, so the order completion took longer than it should. The first step to see the cause of this problem is by identifying the problem from both customers and tailors from the eight stages of services and the possible impacts that might occur. Problem identification based on the stages of sewing services and their impact can be seen in Table 9.

Based on Table 9, that some missing details in the sewing stage process causing delays, discrepancies, data loss, and difficulty managing the order’s schedule. It can be concluded that the delays are caused by ineffective execution in many stages resulting in customer’s concern such as lateness, tailor’s forgetfulness, no update information, and fear of the order completion is not as requested. What is expected from the customers is that the order is finished on time and as requested. Even though the tailors always try to fulfill the order fit with the customer’s request, it is not adequately accommodated, disorganized and undisciplined, causing the lack of commitment to the customers. Identification of sewing service issues and expected services from customers and tailors can be seen in Table 9.

Table 9. Identification of Sewing Service Issues and Expectations

Identification of Sewing Service Issues and Expectations								
	1. Fabric Delivery	2. Design	3. Measurement	4. Pattern & Cutting	5. Sewing	6. Fitting	7. Adjustment	8. Clothing Delivery
Customer's Problems	(not in research focus range)	They do not know how to complete information that had to complete regarding the details of the order (Example: only sending photos).	They were following the tailor's instruction without any request as needed (Example: body fit or looser).	They were disappointed when order results do not meet expectation; the tailor has no updated information and makes his own decision.	They do not receive updated information from the tailors.	They received information close to the promised-day.	They did repeat adjustment.	(not in research focus range)
Impacts to Costumer	(not in research focus range)	Fashion design does not meet the expectation	Clothing size frequently not fit properly	The customer is not satisfied; will not repurchase the order	Active customers continue to remind tailors	Probably not fitting	Waiting for a long time and cloth can not be used on special event	(not in research focus range)
Customer Expectation	(not in research focus range)	The tailor understands the design that the customer will order, giving some advice if needed.	The tailor gives suggestions about proper size to customers. The tailor takes notes neatly in a book or soft file.	The tailor confirms the order to progress, re-confirms the design and size to reduce errors.	The tailor finishing the order on time, and the result is matching with the expectations.	Tailors provide fitting time not too close to the promised-day.	The tailor does revisions and done quickly.	(not in research focus range)
Tailor's Problem	(not in research focus range)	Tailors do not understand the fashion design of customers because lacking information.	Untidy recording.	Having the obstacles to reconfirm because it is busy.	Having the obstacles in time management and division of workload.	The time allocation for fitting is not yet ideal in general. Customers do not come as promised.	Customers are frequently asking for many revisions.	(not in research focus range)
Impacts to Tailor	(not in research focus range)	Fashion design does not meet the expectation.	Time-consuming to search note; When the notes are lost, the customer must come back.	If some part goes wrong, it will influence the total time needed to finish the order.	Tailors are unable to provide updated information.	Lacking time for adjustments and clothing will pile up in the workshop.	Processing the revision in a hurry.	(not in research focus range)

Identification of Sewing Service Issues and Expectations								
Tailor Expectation	(not in research focus range)	The customer provides a clear explanation with examples in the form of pictures or sample cloth or discusses with the tailors.	The customer confirms each other with the tailor about which size is comfortable for her.	The tailor hope that customers do not ask for additional design after the first agreement.	Capable to fast respond when there is an information request from the customer.	The customer gives time certainty for clothing fitting needs.	Customers do not ask for revisions outside the first agreement.	(not in research focus range)

### 3. Value Proposition Design

Interaction between consumers and tailors is a matter to be considered. The details need to be informed and communicated in decision-making. Customers often send many “annoying” messages, then the tailors avoid them and focus on their work. This condition triggers the customer’s concern because they expect updates about their order. It is a priority to improve sewing’s service quality in solving the need for effective and efficient communication of both parties. Based on the findings of this research, a valuable solution for both parties is proposed. This value explains the benefits that consumers and tailors can expect from products and services. It is illustrated by value proposition design (Osterwalder et al., 2014), as shown in Figure 3.

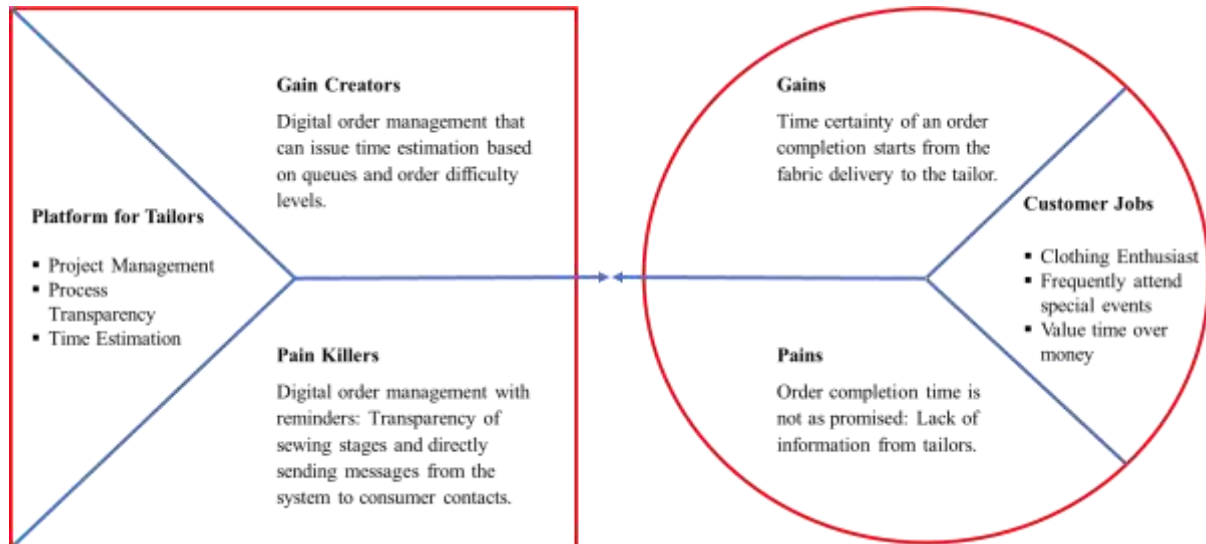


Figure 3. Value Proposition Design of Sewing Services

The value offered from the proposed formulation of the sewing services concept is based on existing problems between customers and tailors’ lateness and lack of communication between the two parties. It creates concerns in using the sewing services. Value propositions offered on sewing services are:

- It is digitizing the sewing business process with the proposed idea of a feature that will solve the problems experienced by consumers and tailors. Based on the findings, the issue is lateness and unclear information. The aim of this digital-based service is that the sewing services can run effectively and efficiently, so there will be a certainty in completing customer’s orders.
- It has a reminder system that is useful for tailors in completing orders.
- It has the transparency in the sewing process that consumers can see to provide customers with regular updates.

Digitizing the business process will ease the tailors in data recording, managing schedule, task distribution, and predicting schedule if there is an order coming up. The reminder system is beneficial for finishing the order on time, and it will create a new discipline habit to work timely. According to Slamet et al. (2016), digital technology’s adoption is proven to improve startups’ performance, especially in increasing access to new domestic customers and sales.

Many complaints from customers due to lateness issue, customers keep asking the tailors regarding their order. Some tailors were able to respond quickly, but some were very slow and even try to avoid it, which concerns the customers. The proposed value is transparency in the sewing service process to provide information and

communication as a form of new communication style involving higher consumers in the sewing service process. Engagement is an interaction between two parties to agree with each other so that no party is at a loss.

## B. Ideation Stage

This stage is to generate, develop, and test ideas that can lead to solutions (Brown & Wyatt, 2010). To generate ideas, we start with solving the problem by understanding insights and questions of How Might We (HMW). Then, the Questions of HMW serves as an opening for a Brainstorming session to generate ideas for the solution and be developed next. After that, we proceed to determine the ideas for the solution.

### 1. How Might We

After figuring out the issues between tailors and customers in the Inspiration Phase, the next step is to create a question to be solved. Table 10 below is the list of insights and 'how might we' questions.

Table 10. Questions' How Might We' (HMW)

INSIGHTS	'HOW MIGHT WE' QUESTIONS
a) Customers are worried because the tailor did not provide time and price estimation since the tailors are unsure which order must be completed first.	a) How can we ensure a timely order?
b) At the time of the sewing process, consumers waited and worried about no update information from the tailor; they fear of the order was not completed on time or the order did not meet expectations.	b) How can we reduce customer's concerns?
c) Customers regularly ask for updated information from the tailors; some tailors respond quickly, and the others respond slowly or even too close to the promised-day.	
d) Few tailors responded to the customers because the tailors are busy finishing their sewing orders.	
e) Tailors are trying to complete as requested by customers. However, some of them have not completed on time because they are currently understaffed, poor time management, disorganized & scattered data that cause their work to be ineffective and inefficient.	

The result raises two questions, which drive us to create innovative solutions for tailors and customers' issues by asking the first question, "How might we ensure timely clothing order?" This question is driven by customers' insight into where they feel the order's completion is often late. The second question is "How might we reduce customer's concern?" customers are concerned because of the timing inaccuracy, lack of updates regarding their order, and fear of not getting the result as requested.

There are two main issues found from tailors and customers. The first issue is about time, and the second issue is about information and communication. Time issue lies in the lateness of completion time, in which the order is not finished as promised time. Moreover, tailors are overwhelmed with so many orders where the orders are not effectively and efficiently accommodated since the data record is still performed manually.

The second issue, information, and communication lie in the interaction between customers and tailors. Customers are concerned because they do not receive any information updates about their order, and few tailors respond quickly, so sometimes customers aggressively contact the tailors. This situation causes the level of trust between the two parties reduced and becomes a problem that has not been solved.

The proposed idea is to create a Tailor's Project Management Application that emphasizes the tailor's sewing process's timeliness to be more effective and efficient. Furthermore, the application will also solve information and communication issues between tailors and customers. The proposed features provide transparency in every stage of the sewing process, starting from receiving fabric, communicating design, pattern and fabric cutting, sewing process, finishing, fitting, adjustment, clothing delivery. This application is expected to provide accurate

information about the tailor's current progress in completing the order to minimize the customer's concern or distrust to increase its credibility and timeliness.

## 2. Brainstorming

Brainstorming is performed with visual storytelling by describing a proposed product or service (Ideo.org, 2015). Brainstorming is performed by a team of two, where each member proposes ideas from the same questions, and the maximum time for explaining the idea is 5 minutes. There are ten ideas to ensure timely order and 14 ideas to reduce customer's concerns regarding order progress information.

## 3. Determine

The brainstorming stage produced a total of 24 general ideas. The team then determines the appropriate ideas for problem-solving and develops them into the application's digital features. Sixteen groups of ideas will be developed into app features. Based on the application's 16 features, all features are entirely accessible to tailors, but customers can access only ten features. The development of 16 application features can be seen in Table 11.

Table 11. Ideas Development

NO	CHOSEN IDEAS	FEATURES	NO	CHOSEN IDEAS	FEATURES
1	It needs a database about customer profiles and body sizes.	Customer Profile	9	Automated time limit system and a total of work time is not changed.	Time Adjustment
2	An option where the customers can meet the tailors directly.	Direct Contact	10	<ul style="list-style-type: none"> <li>▪ Automatic send progress feature where the progress update will be automatically sent to customer's email.</li> <li>▪ It can send direct progress information to customer's contacts.</li> </ul>	Direct Information
3	Calendar for all orders (Gantt Chart).	Calendar (Gantt Chart)	11	Status update to customers	History
4	Sewing theories pop up messages.	Pop up Information	12	Confirmation before cutting.	Confirmation
5	Software that shows every part of the sewing process' feature.	Timeline Process	13	The automated time limit that has been agreed upon between tailors and customers in starting the work process to certain stages.	Auto Cancel
6	The feature that can automatically calculate the length of work time based on order queues.	Total Timeline Process	14	The incentive for tailors if they were able to complete the order before the due date.	Reward

7	A feature that can assist to prioritize based on the clothes' purpose.	Time Priority	15	Penalty for tailors if they could not finish the order as promised time, such as fee reduction, etc.	Punishment
8	A reminder system in fulfilling orders.	Call Reminder	16	Complete information regarding tailors and consumers.	Reviews

#### 4. Idea's Confirmation

The proposed features are confirmed to the experts to figure out how important the feature is to be developed. Experts called in this study are from tailors and customers. Without proper communication and understanding between developers and users, it is impossible to create useful applications (Lowdermilk, 2013). Therefore, confirmation to the experts must be done to ensure the features are truly needed. There are levels of innovation in each feature (Vianna et al., 2011), namely:

(E) Essentials: Functions that are considered essential and needed;

(D) Desirable: Desire expressed by the users;

(O) Out of The Box: Things that are beyond the user's expectation and have the potential to create an impact.

Based on the expert's confirmation result, most of the proposed features are considered essential and needed. The experts' confirmation result regarding all proposed features that are considered as (E) Essentials are as follows:

##### a. Tailor's Features:

8 out of 16 features are considered necessary by 100% of experts

4 of 16 features are considered necessary by 75% of experts

4 of 16 features are considered necessary by 50% of experts

All features are confirmed to be necessary by at least 50% of experts

##### b. Customer's Features:

3 out of 10 features are considered necessary by 100% of experts

3 out of 10 features are considered necessary by 80% of experts

1 out of 10 features are considered necessary by 60% of experts

2 out of 10 features are considered necessary by 40% of experts

1 out of 10 features are considered necessary by 20% of experts

There are seven features confirmed as necessary by at least 50% of experts, and three features confirmed as necessary by less than 50% of experts.

#### V. CONCLUSION

This study aims to determine customers' significant issues who use custom clothing services, the tailors' significant issues, and solutions to these problems. The final result of the solution concept's formulation is in the form of digital application features. The customers' first issue is information and communication in the service stage, which drives customers' concern with tailors who do not respond quickly and responsively.

Second, a tailors' significant issue in serving their customers is the large number of orders causing the lack of information updates. This situation happened because the recording process is conducted manually (hand-written), and the sewing processes are poorly managed. Therefore, each stage service becomes ineffective and inefficient, which results in customers' complaints of lateness.

Third, the proposed solution's concept is emphasized on features that help tailors in managing their paperwork and schedules. The proposed features provide transparency in every stage process to facilitate information updates and reduce customer concern. Interaction in each stage of the service is equipped and supported with both parties' confirmation to prevent loss. The limitation of this research is up to the ideation stage; the concept's formulation

of features from the findings of this research can be used as a standard for prototypes in the custom clothing field's startup business.

This research contributes in both academic and practical aspects. Academically, this research presents the stage to validate a digital-based idea as a custom clothing business solution. Besides, this research also presents interview protocols that can be used as a guide in exploring user personas. Practically, this research produces feature ideas that can be further developed to create a tailor's project management prototype. Findings from this study are expected to help small businesses in custom clothing in creating an effective sewing business process and increasing their competitiveness.

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