The Potential of Earnings Management on Wealth Transfer of Society and Managers

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Abstract

Earnings management is often defined as opportunistic management behaviour that results of information asymmetry between managers and the other of stakeholders. Referring to Positive Accounting Theory which sees three parties related to earnings management are managers, society and funds providers. This paper is based on the possibility of wealth transfer from one stakeholder to another. This study aims to examine whether earning management to design transactions so as to affect the possibilities of wealth transfer between the company and society (political costs), or managers (compensation bonus). The earnings management is measured using discretionary accruals. The possibility of wealth transfer to society is measured using tax payment (political cost) and manager's wealth transfer is measured using managerial remuneration (compensation bonus). Manufacturing companies listed in Indonesia Stock Exchange were used as sample. This paper finds when managers create an increasing income was affected the potential wealth transfer to society and managers.

Keywords: Earnings management; Political cost; Compensation bonus

1. Introduction

Information on financial statements contains important information to predict future earnings. The more information about the company's performance in the future, the easier it will be for investors to assess their profit trends in the future. This information will cause changes in current stock prices and as a result, changes in investor expectations of the value of the company [1]. Managers use earnings management as a tool to convey positive signals to investors about future performance through current profits [2]. Companies with good governance will encourage earnings management to be efficient and have a positive effect on company value [3]. Earnings management must be configured in such a way as to place the company's comparative advantage in risk management so as to provide management opportunities to increase shareholder value ([4],[5]). Efficient earnings management can bring a number of advantages along with increasing earnings persistence [6] and the company's profitability in the future [7].

Earnings management research focuses more on the opportunistic behavior of managers 9[8], [9]). Whereas Watt & Zimmerman [10] stated that earnings management can be opportunistic or efficient. Managers tend to regulate reported earnings by managing accrual components in an effort to reduce reported earnings fluctuations by increasing (decreasing) earnings at a low (high) profit in an effort to reduce the variability of reported earnings [11]. Earnings management through discretionary accruals can increase earnings information content; thus encouraging increased corporate value ([12], [8]). This interesting fact is interesting to study further.

Manager is carrying out management activities with planning and controlling. Planning focuses management's attention to the future by developing actions that can be taken to

realize the company's goals. Controlling is done by determining the actual conditions that occur and comparing the results with the planned goals. This activity encourages managers to build the overall goals of the company, by considering various problems and developing future policies [1]. Earnings management is part of management's policy in realizing company goals. Although in the case of earnings management, managers have a strong incentive to manage earnings numbers in a financial report [13].

When manager reports current earnings higher, manager will enjoy compensation bonuses as a result of profit-based performance appraisal ([14], [15]), and the government representing the society will receive higher taxes as a result of the increase earnings before tax ([16], [17]). This reasoning refers to Stolowy & Breton [18] which states that earnings management is an effort to create a welfare transfer potential between companies and providers of funds (cost of capital), society (political cost) and managers (compensation plans). The greater the potential of welfare transfers that managers can create through financial reporting, will have an impact on increasing the assessment of future market performance and increasing corporate value ([19], [20], [21], [22]).

Managerial compensation is seen as the result of a market-based mechanism that ensures that managers have adequate incentives to maximize shareholder value. Executive remuneration is considered as a market mechanism that ensures rational managerial decision making and is able to create value for shareholders [23]. If management performance is based on profit performance, then the opportunity for management to increase profit value will also result in higher managerial compensation..

H1: Earnings management will increase the value of the company by increasing managerial compensation.

The political cost hypothesis in positive accounting theory [10] explains that the politics of welfare distribution applied by political authorities will influence the company's accounting policies. In line with H1, when managers make earnings management through increasing profits, the company's profit will be higher. The higher profits give the government the opportunity to get higher tax. This tax payment to the government is referred to as political costs [24]. The greater the tax paid, the greater the potential for community welfare transfer, so that the legitimacy of the company becomes stronger and the value of the company increases.

H2: Earnings management will increase the value of the company by increasing political cost.

2. Methods

The data used in this study include financial statement data and managerial remuneration from annual report of manufacturing companies listed on the Indonesia Stock Exchange in 2012-2015. There are 89 firms being sample during this period. We measured the dependent variable, firm value, with Tobin's Q (TQ). Tobin's Q value describes a company's investment opportunity condition [25] or company growth potential ([26], [27]) and can be used as a measure of company performance in terms of the potential market value of a company. Tobin's Q ratio have succeeded in creating value if the return of investment is greater than the cost of investment. On the contrary, the company is called to fail to achieve the value-maximizing goal if the value of the Tobin's Q ratio is less than 1 [28]. So the greater of Tobin's Q value indicates that the company has good growth prospects.

Earnings management (EM) is an independent variable that is measured through the accrual method using the Modified Jones model [29]. The application of accrual-based accounting systems will affect the allocation of income and expenditure, thus providing opportunities for management to manage earnings through its accounting policies [30].

Dechow et al. [29]   modify the Jones model to adjust growth in credit sales (ΔREV - ΔREC) in an effort to reduce failure to detect earnings management. Credit sales are often manipulated; thus this modification increases the strength of the Jones model to produce residuals that are not correlated with expected income accruals and are able to reflect earnings management actions. In this study the earnings management used a positive descretionary accruals. That means manager does earnings management by increasing profits. This measurement is used to align with the hypothesis.

This study uses management remuneration as a measure of compensation bonuses (BC). Financial Services Authority Regulation No. 34 / POJK.04 / 2014 concerning the Nomination and Remuneration Committee of Issuers or Public Companies, explaining that the issuer's remuneration is a reward determined and given to members of the Board of Directors and members of the Board of Commissioners because the position and role given are in accordance with the duties, responsibilities and authority of members Directors and members of the Board of Commissioners. The Remuneration Structure as referred to in paragraph (1) letter a can be in the form of salaries, honoraria, incentives, and / or allowances that are fixed and/or variable. The compensation bonus is measured by the amount of remuneration paid in the current year.

Mills, et al. [31] defines political costs as tax payments to the government issued by providers of goods/ services based on the effective tax rates applicable. Therefore, to determine the payment of taxes made by the company in the current year is calculated from the current tax expense compared to earnings before interest and tax (EBIT). The greater EBIT will increase potential of the government to receive tax from the company, which means that the greater of potential wealth transfer created.

We are interested in the drivers of firm value and on the incremental impact of earnings management makes on firm value. This study used path analysis through direct and indirect effect. An empirical model construct of five interdependent equations: an equation with firm value (TQ) as the dependent variable, which as a direct effect analysis; four equations measured total effect. The coefficient of direct effect indicated by c, whereas c' and c" represent the coefficient of indirect effect. The following equations as bellow:

$$TQ = \alpha_1 + cEM \qquad (1)$$
$$BC = \alpha_2 + \alpha_1 EM \qquad (2)$$
$$PC = \alpha_3 + \alpha_2 EM \qquad (3)$$
$$TQ = \alpha_4 + c'EM + b_1 BC \qquad (4)$$
$$TQ = \alpha_5 + c''EM + b_2 BC \qquad (5)$$

Subsequent testing is carried out with Sobel Test, where if the t value is more than t table, it can be concluded that there is a mediating effect. The description of sample as follows:

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Earnings Management	89	.400	7.200	2.18202	1.466951
Political Cost	89	22.80	29.43	26.3522	1.52165
Firm Value	89	.40	7.20	2.1820	1.46695
Compensation Bonus	89	20.67	25.21	23.2444	1.21704
Valid N (listwise)	89				

3. Findings and Argument

Our objective is to assess the earnings management is able to increase the potential wealth transfer of stakeholders. Path analysis to examine the effect of earnings management on compensation bonus, the effect of compensation bonus on firm value and the total effect between earnings management on firm value and mediation compensation bonus. The result of regression procedure appear in Table 2.

Table 2. Path Analysis With Compensation Bonus As Intervening Variable

Mediation variable: Compens ation Bonus				
Direct effect: Dependent Variable Independent Variable	Firm Value (Tobin's Q) Earnings Management	B $0.348_{(c)}$	S.E 0.165	Sig. 0.001
Indirect Effect: Dependent Variable-1 Independent Variable-1	Compensation Bonus Earnings Management	$0.250^{(a)}$	$0.086^{(sa)}$	0.018
Dependent Variable-2 Independent Variable-2	Firm Value (Tobin's Q) Compensation Bonus Earnings Management	 $0.2555^{(b)}$ $0.325^{(c)}$	 $0.270^{(sb)}$ 0.160	 0.010 0.001
Total Direct (c' + (axb))	0.41575			

H_1 predicts a direct effect of earnings management will be positive and significantly increase firm value. Table 1 show that coefficient regression of earnings management is positive (c' = 0.352) and significant (0.001). This result is consistent with the conjecture that the accounting policies taken by management are aimed at increasing the value of the company. This fact is different from the accusation of most people that earnings management is opportunistic. Therefore the impact of earnings management on managerial welfare will be tested. We will analysis the indirect effect of earnings management to firm value with compensation bonus as mediation. The coefficient regression of earnings management to compensation bonus   (a) is 0.0250 (significant 0.018), and the coefficient regression of compensation bonus to firm value (b) is 0.0255 (significant 0.010). So we can calculate the total effect is 0.41575. We can be concluded that compensation bonus as a mediator between earnings management and firm value.

This finding shows that efforts to increase the value of the company through earnings management will be even greater because managers get compensation for their efforts. Managerial compensation can consist of all the following components: basic salary, annual bonus, shares and stock options, insurance, pension benefits, and severance pay. The level and form of compensation is an important means to provide incentives to executives and to align their interests with those of shareholders. The greater opportunity for managers to get compensation bonuses, the higher perceived welfare transfers will make managers increase their contribution to the company. Finally the achievement of the maximum performance of the manager will encourage higher firm value.

Table 3. Path Analysis With Political Cost As Intervening Variable

Mediation variable: Compens ation Bonus				
Direct effect: Dependent Variable Independent Variable	Firm Value (Tobin's Q) Earnings Management	B $0.348_{(c)}$	S.E $0.165^{(sa)}$	Sig. 0.001

Indirect Effect: Dependent Variable-1 Independent Variable-1	Political Cost Earnings Management	B	S.E	Sig.
		$0.442^{(a)}$	$0.100^{(sb)}$	0.000
Dependent Variable-2 Independent Variable-2	Firm Value (Tobin's Q) Political Cost Earnings Management	$0.388^{(b)}$ $0.271^{(c)}$	$0.209^{(sb)}$ 0.155	0.000 0.005
Total Direct (c' + (axb))	0.442496			

Table3 show that coefficient regression of earnings management in direct effect to firm value is positive (c' = 0.348) and significant (0.001). Further analysis of indirect effect of earnings management to firm value with political cost as mediation. The coefficient regression of earnings management to political cost (a) is 0.0442 (significant 0.000). It means, when increased earnings management will have an impact on increasing political costs. The coefficient regression of political cost to firm value (b) is 0.388 (significant 0.000). So we can calculate the total effect is 0.442496. The coefficient of total effect is greater than direct effect. We can be concluded that political cost as a mediator between earnings management and firm value.

Mills, et al. (2013) explain that political costs can be in the form of tax payments to the government by providers of goods / services based on the effective tax rates applicable. The greater profit reported by management in its financial statements, have meaning a greater of chance of wealth transfer from the company to the public through the payment of taxes. If managers do earnings management (through increasing profits) will have an impact on the increasing political costs paid, and that means the potential for welfare transfers will increase between the company and the government.

4. Conclusion

Prior studies have documented a positive, significant relation between earnings management and firm value. The question of this study is how can earnings management increase a potential wealth transfer not only to manager but also the society, too. Our results indicate that both compensation bonus and a political cost have a positive value-driven for earnings management effective to increase firm value. This paper finds when managers create an increasing income was affected the potential wealth transfer to society (through increasing tax received) and managers (through increasing managerial remuneration). When the increasing of potential for welfare transfers for stakeholders that can be created, the greater of opportunity for earnings management to play an effective role in improving company performance.

Our findings also imply that stakeholder focus which is increase a potential wealth transfer, is value additive for firm value as well. Earnings management is just a tool to increase potential wealth transfer from company to managers, society or funding fund. This finding supports Watt & Zimmerman (1986) that earnings management can be opportunistic, but also can be effective to increase the value of the company.

Future research is expected to add a wealth transfer enjoyed by providers of funds as a result of earnings management. This will be a counterweight to the notion that earnings management is not only seen as opportunistic behavior but also able to contribute positively to the company. Earnings management is seen as part of management strategy in managing the company, with a note that earnings management is not fraud.

5. Acknowledgements

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Model of Acceleration of Halal Industry Development through Implementation of Sharia Law in Indonesia

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Abstract

Optimizing the development of Halal Industry becomes one of the interesting topics in Indonesia. Especially began to increase public awareness of healthy and good life. these suggestions already exist in religious advice, especially Islam, the world's Muslim population needs a lot of Halal products as obligations to be obeyed as Muslims. So the discourse of Halal Industry is widespread. Especially for Indonesia as the country's largest Muslim population. Since the enactment of Law No. 22 of 1999 on Regional Autonomy that has been updated with Law No. 32 of 2004 on Regional Government as the implementation of regional autonomy, the Regional Government has independent authority in the management of the region. With this authority, it can be utilized to develop strategic sectors in accordance with socio-economic conditions of the community, especially local wisdom directed to support other sectors such as halal industry. Research method, descriptive qualitative approach with qualitative research type, secondary data type. Methods of collecting literature study data. And the method of data analysis is qualitative descriptive data analysis technique. The acceleration model of Halal Industry in Indonesia is very important. Especially if you see the growth of the financial industry and sharia business is quite rapid. So it is necessary to accelerate the development of Halal industry based on the divine economy to the regions. To improve the Halal Industry in Indonesia, the need for proper Regulation and in accordance with the religious local wisdom by implementing and enacting the Sharia Law.

Keywords: Acceleration, Sharia Law, and Halal Industry.

1. Introduction

Today the concept of halal has become a trend in Islamic economic development in Indonesia, ranging from the emergence of halal products (food and drinks), halal cosmetics, halal fashion and halal tourism to lifestyle (Adinugraha, et al, 2018). Optimizing the development of the Halal Industry is one of the interesting topics in Indonesia. Especially starting to increase public awareness of healthy and good life. This can be seen from the appearance of sharia concepts on various aspects of life ranging from food and beverage products, finance, to lifestyle (Permadi, et al, 2018). Islam introduces the concept of halal, haram and redundant as basic principles in regulating the needs of human life both dharuriyat (primary), hajiyat (secondary) and tahsiniyat (tertiary) (Muhammad: 2004, 152-153). Healthy and good life is a recommended religion, especially Islam, the Muslim population of the world needs a lot of Halal products as an obligation that must be obeyed as Muslims. Recommendation in Islam is like the derivative of the holy verses of the Qur'an, one of which is contained in the Q.S. al-Baqarah [2]: 168, which reads:

$$\text{يَٰٓأَيُّهَا ٱلنَّاسُ كُلُوا۟ مِمَّا فِى ٱلْأَرْضِ حَلَٰلًا طَيِّبًا}$$

Which mean:
"O people, eat what is 'halal' and good from what is on earth." (Q.S. al-Baqarah [2]: 168)

In the above verse, "halal" becomes the basis of the command to consume halal and thayyib foods and drinks. Al-Sa'dî (in his book Taysîr al-Karîm al-Rahmān) in Muchtar Ali (2016) explains that this (khithâb) verse shows as a call addressed to all humans, both Mukmin and Kafr. The problem of things and harms in Islam has a very important position, because the problem covers almost most of the teachings of Islam (Adam, 2017). If the Shari'a aims to maintain the benefit, it can be understood that the Shari'a aims to prevent and eliminate damage (Muchtar Ali, 2016).

Public awareness of their need for halal products shows their development of halal products. In 2010 in London the World Halal Forum Europe was held, wherein many experts, including legal experts, discussed the theoretical and praxis developments brought together regarding the main issues discussed: "Halal Products and Services - Going Mainstream" (Charity , 2017) In the Indonesian Trade Promotion Center of Budapest, Hungary, which was quoted by the Public Relations Bureau of the Ministry of Trade, at the 2016 World Halal Day exhibition held on 2-4 November 2016 in Opatija, Croatia, halal products are believed to have become the world's new consumer lifestyle. submitted by the Center for Halal Quality Certification, the halal food shopping market is expected to grow to reach USD 2.54 trillion in 2019 and constitute 21.2% of total global expenditure (www.kemendag.go.id). So the discourse on the Halal Industry is expanding. Especially for Indonesia as the largest Muslim population. Therefore, the guarantee of halal products is an important thing to get the attention of the country (Charity, 2017).

Basically the role of government in an Islamic economy, has the same basic function, namely to realize all collective obligations or public obligations in realizing falah (P3EI, 2014: 446). Since the enactment of Law No. 22 of 1999 concerning Regional Autonomy that has been renewed with Law No. 32 of 2004 concerning Regional Government as the implementation of regional autonomy, the regional government has independent authority in the management of its region. With this authority, it can be used to develop the strategic sector in accordance with the socio-economic conditions of the community, especially local wisdom which is directed to support other sectors such as the halal industry, both from the food, medicine and tourism sectors. Minister of National Development Planning/ Head of National Development Planning Agency Bambang P.S. Brodjonegoro said, Indonesia has great potential to continue to contribute to increasing state revenues through Muslim friendly tourism (www.industri.bisnis.com). In addition to the progress of economic relations of Islamic countries that are members of the Organization of Islamic Conference, the investment of multinational companies and digital technologies that facilitate relations between countries also contribute to the advancement of Islamic economics (Kemenpar in Permadi, et al, 2018). This is a strategy to face the challenges of globalization with the entry into force of a free market system within the framework of the ASEAN-AFTA, NAFTA, the European Economic Community, and the International Trade Organization (World Trade Organization).

2. Research Methodology

Types of research

In a study entitled "Acceleration Model of Halal Industry Development through the Implementation of Sharia Law in Indonesia" this research method uses descriptive qualitative approach with data sources namely secondary data obtained from literature study as a reference in researching the implementation of Law No. 32 of 2004 concerning Local government. The researcher tries to elaborate on some of the main articles and points that can be used as a basis for the Sharia Law to develop the halal industry in Indonesia.

Data Type

Data types are secondary data, namely data obtained from previous studies, books and other reference sources. Secondary data is used to analyze Law No. 32 of 2004 concerning Regional Government consists of several articles and important points in it which can be used as the basis for the establishment of Sharia Law, including the following:

1. Chapter I, General Provisions, Article 2, in points 1-9, which read as follows:

   a. Point 1, the Unitary State of the Republic of Indonesia is divided into provincial and provincial regions divided into regencies and those of us who each have local governments;

   b. Point 2, the regional government as referred to in paragraph (1) regulates and manages its own government affairs according to the principle of autonomy and co-administration;

   c. Point 3, the regional government as referred to in paragraph (2) carries out the widest possible autonomy, except for government affairs, with the aim of improving community welfare, public services, and regional competitiveness.

   d. Point 4, the regional government in carrying out government affairs has relations with the government and with other regional governments;

   e. Point 5, the relationship referred to in paragraph (4) includes the relationship of authority, finance, public services, utilization of natural resources, and other resources;

   f. Point 6, authority, finance, public services, utilization of natural resources, and other resources;

   g. Point 7, Financial relations, public services, utilization of natural resources, and other resources are carried out fairly and in harmony. The relationship of authority, finance, public services, utilization of natural resources and other resources led to administrative and territorial relations between government structures.

   h. Point 8, the State recognizes and respects the units of regional government that are special or special in nature which are regulated by law;

   i. Point 9, the State recognizes and respects the customary law community units and their traditional rights as long as they are alive and in accordance with the development of society and the principles of the Unitary Republic of Indonesia.

2. Chapter II, Establishment of Special Regions and Regions, Part One Formation of Regions, Article 5, point 1 and point 4, which read as follows:

   a. Point 1, Establishment of the area as referred to in article (4) must meet regional administrative, technical and physical requirements;

   b. Point 4, Technical requirements as referred to in paragraph (1) include factors that form the basis for the formation of regions which form the basis for the formation of regions which include economic capability, regional potential, socio-cultural, socio-political, population, area, defense, security, and other factors that allow the implementation of regional autonomy.

Method of Collecting Data

Data collection methods used in this study are literature studies, which include:

1. Finding and registering all the variables listed in Law No. 32 of 2004 concerning Regional Government which can be used as the basis for the establishment of Sharia Law,
2. Choose a description of the ingredients needed from available sources,
3. Looking for articles, books, and previous research that is very helpful to get materials that are relevant to the problem under study,

4. After the relevant information is found, the researcher then reviews and compiles library material in accordance with the order of importance and its relevance to the problem being studied,
5. The information material obtained is then read, recorded, arranged and rewritten,
6. The last part, the process of writing research from materials that have been collected is put together in a research concept.

Data analysis method

Data analysis method is a qualitative descriptive data analysis technique, in which the researcher will analyze by approaching several important points in the object of the study (Law No. 32 of 2004 concerning Regional Government) which corresponds to the establishment of Sharia Law and describes in a way compare to previous studies, books, and other reference sources by explaining known empirical generalizations and predicting empirical generalizations that are unknown.
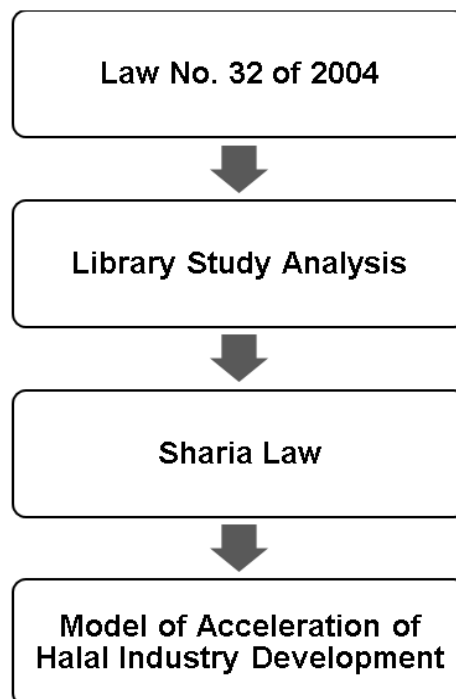
Figure 1. Framework for the Analysis of the Acceleration of Halal Industry Development through the Implementation of Sharia Law

3. Discussion

At present the concept of sharia has entered an important part of its growth. This can be seen from the appearance of sharia concepts on various aspects of life ranging from food and beverage products, finance, to lifestyle (Permadi, et al, 2018). Increased purchasing power among Muslims around the world also contributes to increasing demand for halal products (Lodhi, 2010). The current market segmentation of halal products is very potential, estimates of consumers reaching two billion Muslims in the world need halal products and the potential of global halal products 600 billion US dollars and an increase of 20-30 percent per year, estimated in 2018 Muslim tourists shopping for tourism through the US $ 181 billion (Adinugraha, et al, 2018). Najiha, et. al. (2018) added, the Muslim population is a sizeable segment of the current food market, representing 23.4% of the world's estimated population of 6.9 billion. In connection with this explanation, Indonesia will develop the halal industrial

area, along with the large demand for halal products. Efforts made by the government in developing Islamic tourism are preparing 13 (thirteen) provinces to become sharia tourism destinations, namely West Nusa Tenggara (NTB), Nangroe Aceh Darussalam, West Sumatra, Riau, Lampung, Banten, DKI Jakarta, West Java, Java Central, Yogyakarta, East Java, South Sulawesi, and Bali. However, the 13 provinces were declared ready, namely Jakarta, West Java, NTB, Yogyakarta and East Java (Kemenparekraf, 2013). Based on the presentation of the Director General of Industrial Regional Development of the Ministry of Industry (Kemenperin) Imam Haryono said, his party had prepared its regulations with the Indonesian Chamber of Commerce and Industry (Kadin) and the Indonesian Ulema Council (MUI) (kemenperin.go.id).

The current and future model of accelerating the development of the Halal Industry through Sharia Law in Indonesia will be needed. Especially if you see the growth of the financial and sharia business industry which is quite fast. So it felt very necessary to accelerate the development of halal-based halal industrial development to the regions. To improve the halal industry in Indonesia, there is a need for proper regulation and in accordance with religious local wisdom by applying and enforcing Sharia Perda. Determination of a regulation is closely related to local government policies and people's attitudes towards the object of regulation (Muttaqien, 2008). Although in an Islamic society we can expect an Islamic behavior as well, but the implementation of Islamic values and morality will be more effective if accompanied by government intervention (P3EI, 2014: 461). Therefore, it can further emphasize that halal certification guarantees all Muslim consumers because it fully meets the requirements as determined by Sharia Law, which is mandatory for Muslims to be obeyed (Samori, et. Al., 2015).

Seeing several regions in Indonesia that have had Sharia-based Regional Regulations such as in West Nusa Tenggara through the Governor of West Nusa Tenggara Regulation Number 51 of 2015 concerning Halal and D.I Aceh through the Aceh Qanun Number 8 of 2013 concerning Tourism, has a patent right on the sharia-based tourism industry. the two sharia regional regulations provide an overview of the role of sharia in the regulation of halal industry in the tourism sector. This definition considers Islamic law (sharia) as the basis for providing tourism products and services to customers who are mostly Muslim, such as Halal hotels (according to hotel sharia), Halal restaurants, halal restaurants, and halal travel (Battour and Ismail, 2015). With the Sharia tourism regulation, there is a positive response from the community. The existence of a new sector, namely Islamic tourism is expected to have implications for increasing income and community welfare (Ramadhany & Ridlwan, 2018). The development of the tourism sector is expected to encourage the remembrance of the welfare of local communities through the provision of employment for the community (Adinugraha, et al, 2018).

Referring to Law No. 32 of 2004 concerning Regional Government which requires local governments to regulate and manage their own government affairs according to the principle of autonomy and co-administration, NTB and D.I. Aceh has realized it by developing the syar'i social and cultural conditions, so that the halal industry, especially sharia tourism in both regions is growing and developing well. In addition, to make Indonesia have labels as Islamic tourism as other countries have long been labeled (including Saudi Arabia and Malaysia). This must be achieved by producing halal products and services in other Muslim countries in food products, trade, logistics, banking systems and halal certification (Samori and Saturday, 2014). In this case Indonesia is one of the countries that has the potential to increase foreign exchange in the country with the sharia industry. So there needs to be special attention so that the Indonesian halal industry is increasingly viewed by the world.

Implementation of Law No. 32 of 2004 concerning Sharia Perda Sharia Regional Regulations

It can be argued that in realizing the halal industry it is necessary to have a government regulation that binds all legal actions relating to all aspects of halal industrial activities, and can provide legality that is able to provide a value of trust for the community as consumers. According to the opinion expressed by Friedrich Julius Stahl in Awaluddin (2010), that which provides elements or characteristics of a rule of law is the recognition of basic human rights, the distribution of power, governance based on regulations, and the existence of a judicial court State Enterprises.
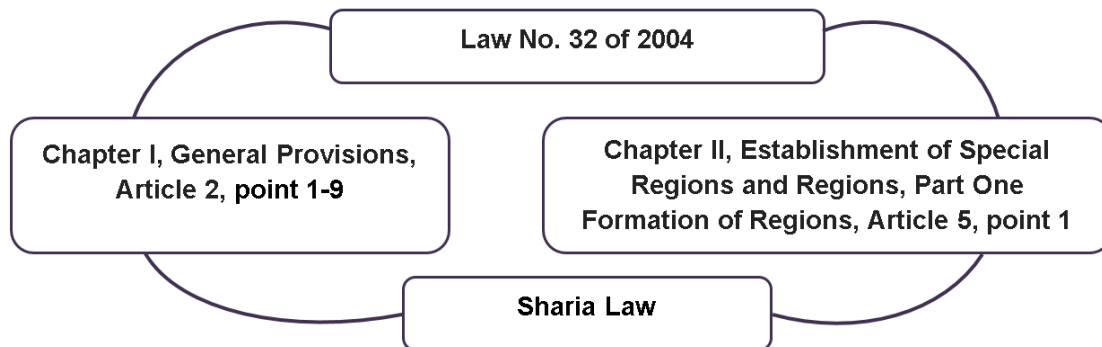
Figure 2. Implementation of Law No. 32 of 2004 concerning Sharia Regional Regulation

Law No. 32 of 2004 Chapter I, General Provisions, Article 2, has the implementation of the establishment of Sharia Perda, based on *point 1, the Unitary State of the Republic of Indonesia is divided into provincial and provincial regions divided into districts and those of us who each have a regional government; point 2, the regional government as referred to in paragraph (1) regulates and manages its own government affairs according to the principle of autonomy and co-administration; point 3, the regional government as referred to in paragraph (2) carries out the widest possible autonomy, except for government affairs, with the aim of improving community welfare, public services, and regional competitiveness.*

Point 4, the regional government in carrying out government affairs has relations with the government and with other regional governments; Point 5, the relationship referred to in paragraph (4) includes the relationship of authority, finance, public services, utilization of natural resources, and other resources; Point 6, authority, finance, public services, utilization of natural resources, and other resources; Point 7, Financial relations, public services, utilization of natural resources, and other resources are carried out fairly and in harmony. The relationship of authority, finance, public services, utilization of natural resources and other resources led to administrative and territorial relations between government structures.

Point 8, the State recognizes and respects the units of regional government that are special or special in nature which are regulated by law; Point 9, the State recognizes and respects the customary law community units and their traditional rights as long as they are alive and in accordance with the development of society and the principles of the Unitary Republic of Indonesia.

Furthermore, based on Law No. 32 of 2004, Chapter II, Establishment of Special Regions and Regions, Part One Formation of Regions, Article 5, *Point 1, Establishment of regions as referred to in article (4) must meet administrative, technical and physical requirements of the region;* and in *Point 4 (as explained in Point 1), the technical requirements as referred to in paragraph (1) include the factors that form the basis for the formation of*

regions which form the basis for the formation of regions which include economic capability, regional potential, socio-cultural, socio-political, population, broad regional, defense, security, and other factors that enable regional autonomy.

In Chapter I, General Provisions, Article 2, points 1 through point 3, it has been explained that each region has an obligation to develop regional potential for the welfare of its people both in terms of health services, community mobilization and facilities, and regional economy. Because Indonesia is a Muslim country with the largest population in the world, it is only natural that the culture and climate of its people cling to the teachings of Islam. Thus, the local government should develop the potential of the region in accordance with the characteristics of Islamic culture to be able to generate industry that can provide halal guarantees for Muslim communities both domestically and abroad.

Furthermore, in Chapter I, General Provisions, Article 2, points 4 to 7, in accordance with the discussion in points 1 to 3, the government's obligation in addition to managing regional finances, and public services, is obliged to manage natural resources in its territory. This aims to increase regional foreign exchange through natural resource management based on the climate of an Islamic society and to improve the welfare of its people.

In Chapter I, General Provisions, Article 2 points 8 and points 9 and Chapter II, Establishment of Special Regions and Regions, Part One Formation of Regions, Article 5, point 1 and point 4 explain, the state does not prohibit an area to uphold customary rules local to be implemented in the midst of the community as far as it does not violate all statutory provisions of the Republic of Indonesia. By looking at the population that is predominantly Muslim, in forming a regional autonomy can uphold the cultural potential and customary law that adheres to sharia in the context of regional development.

Acceleration model for Halal Industry Development through Sharia Regional Regulations

To sustain and motivate the development of the halal industry in Indonesia, until now what has always been in the spotlight is the role of the government as a regulator. Basically, the role of the government in an Islamic economy has a solid basis for rationality. In the view of Islam, the role of government is based on several arguments, namely: a) Derivation of the concept of the Caliphate; b) Consequences of collective obligations (fard al-kifayah); c) The existence of market failure in realizing falah (P3EI: 2014, 446). the government can act as a planner, supervisor, regulator, producer and consumer for market activities (Kahf, 1992: 30). With the awareness of the government in accelerating halal industry development, Afroniyanti (2014) added that the MUI even took the initiative to make a halal statement to later offset the government's steps in issuing halal certification. In the halal industry also has a relationship to the issue of certification or label on the product. Halal certified products provide guarantees to consumers, especially Muslims, that the product ingredients and the production process of their products are sharia compliance (Islamic law) (Yunos, et. Al., 2014). In this regard, the halal industry integrates with the rules that are bound to the sustainability of Islamic Economics.

There is a close relationship between maslahah and falah. because Islamic economics gives the teaching that all aspects of life are to get good in the world and the hereafter, the halal industry can actually realize economic activities that can create the welfare of the people to achieve His blessings. Life that is noble and prosperous in the world and in the hereafter (falah), can be realized if the needs of human life are balanced in a balanced manner (Ghofur, 2017: 24).

The government as the initiator of the rules in sovereignty with the welfare dimension of the people, saw the implementation of Law No. 32 of 2004 as a reference to the Sharia

Regional Regulation has a responsibility in regulating and creating prosperous regional conditions in security, health, education that integrates in guaranteed economic conditions. A good economy is formed from the productivity of the community in innovating to produce local products that are always in demand by consumers. In this case the government synergizes with the community to build local industries in order to increase regional foreign exchange. By focusing on the cultural potential and social conditions of Islamic society, this will boost the development and existence of the halal industry, and will be more globally known. Some halal industries in Indonesia that have the potential today are sharia tourism destinations which include culinary and fashion products. Through Sharia Law, it is expected to boost the halal industry.
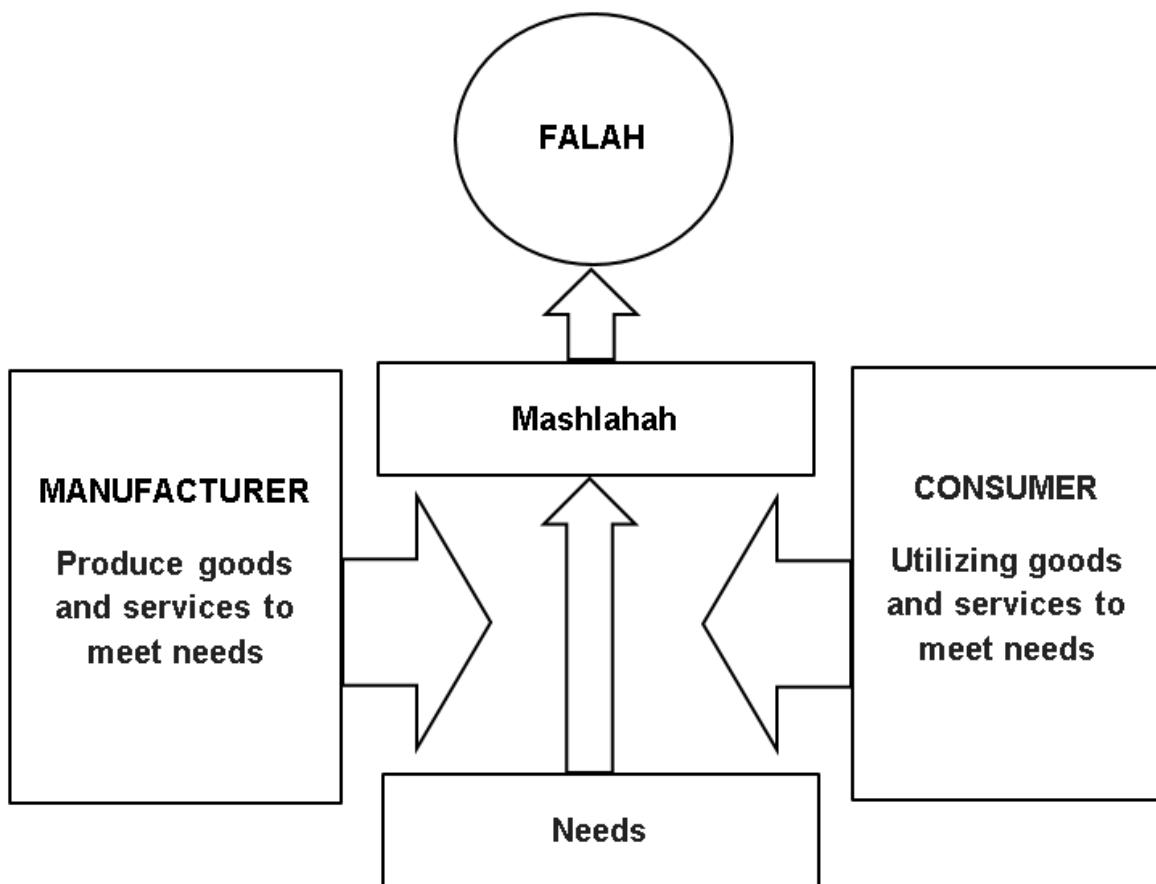
Source: P3EI, 2014: 232
Figure 2. Chain of Consumption and Production Activities

In the face of increasingly open and hypercompetitive global competition like now, every effort to seek excellence can compete. Every product, business, and company that does not have excellence, will not have much progress, and will not win in competition (Suryana, 2013: 276). Therefore, it is necessary to the preparation and realistic effort to make it happen. One of the halal industries is increasing Islamic tourism destinations. Assessment of the readiness of tourist destinations seen from several main aspects of tourism, namely (Kemenparekraf, 2013):

1. Product
   Product development must be based on the General Criteria and Standards that are applied to Sharia Tourism Enterprises and Attractiveness.

2. Human Right (HR) and institutions
   Professional Competencies of Sharia Tourism Personnel must also be supported by Training and Education in accordance with the target of Competency Standards needed by Muslim Tourists.
3. Promotion
   Forms of promotion and marketing channels are adjusted to the behavior of Muslim tourists, the World Islamic Tourism Mart (WITM), the Arabian Travel Mart, Emirates Holiday World, cresentrating.com, halaltrip.com, others.

In addition, in order for the implementation of this Sharia Regional Regulation to be realized in its entirety to realize the progress of halal industry, it is necessary to have government and community cooperation. This is also a challenge when seeing the Muslim community itself still does not have a good defense in the halal industry. In republika.co.id, As stated by the Executive Director of Indonesia Halal Watch (IHW), Ikhsan Abdullah, seeing, there are several challenges in boosting the halal industry in Indonesia, which until now is still related to the lack of awareness and concern of the community towards the product halal. Therefore, Ghofur (2017: 31) explains, Islamic economic education must change people who were capital oriented to become maslahah oriented.

4. Conclusion

Seeing several regions in Indonesia that have had Sharia-based Regional Regulations such as in West Nusa Tenggara through the Governor of West Nusa Tenggara Regulation Number 51 of 2015 concerning Halal and D.I Tourism. Aceh through the Aceh Qanun Number 8 of 2013 concerning Tourism, has a patent right on the sharia-based tourism industry. the two sharia Law provide an overview of the role of sharia in the regulation of halal industry in the tourism sector.

To sustain and motivate the development of the halal industry in Indonesia, until now what has always been in the spotlight is the role of the government as a regulator. In this regard, the halal industry integrates with the rules that are bound to the sustainability of Islamic Economics. There is a close relationship between maslahah and falah. because Islamic economics gives the teaching that all aspects of life are to get good in the world and the hereafter, the halal industry can actually realize economic activities that can create the welfare of the people to achieve His blessings. Life that is noble and prosperous in the world and in the hereafter (falah) can be realized if the needs of human life are balanced.

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Analysis Leading Indicator of Exchange Rate and Fundamentals Economy in Indonesia

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Abstract

The movement of economic fluctuations that occur in countries that cause some macroeconomic problems. Also the need for policies to stabilize the economy. The determination of economic policy requires accurate information input in every stages of its determination. Economic fluctuations that occur or called a business circle provide information separately for economic times. The policy in this business cycle is to provide preliminary information. This paper uses time series data starting 2000Q1-2016Q4 with reference series of Rupiah exchange rate and economic fundamental candidate variable. This research purpose to know the main indicator of exchange rate and fundamental condition of economic that happening in Indonesia. The results show that there are four variables that become the main indicator as the main contributor of exchange rate. By knowing some of these indicators, then these variables will provide data in accordance with the conditions that are or will the data.

Keyword: Exchange Rate, Fundemental economy, Economy growth, Institutional economy

1. Introduction

The 1997-1999 currency crises series, which began in August 1997, was an unanticipated major shock to Indonesian economy. All in a sudden,Indonesia became one among victims of contagious currency crises across Asia Pacific. Starting from Thailand in June 1997, followed by the Philippines and South Korea, currency crises disease finally grabbed Indonesia.

Many financial institutions in Indonesia, either domestic or foreign institutions, had failed to predict the occurence of the crisis. In fact, these institutions were very optimitic in jugding the performance of Indonesian economy, and even some analysts believed that Indonesia would not suffer currency crisis as happened in other Asian countries. The Jakarta Composite Index (JCI) reached its peak (740.8) on 8th July 1997, only six days after Thailand abandoned its fixed exchange rate regime. Meanwhile, country risk for interest rate did not change significantly, reflecting market optimism to Indonesia's resilience toward crisis attack.

Indonesia's economic condition turned bad as Bank Indonesia failed to stabilize Rupiah. In July 1997, Rupiah was depreciated by 0.2% toward US Dollar from its average exchange rate in June 1997. On 11th June 1997, Bank Indonesia widened the exchange rate band from 8% to 12%, but this effort was fruitless. Compared to the average exchange rate of Rupiah to US Dollar in June 1997, Rupiah had dropped by 12.6% in August, 19.9% in September, 32.3% in October, 29.9% in November, and 50.2% in December 1997.

In general, it can be concluded that most financial institutions in Indonesia were failed to anticipate the 1997-1999 currency crises series. Learning from past failures in anticipating currency crises, many economists have tried to develop early warning system to deal with the possibility of currency crisis ocurrence in the future. The system will be very

useful if it can prevent policy makers and business practitioners from severe losses caused by crisis. This study is an attempt to develop early warning system for Indonesia. Unlike some previous early warning system studies (which use panel data of many countries accross the time, or time series data of a single country other than Indonesia), this study uses Indonesian time series data only. It is expected that this study will capture special characteristics of Indonesian economy, that cannot be revealed by panel data nor by other-country single data studies.

The purpose of this study is to construct early warning system of currency crises for Indonesia. The early warning system should be useful to predict possibility of currency crises occurrence in the future. In order to achieve this big goal, two smaller objectives are involved:

1. Constructing early warning system of currency crises models. Individual leading indicators and composite leading indicator models are the focus in this study, hence they are constructed to be ready-to-use early warning system models.

2. Determining robust variables in all models, which will be useful for further early warning system development. These variables should be best individual leading indicators and become elements of the best composite leading indicators.

The hypothesis behind this study is that there are some variables, among all variables in examination, which perform as best individual indicators to predict currency crisis occurrence in the near future. Some of these variables may also serve as elements of the best composite indicators.

2. Methods

Based on their methodology, early warning system models in previous studies can be classified into two main categories: (1) leading indicators models; and (2) "discrete dependent variable" models. The following part is a brief explanation of both types of early warn- ing system models. In leading indicator models, economic variables, both individually or in a group (com- posite), can be used as indicators to predict currency crisis occurence in the near future. Kaminsky-Lizondo-Reinhart's model (1998), for instance, is a prototype of early warning system model based on individual leading indicators. The next section will describe each type of leading indicator models, along with its weaknesses and strengths. Composite leading indicator model is an enhancement from individual leading indicator model. A composite leading indicator is made of several individual indicators. It is ex- pected that the composite indicator can achieve higher accuracy in mapping actual cur- rency crises, higher efficiency (lower number of noises than correct signals), and higher probability of crisis following a signal issuance, compared to individual indicators. The main handicap of composite leading indicator model is exactly the same as the weakness of individual indicator model, i.e. the loss of information caused by the use of discrete value for the indicators.

Table 1. Trade-of Between Type i and Type Error

	Crisis within the window	No crisis within the window
Signal was issued	Current Signal	Noise
No signal was issued	Missing Signal	Curet Event of Non-signal

There are two possible errors that can happen in an early warning system model, i.e. not issuing any signal when currency crisis occurs in upcoming months (also called as type I error), or giving signal when currency crisis does not occurs in upcoming months (noise or type II error). From decision makers perspective, type I error causes bigger social loss than

type II error. Basic set up for critical threshold of independent variable signals plays very important role in determining whether type I or type II error will likely to occur. The lower the critical threshold level, the higher probability of type II error occurrence. On contrary, the higher the critical threshold level, the higher probability of type I error to occur. Although the social loss caused by type II error is lower than by type I error, it does not mean that the model should use the as-low-as- possible threshold level. The higher the probability of type II error caused by lower level of critical threshold, the more inefficient the early warning system. In this circumstance, the early warning system is no longer be able to differentiate between normal and precrisis condition.

3. Findings and Argument

The composite leading indicators in this study are made from combinations of the overall-criteria five best individual leading indicators. A restriction is imposed so that "financial account surplus" variable will not meet "ratio of financial account surplus to GDP" variable in the same combination. Overall, 18 possible combinations of composite indicators can be made. From all of these combinations, 9 combinations are made of two elements, 7 combinations of three elements, and only 2 combinations of four elements. The restriction causes combination made of five elements ineligible for composite indicators.

Examination results show that 17 out of 18 composite leading indicators can meet the overall criteria. The only composite indicator with poor result is "XY", a combination of "financial account surplus" and "M0 growth" variables. The seventeen composite indicators perform better than the five best individual leading indicator, mainly by their higher efficiency level and higher probability of crisis following a signal issuance. These composite indicators can also map actual currency crises occurence with higher than 80% level of accuracy, and even nine among them reach 100%.

The table shows that the nine best composite leading indicators contain either "Rupiah REER misalignment over its trend value" or "Deposit Money Banks' foreign assets growth" variables as its element.
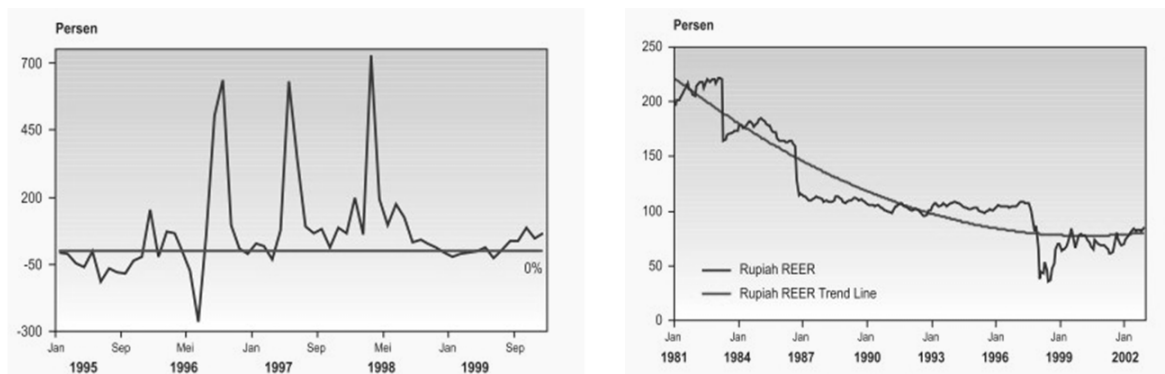
Figure 1. Indonesia's Trade Balance Surplus Growth 1995-1999 (Left)
Figure 2. Real Effective Exchange Rate (REER) of Rupiah and Its Trend (Right)

"Rupiah REER misalignment over its trend value" indicator can issue a signal as early as 24 months prior to a crisis, as in September 1997 crisis. In average, "Rupiah REER misalignment over its trend value" indicator can issue a warning signal at least in 21 months prior to a currency crisis. However, the indicator does not consistently issue warning signals in every months within the window, as in 1983 and 1986 Rupiah devaluation cases. It only issues nine warning signals prior to April 1983 devaluation, and seven signals prior to October 1986 devaluation.

4. Conclusion

In brief, several conclusions can be made from this study: First, composite leading indicator model should be used as the core model for early warning system in Indonesia, since it is better than the individual indicator model. Nine from seventeen best overall-criteria composite indicators have 100% accuracy in mapping all of actual crises in Indonesia, while only two from five all-criteria best individual indicators can predict all of ex-post currency crises correctly. The composite leading indicator model is also far more better than the individual model as the composite indicators are more efficient in issuing warning signals and have higher probabity of crisis following a signal issuance.Second, two variables are considered as robust variables both in individual and composite leading indicator models. The variables are "Rupiah REER misalignment over its trend value" and "Deposit Money Banks' foreign assets growth", with the previous have better performance in its efficiency and higher probability of crisis occurrence following a signal than the later. Direct combination of these two variable is the overall-criteria best composite indicator, which have better performance than its elements.

Third, best individual and composite indicators in some cases can issue a warning signal in 24 months prior to a crisis occurence. In average, best individual and composite indicators can issue a warning signal at least one year prior to a crisis. The time horizon of warning signal issuance by these indicators is sufficient to enable policy makers and business practitioners to anticipate the possible upcoming crisis. Fourth, real misalignment of Rupiah over its trend value is a possible cause of cur- rency crises occurrence in Indonesia. Real overvaluation of Rupiah leads to lower competitiveness of Indonesian exports, hence deteriorates trade balance, and in turn results in higher pressure for Rupiah to depreciate. This claim is also supported by historical data of trade balance surplus growth, which shows that trade balance tends to get worsen prior to a currency crisis occurrence. Fifth, all of actual currency crises in Indonesia were preceded by excessive foreign assets growth in Deposit Money Banks. Excessive foreign assets growth puts banking system in a very fragile condition toward exchange rate exposures, hence it can worsen an ongoing currency crisis. This fact supports Glick and Hutchison's findings that in emerging countries currency crises tend to occur at the same time with banking system crises.

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The Dynamics of Indonesia Inflation in Response to Exchange Rate Shocks

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Abstract

The paper uses data beginning in 2000Q1-2016Q4, in an attempt to explore and analyze behavior in Indonesia. It will also happen with the emergence of interest rates. The results of the study reveal that price behavior in Indonesia exhibits heterogeneity, and automatically impacts the Direction and speed in the quasi-quasi market balance formation that has changed with the emergence of interest rate shocks. Different prices occur in specific sectors and then propagate in other sectors. This study aims to provide a credible reference to decision-making institutions in the determination of the rules of the game relating to conditions that are or will occur.

Keywords: Inflation, Interest Rate, M acroeconomic, institutional economy

1. Introduction

Public purchasing power or inflation proxy becomes a reference in seeing how the quality of development and economy of a country. An important indicator that has a strategic role in an economy. Inflationary movements have a wide influence on the economic aspect, especially related to the purchasing power of the people that mangacu on price development. The inflation rate movement is like a double-edged sword which if too low would be a bad thing for the economy, moving into a high one would be something that would cloud the conditions of a country's economy. For a developing country like Indonesia the ideal inflation is a point that is at the equilibrium stage.

Indonesia which has an open economy system in terms of trade and exchange rate is a floating exchange rate system, which will affect the movement of inflation. With the phenomenon that occurred in Indonesia which is at the stage of the trend of the Rupiah exchange rate against the Dollar weakened with a fairly fast tempo and exceeded the price of Rp. 14,000. Thus, in this paper will analyze how the dynamics of inflation in response to fluctuations in the Rupiah exchange rate against the dollar.
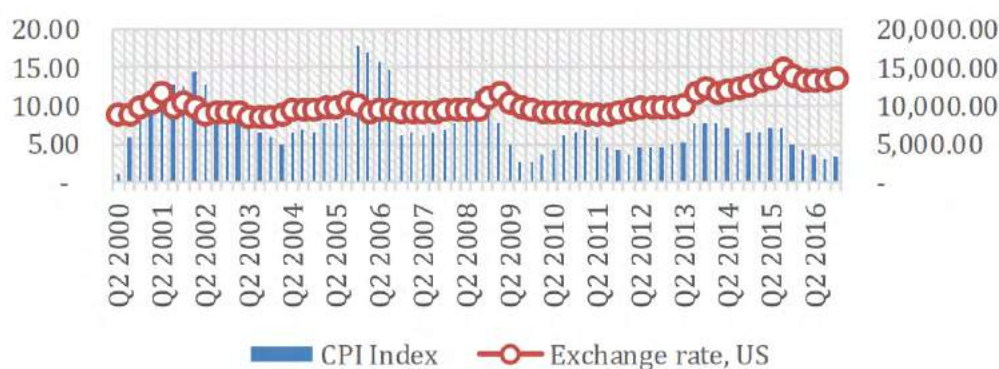
Source. CEIC: 2018, processed

**Figure 1. Indonesia's Inflation and Exchange Rate Fluctuations
Year 2000Q1 - 2016Q4**

The fundamental question of price stiffness remains a center of extensive debate in macroeconomic literature. One of the agreements reached is that the change in monetary policy has a transitory effect on the volume of goods and services, when the price rigidity exists. The magnitude and persistence vary depending on the degree of rigidity of the price. In general the existing literature uses aggregate price data and concludes that the aggregate price does not react instantaneously but requires a lag time in response to unanticipated monetary policy. Bils and Klenow (2004) examined 350 categories of goods and services and found that prices in the United States are very volatile Bunn and Ellis (2012) examined price behavior in the UK using micro data, and concluded that the frequency of price changes is not fixed over time. Golosov and Lucas (2007) also use micro data from Bills and Klenow (2004) to calibrate the menu cost model. They also found that prices were more flexible. Using disaggregated price index data, Boivin, Giannoni and Mihov (2009) can explain why the impulse response of aggregate and disaggregated price data is different. They concluded that one must differentiate sources of shock. Rigidity is found at the aggregate level affected by macroeconomic shocks, while flexibility is found at the disaggregated level associated with shocks in a particular sector.

Based on the research question above, this paper has the potential to contribute highly to policy makers, since the empirical findings obtained will be able to assist them in determining monetary policy. In addition, this is the first analysis that uses discriminated pricing data for Indonesia. The next section of this paper reviews the theory and related literature studies. And reviewing methodology and data usage. The empirical findings will be presented in the fourth section, while policy conclusions and implicatio ns will be presented in section four.

2. Methods

There are many methodologies applied in evaluating inflation at the aggregate level. Meanwhile, the evaluation of inflation data at the discontgregated level requires a specific methodology. We use the Vector Autoregressive (VAR) model, a dynamic factor model used when macroeconomics faces degrees of freedom because the number of variables exceeds the number of observations. The premise of the dynamic factor model is that a very large number of variables can be represented by several latent factors and idiosyncratic disorders. This latent factor describes the harmonic movements of those variables that follow a certain time-dependent process, and usually the VAR process. Furthermore, these idiosyncratic disorders are specific to each variable, and include measurement errors in the relevant variables. Mathematically, the dynamic factor model is described as follows:

$$X_t = \lambda(L)F_t + e_t$$
$$Ft = \psi(L)F_{t-1} + \eta_t$$

The author follows the information criteria of Bai and Ng's (2002) to determine how many factors will be included. This method is appropriate for large number of variables and observations. This method also allows for limited interdependence across periods and cross-section, as well as heteroscedasticity in the idiosyncratic component. For the time lag, information criteria are commonly applied in the VAR model.

3. Findings and Arguments

First, we compare aggregate and dispersed aggregate statistics with respect to volatility and persistence. These two statistics are the basis of price behavior analysis,

and specifically to see if the prices are more rigid or more flexible and how they respond to shocks. From the monetary policy aspect, this behavior is important to provide clarity in the control of inflation.

Table 1. Comparison of Aggregate and Dispersed Aggregate Statistics With Respect to Volatility and Persistence

	Volatilitas dan Persistensi Inflasi Bulanan						
	Standar Deviasi			R^2	Persistensi		
	Inflasi	Komponen Umum	Komponen Sektoral		Inflasi	Komponen Umum	Komponen Sektoral
Aggregated CPI							
CPI	0.791	0.251	0.750	0.101	0.234	0.855	0.134
Core	0.308	0.137	0.276	0.198	0.358	0.833	0.567
Vol. Food	1.345	0.481	1.256	0.128	0.196	0.728	0.906
Adm. Prices	2.421	0.674	2.325	0.078	0.085	0.951	0.893
Disaggregated CPI							
- Average	2.453	0.837	2.256	0.202	0.003	0.430	-0.119
- Median	1.260	0.529	1.100	0.153	0.034	0.508	-0.095
- Minimum	0.003	0.000	0.003	0.008	-2.192	-1.043	-1.590
- Maximum	25.809	6.914	24.991	0.866	0.853	0.897	0.724
- Standard deviation	2.967	0.894	2.869	0.167	0.396	0.345	0.338
Disaggregated-Core							
- Average	1.271	0.511	1.132	0.231	0.114	0.459	-0.038
- Median	0.814	0.364	0.692	0.195	0.120	0.541	-0.019
- Minimum	0.053	0.030	0.044	0.008	-1.291	-0.870	-0.970
- Maximum	7.489	3.315	7.446	0.866	0.770	0.897	0.642
- Standard deviation	1.244	0.455	1.188	1.188	0.308	0.341	0.284
Disaggregated-Non Core							
- Average	4.309	1.347	4.020	0.155	-0.171	0.384	-0.247
- Median	3.226	1.109	2.968	0.094	-0.101	0.437	-0.230
- Minimum	0.003	0.000	0.003	0.008	-2.192	-1.043	-1.590
- Maximum	25.809	6.914	24.991	0.832	0.853	0.862	0.724
- Standard deviation	3.819	1.142	3.725	0.158	0.453	0.347	0.375

Table 1 above summarizes these two statistics. Using the standard deviation as a proxy for volatility, we found that the volatility of the dispersed aggregate was higher than that of aggregate inflation. The standard deviation of CPI inflation is 0.791, while the average CPI inflation rate is 2.453. This can be explained by the fact that the volatility of each sector tends to eliminate each other, resulting in aggregate inflationary volatility declining. The main factor contributing to inflation volatility is sectoral volatility. This is the fact of aggregate and disaggregated inflation. The R^2 statistic, which mengukurras io common component variants to inflation, shows that the general component only exposes less than 50 percent inflation volatility. If we compare R^2 statistics between core and non-core inflation, the result will be higher in core inflation. This implies that the common component plays a large role in core inflation compared to non-core inflation.

The following table also shows heterogeneity in volatility between inflationsectoral. The distance is from 0.003 to 25.809 percent, with an average of 2,453 percent. If we test the core and non-core inflation groups, as has been estimated, volatilit y is higher in non-core inflation. This is related to inflation figures in food, transportatio n and cigarettes (which are price holders). The increase in taxes on cigarettes and subsidized fuel during the investigation period is the cause.

4. Conclusion

This paper examines the dynamics of inflation in Indonesia using dispersed aggregated CPI data. We use FAVAR, as in BGM. This technique allows us to analyze both aggregate and price prices undisgregated with the same framework simultaneously. The use of these aggregation data provides a limited number of observation problems, and the FAVAR model provides a solution to these conditions. The finding of this paper is that price behavior in Indonesia is heterogeneous, not only in terms of the magnitude of the response, but also in the direction and speed of adjustment to a new equilibrium. This heterogeneity becomes more pronounced when testing is done on the behavior of price groups in the period after the ITF implementation. We find that monetary policy shocks have varying impacts on these price groups. More sectors responded by lowering prices as interest rate policy increases, reflecting the dominance of demand-side factors. The sectors are food and beverages; housing; transportation; communications and financial services; clothes; and others. They also respond with different levels. Meanwhile, prices in the entertainment, health and education sectors have responded with rising prices. There are several things that can explain this phenomenon, firstly, the dominant supply-side effect on the price group; secondly, the sector is classified as non-tradable and the cost-adjusting process by a convex company (Rotemberg, 1982), where the firm may have raised prices gradually, resulting in a response to price changes to an increase in interest rates, takes longer.

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Balinese Culture and Poverty:
Multidimensional Perspectives

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Abstract

Many practitioners outside Bali view traditional ceremonies as one of the causes of poverty. This is justified by the large portion of revenues to be spent on various traditional ceremonies that must be carried out by the Balinese, including the frequency of their implementation. On the other side, there is no empirical study that clearly shows how the influence of traditional ceremonies and the various dimensions of Balinese social life affect the poverty in Bali. As well as the development of theory and various empirical studies, poverty is no longer solely caused by the lack of a person (household) income under the minimum standard, but can be seen from various points of view. Poverty turns into a multidisciplinary nature, so the measurement must also be holistic. The study aims to answer the fundamental question, whether it is customary and cultural causes of increasing poverty in Bali? Do customs and cultures also affect the happiness of the people?

The data used here is primary data collected from 350 respondents through survey in all regencies and cities in Bali Province. Quantitative analysis with the regression method was applied to examine the influence of adat on the poverty and happiness of the respondents. The result of the analysis shows that custom and culture, which is characterized by *Yadnya* (*Dewa, Manusa*, and *Pitra Yadnya*), both from frequency and expenditure tends to have positive effect both for the income of society and the level of happiness. Therefore, there is no good reason to say that the customs and culture have caused the Balinese to be poorer. We also want to show that there are big impact this expenditure in term of customs and culture to regional income through multiplier effect. This reason can answer a question why Bali regions's economics can survive when crisis hit globally.

Key words: belief, custom and culture, happiness, income, poverty, regional development

1. Introduction

Poverty is one of issues not finished. The cause of poverty like never endless, and poverty rate couldn't tap until zero percent. Displacement the methods by measurement of poverty is one of the problem. Furthermore, the methods and indicators of poverty in every region could be different. When World Bank report their result about Poverty in 2006, in the report revealed that the number of poor people in Indonesia almost half of all Indonesians. In the same time, BPS also release poverty data and the result 39,1 million people in poverty group. Two of the data was different and will be raise questions. However, BPS or World Bank used different indicator to measurement poverty. World Bank used two criteria to determine poverty, that is national poverty (equal to consumed 2.100 calories/day) and internatio nal poverty line (PPP as US$ 1 and as US$ 2). The two of criteria used to different analysis (http://www.kompasiana.com).

Bali has controversy about the issues, when BPS Bali reveal that poverty in Bali increase from 3,95 percent in September 2013 to 4,76 percent in September 2014. The interesting of the problem is public expenditure. Data from the survey with expenditure nonfood component, necessity for religion ceremonies occupy the second position after

housing. Meanwhile, health expenditure and education expenditure gets a smaller portion (https://www.beritabali.com). This phenomenon created the new problem if a religious ritual and customs become inescapable poverty in Bali.

The perspective given by sociologist is an important role from this research. Poverty seen as a human condition, embedded in society. The problem condition describe that poverty has context must considered. Generic strategic to reduce poverty is impossible. One of the factor determine society is religious and custom. Religious and custom as social activities which determine comprehension and responsible to poverty.

Culture is an important agenda in this research about poverty. For decades behind, both sociologists, demographers and even economics have tried to find out about the role of culture in various aspects of poverty and even explicitly explain the behavior of low-income residents. Culture often considered a structural change in society, compared to hereditary inheritance. Although it is difficult to distinguish between structural and cultural differences because of both are still being debated. In some cases, the definition of culture is easier defined, relatively easier to measure, and more likely to enter if you want to fake (Small et.al., 2010).

Geremek identifies capitalism as the origin of poverty. This is of course not responsible for reducing the origin of poverty into just one aspect. Along with capitalism emerging the process of industrialization and commercialism, pushing a machine an unstoppable economy (Beyers, 2014). For centuries capitalism was considered by some people as solutions to poverty. At present the introduction of technology is considered by some people as solutions to poverty. For examples technology can cause the development of more advanced agricultural machines that reduce poverty through techniques better agriculture. The study conducted by Geremek shows that the cause poverty must be divided between internal and external causes. Certain human behavior, like laziness, can contribute to conditions of poverty. In some cases, the poor however, they become victims of oppressive or discriminating systems.

The contribution of unique religious contributions can be debated about poverty. First, religion can direct human attention to what it should become a major concern. Secondly, religion provides ethical fiber to the community so that it can respond to poverty appropriately. Finally, it is religious responsibility to alleviate poverty (Beyers, 2014).

Religion can play a role in overcoming poverty. Religion is not just an awareness morals that remind people will be generous to the poor, but also seen poor people as fellow humans. Religion can also create new thinking matrices, which affects community values. A society with attention materialism and consumption, it is necessary to note the existence that extends farther than worldly life which includes relationships with the spiritual realm. The existence of worldly material is the reduction of human existence. The mind of the community needs to be diverted. Religion is not only function in ethical and ideological capacity when responding to poverty. Religion can motivate people to be actively involved in participating in poverty alleviation activities. Balance is restored when poverty is not only measured in terms of ethical actions and spiritual, but also in an effort to provide the material needs of the community poor. True wealth does not lie in property. Freedom to have merry is asset. Religion can contribute to experiencing the fullness of life in all its forms.

In addition to religion, several in-depth studies show that culture is also correlated with poverty (including by Heath and Li, 2015; Norcia and Risotto, 2013). In a country like India, wealth, poverty, and charity have been arranged with social values in the form caste system. In Indian Hindu teachings, wealth is seen as beneficial and positive. Social ratings in ancient India are dominated by groups that have religious prestige while economic success and accumulated wealth do not lead to position higher social.

There is an opinion said that religious and customary activities are carried out by Bali's Hindu community has led to an increase in poverty rates seems to be supported with data on the amount of expenditure for this activity. This research tries to provide an empirical study to answer whether religious activities and Balinese Hindu culture make the community poorer. The study was conducted using primary data from 350 poor families in all regencies and cities in Bali. Quite interesting results shown with results that tend to differ from opinions so far.

2. Literature Review

Indicatore of Measuring Poverty and Welfare

Poverty is often associated with family welfare (rather than individuals). Absolute poverty associated with some money for meet basic needs. This measure of poverty is not related to balance in society, so that it is not in its position in the social and cultural community. This size get a lot of criticism in terms of the depth of human needs. Human needs interpreted as fulfilling physical rather than social needs (Anwar, 2005). Sayogyo (1971) proposed a level of consumption equivalent to rice per capita as one indicator of poverty measurement. Almost similar to the poverty indicator proposed by Sayogyo (1971), the Badan Pusat Statistik (BPS) calculates the amount of poverty with use the level of consumption of the population to meet their basic needs referred to here are not using the amount of rice as a food measure, but an indicator that is equivalent to 2,100 calories per day. In addition, BPS also includes non-food needs that are not only in the form of clothing and shelter but also education and health (Center for International Forestry Research, November 2004). Measure of poverty until now it is still used by BPS.

The poverty indicator issued by BPS is divided into a depth index poverty (P1) and poverty severity index (P2) (https://sirusa.bps.go.id). Index Poverty Gap (Poverty Gap Index-P1) measures the gap in the average of each population poor from the poverty line. The higher the index value, the further the average of population expenditure from the poverty line or in other words an increase in inequality poor people's expenditure. Whereas Poverty Severity Index (Poverty Severity IndexP2) provide an overview of the spread of expenditure among population groups poor yourself. The higher the value of this index shows the higher inequality expenditure between the poor.

On the other, the World Bank itself determines the absolute poverty line by using size of US$ 1 and US$ 2 PPP (purchasing power parity) per day with the aim of being able to do comparison of poverty rates between countries and the development of their poverty from time to time. This is intended to assess the progress of each policy and priority government in the world in fighting poverty.

The study of poverty experienced a significant development. Since 2010, United National Development Program (UNDP) and Oxford Poverty and Human Development The Initiative (OPHI) agreed on measuring new poverty through Multidimensional Poverty Index (MPI) (Budiantoro et al, 2013). This new measurement indicator is relatively different from measurement of poverty so far, because it sees a wider poverty structure and not just just income or consumption. The definition is relatively multidimensional like limitations access to education, health and quality of life. There are three dimensions that are referred to by UNDP and OPHI in MPI.

1. Health Dimensions that use two general indicators, namely nutrition and numbers child mortality. These two indicators are selected because they are part of the basic access to health which must be accessible to every household.

2. The Education Dimension also uses two indicators, namely school length and access towards education. Both can be a reflection of the ability of the community to access

education, although it cannot be used as a reflection of quality education itself.

3. The Dimensions of a Living Standard that has six indicators. First, access to drinking water clean. Second, access to good sanitation and not shared. Third, access to electricity. Fourth, House floor materials are not made of soil or sand. Fifth, fuel for cooking non-charcoal or wood. Sixth, more than one physical asset ownership (can in the form of radio, TV, bicycle, motorcycle or refrigerator).

Each country is basically given the opportunity to develop MPI indicators according to the characteristics of poverty in the country. It's just that, the indicator is chosen must meet the standards as stated in the MDGs. The flexibility in developing indicators in MPI causes measurement MPI in Indonesia is relatively different. Although the measurement dimensions are fixed, there are some indicators that must be adjusted from the three dimensions.

Cultural and Social Aspects in Welfare Measurement

Indicators of development measurement that tend to focus on the final material aspects often ignoring important aspects of life that are actually very relevant in individual's welfare (individual or subjective well-being). With incorporating one's values, this subjective welfare becomes relevant for pay attention in debates about development and strategy. Measurement giving recognition of human universality in the experience of being prosperous but still allows heterogeneous relationships between these immersions and their forming factors. This heterogeneity arises from a process of past history which then forms culture and influence values. Because of this, warmth is considered better measured with a measure of subjective happiness (Rojas, 2018).

Researches related to individual happiness indicate existence the phenomenon of a significant influence between the happiness of the population and success development (one of them by Forgeard et al., 2011). Various indicators of happiness begin developed in a world that is expected to be an illustration of the level of individual welfare, which is more subjective in relation to essential and meaningful aspects of life for human life (Statistics, 2017).

In Indonesia, the terminology of happiness is chosen more than the term subjective well-being. This refers to the survey instrument used. This instrument developed by BPS from a measure of objective conditions and subjective welfare levels, includes three major dimensions, namely (1) evaluation of ten domains of human life considered essential / important by most people, (2) affect (feeling or condition emotional), and (3) eudaimonia (meaning of life). Therefore a measure of happiness is a result from the composite index of the three dimensions above.

These measures of happiness then make the happiness of the people between The state can be compared so that it is possible to do statistical tests against the causal factors. The review carried out by (Rothstein, 2009) shows if the government of a country is generous and has concern for welfare, then the population will be happier. Life quality indicators that are usually used usually are unemployment, level of social trust, GDP per capita, level of individualism.

Subjective indicators, such as life satisfaction and happiness begin to be the main goal in political conversation. One of the advantages of using these measurements is non-elite groups can be a determinant of goals from politics (economic prosperity, good health, personal ability, active in religion) can convey how much satisfied with their lives.

3. Methodology

Data collection in this study uses survey and interview methods in depth with an openly made questionnaire guide. In 2016, BPS noted there are 178,180 poor families in Bali. The

number of samples is calculated using the Slovin method and it is planned that 400 poor households are divided based on the proportion of the population poor in each regency/city. Only, after data cleaning, only 361 respondents who meet the qualifications for further processing. Initial data is obtained from the Office Social and Community Empowerment in every Regency/City in Bali.

The main objective of this research is to analyze the influence of adat and ritual religious and social life dimensions of the level of poverty of Balinese people. Therefore, it is important to include these variables in the model. The model will be tested here are:

$$lny_i = α + β_1ln\_mkni + β_2ln\_nmkni + βkX_i^k + e_i1$$

Where this is the log of total household income, this is the log of expenditure for daily food consumption, while *ln_nmkni* is the expenditure log intended for traditional activities and religious rituals. *Xik* is a collection of individual characteristics considered to have an effect on income, namely the number of household members and levels education. The level of education used is the school level that has been successfully completed. Other household characteristics included are customary status (d = 1) or whether no (d = 2), as well as the frequency of following traditional activities and religious rituals that become obligations. Both of these variables are used to measure the social dimensions that are characteristic community life arrangements in Bali.

Different poverty indicators are proposed using the happiness index or happiness index. The happiness scale used here is the level of happiness perceived by respondents and subjective. The proposed model is relatively the same as the model first, it's just that the dependent variable used is the perceived happiness scale in living a life that ranges from 1-10 (lowest - highest). Analysis model used are as follows:

$$happy_i = α + β_1ln\_mkni + β_2ln\_nmkni + βkX_i^k + e_i2$$

4. Analysis and Discussion Results

According to data released by BPS, the number of poor people (population with per expenditure capita per month under the Poverty Line) in September 2017 in Bali reached 176.48 thousand people (4.14 percent), which is down by 3.65 thousand people compared to poor population in March 2017 which amounted to 180.13 thousand people (4.25 percent) period of March 2017 - September 2017, percentage of poor people in urban areas and rural areas have decreased. Percentage of poor people in urban areas in March 2017 3.58 percent, down to 3.46 percent in September 2017. Likewise the percentage poor people in rural areas fell from 5.45 percent in March 2017 to 5.42 percent in September 2017. During the period March 2017 - September 2017, Poverty Line rises amounting to 0.740 percent, from Rp. 361,387 per capita per month in March 2017 to Rp. 364,064 per capita per month in September 2017.

Table 1. Number of Poor People in Bali Province According to Regional Classification, 2011-2017 (in Thousand)

	2011		2012		2013		2014		2015		2016		2017	
	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept
Kota	92,7	100,3	90,4	92,1	94,8	103,1	99,9	109	109,8	115,8	96,9	93,7	96,89	96,1
Desa	73,1	81,8	76,5	66,9	65,1	79,74	85,3	86,8	86,92	103	81,2	81,2	83,23	80,4
Kota + Desa	165,7	182,1	166,9	158,9	159,8	182,7	86,8	196	196,7	218,8	178,2	174,9	180,1	176,5

source: BPS Provinsi Bali, 2018

The Poverty Line is used as a limit to classify the population being poor or not poor. The poor are residents who have an average per capita expenditure per month below the Poverty Line. During the period of September 2015- March 2016, the Poverty Line increased by 2.40 percent, from Rp. 331,028 per capita per the month of September 2015 to Rp. 338,967 per capita per month in March 2016. With pay attention to the Poverty Line component (GK), which consists of the Food Poverty Line (GKM) and Non-Food Poverty Line (GKBM), it appears that the role of commodities food is still far greater than the role of non-food commodities. The amount GKM's contribution to GK in September 2015 was 68.88 percent experienced increase to 69.15 percent in March 2016.

Food commodities that make the largest contribution to the March Poverty Line 2016 both in urban and rural areas are generally the same, as for food commodities who play a role in the formation of urban poverty lines among others: rice, clove cigarettes filters, chicken meat, broiler eggs, shallots, ground coffee and instant coffee, wet cakes, noodles instant, bananas, and bread, while in the countryside between: rice, filter clove cigarettes, chicken eggs races, chicken meat, shallots, bananas, ground coffee and instant coffee, cakes, bread and chillies cayenne. In non-food commodities, commodities that play a role in line formation poverty in urban areas include: housing, gasoline, other religious or customary ceremonies, electricity, and education, while in the countryside between regions: housing, gasoline, religious or customary ceremonies other, firewood, and electricity.

Table 2. Average Monthly Expenditure per Capita by Non-Food Group Bali Province, 2010-2016

Makanan	2010	2011	2012	2013	2014	2015	2016
Sewa, kontrak, perkiraan sewa rumah	82.950	95.985	147.016	148.864	167.824	160.052	164.746
Pemeliharaan dan perbaikan ringan rumah	4.492	4.051	3.822	7.486	4.705	5.749	2.691
Listrik, air, gas, minyak tanah, kayu bakar	32.837	39.112	39.343	45.284	49.354	51.036	55.354
Rekening telepon rumah, pulsa HP, telepon umum, wartel, benda pos	19.129	29.004	28.114	29.627	30.800	34.465	37.211
Sabun mandi/cuci, kosmetik, perawatan rambut/muka, tisu	15.066	20.237	21.975	26.747	28.856	36.747	42.411
Perawatan rambut/muka, tisu	15.066	25.430	30.286	42.948	39.649	30.032	34.478
Biaya pendidikan	22.326	28.808	31.831	42.743	44.394	36.218	40.921
Transportasi, bensin, solar, minyak pelumas	31.841	52.158	51.546	62.522	75.246	82.763	82.983
Jasa lainnya	6.401	8.942	11.058	9.358	11.340	9.450	12.637
Pakaian, alas kaki, tutup kepala	10.491	17.462	17.060	22.839	23.832	18.642	19.321
Barang tahan lama	29.563	66.887	58.750	57.279	79.992	84.862	61.691
Pajak (PBB & Kendaraan)	7.669	8.680	8.587	11.555	12.900	11.788	13.185
Pungutan	3.872	3.498	4.498	5.039	4.567	2.781	3.589
Asuransi kesehatan	4.243	4.391	6.982	6.310	8.005	10.466	12.502
Asuransi lainnya	2.605	6.285	9.273	3.547	5.009	1.839	2.052
Keperluan pesta dan upacara	26.794	31.295	75.646	49.733	52.554	46.678	47.796
Jumlah	**319.569**	**442.226**	**545.788**	**571.880**	**639.026**	**623.568**	**633.569**

source: BPS Provinsi Bali, 2018

When viewed from the components that have a major influence on the deployment in Bali, especially in non-food components, housing is ranked first. This can understandable because the price of houses or land in Bali is very expensive, relative compared to in outside Bali. Its value even shows a significant increase trend. Some parties argues if the social burden of customary implementation and cultural preservation is one causes that affect poverty rates in Bali. Based on the results of surveys and censuses national (Susenas) for the March 2014 period that has been announced by the Central Statistics Agency shows that the percentage of poor people in Bali increased to 4.53 percent from the previous period in September 2013 was 4.49 percent. The thing that attracted attention was items of expenditure for the poor. From the survey conducted on expenditure components non-food, the need for religious ceremonies occupies the second position after housing. While spending on health and education gets a smaller portion (*https://www.beritabali.com*). This phenomenon which then raises the presumption if the ritual religion and customs have become a poverty trap in Bali. Customary social burden borne the community is quite influential on the expenditure of the poor. Even though the government has provided several types of poverty alleviation assistance, such as poor rice.

Social busyness in Bali does have a high intensity. Activity intensity custom that is high enough, of course, will have an increase in costs that must be incurred for implementation. If viewed from the opportunity cost, then the time taken for participating in these activities correlates with the loss of income that may be received by an individual if that time is used for work. During this time the social burden on adat and the culture that must be borne between the poor and the rich is the same, so the community poor become very high burden that must be borne. Besides there are also villages Pakraman or a traditional village that enforces policies that ultimately impact burdensome society.

If the poverty rate in Bali is seen per district/city area, it will be seen quite striking conditions. Table 4.3 shows the percentage of poor people per district/city in Bali. The highest number of poor households in Bali is in the Karangasem region and the second most followed was in the Klungkung area. In Karangasem, according to the Agency Bali Village Community and Government Empowerment, its citizens have almost every year IDR 4 million debt for traditional ceremonies, working this year to pay off last year. This is what then became the spotlight about the difficulty of alleviating poverty in Bali.

Customs and culture that exist in Balinese society are closely related to the religion and religious life of the Hindu community. Both have long historical roots and reflect expressive configurations with the dominance of Hindu religious values and philosophies. In this configuration, aspects of religious essence, patterns of life, social institutions, and art in Balinese society are included. The majority of Balinese people embrace Hinduism which has a basic framework covering three things; philosophy, ceremony, and Tata Susila. The essence of Hinduism is Panca Cradha which means five beliefs namely Widhi Cradha is the belief in the existence of God Almighty, Atma Cradha is the belief in the existence of atman or soul in every creature, the Karma Pala Cradha is belief in the law of action, Punarbhawa Cradha is belief in the case of reincarnation or rebirth after death, Moksa Cradha is a belief in moksa which is eternal happiness.

The pattern of life of Balinese people is very rigid and bound to good religious norms and social. In the context of religious norms, for example, every Balinese Hindu is obliged to performing prayers or worship at certain temples is required for one place of residence together in the community, the ownership of agricultural land is required in one subak certain, are required in social status based on color, on obligatory kinship ties according to patrilineal principles. Balinese settlement structures can be divided into two types namely the settlement of a cosmic pattern as happened to Balinese people who live in mountains

and settlements spread as happened to Balinese people who are in lowland. In the cosmic pattern, the traditional village is the central point. While in the pattern spread, the village is divided into a smaller area called Banjar. Balinese Hinduism does give a characteristic to Bali. Various rituals and ceremonies his religion has become a special attraction for foreign and domestic tourists. Although Hinduism originated in India, Bali still has its own Balinese style of Hinduism. in the form of self-control measures become an important feature of religious expression in the circles Balinese Hindu community. For this reason, the Balinese Hindu community is known for its behavior graceful and polite.

From the available data, the survey is intended to look at the current characteristics and conditions of poor household in question. However, the survey did not go as expected. Because of the 400 questionnaires distributed, only 361 questionnaires were accepted complete, due to time constraints. In addition, the alert status issued by the Government for Karangasem Regency in the middle of the survey period also caused the survey in this area to become not optimal. Descriptive statistical summary of respondents can be seen below.

Table 3. Data Descriptive Statistics

	art	pendapatan	frekuensi_ritual	pengeluaran_keagamaan	pengeluaran_makanan	pengeluaran_adat	skala_harapan hidup	skala_kepuasan	skala_kebahagiaan	status_adat	pdd
Mean	4,144	1.958.089	294,31	4.189.687	608.853	843.436	5,501	6,315	6,706	1,063	
Stand. Error	0,087	73.775	7,665	269.222	78.296	53.419	0,074	0,070	0,078	0,014	
Median	4	1.750.000	374	2.900.000	350.000	550.000	5	7	7	1	
Mode	4	1.000.000	375	-	-	-	5	7	7	1	
Stand. Dev.	1,670	1.401.728	145,65	5.115.212	1.487.629	1.014.962	1,420	1,343	1,484	0,266	
Kurtosis	0,270	2	-0,626	22	89	6	-0,173	0,300	0,000	15,07	
Skewness	0,259	1	-1,104	4	8	2	0,014	0,072	0,2167	3,552	6,
Range	9	8.900.000	427	45.400.000	20.000.000	7.240.000	8	8	7	3	
Min.	1	-	0	-	-	-	2	2	3	0	
Max.	10	8.900.000	427	45.400.000	20.000.000	7.240.000	10	10	10	3	
Count	361	361	361	361	361	361	361	361	361	361	

source: Data Processed

When viewed from the average value of income owned by respondents, refer to the category poverty that is used generally is US $ 2 / day, then all respondents are in the category poor household. Their average income is only Rp. 1,958,089 per month. With the average number of household members is 4 people, so per day the income per individual becomes Rp. 16,317. This figure is far below the minimum income that must be met, which is around Rp 28,000.

The average education that was successfully completed by respondents was primary school, even though there are respondents who successfully complete their education up to one diploma. Look expenditure structure of each household, the expenditure for food is still relatively more large compared to non-food expenditure, which in this case specifically looks at expenses for customs and religion. Most respondents stated themselves as a member of a traditional village, although there are some that are not traditional customs. The frequency of custom and religious activities that must be followed by every household can reach 66 times per year, although on average around 18 times per year. The activity in question here, can be in the form of carrying out or attending pawiwahan, death, ngayah piodalan, nguopin, and others.

Expenditures that must be spent in total for these activities can range between Rp. 4 Million - Rp. 5 Million per year. When compared to the level of income received an average

of Rp. 23 million per year, this expenditure on adat and religion is not exceed the income received. Therefore, it can be said if customary activities and rituals carried out by each household adjust to the abilities of each household, and not something that is imposed on its magnitude.

Table 4. Results of Analysis of the Effects of Expenditures and Indigenous on Home Income in Bali

Variable	Model 1		Model 2	
	Koefisien	t-statistik	Koefisien	t-statistik
pengeluaran makanan	0,0506 (0,0395)	1,2818	0,0578 (0,0394)	0,1441
pengeluaran ritual	0,2329*** (0,0439)	5,2975		
pengeluaran adat			0,1661*** (0,0394)	4,2077
pengeluaran agama			0,1528*** (0,0487)	3,1375
anggota rumah tangga	0,04153*** (0,02158)	3,2432	0,0326*** (0,0128)	2,5369
pendidikan	0,0107* (0,0057)	1,8682	0,0091 (0,0056)	1,6277
status adat	0,0710 (0,0733)	0,9682	0,1268* (0,0758)	1,6722
frekuensi yadnya	0,0058*** (0,0014)	3,3908	0,0026* (0,0015)	1,6592
R2	0,2667		0,2729	
F-statistik	20,4337***		16,8384***	

source: Data Processed

The results of the analysis show that if you become Hindu in Bali with a variety of customary obligations and ritual routines it has absolutely no effect on the level of poverty in Bali. Surprisingly, spending on rituals has a positive impact on household income significantly. This means that the greater the funds spent on rituals, the greater the household income. A 1% increase in food expenditure, encouraging an increase of 0, 05% of household income. Meanwhile, an increase of 1% for ritual spending can encourage an increase in income by 0.23%. The effect of ritual spending can be said to be greater than the expenditure on food. This result still raises further questions, what kind of pathway has a positive effect on ritual expenditure on household income. Often this ritual is associated with yadnya. When referring to the meaning of yad itself as various forms of offering ceremonies and worship of Ida Sang Hyang Widhi Wasa by Hindus on the basis of sincere conscience. This sincerity of conscience is assumed to be positive for individuals to provide the best. When spending on rituals is divided into religious expenditures (relatively more flexible) and traditional / other expenses (relatively more rigid), the results are not much different (as shown by model 2).

Sorting out the two types of ritual expenditure becomes adat (in the form of pesons, ayahan, patisan, contribution, and various forms) with religious expenditures are expected to be able to provide a clearer picture of the "objections" that are considered to make

Balinese people become poorer. The results consistently show if all obligations religious customs and rituals have no negative influence on income household. The frequency of various traditional, social and religious activities is also not give a negative influence on people's income

Other social dimensions, in the form of status of being a customary man give a positive influence. That is, if the household is not a member of traditional customs, the income they have will be higher, but this effect is not significant. This matter shows that there are still strong traditional influences on traditional social life in Bali, especially Hindus. Being a member (custom) like having rights exclusive to the assistance and acceptance of the social environment that is accepted by the family. If there is a hardship that befell the family, then other adat members are inside one Banjar will voluntarily and happily help to ease the burden. This makes any obligation to become an adat man, will not be an objection for the family concerned.

The number of household members and education is assumed in theory give a positive effect on household income. More and more home members ladder, the accumulated household income will also increase. Capital other humans are education. The higher the level of education of a person, the more also the income that can be received.

Different welfare indicators are submitted using the happiness index or happiness index. The happiness scale used here is the level of happiness perceived by respondents using a scale indicator. The larger the scale shown, the happier the respondent was in living a life that ranged from 1- 10 (lowest - highest).

Table 6. Results of Happiness Determinants in Bali

Variabel	Koefisien	t-statistik
pengeluaran makanan	0,0845 (0,1312)	0,6437
pengeluaran keagamaan	0,1415 (0,1582)	0,8941
pengeluaran adat	-0,1864 (0,1283)	-1,4525
anggota rumah tangga	0,0550 (0,0414)	1,3293
Pendidikan	-0,0482*** (0,0181)	-2,6659
status adat	0,0605 (0,2500)	0,2421
frekuensi ritual	0,015955*** (0,0051)	3,1235
kepuasan sosial	0,6523*** (0,0434)	15,0247

source: Data Processed

The results of the analysis on the aspects of happiness here show quite surprising things. Regarding individual happiness, all material things tend to have no effect towards one's level of happiness. But when faced with education, frequency the implementation of various forms of ritual, and social satisfaction only affects their happiness. This indicates that one's happiness cannot be measured from material ownership only, but also imateriil. Expenditures for other religious and customary rituals have different effects. Religious ritual

spending is positively correlated, while expenses for adat are correlated negative. This indicates that if the ritual is given more flexible flexibility, such as As for religious rituals that are adapted to one's condition, the effect will be different compared if forced. However, like more traditional and religious rituals in Bali surrender to sincerity, they do not have a significant impact.

The frequency of participation in traditional activities and religious rituals has an impact positive and significant on one's happiness. The more often he is involved in activities in his environment, the greater the feeling of happiness he felt. This result is contradictory the view of most people who stated that the time taken for various activities religious customs and rituals in Bali will cause feelings of disruption and reduce their happiness. These results also confirm, if welfare is not only obtained measured by asset ownership, but also the feeling of being recognized in the social environment. Seen from satisfaction to social relationships to be the most dominant factor influencing towards one's level of happiness. The greater the level of satisfaction of an individual with acceptance of the social environment towards them, the higher the level of happiness can be felt by that person.

The results of a survey conducted by BPS regarding the happiness index indicate if Bali's happiness index in 2017 is 72.48, which is higher compared to the Indonesian national happiness index (70.69). When compared to conditions in 2014, the happiness index of the Balinese can be said to increase. Dimensions the biggest role in the formation of happiness of Balinese is the dimension of life satisfaction (34.80), followed by feeling dimensions (31.18) and dimensions of meaning of life (34.02) (Provincial BPS Bali, 2018). These results confirm the results of the study here, if social satisfaction is influential great for one's welfare. Although it can be said, the scale of happiness and satisfaction the social used here is relatively subjective and not exactly the same as dimensions composite used by BPS in its measurement.

No significant effect of religious ritual expenditure on happiness one does not necessarily indicate the absence of a relationship between religious attitudes and the happiness of Hindus in Bali. The greater the level of expenditure for religious rituals is not can be correlated with a more religious person. Some studies show if the level one's religiosity correlates with the level of happiness. Aghili and Kumar (2008) examine the relationship between religious behavior and subjective happiness of Iranians and Indians shows a positive correlation between religious behavior and happiness. Increasingly religious someone, the happier they are. Only, the religious behavior meant here is more on the spirit of life and trust in the future that drives happiness to be higher. While the correlation of happiness with relative religious behavior is formal (religious norms) are of less value. But another study by Sillick et al. (2016) get different results, if there is no significant difference between people's happiness religious ones with not.

Religiosity in this case can be said as all things related to trust in certain beliefs or doctrines regarding supernatural powers (Reich, et al. 1999 in Ansari, 2015). However, in a broader sense religiosity is interpreted as a comprehensive sociological term used to show various religious activities, dedication and dedication, as well as trust or doctrine (Ansari, 2015). Study by Clemente and Sauer (1976) in his study of the level of life satisfaction of Americans concluded if the more often a person goes to the Church, the higher the level of satisfaction of his life. This result is almost similar to the results obtained by Colón-Bacó (2010) which uses frequency to place worship as an indicator. However, some say that the Church can be identified as source of social support so that attendance to the Church can be associated with increasing height health outcome of the person. The same association can be used in this study. The frequency of rituals, both traditional and religious rituals, will place the person in social environment. Frequent gathering frequency will increase taste their happiness because of the feeling of being accepted and supported by the social

environment where they live. Likewise with a significant social satisfaction scale correlation with individual happiness scale.

5. Conclusion

There is a lot of controversy stating that being Hindu in Bali will be very troublesome. Some official government agencies even released poverty figures making the amount of expenditure on religious rituals as the cause of the size of the house poor stairs in Bali.

This research is intended to answer the controversies and hypotheses stated at on. However, the results of the analysis show that there is no strong and significant evidence to state if poverty is influenced by the existence of adat, the ritual of religion is the social dimension shade the Hindu community in Bali.

Prosperity seen from the amount of income confirms if income influenced by spending on religious customs and rituals, but the effect is positive and significant. Not negative, as many parties hypothesize. Frequency of customary activities and the religious rituals that are followed also have a positive effect. This contrasts with a view that states that the number of traditional and religious rituals that must be followed will be disrupt working time and cause them to be unproductive and poorer.

Prosperity seen from different perspectives is also tested here. Results that was quite surprising. Variables which are material in nature tend not affect the level of happiness of a person. But the feeling of being accepted and satisfied will be environment and social relations make them happier. So, when the frequency the yadnya has a positive effect on the level of happiness, it can be justified. Because the more often they are involved in traditional activities and religious rituals, the better the relationship they have with their social environment.

However, there are some weaknesses in this study. Some previous studies show there is an inconclusive result between income relations and religion (culture) with individual welfare. This is more due to the different indicators used. The happiness scale in this study is still subjective and has not been used raw components as used by BPS. Therefore, the results are debatable. For future studies, research can be developed using several indicators official as a comparison.

The results of this study also show more on the results of quantitative testing, so that they are still not can be explained in detail how this ritual expenditure can have a positive effect on individual income.

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The Analysis Effect of Economic Growth And Investment on Income Inequality in Indonesia

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Abstract

Economic growth is the economic progress of a country, especially the increase of goods and This study is a quantitative research that aims to determine the effect of economic growth and investment of foreign direct investment to income inequality in Indonesia in 2013-2016. This study used panel data from 33 provinces in Indonesia during the period 2013-2016. The type of data used in this study was secondary data, which includes Gini index data, per capita GRDP growth and foreign direct investment (FDI) investment. Data analysis in this research used panel data regression analysis. The results showed that provincial economic growth had a positive and significant impact on income inequality. While foreign direct investment investment positively influences not significantly to income inequality.

Keywords: income inequality, economic growth, FDI

1. Introduction

Indonesia continues to experience an increase in output per capita from year to year. This is indicated by national gross income per capita which continues to increase. According to World Bank data Indonesia's national per capita gross income increased from US $ 560 in 2000 to US $ 3,630 in 2016. Indonesia's economic growth was also followed by a decrease in poverty rates from year to year. Based on data from the Central Statistics Agency (BPS), since 1999 Indonesia has succeeded in reducing poverty from 47.97 million (23.43 percent) of the poor population to 28.28 million (11.25 percent) in 2016. The pace of economic growth Indonesia has experienced a slowdown since 2012 due to weakening demand for several commodities driving the Indonesian economic boom in the previous decade, one of which is coal. The decline in demand from major coal importing countries such as the PRC and the abundance of world coal production also affected the falling selling prices of coal in the world market. This has resulted in slowing the growth rate of exports, investment and the rate of reduction in poverty rates in Indonesia. However, economic growth in Indonesia is not followed by an even distribution of income.

Income inequality in Indonesia as measured by the Gini Index tends to increase. Indonesia uses the consumption expenditure approach to calculate the Gini Index. Data on income groups in Indonesia are measured using the data approach of population expenditure groups in Indonesia. There is a slight weakness in measuring income inequality using the expenditure approach. The general fact that is known is that data on inequality based on expenditure tends to be lower than income-based (Lustig, 2015). According to Yusuf in Prastowo et.al. (2014) this is because high income groups usually save a greater proportion of their income, the distribution of expenditure on consumption is generally more equitable than income distribution. Ahlualia (1974) in Asri (2005), classifies income income in three groups, namely: 40% of the population receiving the lowest income, 40% of middle income population and 20% of high income population.

Based on data on the inequality in the share of expenditure in urban and urban and rural areas, there is a similar pattern of expenditure share. The share of 20% of

high-spending groups always exceeds the share of 40% of the medium-spending group and tends to increase. While the share of 40% of the medium-spending group and 40% of the low-income group tends to decrease. In the period 2010-2016, the share of 40% of low-expenditure groups in the combined urban and rural areas decreased by 9.98% or an average decline of 1.66% per year. While the share of 40% of the expenditure group is experiencing a decline of 6.63% or an average decline of 1.10% per year. Meanwhile, the share of 20% of high-expenditure groups has increased by 9.59%, or an average of 1.60% increase per year. As a result 20% of high- expenditure groups in 2016 controlled a share of 49.04% of total expenditure (up from 44.75% in 2016). According to data on expenditure share in 2010-2016, it is seen that there is a tendency of 20% of high-expenditure groups or rich groups to be the group that enjoys the greatest economic growth. While 40% of low-income groups or the poor are the most depressed groups in line with economic growth. This fact shows the widening gap in inequality in Indonesia along with economic growth.

There are many causes of income inequality, one of which is according to Procovicth in Suyatno (2009) that this gap is caused by economic growth, population growth, and the development of cities and villages. The relationship between inequality and economic growth began to emerge when economist Simon Kuznets put forward the inverted U hypothesis (Galbraith and Kum, 2012). Kuznets said that initially when development began the distribution of income was uneven, but after reaching a certain level of development the income distribution was more evenly distributed (Kuncoro, 2004). Karl Marx in his theory argued that economic growth in the early stages of development would increase labor demand. The increase in the wage level of the workforce further affects the increased risk of capital to the workforce. As a result there are problems with unemployment and income inequality. In short, economic growth tends to reduce the problem of poverty and income distribution in the early stages of development, then in the next stage there will be the opposite (Irawan, 2002). Empirical evidence from this view is based on observations in several countries such as Taiwan, Hong Kong, Singapore and the PRC. NeoClassic groups are very optimistic that economic growth in practice tends to reduce income inequality and poverty (Irawan, 2002).

In addition to economic growth there is one important factor that can affect the income gap in the midst of the globalization era, namely investment. Investment plays an important role in development, so it is often called the "engine of growth". According to Harrod- Domar in Arsyad (1997), each economy can set aside a certain proportion of its national income if only to replace damaged capital goods. However, to grow the economy, new investments are needed as additional capital stock. Investment can be defined as a change in capital stock and has a direct relationship with total output. Direct investment investments will have an impact on employment, which can ultimately increase national output. Based on Harrod-Domar's theory, the lack of investment in a region makes economic growth and income levels per capita in the region low because there are no productive economic activities. Thus the inequality of investment distribution is considered as one of the main factors causing income inequality. Dabla-Norris, et.al. (2015) found that greater financial openness (foreign investment) will have a positive effect on increasing inequality in developed countries, which reflects the fact that the benefits of skilled labor sectors are disproportionate. Whereas in developing countries FDI has no effect on inequality. Meanwhile Lin and Wu (2013) found that investment has a positive effect on income inequality. Whereas on the contrary, Danawati et al (2016) found that investment did not have a significant effect on income inequality.

The purpose of this study is 1) to analyze the effect of economic growth on income inequality; 2) analyze the effect of investment on income inequality.

2. Literature Review

Economic Growth and Income Inequality

The relationship between inequality and economic growth began to emerge when economist Simon Kuznets put forward the inverted U hypothesis (Galbraith and Kum, 2012). According to Kuznets, in the initial stages, the economic growth of income distribution tends to deteriorate, but in the next stages it will improve. This hypothesis is better known as Kuznets' inverted "U hypothesis, in accordance with the form of a series of changes in income distribution trends with the size of the Gini coefficient and GNP per capita growth which will look like a U- reversed curve. According to Kuznets, income distribution will increase in line with economic growth (Todaro, 2000). It is as if in the short term there is a positive correlation between economic growth and inequality of income distribution, meaning that economic growth will be followed by increasing inequality of income distribution. But in the long run, the relationship between them becomes a negative correlation, meaning that an increase in income will be followed by a decrease in the inequality of income distribution (Todaro, 2004).

NeoClassic economists argue that economic growth tends to reduce poverty and income inequality even though it is still in the early stages of growth. Empirical evidence from this view is based on observations in several countries such as Taiwan, Hong Kong, Singapore and the PRC. NeoClassic groups are very optimistic that economic growth in practice tends to reduce income inequality and poverty (Tarmidzi, 2012). Economic growth tends to reduce the problem of poverty and income distribution only in the early stages of development, then in the next stage there will be the opposite (Irawan, 2002). Neo Marxist states that economic growth will always cause a widening inequality between the rich and the poor. This happens because of the accumulation of capital and technological advances that tend to increase the concentration of resource and capital control by the rulers of the capital "elite" group of society. On the contrary, non-capital owners will remain in a state of poverty.

Park and Shin (2015) also stated that economic growth can increase or decrease the income gap of a society in a region. Kang (2015) found that economic growth correlates negatively with the income gap. While Cingano (2014) found that economic growth does not affect income inequality.

Influence of Investment on Income Inequality

Investment or investment is an expenditure that aims to increase capital and gain profits in the future. Because of its important role in development, investment is often called the "engine of growth". According to Harrod-Domar's theory in Arsyad (1997), each economy can set aside a certain proportion of its national income if only to replace damaged capital goods. However, to grow the economy, new investments are needed as additional capital stock. Investment is defined as a change in capital stock, and has a direct relationship to total output. Direct investment investments will have an impact on employment, which can ultimately increase national output

Based on Harrod-Domar's theory which explains the positive correlation between the level of investment and the rate of economic growth, it can be said that the lack of investment in a region makes economic growth and income levels of people per capita in the region low because there are no productive economic activities. With the centralization of investment in a region, the imbalance in the distribution of investment is considered as one of the main factors that lead to inequality of development or economic growth.

In the theory of endogenous growth, technological development is an important factor that influences investment. According to Todaro (2004), the endogenous growth model can

be used to determine the high potential investment returns in developing countries whose labor capital ratio is still low. The endogenous growth model sees technological change as an endogenous result of investment in human resources and technology-intensive industries, both by the private sector and the government. This theory refers to innovation or technological development as a component that influences investment, where previously technological change or development is the result of physical capital investment and human capital that can create an external economy and increase productivity.

The influence of investment is reinforced by the results of Lin and Wu (2013) and Bhandari (2007) who found that investment has a positive effect on income inequality. Whereas Mihaylova (2015) and Danawati et al (2016) found that investment had no significant effect on income inequality. Dabla-Norris, et.al. (2015) found that investment will have a positive effect on increasing inequality in developed countries. Figini (2006) found that FDI has a different effect on income inequality.

3. Research Methods

This research was conducted with a quantitative approach. The type of data used in this study is secondary data in the form of panel data with the period of 2010-2016. In general, the data in this study were obtained from the Central Statistics Agency in the form of GRDP, Gini coefficient and investment in 2010-2016.

The analysis in this study uses panel data which is a combination of time series data and cross-section data. There are two kinds of data panels, namely data balance panel and unbalance panel data, data panel balance is a condition where the cross-sectional unit has the same number of time series observations. While the unbalance panel data is a condition where the cross-sectional unit has the same number of time series observations. Data analysis method uses estimation with panel data, namely Pooling Least Square (Common Effect). The classic assumption test of the regression model must be free from multicollinearity, autocorrelation, and heteroscedasticity and the data produced must be normally distributed.

Research variables include income inequality measured by the Gini Index or Gini Ratio in each province in Indonesia. The Gini Index is calculated based on the approach to public consumption expenditure. Economic growth is measured by the growth of per capita Gross Regional Domestic Product (GRDP) on the basis of constant 2000 prices in each province, Investment using foreign direct investment (FDI) investment ratio data.

4. Research Result

Data analysis techniques use the Pooled Least Square method to examine the relationships between individuals cross section. Complete output results from panel data regression analysis using Pooled Least Square (Common Effect) method. The following is the output of panel data regression with Common Effect/Pooled Least Square Model with Eviews program.

Based on the results of data analysis can be formed the following equation model:

$$KTP_{it} = 0{,}330236 + 0{,}002444 GROW_{it} + 0{,}001421 FDI_{it} + e_{it}$$

Based on these equations it can be interpreted the results of the estimation of panel data regression with the pooled least square method with the following explanation.

1. Constant value
   The constant value (C) is 0.330236, which means that if the variables of economic growth and investment do not change (constant), then the income inequality is 0.330236.

Table 1. Data Panel Regression Results with Pooled Least Square Method

Variable	Coefficient	t-Statistic	Prob.
Konstanta	0.330236	42.60518	0.0000*
PDRB Per Kapita (Grow)	0.002444	3.263739	0.0013*
Investasi PMA (FDI)	0.001421	0.916024	0.0900
R-Square	0,986056		
Adjusted R-squared	0.133353		
F-statistic	9.847653		
Prob (F-statistic)	0.000000		
Durbin-Watson stat	0.507870		

Source: Data processed

*) significant on α=5%, ˣ) insignificant on α=5%,

2. Economic Growth
   Based on the regression results with the pooled least square model, the economic growth obtained by 0.002444 means that the investment variable does not change (ceteris paribus), the economic growth variable will have a positive and significant effect on income inequality. This means that every increase in economic growth by 1 unit will increase the value of income inequality by 0.002444 units.

3. Investment (FDI)
   Based on the regression results with pooled least square model, the Investment (FDI) of 0.001421   means that if the economic growth variable does not change (ceteris paribus), the investment variable does not have a positive and significant effect on income inequality. This means that every increase in investment is 1 unit so it does not increase the value of income inequality

4. Discussion

Influence of Economic Growth on Income Inequality

Based on the regression results with the pooled least square model, economic growth has a positive and significant effect on income inequality. This means that the increasing RGDP per capita growth will also increase income inequality.

Economic growth is the process of increasing output per capita in the long run. This definition contains three main things, namely process, output per capita and long term. The process shows that economic development from time to time will continue to change, output per capita associates total output aspects and aspects of population, and the long term is described as a tendency to change the economy in a certain period driven by internal economic changes (Arsyad, 2010:11) Economic growth both directly and indirectly will affect the problem of regional inequality. Inequality in revenue sharing is an imbalance in economic development between various regions in a region which will also cause inequality in income levels between regions. Inequality in developing countries is relatively higher because at the time the new development process begins, the opportunities and opportunities for development are generally used by regions with better development conditions while the underdeveloped regions are not able to take advantage of this opportunity due to limited infrastructure and facilities. low quality of human resources. Therefore, economic growth tends to be faster in regions with better conditions, while underdeveloped regions do not progress much.

This result also supports the hypothesis put forward by Simon Kuznets. According to Kuznets in Wilder (2003), states that economic growth influences income distribution with

greater wages in skilled and economical labor obtained in the beginning of industrialization but followed by an increase in inequality in line with institutional changes. At first economic growth tends to cause rising levels of poverty and income inequality in developing countries, or there is a positive influence of economic growth on income inequality. But after developing countries experience an economic transition into developed countries, the Kuznets U-inverse curve will decline, which indicates a decrease in income inequality. The results of this study are in line with the research of Cevik and Caro (2015), Park and Shin (2015), and Wahiba and Weriemi (2014) which state that economic growth has a positive and significant effect on income inequality.

Meanwhile, in the period 2010-2016 shows that economic growth at the provincial level as a whole has a positive and significant impact on income inequality. That is, economic growth that occurred at the provincial level as a whole in the period 2010-2016 increased income inequality in that period. The large increase in income inequality from economic growth can indicate that any increase in economic growth (per capita income) will increase income inequality (this coefficient. Increased income inequality that occurs indicates an increasingly uneven portion of economic growth enjoyed by all population groups. That is, The economic growth that occurs drives an increase in income in the population group (poor and non-poor) with an unequal proportion of increase, namely the proportion of the increase in the non- poor population group is higher than the poor group.

Increasing income inequality in line with the growth of GDP per capita in Indonesia is allegedly due to unequal income distribution between high, medium and low income groups. To see indications of uneven income distribution can use the expenditure group share approach in Indonesia. With this approach can be seen the share of 20% of high-expenditure groups or rich groups that are always higher than 40% of low-income groups or poor groups, and tend to increase.

Economic growth contributes to reducing income inequality because economic growth in the regions is inclusive (or still exclusive). High economic growth creates many opportunities, but on the other hand the opportunities that grow are more enjoyed by those who have social opportunities such as having a better position or education. Access to population that has education and low status is not as large as those who have higher social capital, both social strata, education, and social standing. This unequal initial condition determines the lack of future opportunities and perspectives. The same is true of those who have educational inequality that affects the labor market. Those with low education strata tend to have low productivity so they become trapped in low wages and income. Economic growth also provides more opportunities for capital owners to develop assets such as land, property, shares and other financial products.

Effect of Investment on Income Inequality

Based on the regression results with the pooled least square model, the investment has a positive and significant effect on income inequality. This means that increasing investment will also increase income inequality. The results of this study actually support the Harrod- Domar theory where investment increases growth and has a positive effect on income inequality, but in the case of this study the effect was not significant on income inequality. This result is in line with Mihaylova (2015), who examined the influence of foreign direct investment (FDI) investments in Central and Eastern European countries. The results of his research show that FDI has no significant effect on income inequality.

Investment influences and does not significantly affect the development inequality that occurs between Indonesia. This condition means that an increase in uneven investment between various regions will lead to areas that are relatively more advanced due to

investment activities and there are areas that are relatively undeveloped due to the lack of investment. This will encourage unbalanced development. If this continues to be allowed then the development inequality that occurs between regions in Indonesia will widen. This will encourage unbalanced development. If this continues to be allowed then income inequality that occurs between regions will widen.

The results of this study were allegedly due to investment projects in foreign direct investment in Indonesia, especially in manufacturing industries, as well as mining and quarrying and other capital-intensive sectors that only absorbed a small number of workers. The ratio of foreign capital to labor absorbed in 2010-2015 tends to increase, although in 2016 it decreased. This indicates that foreign investment investment projects tend to be more capital intensive.

5. Conclusions and Recommendations

The results show that: 1) economic growth has a positive effect on income inequality. The higher the GRDP per capita growth, the higher income inequality will increase; 2) Investment Variables (FDI) partially have no significant effect on income inequality. This is due to the many foreign direct investment investment projects in capital-intensive sectors such as manufacturing industries that only absorb a small amount of labor.

Suggestions that can be proposed include: 1) economic growth needs to be continously improved with economic activities that encourage economic growth so as to reduce income inequality; 2) Foreign investment should lead to labor- intensive, thereby reducing unemployment and increasing community income.

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Assessing of The Impact of Governance and Institutions on Poverty Alleviation: Study Case in Indonesia

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Abstract

The phenomenon of poverty becomes an object in every developing and developed country to be considered in taking a policy. The formulation of policies undertaken by every government around the world should incorporate elements of poverty reduction. However, the problems that occur with poor governance systems coupled with weaker institutions provide government policy programs as poverty reduction is not well implemented. The purpose of this study is to examine the impact of good governance and institutional quality that will affect poverty in Indonesia. The data used in this research is time series data from 2002Q4 until 2016Q4. Variables used in this research are poverty level, quality of government proxy through political stability and absence of violence, corruption and government effectiveness, and institutional quality with a proxy of rule of law and regulatory quality. The use of Factor-Augmented Vector Autoregression (FAVAR) analysis tools is expected to see the effect of good governance and institutions on reducing poverty in Indonesia. The results obtained from this research are good governance and institutional quality can give effect to poverty reduction with the implementation of a government program. Thus good governance and institutions are the main focus the government requires with its indirect influence on poverty

Keywords: FAVAR, Poverty , Government, Institutional

1. Introduction

Poverty is the main problem of developing countries or we can say that poverty is a general scarcity or condition of someone who does not have a number of material possessions or money (Khan 2009; Kwon and Kim 2014; Hakan Berument and N. Nergiz Dincer 2008). Poverty reduction is the main task of every government that must be carried out through programs originating from the State Revenue and Expenditure Anggran (APBN). However, in fact the command program used to reduce poverty has no effect. Research conducted by Siddique, Shehazadi, Shaheen, & Manzoor (2016) explains that poverty reduction does not work in various countries due to government performance and institutional quality. This is due to the performance of the government and weak institutional quality which will make the government's objectives not right on target.

Optimization of government work accompanied by the quality of its institutions will provide a role in achieving government programs in reducing poverty. As in the research conducted by Shepherd (2000); Muhammad et al. (2016) explained that government performance has an influence on the use of poverty. This is also consistent with the research conducted by Sittha (2012); Force (2002); Phillippo-Holmes (2014) looked at the relationship between government performance and institutional quality with poverty. However, research conducted by Lopes (2014); Sundaram and Chowdhury (2011); Journal et al. (2017) gives different results that it takes a good time lag in the influence of government to reduce poverty.

Indonesia, which is a developing country, also has problems related to poverty. On

the other hand, the condition of the government that still has political oversight and the occurrence of transaction costs in the quality of its institutions provides new problems. The latest new problems that are present in Indonesian countries are programs aimed at the community that are less than optimal and not on target. This is the cause of poverty is not reduced. Based on this background, this study has a purpose to see the relationship between government performance and institutional quality in influencing poverty.

2. Literature Review

The relationship between government performance and poverty is empirically few. This is because there are differences in literature in looking at these relationships. In research conducted by Sasaoka (2005) and Earle and Scott (2010) explained that government performance has an influence on poverty. The same results were also shown in the research conducted by Stojanović, Ateljević, and Stević (2016) and Widiyanto (2018) gave confirmation of the relationship between government performance and poverty. Sebudubudu (2010); Shepherd (2000) and Force (2002) Explain that not only the quality of government has an influence on poverty, but the quality of institutions is also an important factor in reducing poverty.

3. Methodology

The data used in this study is quarterly data from 2002Q4 to 2016Q4. The variable used in this study is the level of poverty, the performance of government that is seen through political stability and absence of violence, control of corruption and government effectiveness. Meanwhile, the quality of institutions (institutional) is proxied by rule of law and quality regulation. Data sources used in this study were obtained from the world bank. The research model specifications used in this study modify the research used by Siddique, Shehazadi, Shaheen, & Manzoor (2016) and Vora-Sittha (2012).

$$pov_t = \alpha_1 + \alpha_2 \, factor \, government + \alpha_3 \, factor \, institutions + e_t \qquad (1)$$

$$pov_t = \alpha_1 + \alpha_2 \begin{bmatrix} pol\_stab_t \\ ctrl\_corrup_t \\ gov\_effect_t \end{bmatrix} + \alpha_2 \begin{bmatrix} rule\_law_t \\ reg\_qual_t \end{bmatrix} + e_t \qquad (2)$$

Equation (1) and (2) provide an explanation for poverty in Indonesia influenced by the quality of governance and institutions. Furthermore, Equation (2) is transformed into Factor-Augmented Vector Autoregression (FAVAR) models in equations (3), (4) and (5) as follows:

$$pov_{1t} = a_{10} + a_{11}pov_{1t-2} + a_{12} \begin{bmatrix} pol\_stab_{2t-2} \\ ctrl\_corrup_{2t-2} \\ gov\_effect_{2t-2} \end{bmatrix} + a_{13} \begin{bmatrix} rule\_law_{3t-2} \\ reg\_qual_{3t-2} \end{bmatrix} + \varepsilon_{1t} \qquad (3)$$

$$\begin{bmatrix} pol\_stab_{2t} \\ ctrl\_corrup_{2t} \\ gov\_effect_{2t} \end{bmatrix} = a_{20} + a_{21} \begin{bmatrix} pol\_stab_{1t-2} \\ ctrl\_corrup_{1t-2} \\ gov\_effect_{1t-2} \end{bmatrix} + a_{22}pov_{2t-2} + a_{23} \begin{bmatrix} rule\_law_{3t-2} \\ reg\_qual_{3t-2} \end{bmatrix} + \varepsilon_{2t} \qquad (4)$$

$$\begin{bmatrix} rule\_law_{3t} \\ reg\_qual_{3t} \end{bmatrix} = a_{30} + a_{31} \begin{bmatrix} pol\_stab_{1t-2} \\ ctrl\_corrup_{1t-2} \\ gov\_effect_{1t-2} \end{bmatrix} + a_{32}pov_{2t-2} + a_{33} \begin{bmatrix} rule\_law_{3t-2} \\ reg\_qual_{3t-2} \end{bmatrix} + \varepsilon_{3t} \qquad (5)$$

The use of FA-VaR in this study is used to see the quality of governance that is proxied by political stability and absence of violence, control of corruption and government

effectiveness combined into one factor called the government factor, while the institutional quality seen through rule of law and regulation quality also merges into one factor, namely institutional factors. This condition makes this study use the FA-VAR analysis tool.

Table 1. Definisi Varibel

Varibel	Definisi	Sumber
Pov (Proverty)	• The poverty rate is calculated based on the ratio of poverty calculation at the national poverty line. • Unit (% of pupulation)	World Bank
Pol_stab (political stability and absence of violence)	• Perception about the possibility of political instability and / or politically motivated violence, including terrorism • Unit (%)	World Bank
Ctrl_corrup (Control of Corruption)	• Assessing corruption issues • Unit (%)	World Bank
Gov_effect (Government Effectiveness)	• Perceptions of the quality of public services, the quality of civil service and the level of independence from political pressure, the quality of policy formulations and implementation, and the credibility of the government's commitment to the policy. • Unit (%)	World Bank
Rule_law (Rule of law)	• Perception about the extent to which agents have trust and comply with community rules, and especially the quality of contract enforcement, property rights, police, and courts, and the possibility of crime and violence • Unit (%)	World Bank
Reg_equal (Regulatory Quality)	• Perception of the government's ability to formulate and implement good policies and regulations that enable and encourage the development of the private sector • Unit (%)	World Bank

4. Result and Discussion

Good quality of governance and institutions will have an effect on poverty caused by government policies with the aim of reducing poverty can be channeled according to plan and on target. However, the relationship between the quality of governance and institutions with poverty is still weak at the level of empirical studies. Thus, the use of Factor-Augmented Vector Autoregression (FAVAR) analysis tools as a support in seeing the relationship between the quality of governance and institutions with poverty.

Stationary test on the data is done first in this study to give an overview of the data used in this study as appropriate. On the other hand, stationary data is used so that there is no smooth regression in the study. Data can be said to be stationary if the variable probability value is smaller than the alpha value ($\alpha = 1\%$, $\alpha = 5\%$, $\alpha = 10\%$).

Table 2. Stationary Data

Varible	Prob. Poverty	Prob. Control of Corruption	Prob. Government Effectiveness	Prob. political stability and absence of violence	Prob. Regulatory Quality	Prob. Rule of law
Level	0,833	0,763	0,871	0,497	0,432	0,887
First Difference	0,017**	0,000*	0,000*	0,000*	0,000*	0,000*

Source: Data Processed
* significant α=1%, ** significant α=5%, *** significant α=10%.

In Table 2 describes the results of stationary data in this study. The results of the stationary test in this study indicate that the stationary data at the level of first difference with the probability value of each variable under the alpha value ($α = 1\%$ and 5%). Thus, the data used in this study is data that is intensity at the level of first difference.

Subsequent testing by looking at cointegration in the model used through the johansen test. The use of cointegration tests to see there are long-term relationships between variable relationships. The existence of long-term relationships in the model is seen through the trace statistic value greater than the value of the critical value.

Table 3. Johansen Cointegrastion Test

Maximum Rank	Trace Statistic	5% Critical Value
0	124,679	94,5
1	82,611	68,56
2	49,178	47,21
3	28,866	29,68
4	14,102	15,41
5	1,492	3,76

The cointegration test results using the Johansen approach can be seen in table 3. Table 3 shows that there is a long-term relationship between variables with a maximum rank in rank 2. On the other hand, the johansen cointegration test can also be used to view data at the level level can be used. The next step is using the FA-VAR analysis tool which can be seen in Figure 1.

(a)   (b)   (c)
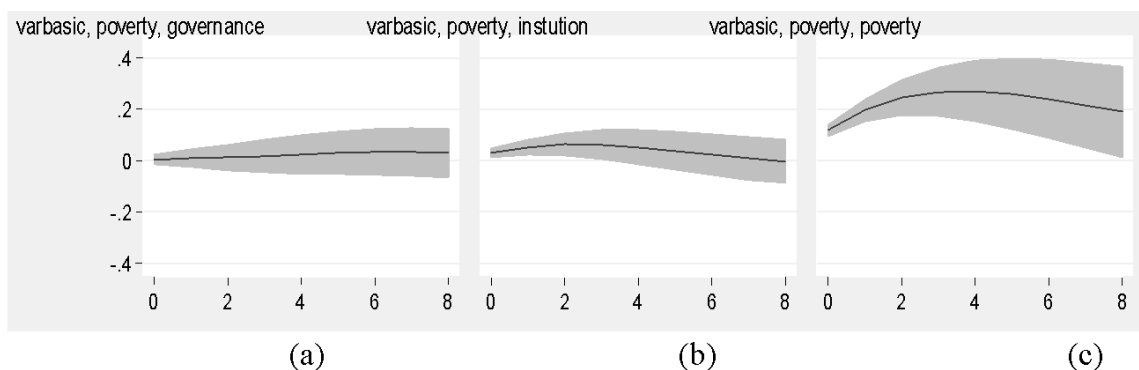
Figure 1. Hasil Impulse Respon Function di Indonesia

In Figure 1 is the estimation of FA-VAR by looking at the results of Impulse Response Function in Indonesia. The results show that in the shock of government relations and poverty in Figure 1a it can be seen when the initial shock from the government's performance is not good, it has little effect. However, when in a long period of time, as in lag 8, it gives an understanding that in the long run the government's poor performance will provide an increase in poverty. The relationship between government performance and poverty is in accordance with research conducted by Muhammad et al. (2016); Scholte (2010); Earle and Scott (2010) and Stojanović, Ateljević, and Stević (2016). The same results are also shown by the relationship between institutional performance and poverty. When a shock is seen through the occurrence of a poor institutional performance, poverty will be responded to at the beginning of the period with a small influence, but in lag 4 and above it has a large influence. Research conducted by Pathak and Pacific, (2014); Duncan (2013) and Khan (2009) provide confirmation that there is a link between institutional performance and poverty. Based on the estimation results using FA-VAR shows that the performance of the government with an institution that is not good or good will not have a big impact in giving influence in poverty. The relationship between poverty and government and institutional performance requires time lag in its connection.

Steps in reducing poverty through government and institutional performance that have a relationship to the results of the analysis of this study need to be followed up. In this case, the government needs to carry out revisions related to the regulations used to provide convenience accompanied by suitability and accuracy in carrying out the regulations set by the government. On the other hand, the government also needs to make efficiency in its performance so that transaction costs do not occur. This is because high transaction costs indicate inefficiency. The community also needs to play an active role in controlling the performance of the government. Agat remains in the corruption and does not carry out actions of a personal interest.

5. Conclusion

The results of the study show that government and institutional performance has an effect on poverty confinement, but in the relationship between government and institutional performance and poverty requires time lag. With the results there are several things that must be considered by the government such as revisions related to regulations that are used to provide convenience accompanied by suitability and accuracy in carrying out regulations set by the government, efficiency in performance so that transaction costs and community intervention do not occur in controlling government performance.

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Implementation of Blog Site As A Media Campaign and Internet Business For The Small and Micro Medium Enterprises (Case Study: Krukut's Village, Depok City)

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Abstract

The existence of Micro and Small Medium Enterprises in the Indonesian economy has a big role and potential in building national and sectoral economy, as well as : participate in the process of equitable economic development, to support economic growth, and expanding employment. Currently, the weakness of Micro and Small Medium Enterprises has not been able to develop its potential and role optimally and limitations in product marketing. Then to solve the problem, in this research using quantitative and qualitative methods, will create marketing managerial skills based on internet technology. The survey results prove that in the Krukut's village, Depok City, there are 420 populations of Micro and Small Medium Enterprises, but of that number there are still not many perpetrators of Micro and Small Medium Enterprises can utilize the meaning of information technology to support online marketing through the internet, such as Electronic Commer. Therefore, the result of this research have created The Blog Site for help the marketing, and the positive impact from The Blog Site is increasing the product sales of Micro and Small Medium Enterprises amount 12 %.

Keywords : Micro and Small Medium Enterprises; online marketing; Electronic Commer

1. Introduction

The existence of Small and Micro Enterprises (UMKM) in the Indonesian economy has a large role and potential in building national and sectoral economies. Some of the strategic roles of small and medium enterprises are participating in the process of equitable economic development, supporting increased economic growth, creating business opportunities as well as creating and expanding employment opportunities so as to absorb a large workforce (Bank Indonesia , 2015).

The Ministry of Cooperative's statistical data shows that in 2016 the large business group has 4,952 business units, medium 44,280 business units, small 602,195 business units, while micro small businesses create 54,559,000 business units. Workforce absorption from MSMEs is 107.65 million or 97.24% of the total workforce (Kementerian Koperasi, 2017)

In reality, small businesses have not been able to develop their potential and roles optimally. The condition of small businesses is still relatively weak, some are still limited to efforts to meet local consumption needs or the environment in which the business is located. Such conditions are due to the limitations of small and medium micro enterprises. Limitations on the ability of business management and marketing infrastructure of businesses owned (Purwanti, 2012).

With the above limitations is an important problem for UMKM in developing their business. These problems cannot be solved just by UMKM. It requires assistance from the government and strategies in problem solving and potential development with a coaching approach. Starting from strengthening motivation, entrepreneurial mentality and

independence, improving internet technology-based managerial skills and marketing skills (Setyanto, Samodra, & Pratama, 2015).

The development of internet technology today is very fast where almost all information will be very easy to obtain. The internet today is not only used as a source of information but also as a means of communication that is very much needed in various fields including in the fields of education and business. By doing business via the internet (online business), it will expand market share not only dependence on the sales area such as conventional business by opening stalls or shops in an area. The market share of online business will be much wider because people throughout Indonesia and even the world can access the internet so that the products offered via the internet will be much easier and more in demand (Y , 2010).

The data obtained from the preliminary survey results that in the Krukut Urban Village, Limo District, Depok City, there are 420 UMKM populations that have been registered as members of UMKM. Of this amount covers 275 in the field of food and beverages, 26 in the field of clothing, 3 in the field of landscaping and plantations, and 116 in the trade sector and others. There are not many UMKM entrepreneurs who can use information technology (IT) facilities to support their business, namely for marketing and selling online through the internet in the form of Electronic Commerce (e-commerce). Whereas one of the keys to the success of UMKM is the availability of a broad market for increasing the production of its businesses. Meanwhile, the fundamental weakness faced by UMKM in the field of marketing is low market orientation, weak in complex and sharp competition and inadequate marketing infrastructure. Currently, UMKM in marketing rely on promotion through only a banner installed in front of the business location and community and the oral environment. Facing an increasingly open and competitive market mechanism, market control is a prerequisite for increasing competitiveness (Kementerian Koperasi, 2017).

Representing a website or blog as an online marketing tool is a must, because by having a website / blog, making the business known 24 hours a day. One important marketing strategy from the web is that you can explain in detail the products and services you sell. In addition, it can persuade visitors to buy products or services offered (Kristiyanti, 2011).

Be aware of these problems, researchers care about the environment of the surrounding community and plan this research as a form of community service, which is expected to increase knowledge in terms of business marketing through e-commerce and and can motivate UMKM to run their business professionally.

2. Methods

This study uses a qualitative method, that's a method aimed at describing and analyzing phenomena, events, social activities, attitudes, beliefs, perceptions, thoughts of individuals individually or in groups. Some descriptions are used to find principles and explain what leads to conclusions (Afifuddin & Ahmad, 2009).

In this study using phenomenological qualitative methods, phenomenologists try to find meaning in life experiences. Researchers collect data related to concepts, opinions, the establishment of attitudes, judgments, and giving meaning to situations or experiences in life. The purpose of phenomenological research is to find or find the meaning of the essential or fundamental things from the life experience. The study was conducted through long in-depth interviews with participants. An understanding of the perceptions and attitudes of informants on the subject's daily life experiences is obtained by using interviews. The use of this approach begins with silence, shown to examine what is being learned. The method of phenomenology emphasizes various subjective aspects of human behavior, then the researcher tries to understand how the subject gives meaning to the events that occur around his life. (Afifuddin & Ahmad, 2009).

The approach taken by the researcher to achieve goals, there are; use the seminar method of giving motivation to entrepreneurship, especially using online media, especially personal blog sites, then the research team held a Forum Group Discussion (FGD) for all UMKM in the krukut village to discuss complaints about the shortcomings they faced, and mentoring marketing methods in the form of: brand, description and prices, promos and display of goods. The population for this study are all UMKM under the guidance of Krukut Village who do not have an online site for marketing their products.

3. Findings and Argument

General Description of Krukut Village

Krukut Village is a village located in Limo sub-district, Depok City, West Java, Indonesia. The development of the Krukut village from the geographical, demographic and income sources aspects is so rapid, especially in the field of development and economic administrators. There are several indicators that can be used as a reference for economic growth in Krukut Village. First, the index of public purchasing power is increasing from year to year. On the purchasing power side, there was an increase in the purchasing power index from 8.76 in 2016 to 15.49 in 2017 (Badan Pusat Statistik, 2017).

Second, the achievement of the rate of economic growth, especially from the sectors of the trade and services sub-sector. Third, there has been an increase from year to year in the role of the tertiary sector, from 50.42% in 2016 to 52.77% in 2017. These indications indicate that the people of the Krukut village have been able to meet the needs of the primary and secondary sectors (Badan Pusat Statistik, 2017).

The increasing economic rate has made Krukut as a village that has advantages in the field of services and trade. This is evident in the growing number of services and trade sector services that have sprung up in Krukut Village, such as retail restaurants, wholesalers, housing, furniture and business places and other services This is evident in the growing number of services and trade sector services that have sprung up in Krukut Village, such as retail restaurants, wholesalers, housing, furniture and business places and other services (Badan Pusat Statistik, 2017).

Along with the times have to make people in a place to adapt to these changes, for the people in Krukut Village, many have entrepreneurship. But, lately sales have been declining, so they need more knowledge to be able to market their products online.

Results of Forum Discussion Group Discussion

The main discussion in the FGD, the researchers opened it by giving seminars on knowledge about technology and several online marketing sites, and training to create blog sites, is the seminar also provided motivation so that the seminar participants were enthusiastic about staying entrepreneurial. This is done to open up insight into the importance of technology to meet daily needs and improve the household economy.

The outline of the material presented in this weblog training with blogspot is as follows, (Kristiyanti, 2011):

1. Creating a blog account as a first step in creating a weblog or several,
2. Changing the appearance of a web blog with a responsive and more attractive design template according to the theme of the webblog,
3. Change the url address of the blog using Top Level Domain, 2nd Level Domain, 3rd Level Domain, Keyword On Domain to Sub Domain,
4. Fill out articles, photos, videos and other content into the blog as a means of publication and business promotion.

The next training is the basis of e-commerce by using a prestashop application package. This training is carried out after a web blog training with blogspot. The purpose of e-commerce training with the prstashop application package is that trainees can create e-commerce applications with e-commerce template forms for free because they are opensource meaning they can be used, downloaded and developed by anyone for free. There are no costs incurred if we want to use an existing CMS unless you want to be online with a professional domain like .com, however, this training is done online for free, but this free web is temporary. After completion, new training is applied to professional domains that can be purchased from internet providers or providers.

The importance of product marketing in a blog site is;
1. Increase business credibility
2. Save marketing budget
3. Always Connect with Customers
4. Easy to access
5. Reaching a wider target market
6. Means of Cataloging Products and Services (Portfolios)
7. Save time
8. Improving Customer Service

Marketing is the most important thing in doing business, not just relying on media blogs, there are other media that were introduced in this study as sites to sell online, such as: *tokopedia, bukalapak, blibli.com, and Instagram.* Researchers refer to these sites because the site is easy to understand and much loved by the community, especially young generation.

With UMKM who own these online sites, then customers can easily know everything about the products and brands that are marketed. Other than that, customers can immediately make a decision to make a purchase if interested, or look for other products they need. Not only product information, but information about the company can also be displayed on an online site.

In this seminar there was a discussion between speakers and seminar participants, things discussed about the difficulties faced by UMKM to be able to market their products, as for the complaints, there are:
1. Lack of understanding by UMKM actors about the use of the internet and the way it operates.
2. Difficulty finding customers, because customers have faithfully chosen the old online shop.
3. A five-star rating on a sales site that affects the demand for goods sold.
4. The number of competitors in doing business online

Responding to these complaints the research team gave briefings to the perpetrators for :
1. Training to install online sites for marketing products such as tokopedia, bukalapak, blibli.com, instagram and creating a personal blog.
2. Trying to sell manually, or manual sales that have been done so far, are posted in the column of online sales sites in order to attract consumers' interest.
3. Training in the form of a unique brand name for the selling goods, teaches to describe the goods sold in a short, solid and clear way so as not to make consumers not confused, the researchers suggest that UMKM do not target high prices, UMKM can provide promos without having to make them lose, by increasing the price 2x but can give buy one get one free discount, and training to design the appearance of goods sold by shooting pictures of goods sold with the shooting side that different.

4. Maintain communication and loyalty to consumers.
5. Fast response in dealing with consumer complaints or Chat to consumers.
6. Having a unique product selling, so that the product becomes a product with its own characteristics, so consumers will be easily attracted to buy it.

Globalization is increasingly global, thus demanding businesses to be able to take advantage of technological developments. Retail entrepreneurs must be able to take advantage of the development of these technologies by marketing products online through the sites currently available. Selling products online can also increase sales by classifying product types and descriptions as online catalogs, we can inform our products online. Look neater and organized with a price tag that has been pinned on each product and this looks elegant and professional that can increase consumer confidence.

4. Conclusion

1. Today's internet technology is very attached to human life, with the internet can make it easier for humans to meet their needs and the internet can increase the economy.
2. The low knowledge of UMKM in the Krukut Village about how to market online and how much better it would be for them to open up insight into the benefits of online product marketing.
3. Online marketing can reduce product marketing costs.
4. The main characteristics of a product are very important, because it can increase consumer buying interest.

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The Strategy of Business Development of Terasi Puger With Value Chain Analysis

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Abstract

Puger district is one area in Jember regency that has great potential for marine product. The great potential support the existence of small and medium scale marine products processing business, which is Terasi Puger. Based on data form the Central Bereau of Statistics (BPS) the number of terasi puger production during 2011 to 2013 are 14.5 tons to 15.75 tons. Terasi puger become one of the featured products in the marine sector and the potential for development. The purpose of this paper is to analyze how the business value chain terasi puger and formulate the form of business development strategy of terasi puger. This research is a qualitative descriptive. The data are primary and secondary data. The sample selection used purposive and snowball sampling. The analysis of research used Value Chain Analysis (VCA). The results showed there are four main parties in value chain activity that are the fisherman, owner of terasi, traders and consumers. There are eight activities in Business Value Added (BVA), three activities in Real Value Added (RVA), and one activity in Non Value Added (NVA). The development of competitive advantage is done by pressing the BVA activity cost, adding RVA activity value, and eliminating NVA activity.

Keywords : Terasi Puger; Value Chain Analysis; Competitive Advantage

1. Introduction

Jember is a regency in East Java which has the potential for marine products. This potential is supported by the geographical location of Jember district that has a marine area stretches along the south coast of Java less than 170 Km. by web page that was launched by Jember comprehensive information center wide the waters in Jember regency of approximately 34,400 Km with each approximately 100km long coastline contains the potential for sustainable produks about 40,000 tons / year. Based on data released by the Central Bureau of Statistics (BPS) the quantity of fishery production in Jember district during 2010-2016 namely.

The below table (Table 1) shows that there is a trend that is likely to increase from the capture fisheries production in Jember. Komodditas ocean caught fish include tuna, Skipjack, Cob, Layur, Tengiri, shrimp, squid, grouper, kakap, and Manyung. There are four central landing the fish in Jember district in Puger, Ambulu, Gumukmas, and Kencong.

Table 1. The Quantity of Fishery Production

Year	Total Production (tons)
2010	8718
2011	8,681
2012	9,620
2013	7566
2014	8802
2015	9232
2016	9366

Puger district become one of region has the potential for marine products. It is known that puger is one of the berthing boat or fishing boat that became a central landing of fish. The potential then allows growing businesses based seafood processing for small and medium micro scale. Terasi become one of the processing business are more involved in the community puger coastal region. Terasi the preservation of fishery products as rebon which is then processed and fermented untukk created as a food seasoning. Based on data from the Central Bureau of Statistics (BPS) terasi puger production in 2011-2013 amounting to 14.5 tons, 15.5 tons and 15.75 tons.

Micro-businesses are highly vulnerable to competition from businesses in addition era of globalization requires an effort to survive in the competition. Puger Terasi Enterprises must be able to create more value than competitors in order to enhance competitiveness. Value can be created sepanjan vertical business chain from the input to the final stage to the consumer. According to besanko et al (2013) explains that the ability of a company to create value depends on the resources that are owned and different capabilities. Value chain analysis is a strategic tool that can be used to identify the value chain in an effort to create value for both companies and consumers. Barney (2007) explained that value chain analysis can be used to analyze the activities of the business enterprise and to identify the resources and capabilities held in various business activities of the company to meproduksi goods or services, ranging from material procurement smell, production processes, sales up distribution process.

Value chain analysis a strategic analysis tool that is used to gain a better understanding of the competitive advantage (Porter, 1985). Value chain analysis see the company as one part of the product value chain. A value chain is a set of activities required to mengasilkan a product starting from the planning stage, production stage, through to delivery to the final consumer (Kaplinsky, 1999: Kaplinsky and Morris, 2001) value chain that includes activities that occur because of the relationship with the supplier or the supplier linkages and consumer or consumer circuitry relationship linkages (in wibowo Porter, 2014). The concept of value chain analysis could be a tool to understand the value chain to form a product (Shank and Govindrajan, 1992).

According Arsanti (2012) concept of value chain analysis is to coordinate all parties involved in the value chain and share information in a transparent manner in the value chain to aid in the flow of process efficiency and product fair returns for each actors. Achievement of value can be done not only to achieve production efficiency, but also to generate more profits by increasing the value added. According Arsanti et al (2017) in the Value chain analysis is necessary to an understanding of the preferences of actors, some of the resources that can be used for suppliers of raw materials, artisans or entrepreneurs, supporting industries, traders, central market, traditional markets, provision of inputs, and traders retailer.

Relative to the purpose of this study to identify the business value chain in the industry puger shrimp Terasi in District Puger. identification is made to see the actors involved in a series of value chain activities that can be specified the role of each actor. More from this study can be found clustering of each activity according to value chain value chain analysis. The results of each activity grouping value chain can be used as a basis of recommendation strategy of development terasi puger.

2. Value Chain Analysis

This research is classified as descriptive qualitative study conducted in rural areas and Puger Kulon Puger wetan the object of research is a cottage industry puger Terasi. according to Koentjaningrat (1993) descriptive qualitative research is qualitative research

which illustrate accurately the individual or specific kelompo on the circumstances and symptoms. techniques of sampling using purposive and snowball sampling. The data used primary data and secondary data. Secondary data were obtained from the Department of Industry and Trade Jember. Primary data were obtained from observations and interviews in depth at parties-related parties include fishermen, craftsmen Terasi, traders and consumers. early stages were carried out in this research is to study literature as the basic theory in conducting research and pengaplikasianya in empirical studies that have been done earlier. After a literature study followed by pengmpulan the data by first observation to field conditions to facilitate identification of primary data collection. Data collected by in-depth interviews are not structured to obtain primary data. In the interview process to use voice recorders to capture as much data or information as well as to minimize the data is not recorded when the interview data recording process. The data were obtained and analyzed in accordance with the method used to answer the research problems. method of analysis is the value chain analysis with do the stages in accordance with that proposed by Widarsono (2009), which:

1. Identifying the value chain activities
   Analysis of activity values can help management to gain a better understanding of the strategic competitive advantages held by the company and can determine more precisely the position of the company in the value chain as a whole.

2. Identify Cost Drivers in each event value
   Value chain analysis can help identify the activities where the company can add significant value to customers by analyzing cost driver for each activity value. Cost drivers are factors that alter the total amount that can be known at this stage the company's activities that have a cost advantage.

3. Develop a competitive advantage by reducing costs or add value
   Identification of the activity of the value and cost drivers can help the company's management in deciding which parts of the value chain that are not competitive and competitive for the company.

3. Findings and Argument

Actors in the business value chain terasi puger

The results of the identification of value chain activities in the Terasibusiness puger knowable each actors who have contributed to the value chain in accordance with their respective functions. On the supplier carried out by fishermen puger which contribute in supplying and providing raw materials shrimp to the needy one of which is artisan Terasi. In one sailing with a day and night costs around IDR 500,000 and when the sail is sekoncen (go to sea for 5-7 days) cost around IDR 5,000,000. the price of the catch of fishermen depend on the season. Therefore, the price of shrimp has fluctuated widely, especially when the transitional season fish. shrimp prices during the season about IDR 20,000 – 25,000 and when not in season around IDR 30,000 – IDR 60,000.

The next actor is a craftsman Terasi the main actors in the value chain puger Terasibusiness. craftsmen Terasi production process by purchasing raw materials shrimp fisherman and sometimes through pengambek. The term pengambek directed at someone who became an intermediary in the sale of annual catch and fishing. In the value chain is known that the craftsmen Terasi has a relatively low bargaining power given the price of shrimp products is determined by the market mechanism. The business relationship between craftsmen Terasibetter illustrate their complementary relationship because usually small-scale artisans Terasi will sell the stock Terasi to a large-scale artisans. Total production of shrimp Terasi is generally about 1-3 tons per month. Terasi product range marketed

by craftsmen not only in Jember region but also outside the region such as Banyuwangi, Situbondo, Bondowoso and Lumajang.

The resulting Terasi product craftsmen in addition sold to final consumers but also to traders. There are two traders identified in the value chain activities of large traders and small traders. Great traders are entities who purchased the product Terasi with a relatively large scale. Terasi products purchased will then be resold to small traders (retail) and the final consumer. Thus, wholesalers may be said to be jam acts as a pure trader but also a distributor. The next Traders are small traders who memberli Terasi product not only of craftsmen but also from wholesalers. Small traders in the area of production of shrimp Terasi puger will perform during a shrimp season. Then the next actor is the consumer as the last purchase and consume the product Terasi. Consumers can buy shrimp products from previous parties such as artisans and wholesalers.

The identification of value chain activities

1. *Inbound Logistics*
    Inbound logistics activities related to aktiviitas receive, store, manage, and process of transporting raw materials from suppliers that will be used for the production process. Craftsmen Terasi rebon buy raw materials from fishermen puger at the fish auction place (TPI), which are located relatively close to the shrimp industry. Transportation of raw materials is done by private vehicles or use the services of bentor. Raw materials are transported directly sent to the warehouse or the place that will be used for drying shrimp. The first thing to do after getting the raw material is drying in order to maintain the quality of the shrimp to be able to produce a good Terasi. Results shrimp from the fishermen depend on the season. This dependence makes easy shrimp prices fluctuate. Craftsmen perform inspections or inspections of shrimp raw materials when performing transactions directly with fishermen. When it was found that the raw material does not match the compensation made Terasi product price declines. Indispensable relationship strong partnerships to establish business cooperation between the artisan fishing shrimp with shrimp as raw material suppliers.

2. *Operations*
    Activities related to the change in operation of the raw material into a finished product Terasi. All stages of production are identified on aspects puger Terasi operations. In the manufacture of Terasi needed a tool or machine according to the preference of craftsmen. Traditional tools required in the operations aspect is the mortar of wood while the more modern process using a milling machine. Puger Terasi-making process has several stages of the first drying, pulverization first, second drying, pulverization second, printing Terasi, third and subsequent drying packaging.

    The first drying process is performed directly after the acquisition of raw materials from fishermen to dive one day duration. In this process only half the shrimp dry dried. The technique is carried out with the aim that later on when the first comminution shrimp are not easily destroyed. Furthermore, the first pulverization process done after the first drying process. In this pulverization process should be done carefully, especially for the provision of salt because salt can be a determining factor for quality Terasi puger. The second drying process carried out when the raw material has been pounded smooth half. At this stage the raw materials that have been dried and can be stored as a semi-finished product.

    The second pulverization process is performed on the raw material in the form of karak then finely ground. Craftsmen need to exercise control over the raw material in the form of karak to ascertain if the karak completely dry. The level of quality is also

determined by karak Terasi should dry. Once it is done in accordance with the size of the Terasi formation as ½ kg and 1 kg. Formation is done manually by workers. Terasi has been made and then dried again to make sure if Terasi is not mushy and crumbly.

3. Outbound Logistics

Outbound Logistics the activities associated with the collection, storage, distribution of finished products to consumers. the selection means of transport used and the distance adjusted for the purpose of distribution. Terasi products that have been packaged to be stored in a cupboard that has ronga air to avoid moisture. Storage period very depending on how long the product is sold. Raw material management system using the first-in First Out system means that artisans will sell products first entered the Terasi deposit. There is no expiration date in the Terasi so that the storage can be done up to one year.

Distribution process carried out in accordance with consumer demand, meaning that craftsmen will distribute directly when consumers make a request to be sent to the location consumer Terasi and often also customers come to artisans to make purchases directly. Distribution costs depend on the agreement between artisans and buyers. Generally craftsmen willing to distribute the product Terasi outside of the city if the purchase amount is relatively large. In the process of outbound logistics indispensable good communication to provide confidence in the buyer. That trust is important to support the buyer loyalty to craftsmen.

Buyers outside the city in general is a businessman who has eateries and retail merchants who resell the product Terasi. The communication process is more often done via a phone call to make sure of whether the product to be purchased Terasiavailable. The payment system is done in cash and credit. for repayment of the credit system depends on the agreement between artisans and buyers of goods pelunasan.pengiriman time period is usually performed using vehicle truck, tosa or private vehicle and sometimes also use the services expedition like JNE.

4. Marketing and Sales

Marketing and sales activities include activities to introduce, encourage, and help consumers to purchase products through advertising or promotion. Marketing and sales activities are also aimed at getting new pelangga and manage the relationship between employers and customers to increase product sales.

In the marketing process there is still no utilization of social media or electronic media as well by the craftsmen. The marketing strategy was limited mouth to mouth and labeling on the product packaging. The strategy is less effective, especially for introducing new products to prospective customers. Required use of the media either by the artisans so that products can be better known by the shrimp Terasi outside community. During this time the customer obtained by the craftsmen generally get a recommendation from existing customers. Therefore, do not mesikpun prmosi and advertising artisans can still get consumers continuously.

The sales process is done directly to consumers both for final consumption or resale. Penetapa sales prices depend on the market price based on the price scale shrimp. There is a relation between craftsmen in the sales process primarily for the fulfillment of such requests artisans selling A Terasi without dye to the Craftsman B notabenya not produce Terasi without dye. puger terasi marketing outreach generally, Jember, and sometimes also outside Jember. Reach out jember not only in Java but also outside the island of Java, Kalimantan

5. Service
Service activities related to the provision of services to increase or maintain the value of a product. So that their complaints and feedback from customers in maintaining the condition and quality of product service activities. Craftsmen Terasi puger always berusahan to maintain product quality according to the standards of consumer demand. the success of the service activity can be demonstrated by the absence of complaints from consumers.

6. Procurement
Procurement activities related to procurement activities or the purchase of raw materials and ancillary equipment as well as how pembayaranya. In general, the purchase of raw materials made in fish auction place (TPI) puger. but when there is no shrimp season sometimes there are craftsmen who buy raw materials from outside puger. however there are differences in the quality of the raw material in view of shrimp that of puger better than shrimp purchased from outside puger. when the normal kondisis shrimp per basket price ranges from IDR 15,000 - 20,000. distribution of raw materials from artisans sometimes using becak montor for the transport to the production location. The use of private vehicles is more efficient than using other transportation services.

7. Technology Development
Activities Technology in Development is done through the provision of technology, prosedr, and the latest techniques in production stages. The craftsmen Terasi've never done Research and Development for improvement and development of production capacity. Only a handful of craftsmen applying milling machines to assist in the production and the rest using traditional tools. There is an understanding if the Terasi is milled using a machine will deteriorate because the eyes of shrimp that of the Terasi is gone. Eyes shrimp Terasi indicated by black spots on shrimp by the craftsmen and consumers become indicators of the quality of Terasi puger.

8. Human Resources Management
Activities associated circuitry Human Resources Management recruitment, selection, promotion, placement assessment and employee development as well as maintaining relationships between employees. The process of selection and recruitment based on the known reference by craftsmen who load indicator suitability of expertise and experience in the manufacturing process terasi.para craftsmen usually seek employment in the region Lojejer and Kirkcaldy. The number of workers who used ± 3 depending on the production capacity. Wage system relies on craftsmen whether to use the system daily, collective or per activity.

9. Firm Infrastructure
Infrastrcture Firm activity associated with the management regarding financial planning, general Risk Management, accounting, and government relations. Firm activity to Infrastrcture necessary operational activities a business can run smoothly. business management of Terasi Puger is still not well integrated. The majority of craftsmen perform simple business management evidenced by the accounting system which only includes the recording of transactions in general. the weakness of the system artisans can not identify the benefits better, and it is difficult to determine the amount of costs incurred.
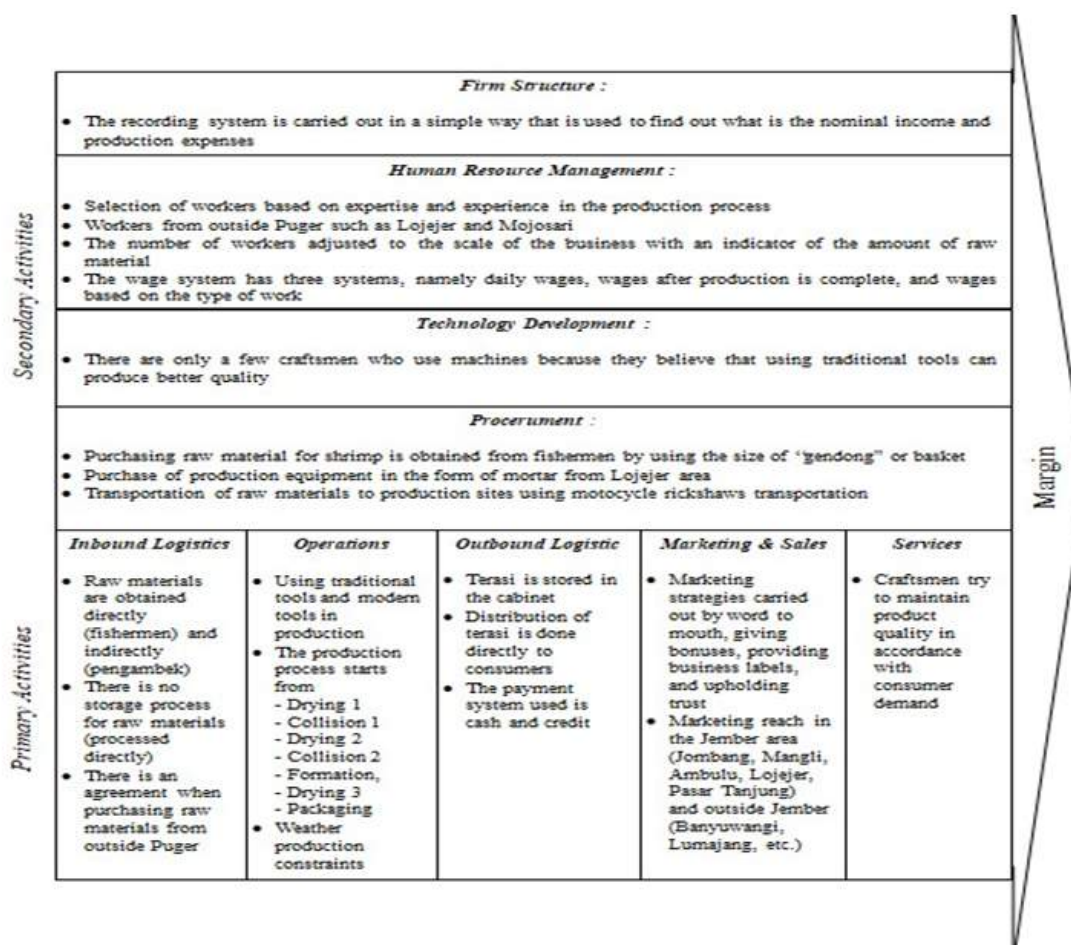
Figure 1 Identification of Value Chain Activity

Identification Cost Drivers in value chain activities

The identification cost drivers in value chain activities can be seen at table 2 below:

Table 2. Value Chain Activities

No	Activity	Cost Drivers	Type
1	Acceptance of Raw Materials	Total receipts of raw materials	BVA
2	Transportation raw materials	Total receipts of raw materials	BVA
3	Raw material storage	Total Raw Materials	NVA
4	Clothes line	The amount of raw material	BVA
5	Pulverization	The amount of raw materials, the number of means of production	BVA
6	Packaging	Total Production	BVA
7	Sale	Total Requests Items	RVA
8	Distribution of Goods	The distance, the amount of goods shipped	RVA
9	Promotion	The number of consumers	RVA
10	Use of Technology	Frequency of use of the machine	BVA
11	Human resource management	The number of workers	BVA

Source: Primary Data Processed, 2018

Business development strategy is based on the identification of cost drivers

In running a business, every company must be able to reduce costs (cost reduction) by reducing and eliminating activities, and add value for customers. The reducing activities focused by business value added, while focused on the elimination of non-value added by removing it from its activities.

Terasi business activities that need to be done to the presence puger in achieving cost reduction, among others:

1. *Activities Business Value Added*

    Activities Bussines Value Added in the shrimp industry puger consists of reception and transportation of raw materials, the production stages of drying, pulverization, and packaging, the use of technology, human resource management and business management. In achieving cost reduction for cost efficiency activities included in the Business category Value Added need to be reduced or minimized. Activities reception and transport of raw materials can be done by eliminating the efficiency of transport services for the transport. This can be done when a craftsman uses a private vehicle with the help of labor. The efficiency of the drying process is done by choosing the right time for drying by brightness indicator weather. This is to reduce the cost of storage of raw materials and minimize their loss of quality raw materials. Pulverization process and packaging is done with some alternatives that use milling machines to be effective and efficient, and packaging is done in accordance with the size of the shrimp such as the size of the oil and 1kg paper 1kg size down using plastic.

    Efficient use of technology achieved when technology is used when there is a large supply of raw materials. This is done to reduce engine maintenance costs and other costs associated with the use of the machine. The efficiency of resource management is done by the selection of a competent workforce and reduce unproductive labor. The use of machines and systems of remuneration penggilngan diijatah per day also be alternative efficiency of resource management. Efficiency management is committed to doing everything structured and complete recording every transaction that has been done. Separation of the use of the money business and personal money must be done in order to facilitate the recording of an income stream.

2. Activity Non Value Added

    Activity Non Value added in the shrimp industry puger lies in the activity of the raw material storage. This activity should be eliminated because they affect product quality shrimp Terasi and would only add to the cost. Craftsmen can avoid the storage of raw materials by conducting periodic management of raw materials means that purchases of raw materials adapted to the weather conditions as well as production capacity.

4. Conclusion

The results of the identification of value chain analysis was able to explain in detail the business activities that can provide value to the business and customers ranging activities of the supplier to the end consumer. In the business chain is the horizontal load each - each parties concerned, each of which has its own function. The determination is based on the results of the identification cost driver of value chain activities to see the cost of triggering factors in each activities. Analysis of cost drivers can help artisans Terasi in cost efficiency through business management. Strategies that can be done by craftsmen Terasi using the concept of cost reduction based on an analysis of cost drivers by performing pad activity elimination of costs that are non-value added activities and reduce costs on business value added and real value added.

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Design System Information Accounting Sales and Supplies in Roti Baba Jember

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Abstract

In this day and age technological developments require companies to develop and use computerized information systems to make companieseasy in providing services to consumers. The use of computerized information systems will improve accuracy, efficiency and effectiveness in the company. This problem is experienced by Roti Baba which still uses the manual system. Data collection methods consist of interviews and documentation. The data analysis method used is an interactive model of Miles and Huberman with three stages namely Data Reduction, Data Presentation, and Conclusion Withdrawal. Analysis Method The system used is the Romney and Steinbart System Analysis Method divided into five stages. The five stages consist of initial investigation, system survey, feasibility study, information needs and system prerequisites and system analysis reports. The results of this study indicate that: Sales and inventory accounting information systems in Roti Baba still use manual systems and a new system that can facilitate managers to monitor the company easily is needed. Based on the feasibility study, accounting and inventory accounting information systems are feasible to be applied to companies.

Keywords: Design, Information System, Sales, Inventory

1. Introduction

Rapid technological development influences every aspect of human activities. The rapid flow of technology makes companies use computerized information systems for giving services to customers and decision making. The use of computerized information systems can provide benefits including providing convenience for business actors in processing data and providing information quickly, precisely and relevant compared to manual systems.

A system used by the company can be said to be good if the system is in accordance with the needs and business activities within the company itself. A system that is good and in accordance with the company will reduce errors that arise, both because of operating inefficiencies and errors that arise due to human error and negligence can be minimized. a good system will help the company in making decisions that must be done to support operations and develop the company.

Roti Baba is a business that still uses manual recording, it has an impact on the company's operations. Impacts caused include inefficient time in operating activities, for example in recording sales are still done manually and in view of available supplies, employees must contact the kitchen. It has an impact on customer service which is left unchecked will result in the survival of this business itself.

Looking at the needs of sales and inventory information that is fast and precise on Roti Baba, an accounting information system is needed that helps companies to provide fast, precise and accurate information. Sales and inventory accounting information systems needed are web-based sales and inventory accounting information systems.

This is consistent with the desire of the Roti Baba management to create a web-based accounting and inventory accounting information system because it is more practical. Making web-based sales and inventory accounting information systems also makes it easy

for management to monitor the company's operational activities when management is not in the office.

This system is created using the PHP programming language (hypertext preprocessor) because of its dynamic nature. According to Prasetio (2012: 125) PHP programming language is open source which means it can be used free of charge and does not depend on certain operating systems such as windows. The use of a web-based system is needed in the long term to improve the quality of information generated by the system related to speed, accuracy and timeliness.

This study aims to design and design the accounting information system of sales and inventory in Roti Baba.

2. Methods

Research design

This study uses a qualitative method . Qualitative method is a research method used to examine the condition of natural objects, where researchers are a key instrument, data collection techniques are carried out in triangulation (combined), data analysis is inductive, and the results of qualitative research emphasize the meaning rather than generalization.

Place and Object of Research

The research site is Roti Baba which is located in Jember Regency, with the address Jl. Kertanegara No.28 Jember.

Types and Data Sources

According to Sugiyono (2017: 137), Primary Data is a data source directly provide data to data collectors. Whereas Secondary Data is a source that does not directly provide data to data collectors.

Method of collecting data

Data Collection Methods used by researchers are interviews and documentation. Interview is the collection of data by asking direct questions between researchers and respondents (Bambang Juanda 2007:91). The interviews were conducted with the owners and employees of the baba bakery sales and pastry department, using a structured type of interview. Documentation Method is a type of research data which includes sales data, inventory data and customer data. In retrieving data through documentation methods, the researchers took data directly from the Baba Bakery.

Data analysis method

Data Analysis used in the study uses an interactive model of Miles and Huberman to analyze research data. The steps of analysis by Miles and Huberman are three stages, namely:

1. Data Reduction
   Data obtained from the results of interviews and documentation are reduced by summarizing, selecting and focusing data on matters that are in line with the research objectives.

2. Presentation of Data (Data Display)
   The presentation of data is done after it is reduced or summarized. Data obtained from the results of interviews and documentation are then analyzed in narrative text to explain the results of the data that require more detailed explanation, as well as the presentation of relational tables to explain the use of database management systems.

3. Withdrawal of Conclusions / Verifications (Consulin Drawing / Verification)
` The final step in qualitative data analysis is drawing conclusions from verification. Based on data that has been reduced and presented, the researchers draw conclusions that are supported by strong evidence at the data collection stage.

System Analysis Method

System analysis is the most important step in creating a new system. In this case the system analysis is required to obtain actual information. System Analysis according to Marshal B. Romney and Paul John Steinbart (2014: 733) is divided into 5 stages:

1. First Investigation
   Fisrt investigations were conducted to filter requests for system development. when the initial investigation is carried out, the researcher must determine whether the proposed system is needed and feasible

2. System Survey
   System Survey is an extensive study of the Accounting Information System.

3. Feasibility Study
   Develop a more comprehensive feasibility analysis, especially related to costs and economics. The method used for feasibility analysis is the Payback Period Method, the Net Present Value Method, the Internal rate of Return.

4. Information Needs and System Prerequisites
   Identify the information needs of users of the accounting information system by documenting system requirements.

5. System Analysis Report
   The system analysis report is a report that contains summaries and documentation of activities when conducting an analysis.

3. Findings and Argument

A general description of the company

1. *Company profile*
   Roti Baba was founded by Mrs. Berlianti Ningrum since 2017. Roti Baba is located at Jl. kertanegara No. 28 Jember. Currently Roti Baba 8 employees. The slogan that is owned by Roti Baba is the "*Asli Sepenuh Hati*".

2. *Company History and Development*
   Roti Baba is a business that is engaged in the culinary field which is devoted to selling Mexican bun bread. Roti Baba was established and began to be marketed to the general public on November 1, 2017, with a central location on Jl. Kertanegara No. 28 Kaliwates, Jember. Centra is open Monday to Saturday 08.00 to 17.00. The marketing concept carried out at Roti Baba is online and offline marketing.

3. *Organizational structure of the company*
   The organizational structure owned by Roti Baba is as follows:
   • Founder is the founder of a company that has the task of being a long-term decision maker.
   • The CEO (Chief Executive Officer) has the task of making decisions relating to daily operations carried out or short-term decisions.
   • The Head Office has the duty to monitor employees in the office, make good relationships with subordinates, and conduct performance evaluation meetings at the office. Three members of the head office are admin, marketing and sales.
   • Head Pastry has the task of guiding and monitoring bakers in carrying out the bread

production process. A head pastry is also required to check the quality of products produced before being marketed (Quality Control). Head Pastry is assisted by two members, Baker and CS Baker.
*   Delivery is responsible for sending products that have been ordered to consumers and communicating before the product is sent.
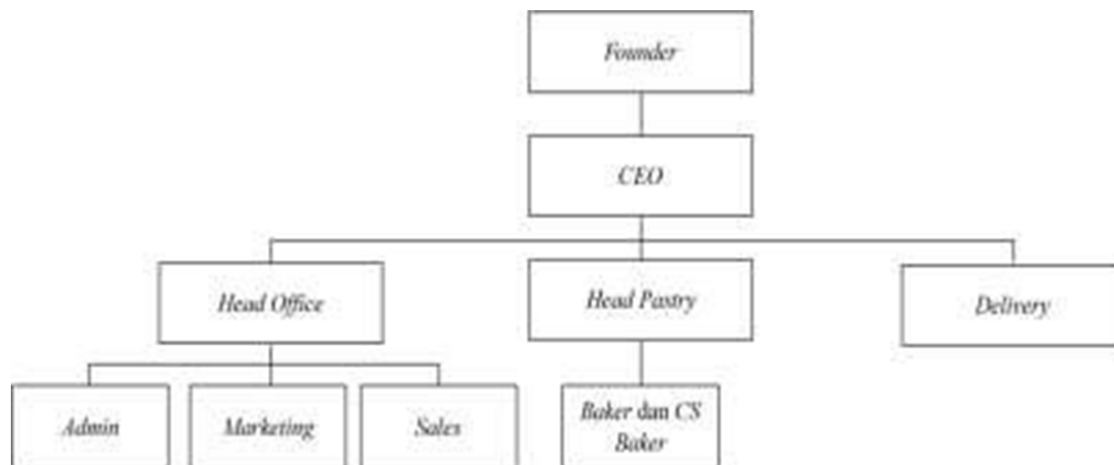
Figure 1. Structure of the Roti Baba Organization

Sales Accounting Information Systems and Roti Baba Supplies

1. *Accounting Information System Sales of Roti Baba*
    Sales accounting information system on roti baba explains all functions, documents, and procedures related to sales transactions. The sales transaction made at Roti Baba is a cash sale transaction. Roti Baba has several functions related to the sales accounting information system. These functions are as follows:
    *   Baker and Cs Baker function here to make and prepare bread that will be sold.
    *   Marketing function is to communicate with customers, serve customers, and prepare orders.
    *   The Accounting function is carried out by the Admin. This function records manually sales transactions in Microsoft Excel for sales reports.

    The document used in the sales accounting information system is an order note made by the head office at the request of the marketing department. The sales procedure in the detailed accounting information system for Roti Baba sales is as follows:
    *   The sales procedure on roti baba starts when you are Customers come to buy or order online through social media, roti baba. For customers who directly come to the outlet, marketing preparing bread is ordered and confirmation to the admin to make a note to be submitted to the customer. Customers who order online will be confirmed again by marketing. Once confirmed by the marketing customer, they will prepare the order and confirm to the admin to make a note.
    *   The note that has been made by the admin will be submitted to the customer who ordered by submitting the order. Then the customer makes a payment. Whereas for notes intended for customers who order online will be given to delivery along with the order to be sent to the address of the intended customer.
    *   The delivery section accepts orders and notes to be delivered to customers. After the order reaches the customer, the customer will pay the order to the delivery according to the note that is followed by giving an order note.

- The delivery section will provide a copy of the note and payment that will be submitted to the admin.
- Admin then records based on the note given delivery.

2. *Accounting Information System for Roti Baba*

The functions associated with the inventory accounting information system at Roti Baba are as follows:

- The Warehouse function has the responsibility to manage the inventory of products in the process and the finished product.
- The accounting function in this roti baba is that the CEO is recording sales and making adjustments to inventory.

The document used in the inventory accounting information system in Roti baba is a purchase note. Purchase notes are used as proof of purchase transactions. While the notes used in the inventory accounting information system on roti baba are stock cards. This stock card is made by CS baker that provides information on available supplies and any items that are almost depleted and must be purchased in the near future. The procedures related to the inventory accounting information system at Roti Baba are as follows:

- Sales Procedure is in Roti Baba is cash sales. This sales procedure starts with customers who come to buy by coming directly or ordering online. Orders will be prepared and made by the admin. Orders that are ready will be given to customers and customers will pay. While for customers who buy online will be given to delivery to be delivered to consumers. Customers will pay for delivery and delivery to provide a copy of the note along with the payment to the admin.
- The purchase procedure on roti baba is carried out when the raw material supply is almost gone. which is done in accordance with the CS baker request to the admin.

3. *Sales Accounting System Information Control Systems and Inventory in Roti Baba*

The application of the accounting system for the sale of accounting information systems and inventory on roti baba is as follows:

- Organizational Elements

  The organizational structure that has been created and applied in the roti baba is good, but in practice the separation of duties has not been carried out properly.

- Authorization system and recording procedure

  The authorization system and the recording procedure carried out on the roti baba in the part of the order note given one to the customer and one given to the admin. Order notes made by the admin also do not have serial numbers so that it is easy for employees to commit fraud by eliminating notes. The recording of bread that is ready for sale is also not done properly and carefully by the pastry department, which has an impact on the difference in value reported by the office to the CEO.

- Elements of healthy practice

  The main activity in the roti baba is that the sale is entirely carried out by employees of the marketing department. The head office only supervises without checking at all the sales process. The reporting process carried out after the operational activities of the company only receives sales reports and fees without checking the receipt. This provides an opportunity for employees to commit fraud. Whereas the sale of bread which is managed by CS baker is not reported to the CEO.

Analysis of Sales Accounting Information Systems and Inventories in Roti Baba

1. *First investigation*

Roti Baba is a business that is engaged in the culinary field that produces mexican

bun type bread products. Based on the results of the interview there is an increase in production along with the increasing public interest in this product. The problems that often occur in Roti Baba in managing stocks are as follows:

- Recording of inventories of raw materials and in the process is not carried out properly so as to cause delays in the sales process to the partners because they must be recalculated.
- The difference in the amount of bread supply between the data sold and those provided by the pastry.
- Late report which should be carried out by CS Baker due to lack of neatness of the recording process carried out by CS Baker.
- Loss of proof of purchase receipt from the supplier that is used as proof of expenditure to the CEO.

The impact on the sales process includes:

- The occurrence of the difference between the stock of bread inventory that is ready for sale between Pastrie and Office.
- The difference between the amount of money reported and the amount of bread sold.
- Error in recording sales transactions that make errors in reporting.
- Reports often experience delays due to recording transactions that have experienced errors.

2. *Survey of System and System Information Needs*
   The information system needs needed by roti baba are as follows:
   - Providing customer data.
   - Providing data on sales transactions that occur and costs incurred.
   - Providing information on the supply of products that have been used up or not yet finished.
   - Provide sales, inventory and profit and loss reports.

3. *Feasibility study*
   Feasibility studies conducted in the design of the system by comparing costs incurred with the benefits to be obtained. Feasibility study The total costs needed in several alternative system selections are as follows:
   - Manual-based Sales Accounting and Inventory Information Systems
     Based on interviews conducted, the costs incurred for operational sales accounting information systems and manual-based inventory consists of two types of costs. These two types of costs are:

Table 1. Manual-based SIA Costs

Memorization Fee	Rp4.440.000,00
Stationery Purchase Fee	Rp792.000,00
Total Operating Cost of Sales Accounting Information Systems and Manual-Based Inventories	Rp5.232.000,00

- Manual-based Sales Accounting and Inventory Information Systems
  Costs incurred for the use of a sales and web-based accounting information system consists of system development costs, system operating costs and system maintenance costs. The details of the costs incurred for the implementation of the new system are as follows:

Table 2. Web-based SIA Cost

System Development Costs	(Rp)
Purchase 1 New PC Unit	3.285.000,00
Purchase 1 Note Printer	600.000,00
Cable Roll	25.000,00
Cable Control Pin	15.000,00
Total System Development Costs	3.925.000,00
Web-based Operating System Costs in One Year	
Purchasing NCR Memorandum Paper	324.000,00
Purchase Ribbon Catridge Ribbon	100.000,00
Total Operating Costs of Web-Based Systems in One Year	424.000,00
Web-Based System Maintenance Costs in One Year	
Electricity cost	900.000,00
Mi-Fi fee	1.800.000,00
Web Hosting Fees	144.000,00
Total Web-Based System Maintenance Costs in One Year	2.844.000,00

Comparative Analysis of Total Costs Between Accounting Information Systems Sales and Inventories Based on Manuals and the Web

Comparison of total costs between sales and inventory accounting information systems, aims to determine the cost savings that will be obtained in implementing manual and web-based sales and inventory accounting information systems.

Table 3. Web-based SIA Cost

Keterangan	SIA Berbasis Web (Rp)	SIA Berbasis Manual (Rp)	Selisih (Rp)
Biaya Operasional	424.000,00	5.232.000,00	4.808.000,00

Economic feasibility analysis of the application of sales and inventory accounting information systems is as follows:

1. *Payback Period Method*

$$\text{Payback period} = 0 + \frac{\textit{Unrecovered cost at start of the year}}{\textit{Cash flow during the year}}$$

$$= 1{,}99$$

2. *Net Present Value method (NPV)*
   The formula for calculating the Net Present Value with discounted interest is assumed to be 5.25% (https://www.bi.go.id/, accessed on June 29 2018) with the following formula:

$$NPV = -CFO + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + ... + \frac{C_r}{(1+r)^T}$$

$$= 1.399.443$$

3. *Internal Rate of Return method (IRR)*
    Internal Rate of Return can be calculated using the following formula:

$$IRR = i_1 + \frac{NPV}{NPV_1 - NPV_2} \ (r_2 - r_1)$$

$$= 6,88\%$$

Invetories Based

Conceptual Design

1. *The inventory procedure in Roti Baba*
    • Pastry parties input data regarding product data which includes the name of the item, cost of goods sold, selling price;
    • The pastry party is also required to input data regarding product stock, both raw and finished goods. c.Admin inputs the amount of expenditure made every day that is used for the operational purposes of the company;
    • The pastry party, specifically CS Baker, is obliged to report on supplies to the CEO every day with existing data.

2. *The procedure for sale in Roti Baba*
    • Pastry parties input data regarding product data which includes the name of the item, cost of goods sold, selling price;
    • The pastry party is also required to input data regarding product stock, both raw and finished goods. c.Admin inputs the amount of expenditure made every day that is used for the operational purposes of the company;
    • The pastry party, specifically CS Baker, is obliged to report on supplies to the CEO every day with existing data.
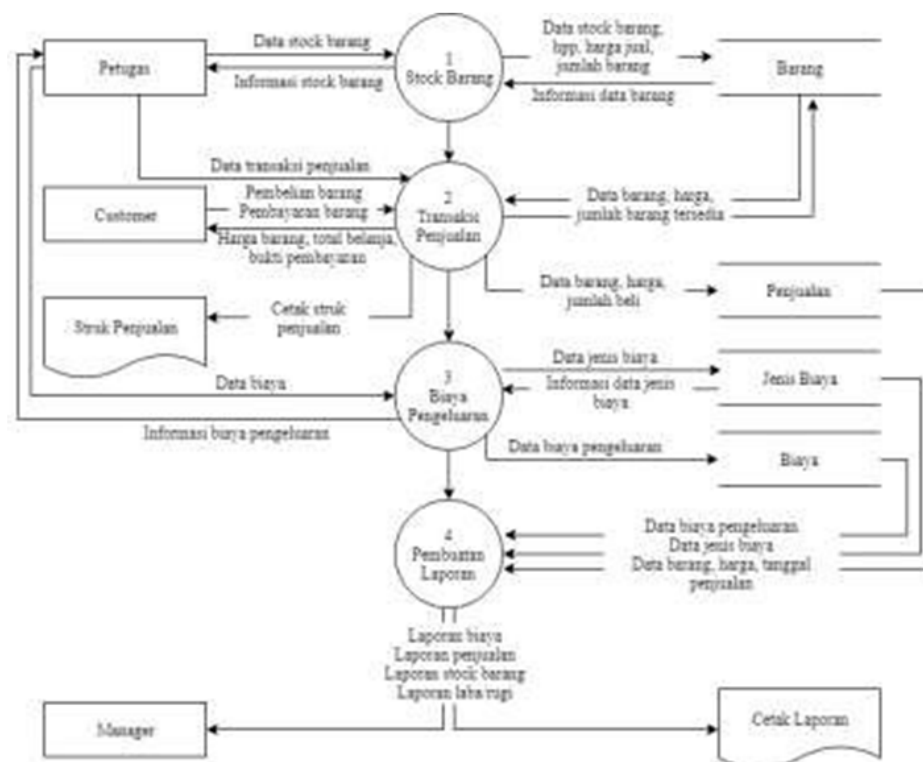
3. *Data Flow Diagram*

Figure 2. Data Flow Diagram

In the picture above the data flow diagram describes the process that occurs in the sales and inventory accounting information system. There are 4 main processes, namely:

- Item Stock Process
  The officer checks the goods against whether the goods are available or not. If it is not available, the officer will input the item data in accordance with the available information. After the data is entered it will be saved automatically in the item table.
- Sales Transaction Process
  This stage begins with the customer buying goods, the system will provide information about the data of goods, prices and quantities available. The customer will make payment according to the total purchase and the officer will provide the goods along with the sales receipt. Data regarding sales will be stored automatically in the sales table.
- Expense Fee Process
  Officers input data regarding costs incurred based on the type of costs, then the system will provide information. The system will then save the data in the cost table. The system will provide information about costs.
- Report Making Process
  This stage is the stage in making the required report. Reports made are cost reports, sales reports, goods stock reports and income statements. In the cost report, the system will retrieve data in the cost table that will be processed into a cost report. Whereas in the sales report, the system will retrieve data in the sales table that will be processed into a sales report. goods stock report will be produced by the system by processing the data in the goods table, and for the income statement generated by the system by automatically processing based on the data inputted by the officer.
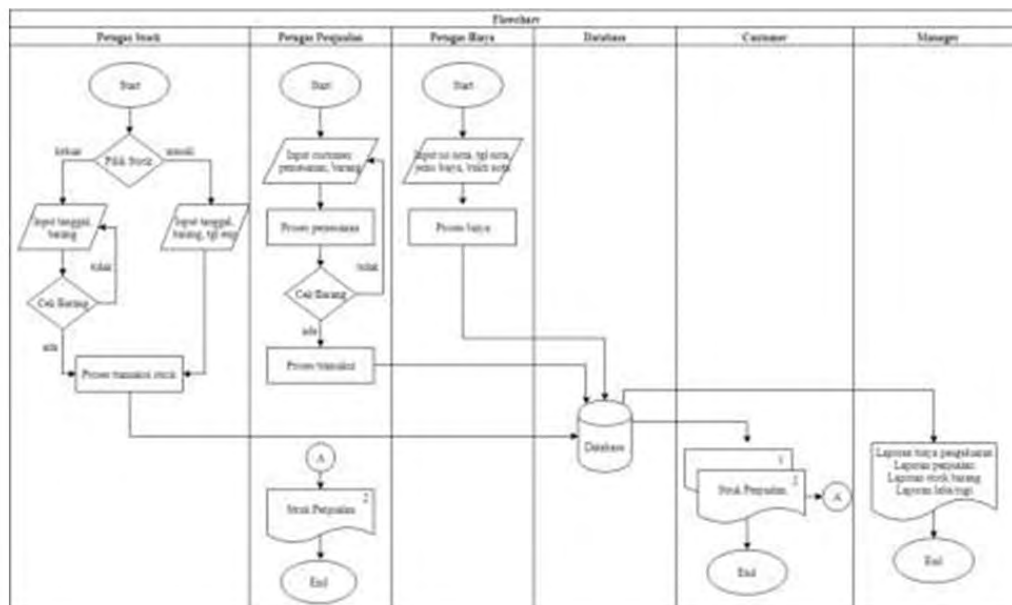
4. *Flowchart*

Figure 3. Flowchart

Description:
- Stock Officer (CS Baker)
  The inventory data input process will be carried out by the stock clerk or CS Baker, starting with the presence of two main menu choices, namely stock in or out menu

- Sales Officer (Head Office)
  The sales data input process is carried out by inputting data about the customer's self data and the items ordered. the transaction will be processed, stored in a database with output in the form of duplicate sales receipts. The sales receipt will be given to the customer, while the copy will be given to the head office.
- Cost Officer
  The cost data input process is carried out by inputting data regarding the costs incurred. Then the system will do the storage process in the database.
- Manager (CEO)
  Output results regarding inventory reports. Sales reports, cost reports and income statements will be given to the Manager (CEO).

Physical Design

1. *Database Design*
   Database Design consists of various tables, including Table of Goods, Table of Types of Goods, Table of Taste, Customer Tables, Table of Customer Types, Table of Costs, Table of Types of Costs, Stock Tables, Stock Details Tables, Sales Tables, Selling Details Tables, User Tables and Position Table. Table of Goods is a table used to store information about goods data. Item Type Table is a table used to store the types of goods sold. Taste Tables are tables that are used to store the types of flavors in each item sold. Customer table is a table used to store customer data. The Customer Type table is a table used to store customer types. Cost Table is a table used to store data relating to costs incurred. Cost Type Table is a table that stores data about the type of costs. Stock table is a table that is used to store data items that are in inventory. Tables of Stock Details are tables that are used to store a list of available items. Sales Tables are tables that are used to store sales transactions that occur to customers. keep a list of sales that occur to customers. User Table is a table used to store data related to user data (employees). Position tables are tables that are used to store data relating to existing positions.

2. *Sales Accounting Information System and Supply Based on Jember Roti Baba Web*
   - Form Login
     The Login Form functions to initiate the process of accounting and inventory accounting information system applications. The application will not run if the user has entered the wrong email and password.

Figure 4. Log In Form

- Dashboard Form
  This form is the initial appearance of the sales and inventory accounting information system application. This form will provide information about the total sales obtained today, the total costs incurred, the total customers and the total users who can use.

Figure 5. Form Dashboard

- Menu Form

  This form is the main menu of sales and inventory accounting information system applications. This menu display will be adjusted to the user who logged in.

Figure 6. Form Menu

- Customer Type Data Input Form

  The customer type data input form is a form for inputting for the type of customer who will make the transaction.
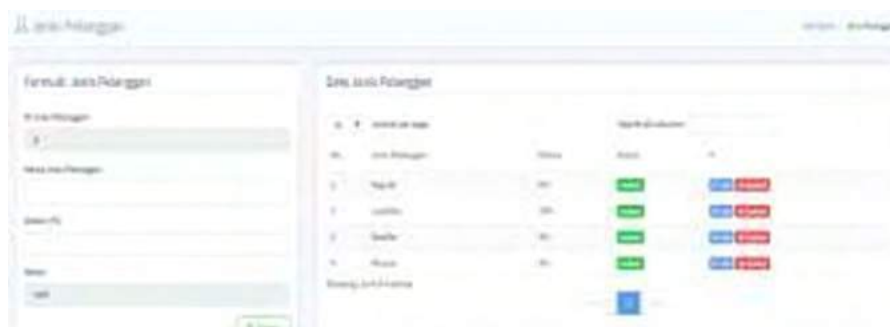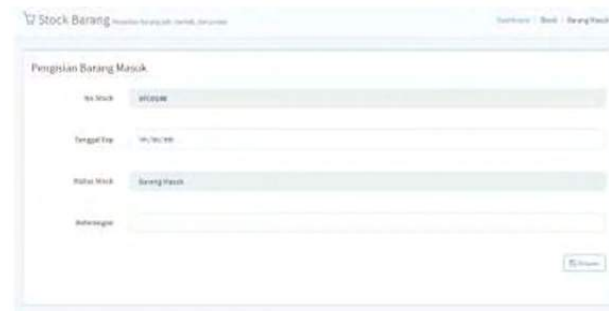

Figure 7. Form Input Data of Customer Type

- Customer Data Input Form
  Customer data input form is a form used to enter customer data.

Figure 8. Customer Data Input Form

- Incoming Item Stock Input Form
  Incoming goods stock input form is the initial form that is used to input data regarding incoming stock.

Figure 9. Input Item Input Form

- Out of Stock Item Input Form
  The outgoing stock input form is the initial form that is used to input data regarding the stock of goods that come out.

Figure 10. Input Item Input Form

- Cost Input Form
  The officer data input form is a form that is useful for inputting data users or operators who are allowed to open this application.

Figure 11. Cost Input Form

- Sales Report Form
  Sales report form is a form used to view reports on sales transactions that have been made. how to enter start date and end date.

Figure 12. Form of Sales Report

- Cost Profit Report Form
  The cost report form is a form used to view reports on transaction costs that have been incurred.

Figure 13. Cost Report Form

- Profit and Loss Report Form
  The cost report form is a form used to view reports on transaction costs that have been incurred.

Figure 14. Form of Income Statement

Analysis of Internal Control Systems Sales and Inventory on Web-Based Roti Baba

1. *Organizational Structure*

   The organizational structure applied in the operational activities of Roti Baba is good, but in practice there are still a number of tasks performed.

2. *Authorization System*

   The authorization and recording system in the web-based sales and inventory accounting information system is as follows:

   • The recording of each sales transaction will be automatically recorded in the system to avoid manipulation or errors of officers in recording.

   • The sales note will be printed along with the name of the officer on duty and the name of the customer who ordered.

   • Making reports on sales, inventories, expenses, profit and loss will be automatically carried out by the system in accordance with what is inputted by the officer.

   • The output of the printed report will show the officer in charge and management

3. *Healthy Practices*

   The methods taken to carry out healthy practices in Roti Baba are as follows The accounts used in the system are divided into sales officers, cost officers, stock officers and management. The account of each officer will determine the menu that can be opened and the management will be able to monitor and supervise from anywhere.

4. Conclusion

The results of the system analysis can be said that the old system still has a lot of weaknesses that cause problems of effectiveness, efficiency and timeliness in presenting the information needed. This supports the design of a new system. Then based on a feasibility study which is seen from the economic aspect, this system is feasible to be developed.

The web-based sales and inventory accounting information system design in Roti Baba consists of conceptual design and physical design. Conceptual design is a general description of system use aimed at meeting the needs of the company's system. The physical design itself is in the form of database design, flowchart, input design and output design.

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