

## A PRODUCT TYPOLOGY FRAMEWORK FOR SUPPORTING THE INDONESIAN NATIONAL STANDARD (SNI) IMPLEMENTATION

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***Abstract:** Indonesian Government has obliged various types of goods to be certified of Indonesian National Standard (SNI) in order to protect the society from buying goods that don't meet standard in quality and safety. However, the implementation level of SNI is still need to be improved. Therefore, in order to overcome the problem, Indonesian government's efforts on the promotion of SNI and the inspection of SNI implementation are needed. Given this, this conceptual paper aims to propose a framework of product typology that can be used to support the government in formulating the strategy of SNI promotion and SNI implementation inspection. The proposed framework was developed based on two dimensions, namely product price and fraud risk. Based these two dimensions, the framework proposed four types of product typology, which are "Positives", "Warnings", "Negatives", and "Dangerous". Each typology has different characters and our framework also proposed recommendations relates to the SNI promotion as well as the SNI implementation inspection that need to be done according to the characteristics.*

***Keyword:** National Standard, Indonesian, Product Typology, Product Labeling*

### INTRODUCTION

#### Background

The Indonesian National Standard (SNI) is a standard used in Republic of Indonesia. The National Standardization System has been applied by the Indonesian government since 2000 through Government Act Number 102 Year 2000 on national standardization (BSN, 2009). Until 2015, there are not less than 129 types of mandatory SNI that have been issued by the government. The 129 types of SNI cover both various types of goods that need to be further processed, such as industrial goods, and final goods that can be consumed by general societies directly (Ministry of Commerce, 2014). The examples of goods which need to further processed are steal profile I Beam (SNI 07 0329 – 2005),

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Calcium Carbide (SNI 2861:2011), cacao powder (SNI 3747:2009), *Quens* steel wire (SNI 7701:2011) and pipe connector (SNI 0139 – 2008). On the other side, there are various mandatory SNI for direct consumed goods, such as motor vehicles tires (SNI 06 – 6700 – 2002), drivers helmet for two-wheeled vehicle (SNI 1811-2007), fan (SNI 04-6292.2.80-2006), instant coffee (SNI 2983:2014) and refrigerator (SNI IEC 60335-2-24-2009).

In formulating mandatory SNI, at least there are seven steps that should be performed, namely 1) identification, 2) formulation of collective program, 3) preparation of the standard design, 4) consensus, 5) validation, 6) ratification and standard dissemination and 7) improvement if there is any weakness of the standard (BSN 2009). One of the mandatory SNI formulation steps is the dissemination step. During this step, government tries to introduce the standard (especially the new standard) to the societies. On the other word, this step relates to several activities promoting the standard. Furthermore, this step will influence the implementation level of mandatory SNI by the producer.

The implementation level of mandatory SNI is still at low levels. A research performed by Herjanto (2011) showed that implementation level of mandatory SNI only reaches 55.05%. This situation indicated the necessity for government to increase their efforts related to SNI's promotion. Besides SNI's promotion, the low level of SNI's implementation could be caused by the low effort in inspecting SNI implementation. The producers perhaps ignore the Mandatory SNI implementation because they feel that there is no any strict government inspection on it. Therefore, it can be concluded that the government needs to increase their effort in promoting mandatory SNI and inspecting mandatory SNI implementation. Hence, an analytical tool that can support government in formulating its mandatory SNI promotion and inspection plan is needed. More specifically, a framework on product typology of the goods which have to be SNI-certified becomes needed.

### **Previous Research and Research Gaps**

The information of product typology of the goods which have to be SNI-certified is very important if the government wants to promote and inspect the SNI implementation effectively and efficiently. Based on contingency theory, this is because the situation caused by the different of characteristic should be treated by different way (Nair, 2006). Without any understanding on the product typology, the Government tends to formulate a homogenous strategy in promoting and inspecting for each mandatory SNI-certified product and it potentially makes the strategy does not effective and efficient.

There are only few researches on product typology. Among of them, Cassidy and Guilding (2010) performed a research on typology of condominium in Australia. They found that condominium can be divided into two main typologies, namely 1) group with apartment label, and 2) group with hotel label. The group with apartment label can be further divided into 1) mom and dad (single property) and 2) Multiple Apartment Site Organization (MASO). Meanwhile, the group with hotel label can be divided into 1) branded and 2) non branded. Bradley et al. (2012) have performed a research on typology of digital goods. Bradley et al. (2012) concluded that digital goods can be viewed from two dimensions, namely distribution channel and service method. Based on the dimensions, digital goods can be divided into four typologies, namely 1) intermediate streaming, 2) intermediate download, 3) direct streaming and 4) direct download. Garcia and Calantone (2002) studied product typology of innovative goods. They recommended a typology which consist of two dimensions, namely micro – macro dimension and measurement of marketing and technology dimension. Ulrich (1995) has established a conceptual paper on the architecture of product in Manufacture Company. Ulrich (1995) reviewed on the “potential relationship between architecture of product and five important field of management”. Those five important fields are: 1) product changes, 2) variety of product, 3) standardized component, 4) product performance, 5) management of product’s development

Based on the explanation above, it can be concluded research on the typology of product is still very limited. Furthermore, there is no research that specifically study product typology in order to support the implementation of certain standard label, such as SNI.

### **Research Objectives**

In order to fulfill the gap in the literature, this paper aims to propose a framework of product typology that can be used to support the government in formulating the strategy of SNI promotion and SNI implementation inspection. More specifically, this paper aims to propose dimension that could be used to classify product and to set a product typology based on the dimension. Furthermore, this paper will also describe how the framework can be used by using four case studies, namely the product of car, fan, prime battery, and regulator of LPG tube.

### **THE INDONESIAN NATIONAL STANDARD (SNI)**

Indonesian National Standard (SNI) is a “standard that is assigned by the National Standardization Biro (BSN) and applied nationally” (BSN, 2009). SNI consists of two types SNI, namely voluntary SNI and mandatory SNI. The voluntary SNI is SNI standards which do not have to be implemented by the producer. On the

opposite, the mandatory SNI is SNI standards which have to be implemented by the producer. According to the information has provided by the Indonesia Ministry of Commerce (2014), there are 129 types of mandatory SNI. The 129 mandatory SNI assigned to various types of goods and can be classified physically into forty five products that can be seen at table 1.

**Table 1**  
**Forty five goods that have to implement mandatory SNI**

No.	Product	No	Product	No	Product
1	Various Steel	18	Closet seat	35	TV
2	Various Tire	19	Stove	36	Azo dye
3	Prime battery	20	Converter kit	37	vertical cylinder of cistern plastic
4	Glass Mirror	21	Instant coffee	38	melamine product
5	phthalates for plastic	22	Swa ballast lamp	39	Semen
6	Sugar white crystal	23	Refrigerator	40	Two wheel bicycle
7	helmet	24	Luminaire	41	Sodium tri polyphosphate
8	cable	25	Toys	42	Wire steel rope
9	Glass sheet	26	Washing machine	43	Wheat flour
10	Safety glass for motor	27	Palm oil	44	Pugs and the box
11	Cacao powder	28	Number plate	45	Ceramic tiles
12	Calcium carbide	29	luminaire		
13	LPG tube and equipment	30	Electric current breaker		
14	Steel wire	31	AC		
15	Glazed ceramics	32	Audio equipment		
16	Lighter	33	Irons		
17	Fan	34	Water pump		

Source: Ministry of Trade, data treated (2014)

## THE PROPOSED PRODUCT TYPOLOGY FRAMEWORK

The typology of product that can be used as an analytical tool that can support government in formulating its mandatory SNI promotion and inspection plan should considers two aspects, namely the aspect that influences consumer purchasing decision and the functional aspect of the SNI. Given this, the dimensions

proposed in forming the product typology in this paper are product price and fraud risk. Product price represents the aspect which influences consumer purchasing decision and fraud risk relates to the functional aspect of SNI.

### **Product Price Dimension**

Researches aimed to reveal various factors that influence consumer purchasing decision have been done widely. Boonlertvanich (2009) performed a research on the consumer behavior of digital camera in Thailand. He identified ten factors which influence the consumer behavior, namely (1) price consciousness, (2) impulse consciousness, (3) fashion consciousness, (4) social influence, (5) habit/brand or store loyalty, (6) mass media influence, (7) quality consciousness, (8) lifestyle influence, (9) confusion consciousness and (10) recreation consciousness. Hagshenas et al. (2013) differentiated the factors influencing consumer decision into two main factors, which are controllable factor and uncontrollable factor. Biswas et al. (2014) identified the factors influencing consumer decision in purchasing car in India. They found that the factors are 1) sales and after sales policy, 2) brand equity, 3) technical aspect, 4) promotion activity effect. Udin et al (2014) conducted a research on the factors influencing consumer decision in purchasing cell phone in Khulna city, Bangladesh. They revealed that physic attribute, price, charging and operation facility, size and weight, recommendation of relatives, and advertisement are the factors influencing consumer decision in purchasing cell phone. Petra (2012) found that there are three factors affecting consumer decision in purchasing assurance in Czech Republic, which are 1) range of assurance, 2) the amount of assurance coverage, and 3) price.

According to the previous explanation, it can be concluded that the factors that influence consumer purchasing decision can be divided into five categories, namely: 1) product, 2) price, 3) promotion, 4) individual factors and 5) social factors. In our framework, we selected price as the dimension that could be used to classify product and form product typology. More specifically, product price was defined as economic monetary cost that should be sacrificed by consumer in order to get the product (Zeithaml, 1988).

Product price was chosen as the dimension of our product typology framework because among the five categories of the factors influencing consumer purchasing decision, price is the only factor that is relevant for explaining consumer purchasing decision of all goods that have to be SNI-certified. Empirically, the selection of product price as the dimension that could be used to classify product and form product typology is also quite reasonable. Many researchers have revealed that price is the most important factor influencing consumer purchasing decision (e.g. Ginder et al., 2009; Kondawar and Jadhav, 2012; Ali et al., 2010; and Yakup et al., 2011). In the context of Indonesia, various researches also showed that price

influences consumer purchasing decision (e.g. Wibowo and Karimah, 2012; Purwati et al., 2012; Ghanimata and Kamal., 2012)

### Fraud Risk Dimension

In this paper, fraud risk was defined as how extent the probability of a company will produce a product that doesn't meet the mandatory SNI's requirement. We selected fraud risk as the dimension that could be used to classify product and form product typology based on the consideration that the main function of SNI is to protect consumer (BSN, 2009). The consumer will well-protected if the producer produces a product that meets the requirement of mandatory SNI. On the other words, the function of SNI will be achieved if the producer doesn't perform a fraud.

The existence of fraud risk is rooted on the fraud theory. The theory was introduced by Cressey in year 1950 in order to explain why someone performs a criminal behavior (Kassem and Higson 2012). Fraud theory has been used by various researchers to explain various fraud phenomena that happened in many fields (e.g. Petrascu and Tleanu, 2014; Buckhoff and Clifton, 2004; Kamaruddin et al 2012; Amat et al 2008; Obeidat and Momani 2008; Roychowdhury 2006).

### The Proposed Product Typology Framework

The proposed product typology framework can be seen in figure 1. According to figure 1, there are four groups of product, namely "positives", "warning", "negative" and "dangerous". The information on the low/high level of price can be understood easily. Meanwhile, the high/low level of fraud risk can be analyzed from the information published by mass media regarding the fraud performed by company in meeting the mandatory SNI requirements. The more negative the news published by the mass media, the higher the fraud risk and vice versa. The explanation on the four groups will be presented below.

**Figure 1: The Proposed Product Typology Framework**

	<i>Price High Price</i>	<i>Low Price</i>
<i>Fraud Risk</i>		
Low risk of fraud	"POSITIVE" Low frequency of promotion Low frequency of inspection	"WARNING" High frequency of promotion Low frequency of inspection
High risk of fraud	"NEGATIVE" Low frequency of promotion High frequency of inspection	"DANGEROUS" high frequency of promotion High frequency of inspection

**“Positive” Group.** The products of this group can be categorized as products with high price and low level of fraud risk. The high price shows that the product is can be categorized as “high involvement” product for customer (Hasan et al 2012). Moreover, based on social judgment theory, in the context of high involvement product, consumers tend to more detail on focusing every aspect of the product; and they also have deep knowledge on it (Hasan et al 2012). This condition will make the consumers understand the importance of SNI and tend to choose the product with SNI label.

The low level of fraud risk in this group can be explained by using value theory. According to value theory, a company will be successful if it gives value proposition to its customers better than its competitors (Bruhn, 2003). The high price of the product will be compensated by the company by giving more benefits (Bruhn, 2003). In this case, quality will become “qualifying criteria” rather than “winning criteria” (Prajogo and Sohal, 2001). Given this, fulfilling the mandatory SNI requirements become a must for the company.

In “positive group”, the consumers are aware on the importance of SNI and on the other side, the companies also feel the same thing in order to against their competitors. On the other words, the pressure for implementing the mandatory SNI not only comes from the government, but also comes from the consumers. Given this, the products in this group don’t need the government intensive SNI promotion and inspection efforts. This group only needs low level of SNI promotion and inspection frequency.

**“Warning” Group.** The products of this group can be categorized as products with low price and low level of fraud risk. The low price shows that the product is can be categorized as “low involvement” product for consumer (Hasan et al., 2012). For low involvement products, generally consumers allocate small percentage of their budget (Hasan et al. 2012). According to social judgment theory, in the context of low involvement product, consumers tend to less detail on focusing every aspect of the product; and they also have less knowledge on it (Hasan et al 2012). This condition will make the consumers have limited knowledge on the importance of SNI and tend to ignore SNI label as a factor that should be considered in purchasing certain product.

According to value theory, the low level of fraud risk in this group was caused by the companies’ eagerness in maintaining their value to the customers (Bruhn, 2003). In order to maintain their value proposition, the companies will fulfill the mandatory SNI requirement although their product price is low. This could be happened because of the tight competition factor.

In “warning” group, the consumers are less aware on the importance of SNI and on the other side, the companies are aware on the importance of mandatory SNI requirement fulfillment. However, the awareness of the companies comes from the pressure of the competition. The companies perhaps can disobey the SNI requirements if most of their competitors also don’t implement the mandatory SNI. Given this, for product in this group, the government needs to promote the SNI intensively. However, the government doesn’t need to perform SNI inspection intensively. On the other words, there should be high level of SNI promotion frequency. On other hand, this group only needs low level of SNI implementation inspection.

**“Negative” Group.** The products of this group can be categorized as products with high price with high fraud risk. The high price shows that the product is can be categorized as “high involvement” product for customer (Hasan et al 2012). Moreover, based on social judgment theory, in the context of high involvement product, consumers tend to more detail on focusing every aspect of the product; and they also have deep knowledge on it (Hasan et al 2012). This condition will make the consumers understand the importance of SNI and tend to choose the product with SNI label.

The high level of fraud risk on this group can be explained by the asymmetry information theory. According to the theory, companies have better information than consumer and consumers also don’t have sufficient competence in evaluating product quality (Stiglitz, 2001 cited in Wankhade and Dabade, 2006). This condition makes the companies don’t have any business interest to compensate the high price by implementing the mandatory SNI requirements. Furthermore, the competition also doesn’t force the companies to implement the SNI requirements. This situation makes the consumers have limited choice and finally they will choose the non SNI products.

In “negative” group, the consumers are aware on the importance of SNI. However, on the other side, the companies are less aware on the importance of mandatory SNI requirement fulfillment because it is not needed to compete. On the other words, the pressure to implement the SNI requirements only comes from customers and the government. However, differing with “positive” group, the consumers of “negative” group only have limited choice. Given this, they are forced to purchase the non SNI product. Given this, for product in this group, the government doesn’t need to promote the SNI intensively but the government should perform the SNI implementation inspection intensively. On the other words, there should be high level of SNI implementation inspection frequency. On other hand, this group only needs low level of SNI promotion frequency.

**“Dangerous” Group.** The products of this group can be categorized as products with low price and high fraud risk. The low price shows that the product is can be



categorized as “low involvement” product for consumer (Hasan et al., 2012). For low involvement products, generally consumers allocate small percentage of their budget (Hasan et al. 2012). According to social judgment theory, in the context of low involvement product, consumers tend to less detail on focusing every aspect of the product; and they also have less knowledge on it (Hasan et al 2012). This condition will make the consumers have limited knowledge on the importance of SNI and tend to ignore SNI label as a factor that should be considered in purchasing certain product.

According to value theory, the high level of fraud risk in to this group can be explained as follows. The companies don’t feel that the mandatory SNI requirement fulfillment can add the value proposition. This could be happened because the competition among the companies doesn’t force it. Moreover, the low price also lead the producers think that SNI implementation doesn’t needed in order to compensate their consumers.

In “warning” group, the consumers are less aware on the importance of SNI and on the other side, the companies are also less aware on the importance of SNI because it is not needed in the competition. On the other words, there is no pressure to implement the SNI requirements from both the customers and the company’s competitors. Given this, for products in this group, the government needs to promote and inspect the SNI intensively. On the other words, this group only needs high level of SNI promotion and inspection frequency.

**Case Study**

In order to explain the use of the proposed framework, this paper will explain how we can use the framework for mapping four types of products, namely car, prime battery, fan, and LPG tube regulator. Figure 2 shows the mapping result of those four products.

**Figure 2: The Case Study**

	<i>Price</i>	<i>High Price</i>	<i>Low Price</i>
<i>Fraud Risk</i>			
Low risk of fraud		Car	Prime Battery
High risk of fraud		Fan	LPG Tube Gas regulator

**CAR.** Car industry in Indoneisa is one of the most important market in the world. In 2104, at least 1.2 million cars were sold in Indonesia (Ministry of Industry, 2014). Generally, car industry in Indonesia is dominated by multinational company with high level of quality control, such as Toyota, Honda, Ford and others. For the car

itself, car is a complex product so it needs various types of mandatory SNI (BSN, 2013). Table 2 shows the list of mandatory SNI needed to produce a car.

**Table 2**  
**Mandatory SNI related to Car**

<i>SNI</i>	<i>SNI information</i>
SNI 0098 2012	Tire of car with passenger
SNI 7396 : 2008	Retreat lamp for motor vehicle
SNI 7398 : 2008	Reflective sticker
SNI 7405 : 2008	Headlights for four-wheel motor vehicles or more
SNI 7406 : 2008	Headrests
SNI 7520 : 2009	Wiper, for certain category
SNI 09-1249-1989	Brake device
SNI 09-1252-1989	Parking brake
SNI 09-1255-1989	Brake lining
SNI 09-1488-1989	Compressed air brakes
SNI 09-1489-1989	Brake devices, connector for hydraulic pressure test
SNI 09-2772-1992	Brake : the shoes and plates
SNI 09-2775-1992	disc brake pad and brake drum
SNI 09-4080-1996	Hydraulic vehicle - vehicle brake system - pipes, threaded holes
SNI 09-4408-1997	Hydraulic brake hoses for motor vehicles
SNI 15-0048-2005	Toughened safety glass for motor vehicles
SNI-1326-2005	Laminated glass for motor vehicles

*Source:* BSN, 2013

From price point of view, car can be categorized as product with high price. Meanwhile, in the context of fraud risk, car can be categorized as low fraud risk. This is based on an argument that the news about the infraction in this industry is generally rare to be founded. This can be happened because there is high competition among the car manufacturer. Not obedient of SNI requirements will harms the company's brand. According to the condition, car can be categorized into "positive" group. Given this, the mandatory SNI related to car don't need the Governments' intensive promotion and inspection efforts.

**Prime Battery.** The SNI related to prime battery is SNI 04 – 2051.1-2004 on prime battery and SNI 04 – 2051.2 – 2004 on specification physic and electricity of prime battery. Prime battery can't be recharge and usually used for hosing equipments. The Price of this product generally is cheap and the news about the infraction in this industry is generally rare to be founded. According to the condition, this product can be grouped into "warning" group. On the other word, the government needs to intensively promote SNI but the government doesn't need to perform SNI implementation inspection intensively.

**Fan.** Generally, given this product needs advanced technology, consumers should pay relatively high price to get it. However, although it has relatively expensive price, many Indonesian mass media reported the infraction of mandatory SNI by its producers (Rosidi, 2011; Printiyani, 2012; Larasati, 2012; Sukma, 2013; and Sutardi, 2014). According to the condition, this product can be grouped into "negative" group. On the other words, the government doesn't need to intensively promote SNI but the government needs to perform SNI implementation inspection intensively.

**LPG Tube Gas regulator.** According to mandatory SNI 7369 : 2008, the product can be defined as "a regulator tools of gas pressure of LPG tube which has function as distributor, regulator and stabilizer in order to makes the gas pressure out constant". The price lies between IDR 30.000 – IDR 80.000 each. Given this, compare to other goods on the SNI list, this product can be categorized as product with low price. However, many cases of infraction of mandatory SNI related to this product have been reported on high number (Wie 2010, Jewono 2010, and Amri 2010). According to the condition, this product can be grouped into "dangerous" group. On the other words, the government needs to intensively promote SNI and also inspect the SNI implementation.

## CONCLUSION

Indonesian Government has obliged various types of goods to be certified of Indonesian National Standard (SNI) in order to protect the society from buying goods that don't meet standard in quality and safety. However, the implementation level of SNI is still need to be improved. Therefore, in order to overcome the problem, Indonesian government's efforts on the promotion of SNI and the inspection of SNI implementation are needed. Given this, this conceptual paper aims to propose a framework of product typology that can be used to support the government in formulating the strategy of SNI promotion and SNI implementation inspection. The proposed framework was developed based on two dimensions, namely product price and fraud risk. Based these two dimensions, the framework

proposed four types of product typology, which are “Positives”, “Warnings”, “Negatives”, and “Dangerous”. Each typology has different characters and our framework also proposed recommendations relates to the SNI promotion as well as the SNI implementation inspection that need to be done according to the characteristics. More specifically, for positive group, both promotion and inspection level could be put on low efforts. For warning group, promotion frequency should be high but inspection level could be put on low efforts. For negative group, inspection frequency should be high but promotion level could be put on low efforts. Furthermore, for dangerous group, both promotion and inspection level should be put on high efforts.

This paper has proposed a framework of product typology to assist the government relates to the SNI implementation. However, we admitted that this paper is only an early paper that needs more development. Many aspect of this paper can be further developed as follows. First, “cut off value” from category of dimension should be studied deeper. It is need to give a clear restriction between “high” and “low” from each dimension. Second, categorization of dimension concept can be wider not only limited into “low” and “high”. Third, the framework also can be wider by adding dimension which forming the product typology, such as label equity of SNI.

### *References*

- Atriana, R. 2013. “Watch out! Consumer Goods Exploited with Low Quality, Cheap” *detikNews*. [http:// news.detik.com/read/2013/11/21/ 144947/2419726 /10/a was-konsumen –diek sploitasi-d engan-barang-murah-kualitas-rendah](http://news.detik.com/read/2013/11/21/144947/2419726/10/a-was-konsumen--diek-sploitasi-d-engan-barang-murah-kualitas-rendah) [accessed 20<sup>th</sup> Januari 2015 ] (in Bahasa).
- Ali et al. 2010. An Exploratory Study on Consumer Buying Behavior in Pakistani Perspective”. *Asian Journal of Management Research*. Vol 1. No. 1. Pp. 216 – 228.
- Amat et al. 2008. “Manipulation of Earnings Reports in Spain : Some Evidence”. *Journal of Applied Accounting Research*, Vol. 8 Iss : 3, pp. 93 – 115
- Biswas, et al. 2014. “Leveraging factors for Consumers Car Purchase Decisions – A Study in an Emerging Economy. *Journal of Management Policies and Practices* Vol. 2, No. 2, pp. 99 – 111. American Research Institute for Policy Development.
- Boonlertvanich, K. 2009. Consumer Buying and Decision Making Behavior of a Digital Camera in Thailand. *RU.Int.J.* Vol. 3(1) 2009.
- Bradley et al. 2012. “Toward an Evolution Strategy for The Digital Goods Business”. *Management Decision*, Vol 50 No. 2. Pp. 234 – 252.

- Bruhn, M. (2003) *Relationship Marketing: Management of Customer Relationships*, Financial Time Prentice Hal.
- Boonlertvanich, K. 2009. "Consumer Buying and Decision Making Behavior of a Digital Camera in Thailand. *RU.Int.J.* Vol. 3 (1). Pp. 57 – 66.
- BSN, 2009. *Introduction to Standardization*. First Edition. BSN : Jakarta (in Bahasa)
- BSN. 2013. *SNI & Safety : Motor Vehicles Riders protection for Two and Four Wheels*.BSN: Jakarta. (in Bahasa)
- Buckoff, T dan Clifton J. 2004. "Exotic Embezzling Investigating Off – Book Fraud Schemes". *Journal of Financial Crime*, Vol 11. Iss : 3 pp. 249 – 256
- Cassidy K dan Guilding C. 2010. "A Typology of Australian Tourism – Based Condominiums", *International Journal of Contemporary Hospitality Management*". Vol. 23 Iss 3 pp 312 – 326.
- Fahriyadi. 2014. "Many Electronics Products Breaking the SNI of Kemdag". *Kontan Online*. <http://industri.kontan.co.id/news/banyak-produk-elektronik-melanggar-sni-kemdag>. [accessed 20<sup>th</sup> January 2015 ] (in Bahasa)
- Ghanimata F dan Kamal, M. 2012. Analysis of the Effect of the Price, Quality Products, and location in purchasing decision Dipenogoro *Journal of Management*. Vol 1. Nomor 2. pp. 1 – 10. (in Bahasa)
- Ginder et al. (2009) "Factors affecting crop insurance purchase decisions by farmers in northern Illinois", *Agricultural Finance Review*, Vol. 69 Iss: 1, pp.113 - 12.
- Haghshenas et al. 2013. "Review Consumer Behavior and Factors Affecting on Purchasing Decisions". *Singaporean Journal of Business Economics and Management Studies* Vol. 1. No. 10. 2013.
- Herjanto, E. 2011. Mandatory SNI in Industry Sector: The Effectiveness and Implementation Aspects *Jurnal Riset Industri* Vol V, No. 2 : 121 – 130.
- Hasan, et al. 2012. Consumers versatile buying behavior irrespective to high and low Involvement Products. *IURC*. MPRA Paper No. 37665.
- Kamaruddin, et al. 2012. "Aggressive Financial Reporting and Corporate Fraud". *International Congress on Business and Social Science* 2012.
- Kassem R. dan Higson A. 2012. The New Fraud Triangle Model. *Journal of Trends in Economics and Management Sciences (JTEMS)* 3(3) : 191 – 195.
- Kondar D, and Janav P. *Global Economic Crisis and Consumer Behavior*. Abhinav, Vol 1. No. 1, Issue 12.
- Matthew Ginder et al. (2009). "Factors Affecting crop insurance purchase by farmers in north Illinois". *Agricultural Finance Review*, Vol. 69 Iss : 1 pp. 113 – 125.

Ministry of Commerce. 2014. LPK On Line. <http://lpk.kemendag.go.id/daftar-sni-1.html> [ accessed 31<sup>st</sup> March 2015].

Ministry of Industry. 2015. Automotive Industry growth is estimated skyrocketed. <http://www.kemenperin.go.id/artikel/8398/Pertumbuhan-Industri-Otomotif-Diprediksi-Melejit>. <http://lpk.kemendag.go.id/daftar-sni-1.html> [ accessed 31<sup>st</sup> March 2015]

**(In Bahasa)**

Nair, A. (2006), "Meta-analysis of the relationship between quality management practices and firm performance—implications for quality management theory development", *Journal of Operations Management*, 24, pp. 948–975.

Obeidat M dan Al – Momani M. "Are Investors in Amman Stock Exchange Able to Detect Earnings Manipulation ?". *Journal of Economic and Administrative Science*, Vol. 24 Iss : 2 pp. 1 – 19.

Patriscu D. dan Tieanu A. 2014. "the Role of Internal Audit in Fraud Prevention and Detection". 21<sup>st</sup> International Economic Conference 2014, IECS 2014, 16 – 17 May 2014. Pertamina, 2015. Our Business. <http://www.pertamina.com/en/our-business/>

Petra, M. 2012. "Research of the Behavior of Consumers in The Insurance Market in The Czech Republic". *Journal of Competition*. Vol. 4, Issue 2. pp. 20 – 37.

Prajogo, D.I. and Sohal, A.S., 2001. "The relationship between TQM practices and innovation performance: a literature review and research framework". *Technovation*, Vol. 21 No. 9, pp. 539–558.

Purwati, et al. 2012. The Effect of Price and Quality Products in Buying Decision : Honda Motor Matic Beat: study case in PT. Nusantara Solar Sakti. *Jurnal Ekonomi dan informasi Akuntansi* (Jenius). Vol. 2 No 3, Sept 2012. Pp. 260 – 277. (in Bahasa)

Roychowdhury S. 2006. "Earnings Management Through Real Activities Manipulation". *Journal of Accounting and Economics* 42 (2006) pp. 335 – 370.

Sutardi, D. 2014. "Found 218 Products Breaking SNI". *Radar Pena*. : <http://radarpena.com/read/2014/11/09/12888/18/1/Ditemukan-218-Produk-Melanggar-SNI>. [accessed 20<sup>th</sup> January 2015] (in Bahasa)

Uddin, et al. 2014. "Factors Affecting Customers Buying Decision of Mobile Phone : A Study on Khulna City, Bangladesh. *International Journal of Managing Value and Supply Chains*. (IJMVSC) Vol. 5, No. 2.

Ulrich, Karl. "The Role of Product Architecture in The Manufacturing Firm". *Research Policy*. Volume 24, Issue 3. Pp 419 – 440.

Wankhade L and Dabade B.M. 2006. Quality and Reliability Corner : Analysis of Quality Uncertainty Due to Information Asymmetry. *International Journal of Quality and Reliability Management*. Vol 23 No. 2. Pp 230 – 241.

- Wibowo, F W dan Karimah, M. P. 2012. Influence of Television Advertisement and Price in Buying Decision Lux Soap: Survey on Mega Bekasi Visitors Hypermall. *Jurnal Riset manajemen Sains Indonesia (JRMSI)*. Vol. 3, No. 1. Pp. 1 – 15. (In Bahasa)
- Yakup, et al. 2011. "The Impact of Cultural Factors on the Consumer Buying Behaviors Examined through An Impirical Study". *International Journal of Business and Social Science*. Vol. 2. No. 5.
- Zeithaml, V. (1988) 'Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence', *Journal of Marketing*, vol. 52, no. 3, July, pp. 2-22.