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Proceeding

6th INTERNATIONAL SEMINAR ON INDUSTRIAL ENGINEERING AND MANAGEMENT (6th ISIEM)

"Sustainable innovation on enhancing industrial management, technology, and information"

Harris Hotel Batam Center, Batam, Indonesia
February 12th - 14th, 2013

Organized by:

PASUNDAN UNIVERSITY
UAI Universitas Al Azhar Indonesia
TRISAKTI UNIVERSITY
ATMA JAYA
UNTAR Universitas Tarumanagara
Universitas Esa Unggul

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Industrial Engineering Department of

Supported by :

Indonesian Industrial Engineering Higher Education Association

FOREWORD

In this 6th International Seminar on Industrial Engineering and Management (ISIEM) Seminar issues is **Sustainable on Enhancing Industrial Management, Technology, and Information**, and wide area of Industrial Engineering including Quality Engineering, Supply Chain Management, Production System, Operation Research, Decision Support System, Ergonomics, Artificial Intelligent, Industrial Management, and Entrepreneurship.

All of papers received were review by a peer of reviewers and published for 55 papers from various Indonesian University and abroad, and be presented by 52 presenters.

Historical, the ISIEM is an annual seminar event organized by 6 universities that run Industrial Engineering Department, which are Triskati University Jakarta, Atmajaya Catholic University Jakarta, Tarumanagara University Jakarta, Esa Unggul University Jakarta, Al-Azhar Indonesia University Jakarta, and Pasundan University Bandung. The seminar took different places annually in all over Indonesia.

I would like to thank you to all committees for the efforts, all Reviewers, Mr. Predeep Nair from Schneider Manufacture Batam, Prof. Dr. Rosnah Mohd. Yusuff from Department of Mechanical and Manufacturing Engineering Universiti Putra Malaysia, Prof. Frits Blessing from Rotterdam University/Rotterdam Business School, for the Keynote Speeches, all Participants to join the Seminar, and everybody who helped us to make this seminar happen.

At last, enjoy your stay in Batam and have a good Seminar.

Ir. Wahyukaton, MT.
(Pasundan University Bandung)

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AGENDA

Day 1 (February 12th, 2013)

Opening ceremony

Gala Dinner

Keynote #1

Mr. Pradeep Nair

Plant General Manager PT Schneider Electric Manufacturing Batam

Day 2 (February 13th, 2013)

Keynote #2

Prof Rosnah Mohd Yusuff

Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia

"Innovations In Manufacturing For Sustainable Growth"

Coffee Break

Parallel Session #1

Lunch

Keynote #3

Prof. Frits Blessing

DINALOG & Rotterdam University of Applied Sciences

"I Have To Change To Stay The Same"

Coffee Break

Parallel Session #2

Day 3 (February 14th, 2013)

Tour to Singapore

TABLE OF CONTENT

SCM – Supply Chain Management

OR – Operation Research

ER – Ergonomics

ER – Ergonomics

DSS – Decision Support System and Artificial Intelligence

PS – Production System

PS – Production System

IM – Industrial Management

THE INFLUENCE OF SUPPLY CHAIN MANAGEMENT TO PRODUCT QUALITY AT PT XYZ IN JAKARTA

Andi Wijaya[1], Richard Andrew[2]

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ABSTRACT

This research is the development from previously research about supply chain and differentiation product. The research aims to find out whether supply chain management influences product quality at PT. XYZ in Jakarta. This research uses all staff from warehouse (30 staffs) so that this research using population. Data was collect by distributing questionnaires to 30 staffs. Then, the data analysed using simple regression analysis, combined with t-test. The result of the hypothesis testing supported the current hypothesis, that is, there is a significant effect of supply chain management on product quality at PT XYZ in Jakarta.

Key words: *Supply Chain Management, Product Quality*

1. INTRODUCTION

Globalization made many countries fought tightly to win the market. This condition is also happening in Indonesia. However for most of the company that exist out there, the business strategies had always been essential to survive. A good business strategy will change frequently to adapt with the market. The change itself, lead the company to have a new competitive advantage for the upcoming market competition.

Changes, in positive ways, are the main factors for fix the quality. A bad quality product will direct the company to a loss condition. There are many way to solve the quality problems and one of them is Supply Chain Management. By practicing a good Supply Chain Management in the company, a product can be right on time and at the right place to create an optimum level of inventory.

A smart change can direct a product to have a good quality. Stundza (2009) said that if a company did not try to reduce their quality costs in the supply chain management, it could reduce the revenue as well. When this all happens, then the company will shrink into deep and after that, the company will face a tougher trouble in the upcoming period.

Linear with the previous statement, Batson and McGough (2006) stated that quality planning in supply chain is important especially to provide the customer needs. Moreover, the key in this area is the production department. At the end of their research, they agree that supply chain management had significant effect to product quality.

The research above strengthen by Agus (2011) who discover the influenced of Supply Chain to product quality and business performance. Furthermore, the result in her research indicates that manufacturing companies should emphasize greater attention to the waste elimination program through lean production as well as the technological aspects of Supply Chain Management and a greater degree of management support for Supply Chain Management enhancement initiatives

This research itself has a goal to find the empirical proofs that Supply Chain Management is affecting the Product Quality at a manufacturing company in Indonesia. Based on all of those things, researchers set "The Influence of Supply Chain Management

to Product Quality at PT XYZ in Jakarta" as the title for this research.

2. THEORETICAL BACKGROUND

There are two variables in this research, Supply Chain Management and product quality. The first variable in this research is Supply Chain Management. According to Heizer and Render (2006), Supply Chain Management is the integration of the activities that procure materials, transform them into intermediate goods and final products, and deliver them to customers. Similar with the previous definition, David, Kaminsky and Edith (2003) said that Supply Chain Management is a set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses and stores, so that merchandise is produced and distributed at the right quantities, to the right locations and at the right time. These all utilized in order to minimize system wide costs while satisfying service level requirements.

The second and the last variable of this research is product quality. Feigenbaum (1986) stated a product with quality is the product that delivered a full customer satisfaction. Hunt (1993) told that product quality is the fitness for use to fulfill customers need and satisfaction. Therefore, researchers conclude that product quality is the fitness for use that delivered to customers for their needs and satisfaction.

To determine those variables, researcher needs to prepare the indicators for each variable. According to Indrajit and Djokopranata (2003), Supply Chain Management based on the good relationship with the suppliers, the optimal work in operation facility, the wise selection of the marketing channels and the perfect delivery to improve the customer satisfaction.

There are plenty different indicator for quality. One of them is the 8 indicators to detect the product quality that stated by Garvin in Gasperz (1997) as product performances, product features, product reliability, product level of conformance, product durability, service ability of the product, product aesthetics and perceived quality about the product.

As explained above by Stundza (2009) and also Batson and McGough (2006), Supply Chain Management is the independent variable while product quality is the dependent variable in this research. Therefore, by using both variables researchers develop hypothesizes as:

Ha: Supply Chain Management has a significant influenced to product quality.

3. RESEARCH METHOD

Aritonang (2002) stated that population is all of the elements in research subject. This research is using the population data because researchers spread the questionnaire to collect all of the data by collecting it to all employees at PT XYZ in Jakarta that responsible in company supply chains.

Researches, as usual, have the analyze method or technique to interpret and make a conclusion from the variables. The analysis itself is using simple regression method to find the equation: $Y = \alpha + \beta X + e$. In the model, Y refers to dependent variable, α refers to intercept coefficient, β refers to regression coefficient, X refers to independent variable and e refers to errors.

Santoso (2000) stated that before the model used, there are several tests, which include validity test, reliability test, heteroscedasticity test, normality test and autocorrelation test. The last three test above, are part of classic assumption that taken from a simple regression equation. After all of these tests passed, the equation will be tested with test of significance (using both t and f test) to detect the correlation and influences. Finally, researchers also look in to the determinant coefficients to figure how this equation explains the product quality.

4. RESULT AND DISCUSSION

The first test is validity and reliability test using the number of Corrected Item Total Correlation (The question will become valid

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alpha (The questionna
reliable when the coefficie
SPSS computer progra
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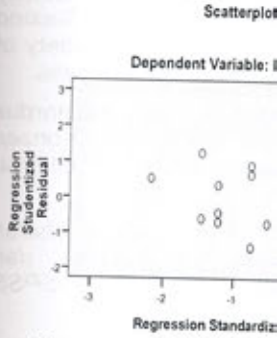

Figure 1. SPSS Output

According to Andren (2
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invalidate the test results
estimators. However, after
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on the equation because
Figure 1 had no significant

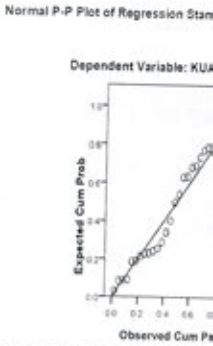

Figure 2. SPSS Output of N

Based on Figure 2, there
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that been used in this mo
distributed.

Table 1. SPSS Output of M

Model	R	R Squa
1	.385(a)	.148

when the coefficient > 0.2) and Cronbach's alpha (The questionnaire will become reliable when the coefficient > 0.5) using the SPSS computer programs. All of the questions in the questionnaire are valid and reliable.

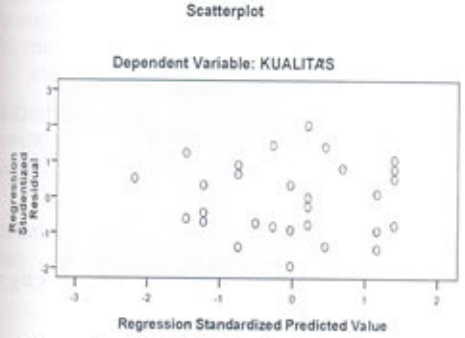

Figure 1. SPSS Output of Scatterplot

According to Andren (2007), it is very important to investigate the heteroscedasticity because it might invalidate the test results by the inefficient estimators. However, after the test, the result proved that there are no heteroscedasticity on the equation because the scatterplot in Figure 1 had no significant pattern.

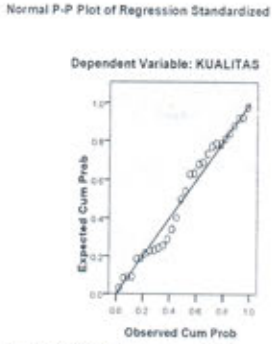

Figure 2. SPSS Output of Normal P-P Plot

Based on Figure 2, there are dots around the linear line. When it happens, the data that been used in this model are normally distributed.

Table 1. SPSS Output of Model Summary

Model	R	R Square	Durbin-Watson
1	.385(a)	.148	1.628

Gujarati (2004) stated that autocorrelation made the t-test, F-test and Chi-Square test may not be valid. On the Table 1, it shows that the Durbin-Watson coefficient is close to 2 where a model stated with perfectly no autocorrelation (1.628). These mean, as a result, there are no autocorrelation in this model at 95% confidence level. The table also shows that Supply Chain Management can explain 14.8% of the product quality and the rest 85.2% explain by the other variables.

Table 2. SPSS Output of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	51.312	7.907		6.490	.000
Manajemen rantai pasokan	.393	.178	.385	2.204	.036

All of those fulfillments above lead to the usage of the equation that gathered from Table 2. The equation itself noted as QUALITY = 51.312 + 0.393 SCM. In that equation, QUALITY refers to product quality while SCM refers to Supply Chain Management. The table also found out that the intercept coefficient (Sig = 0.000) and regression coefficient (Sig = 0.036) in the equation is significant at 95% confidence level.

Table 3. SPSS Output of Correlation

		Manajemen rantai pasokan	Kualitas
Manajemen rantai pasokan	Pearson Correlation	1	.385(*)
	Sig. (2-tailed)		.036
	N	30	30
Kualitas	Pearson Correlation	.385(*)	1
	Sig. (2-tailed)	.036	
	N	30	30

Pratisto (2003) said that Pearson Correlation is the relation test in parametric statistic. Table 3 figured that the relation between Supply Chain Management and product quality is positive but relatively weak. However, the test of significance shows that there are relationships between Supply

Chain Management and product quality at 95% confidence level.

Finally, the model empirical proves to strengthen the previous research from Stundza (2009) and also Batson and McGough (2006). However, low coefficient determinant in this research mean there are plenty variables out there that also influences the product quality.

5. CONCLUSION

This research concludes that empirically Supply Chain Management as independent variables are influencing product quality at 95% confidence level. This result shows the company that they must be careful with bad supply chains and must keep the perfect flow in supply chains. As written before, researchers suggest to add another variables for strengthen the results to increase the low determinant coefficient.

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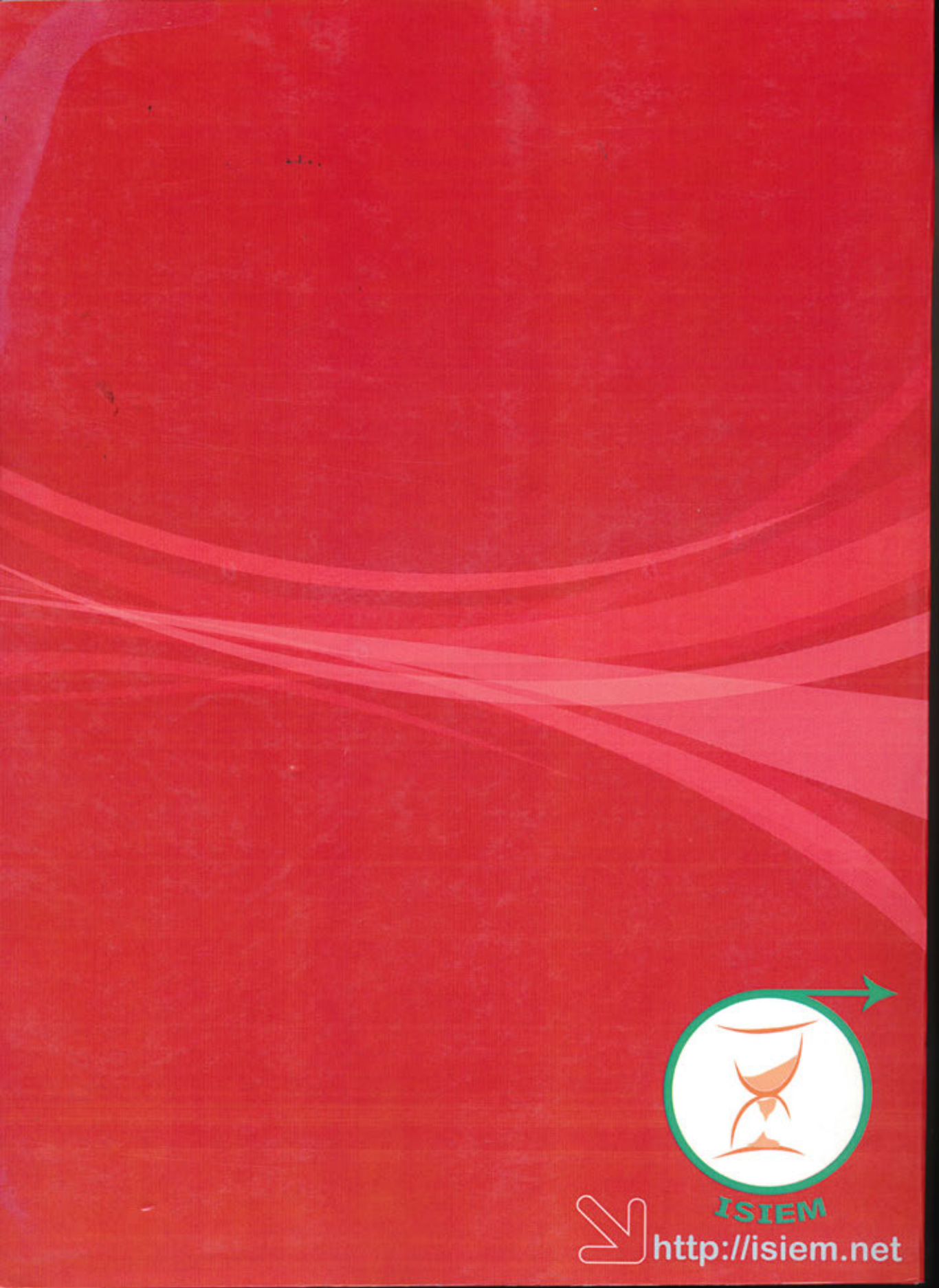
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FIVE V'S IN CUSTOMER'S PERSPECTIVE

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ABSTRACT

Right now, most of the companies know that customers are the essential element for them. Somehow, their behaviour tends to unchanged. They still focus on their sellers, even when all of the sellers can just perform in a short periods. One of the key to perform in a long periods is to get closer to the customers. When customers choose to buy something, there are many aspects looked and one of those aspects known as Five V's concept that consist of value, viability, volume, variety and virtue. Those differences make the writers describe it in this paper.

Key words: *Value, Viability, Volume, Variety, Virtue*

1. INTRODUCTION

In global look, people and organizations have wants and needs. It is the duty of the market to fulfil the products and services. However, consumers in all over the world have varying diversity. Some of them just only follow the early birds, while the other measuring them first before bought a product. These conditions are also happening in Indonesia.

Indonesia is one of the big countries all over the world. It had a big population too. According to Biro Pusat Statistik (BPS), a major governmental statistical institution, the number of Indonesia's population in 2010 is 237,641,326 people. In this number, there is a potential market, which might not develop yet, or in the other side, there are so many potential buyers in this country.

Hamidah stated about three factors that affect the buyer: Consumer preferential, environmental impact and marketing strategies. All of these factors identical with the Five V's paradigm. This paradigm consists of value, viability, volume, variety and virtue. Here are several explanations furthermore:

2. VALUE

Value is not a must thing that related with money. Not every expensive item, especially in Indonesia, valuable enough to be the consideration. Here are several elements that measured the value in Indonesia:

2.1. Quality:

According to Heizer and Render, quality is the ability of a product or service to meet customer needs. In Indonesia nowadays, there are many standardization have been used such as SNI, ISO, Halal and so on.

When quality below the requirements, it will burden the cycle of that products. For example, McDonald's and the other fast food restaurants are franchise from foreign countries. To gather more customers, McDonald's must get the Halal certification because more than 50% of its potential buyers in Indonesia are Moslem.

2.2. Uniqueness:

Everyone tend to be unique and different with the others. That's why limited edition items will be sold out fast in all around the world. Unique can be categorized as different and have a strong character around it. For example, McDonald's in Indonesia have PaNas (An acronym of Paket Nasi) as rice special packages. Rice, as we know, is the main element in Indonesian food. This is the McDonald's uniqueness in Indonesia because they know they cannot survive without rice menus set.

2.3. Technical specification:
This is the main value when we want to buy an electronic product in Indonesia. For example, in Water Treatment Plant Industries we know that several companies would like to use national piping set such as Wavin pipes, while the other tend to use import product. However, we must notice that some of these products have millimeters as the measurement units while the others have inches as their measurement units.

2.4. Performance:
Some of the products especially services product need performance as their main value. For example, boy bands and girl bands are booming in Indonesia when Korean drama series explodes around Asian countries especially in Indonesian cinema movies problematic around the early 2011. Boy bands and girl bands give them attraction which some of them carries in foreign style of dancing such as Rhythm and Blues and so on.

2.5. Price / fee:
Price or fee is the most used value in Indonesia. Usually, every person will try to get the cheapest price / fee. For example, people tend to go to International Trade Center than to Supermall in Jakarta because they think that in ITC the price / fee will be cheaper than the Supermall for the same items.

2.6. Intermediaries:
Intermediaries or some known as the third parties are the great value especially when we want to open in a new market or reaching the prospective market in the rural areas or even protecting from the bigger business risks. For example, retailer such as Indomaret needed to increase the probability of beverages sold at the market vice versa.

2.7. Single source:
In Indonesia, not many companies using the single sourcing. They often think about the inefficiency of the cost and the lead times. On the other hand, few multinational companies think that single source is still a value for them. For example, several five star hotels across Indonesia still buy from PT. DR Indonesia to get an advantages of purchasing Dilmah Tea in a various customized package.

2.8. Supplier reputation:
Reputation is not a value that can easily get but it always been gone easily. You will drop out from the competition if you ruined up with your reputation. Many companies think that it will be wiser to choose a good supplier than a bad reputation supplier. For example, a gas station at North Jakarta drops their sales growth drastically after they cheated their customers while some of them notice about that.

2.9. Difficulty in sourcing:
Sometimes to find a new source in a new place is so difficult. We must know several factors such as language, communication system and other important factors. For example, there are many seafood restaurants in Muara Angke and Muara Karang because their locations near the fishing spot in Jakarta so they can buy easily their fishes from the anglers.

2.10. Prestige:
Respects and admiration is a valuable gift. That is why prestige is commonly used to a well-known product in Indonesia. For example, the prosper society usually buy an original product that sold in boutique like Louis Vitton, Aigner and Gucci while the common community usually buy the cheaper one at Factory Outlet.

3. VIABILITY

According to The Free Dictionary by Fartex, Viability is capability of success or continuing effectiveness. Here are several elements that measured the variability in Indonesia :

3.1. Branding:
People like brands. They feel comfortable buying a brand named product in Indonesia especially when they are in the middle-up classes. For example, in Indonesia, Milo is a food and beverages brand that related to a chocolate-based product such as chocolate milk and chocolate bar.

3.2. Choice:
Each person had diff
will reflect in their ch
when there are so
Indonesia which h
community, options is
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as chicken curry, so
they extent their flav
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3.3. Repetition:
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3.4. Reliability:
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symptoms in another
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market positioning. F
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product. That is the
is a very fast movin
indonesia especially
places and they
upgrading their Ope
protect their loyal cus

3.5. Functionality:
Multifunction product
company especially i
It is also happen in I
Mobile phone Indust
regularly maintaining
development team to
its product to survive
phone's market.

3.6. Client access:
Client have a right t
they confused by th
access is surely hel
their products. For
mobile phone provide
24/7 customer se
customers handlin
problems.

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3.2. Choice:
Each person had different tastes. That taste will reflect in their choices. Choice appears when there are so many options. In Indonesia which have wide diversified community, options is crucial. For example, Indomie after success in a major flavor such as chicken curry, sotomie and fried noodle, they extent their flavor such as spicy fried noodle and satay fried noodle.

3.3. Repetition:
If we like something, we will go back to that thing again repeatedly.That is why repetition is a major element to measure viability. In Indonesia, repetition also reflects the goodness of its goodwill. For example, there are many customer come back to eat at Hakata Ikkousha as they know about the deliciousness of its menu.

3.4. Reliability:
Reliability is a measurement to show the consistency of a tool to analyze the symptoms in another event. In Indonesia, a reliable system will always get the good market positioning. For example, Blackberry Messenger is a reliable and user-friendly product. That is the reason why Blackberry is a very fast moving consumer product in indonesia especially at Jakarta's market places and they are still running by upgrading their Operating System (OS) to protect their loyal customers too.

3.5. Functionality:
Multifunction products are dream for every company especially in electronic industries. It is also happen in Indonesia. For example, Mobile phone Industries such as Nokia is regularly maintaining their research and development team to build a new feature on its product to survive in Indonesian mobile phone's market.

3.6. Client access:
Client have a right to get an access when they confused by the products. An easier access is surely helping them to maintain their products. For example: Axis, as a mobile phone provider in Indonesia, builds a 24/7 customer services to help their customers handling their Axis-linked problems.

3.7. Service:
Somehow, a good product, not yet a good product if do not followed by a good service. In Indonesia, services are not a major factor for a product but it still affects the result of the consumer behavior. For example, Carrefour outlets are always coordinate with their supplier so that they can manage their sales representative such as SPG and SPB to fulfill their standards and recover its potentialities.

3.8. Shelf life:
For producers and retail buyers of perishable products, one of the biggest challenges is the timely identification of spoilage, and its causes. There are many points in the shipping and storage process where damage can occur, and it is often difficult to identify in whose custody specific damage occurred. For example, Coffesso, as one of the major prime brand for coffee in Indonesia, usually been checked periodically by their merchandiser so that they can manage the shelf life of its product in retail market.

3.9. Result/output:
Some people said that no matter what is the process, the most important think is the result. It's quite true somehow because for some products, process is not too necessary in Indonesia. For example, Tarumanagara's accounting degree is still the hottest prospect in big four auditing company because of their skills and competency in auditing and accounting especially the top 10 of the graduates students per year.

3.10. Affordable:
The way to get the high margin in a smart way is by setting affordable prices. Affordability can detect the viability. In Indonesia, many companies work out with this affordable stuff to increase their profit and to raise their viability. For example, Kentucky Fried Chicken set an Attack menu list at 15.00 – 17.00 to eliminate their excess stock of wings and to gather the lower customer sector. However, by using a smart way to promote, this menu also provides an affordable product in common community mind.

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3.11. Distance / location:
Some products just prove their viability by setting their market at the right location and position. In Indonesia, wrong location means wrong positioning and less viability. For example, Chinese food restaurants are never a good option in South East region of Jakarta because that region had less pork's eater than the people in North West region of Jakarta even if that Chinese food restaurant do not sell any pork related menu.

4. VOLUME

Never assuming this volume is just the same as the quantity. In 5 V's, quantity is just an element for measuring the volume. Here are several other elements for measuring the volume (include the quantity):

4.1. Quantity:
This is the most common and well-known element for measuring the volume. In Indonesia, many products especially fast moving consumer goods need a high number of items. For example, Simpati as one of the large mobile phone provider's in Indonesia distributes a large number of Simpati's card and transmitter around Indonesia to survive in mobile phone provider's industry while the other providers crushing their margin and increasing their promoting sectors.

4.2. Replication:
In Indonesia, almost everything is replicable. Sometimes, the replication makes the original products get brand awareness too. For example, there are so many replications of a Disney character product in Indonesia and that is why Disney's character is so famous here even when the movie post-response ended here. Sometimes, this replication is not such an original products. This is not a big deal for them because some people still enjoying with the other original Disney products.

4.3. Divisibility:
A divisible product can be used any time and place we want to use it. In Indonesia, a product with a large divisibility provides a better volume. For example, a digital camera is been used recently by people, especially young people who are very dynamic, because it has more divisibility than the one shot camera which is popular in 90's. A digital camera can upload and delete the photos easily.

4.4. Consistency:
It is natural to choose a consistent product especially when the consistency in the product itself is more important than the other factors. The wrong move of a decision maker could trash the market. For example, in Indonesia, most of the food and beverages has been chosen because of its deliciousness consistency. That is why the junk food restaurants still crowded even when people know that it is unhealthy.

4.5. Spares support:
When your products have multiple spare parts then a spare support cannot be avoidable. In Indonesia, the number of volume is also can be measured by the spares support. For example, Toyota has many spares support and this is the reason behind the buyer when also considering the spares support before they buy a car.

4.6. Pack size:
Somehow, pack size is one of the options of making a psychological effect for products. In Indonesia, there are so many big pack products with a small amount of content. For example: Snack for kids such as Taro provide a big pack for its product so the kids can see it and buy it even when the content is not as big as its pack.

4.7. Availability:
The other crucial factor for measuring volume is availability. An available product can shortened the buyer waiting time which as we know that there are many potential buyer hate the waiting time. For example, canned food and canned beverages long run also affected by the availability of its product in the common retail place such as hypermarkets, mini markets, and traditional marketplaces.

4.8. Buy in advance:
People always love to be the first. Several of that people is also busy with their life for even to buy or use a product. Buy in advance is a good term to increase the

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4.9. Bespoke:
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4.10. Split parts:
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5. VARIETY

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5.1. Seasonality:
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5.2. Range:
Range in variety is
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wide range provides
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volume of the products. For example, in XXI nowadays, we do not have to queue in the line to buy our tickets before the movie started. Now, they have M-Tix program so that we can buy our ticket from our home or office without worrying the sunk cost if we do not get the ticket after we go to the mall to buy it.

4.9. Bespoke:
According to Merriam-Webster, bespoke is custom made. Custom made products mostly wanted in Indonesia by several people to provide their self-actualization. For example, customers of a football team of a football's jersey, which most of them are fans, sometimes want to put their name on it.

4.10. Split parts:
Split part is diversification in volume measurement. A product which part can be split is been looked by some customer. For example, automotive store in Jakarta mostly provide a split part to increasing the style of the exterior and/or interior of their customer's car.

5. VARIETY

Variety gives options to customer or prospective customer to extend their choices. This variety measured by these elements:

5.1. Seasonality:
Some products have a seasonal high point. This high point gives them a variety of changes for facing this seasonal high point. For example, Gramedia, known as one of the biggest book store in Indonesia, provide a seasonal discount for books and sometimes, even provide some other product, such as uniforms around the middle of the year before these kid back again to school.

5.2. Range:
Range in variety is so wide. It can be a vertical extension or horizontal extension. A wide range provides a competitive variety for the product and its sustainability too. For example, Burger Kings in Indonesia consistently widening their range of its brands by varying a new variation such as new combination packages, new fast food menus and stores.

5.3. Abnormality:
Abnormality is not always a bad thing. One of the elements for measuring variety is this indicator. In Indonesia, especially in big cities, abnormality is a part of a dynamic living style. For example, entertainment such as live music and dances are provides in prime time around 18.00-21.00 based on the Eastern culture. However, in big cities, like Jakarta, this kind of entertainment mostly provides after that time to gather the customers and prospective customers.

5.4. Order status:
Variety can also be looked by the order status. In Indonesia, which several popular products are rare in the market, order status is very important. The order status sometimes protects the customer's privacy or self-actualization. For example, BCA, as one of the most popular banks in Indonesia, provides BCA Priority for their main customers. This BCA Priority line gives its customers a special tellers and customer service representatives.

5.5. Literature support:
In the modern day, most of the people in Indonesia especially in big cities can write and read something. From that statement, we know that a literature support for a product is important. By this support, consumer will learn and know the product faster. For example, Motorola, as one of the big player in mobile phone industry, always provide a guidelines book for Motorola's mobile phone user in several languages.

5.6. Packaging:
Once upon a time, an expert will say "Don't judge the book by its cover." For a long time, it's works. In Indonesia, as well as in several other countries, people just only have a little time to spare, so packaging can be a good to be the eye catcher. For example, Clear, as one of the popular shampoo in Indonesia, changing the package of its item periodically to increasing their market shares.

5.7. Replacement:
Replacement is about the process of replacing something or someone. In some

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industries at Indonesia, replacement is a crucial element. A wrong replacement can significantly cause a major problem for the product or the company. For example, a Human Resources outsourcing company always prepare for the replacement of all employees to prevent the allowances in Human Resources sectors.

5.8. Access to range:
Access to range is an important stuff in transportation's related business. By a dynamic access to range, a company provides varying advantage. For example, PHD sets up their location in strategist area and helps their self with a fast vehicle and skilled driver so they can handle the prospective customers in range.

5.9. Inspection by customer:
Customers are kings and kings usually know what are best for themselves. In Indonesia, inspection, formally or informally, be used as a tool to improve the variety. For example, Coca Cola, one of the best beverages company, is organizing the factory open houses. It held to attract their prospective customer to use their products by inspecting it directly.

5.10. Demonstration:
The last element for measuring the variety is by using demonstration. In Indonesia, many companies use this demonstration to show some advantages of its product. For example, Ford Fiesta, arranging the Ford Fiesta goes to campus event, so they can demonstrate their advantages in front the other car's drivers in university.

6. VIRTUE

According to Dyck and Kleysen, virtue, as a traditional view consist of practical wisdom, justice, courage and self-control. In consumer behaviour, virtue is very close with that statement by using these several elements:

6.1. Service:
Service is all about completing the customer satisfaction. A good service will indicate the level of the products and on the others; a bad service will close the door to a repetitive buying action. For example, Starbucks, one of the famous coffee shops in Indonesia, are protecting their customer by a high standard of service from its surrounding and employees. All of that is protecting their customer's comfort zones.

6.2. Support:
Everybody likes to get support from the other. The supportive company will get more prospect able customer than the one who is unsupportive. For example, Waterboom, as one of the largest water recreation places in Jakarta, support their customer by providing maps, officers, equipments and other useful objects. All expected to finish by minimizing the probability of a clueless customer in the areas.

6.3. Staff proficiency:
A good staff can manage all the complaints, give a full package of information and carry it all with a friendly attitude. That all are the proficiency that worldwide accepted. For example, Aqua Danone, the number one packaged water in Indonesia, provide a hotline number for customer that called Aqua Menyapa. It consists of skilled and well-trained operators to answer their customer complaints.

6.4. Courtesy:
The courtesy is a basic way for improving the quality of the company or product. This is also an important element for measuring virtue. For example, Daihatsu Astra, update their customer, by calling them periodically to maintaining the quality of its product. They sent this notification both in the customer's email and on calls to their customer's private phone.

6.5. Product knowledge:
Every company's provide their first line with, at least, simple product knowledge. The good product knowledge sometimes reflects to the capability of the training and development program at the restaurants. For example, a waiter in Raja Konro, a well-known Makassar's food restaurant, must know all the menus and its style to an unfamiliar new customer. Same as that, a tutor for a private teaching session must understand various way to answer the

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6.6. Technical infor
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question that given from the customer's teacher in school or university.

6.6. Technical information:

Several products are too difficult to understand widely, but some of those products are very user friendly. Although even the simplest one, in Indonesia, technical information still needed especially in middle-low consumers segmentation. For example, Grundfos, a well-known pump brand, aided their product with a full of technical information and guidelines. Grundfos also sent their officers in case the customer needed it.

6.7. Operational support:

Operational is crucial factor for an organization. The supporting officer and facilities in this sector will be a huge consideration of the organization life cycle. For example, Bun Ong, one of the large porridge restaurants in Jakarta, operates 24 hours and 7 day in a week to fulfill their customer need.

6.8. Friendliness:

Friendly is an easy trait to say but it's something that so hard to be understandable. Level of tolerance for this trait is so high. For example, Bank Ekonomi gives their customer a full service with friendliness from their security officer to their CEO.

6.9. Handling complaints:

The hardest part in virtue is handling complaints. Sometimes, the complaints are very unreasonable. For this kind of complaint, company must be smart to manage it. It will need a perfect training session with simulation and a direct experimental case. For example, Esia, as one of the mobile phone provider in Indonesia, is handling their customer complaint by phone and walk-in. All of the officers are well-trained person.

6.10. Restitution:

According to Schiffman and Kanuk, consumer has stages of adoption process. This process starts from awareness, preference, judgement, trial and ended with a regular customer/rejection. For every rejection, the company must do a favor that been liked by the customer. For example, for each imperfect food or beverages, A&W restaurant, by the manager's approval, provide an exchange as restitution.

7. CONCLUSION

This Five V's give many useful consideration to the sourcing process undertaken by the buyer as a personal. There are plenty of the Five V's applications in the business world that might be explored furthermore by using some forecasting techniques and models. Occasionally, however market segmentation in this forecasting techniques or models will attempt to prevent generalization of the paradigm.

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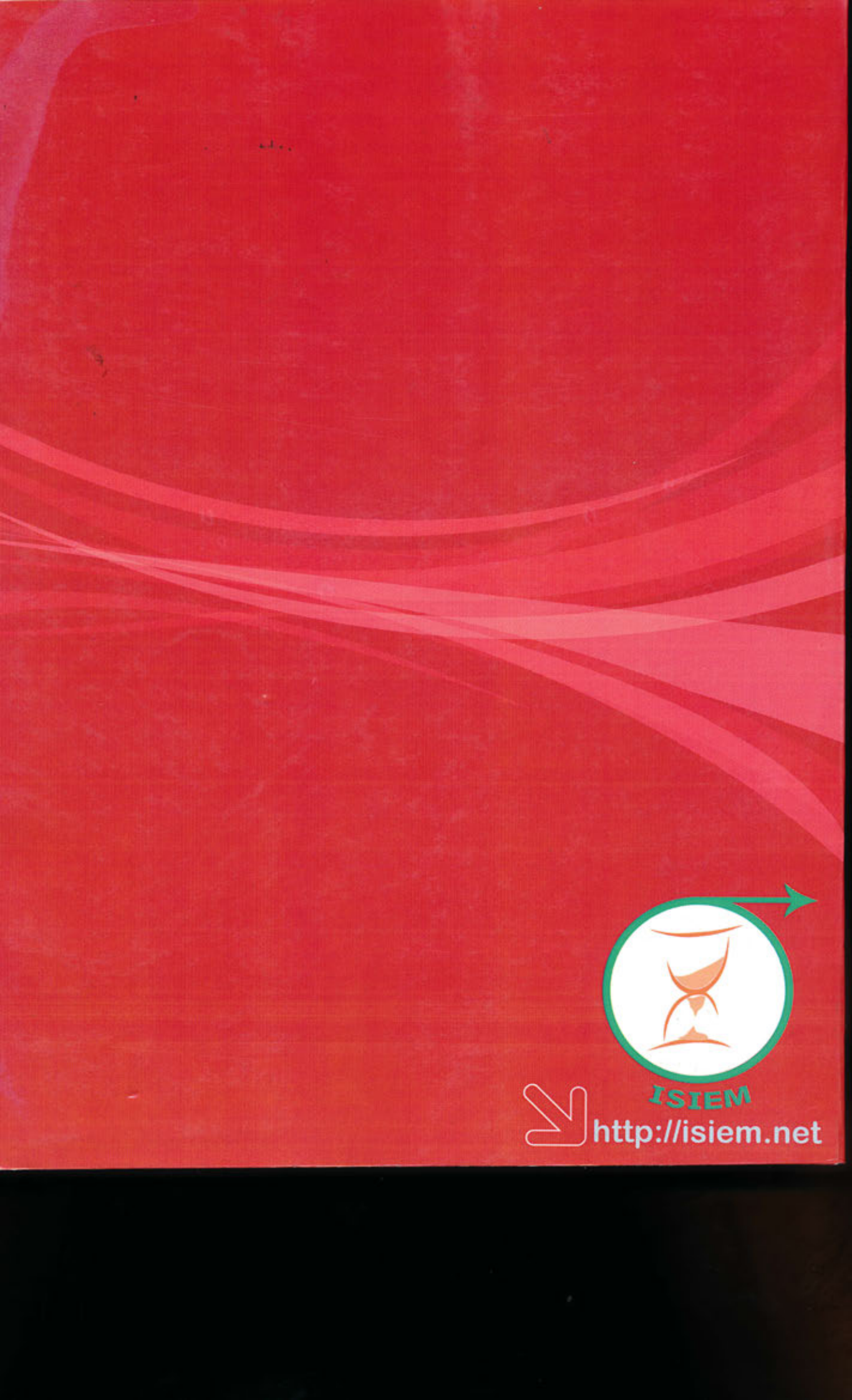
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