EVALUATING PRODUCT ATTRIBUTES OF ASUS LAPTOP
BY USING IMPORTANCE AND PERFORMANCE ANALYSIS

EVALUASI ATRIBUT PRODUK TERHADAP LAPTOP ASUS
DENGAN MENGGUNAKAN METODE ANALISIS KEPENTING DAN KINERJA

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Abstract: *This research was held in Manado as a developing city in Indonesia. The populations in this research are all the buyer Asus laptop in Manado with sample size of this research is 100 respondents. Importance and Performance Analysis were used to analyze the twelve indicators in this research. The results of this research show Durability is located in quadrant I "Concentrate Here" (high importance, low performance), Quality, Convenience, Appropriateness, Good fit, and Easy of Care are located in quadrant II "Keep up the good work"(high importance, high performance), Price, Color, Attractiveness and Style are located in quadrant III "Low Priority"(low importance, low performance), and Fashion and Brand Name are located in quadrant IV "Possible Overkill"(low importance, high performance). the company of laptop Asus should be maintain the durability of battery life so the consumer can used the laptop longer and make more color options, make the new style of the laptop, and the price of laptop is affordable so the consumer attracted to buy laptop Asus.*

Keywords: *product attributes, asus laptop, importance and performance analysis*

Abstrak:. Tujuan dari penelitian ini adalah untuk mengungkapkan pentingnya atribut produk laptop Asus dan untuk mengungkapkan kinerja atribut produk laptop Asus. Penelitian ini diadakan di Manado sebagai kota berkembang di Indonesia. Populasi dalam penelitian ini adalah semua pembeli laptop Asus di Manado dengan ukuran sampel penelitian ini adalah 100 responden. Metode yang digunakan adalah Analisis Penting dan Kinerja (IPA) untuk menganalisis dua belas indikator dalam penelitian ini. Hasil penelitian ini menunjukkan daya tahan terletak pada kuadran I "Prioritas Utama" (sangat penting, kinerja rendah), Kualitas, Kenyamanan, Kelayakan, Cocok, dan Pemeliharaan berada pada kuadran II "Pertahankan Prestasi" (sangat penting, kinerja tinggi), Harga, Warna, Daya Tarik dan Gaya terletak pada kuadran III "Prioritas Rendah" (tidak penting, kinerja rendah), dan Model and Nama Merek berada pada kuadran IV "Berlebihan" (tidak penting, kinerja tinggi). Perusahan laptop asus harus memperbaiki daya tahan baterai agar konsumen dapat menggunakan laptop lebih lama dan membuat lebih banyak pilihan warna, laptop model baru, and harga yang terjangkau agar konsumen tertarik untuk membeli laptop asus.

***Kata Kunci:** atribute produk, laptop asus, analisis kepentingan dan kinerja*

INTRODUCTION

Research Background

The history laptop it begin 1968s, when the designer at Xerox PARC make the prototype laptop called Dynabook. At the first computer can only be used limited on the table or who are often referred to as a computer desktop. With continue to the development of the mindset and human civilization, popped the concept or the idea that the computer not just used on the table, but must be used to move place. The development of computer technology has brought many changes to the computer portable or laptop. Design is increasingly slim, that is lighter weight and the ability to save power to be the most important part in the development of laptops.

International Data Corp (IDC) noted that in the first quarter of 2013, laptop sales in Indonesia reached 976,513 units. As for the second quarter 2013, sales reached 913,652 units. From the total of sales, as many as 291,236 units of which is ASUS laptops. According to IDC, the record makes ASUS laptop into the largest producer in Indonesia with 31.87 percent of the market. According to IDC, in the first quarter 2013 ASUS successfully marketing 261,520 units of laptops into the Indonesian market, the second quarter 2013 the figure increased by 29,716 units.

Developments laptop in Manado is still going up. Many counter that sales laptop in the city of Manado such as Acer, ASUS, HP, Axioo and others. Exhibition laptop in Manado often held in several malls in the city of Manado. In the exhibition many laptop manufacturers are present in the exhibition by offering the best laptop quality and reasonable price. In every exhibition created in Manado many visitors came.

The producers of laptop market in Indonesia, such as Apple, IBM, Lenovo, HP, Asus, Compaq, Dell, Sony, Acer, BenQ, Zyrex, and several other small producers. The development direction laptop next course will change. Laptop in the future will certainly be slim or thin, lighter than a laptop that ten years ago are still using OS, now rarely used by people may no longer be used because software development is so fast and certainly more sophisticated.

Research Objective

1. To know about the importance of ASUS Laptop's Product Attributes.
2. To know about the performance of ASUS Laptop's Product Attributes.

THEORETICAL FRAMEWORK

Marketing

According to Kotler and Keller (2013:27) "Marketing is about identifying and meeting human and social needs. One of the shortest good definitions of marketing is "Meeting needs profitably". Furthermore Kotler Armstrong also mentioned (2012:29) "Marketing as the process by which companies create value for customers and build strong customer relationships in order to capture value from customers in return".

Purchase Decision

This process of decision making includes the need for recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior (Kotler and Keller, 2009:176). For making the purchasing decision in the marketplace a customer used to play the roles of buyer, payer and user (Sheth and Mittal, 2004).

Product Attributes

According to Aaker, Batra and Myers, (1992) an important attribute is one that offers an important benefit towards the satisfaction of consumer needs. Aaker et al (1992) adds that because most product attributes provide consumer benefits, there is usually a one to one comparative between brands.

Durability

According to Cooper (1994) durability is the ability of a product to perform its required function over a lengthy period under normal conditions of use without excessive expenditure on maintenance or repair.

Price

According to Rosa and Rodan (2011), the importance of price as a purchase stimulus has a key role in price management since not only does it determine the way prices are perceived and valued, but it also influences consumer purchase decisions. According to Stanton (1981) price is simply an offer or an experiment to task the pulse of the market.

Quality

According to Summers (2009:549) quality is characteristic of product or service that bear on its ability stated or implied needs.

Color

According to Esaak, (2012) colour is the element of art that is produced when light, striking an object, is reflected back to the eye. The last characteristic of colour is the value thereof, which refers to the lightness or darkness of a colour that can change (Esaak, 2012).

Brand Name

A great brand name can be solid competitive advantage for your company, especially when feature sets between two or more brands are roughly the same so brand name it is importance. Brand name is one of the most important extrinsic cues, which are product-related attributes not involved with the product's physical or functional aspects that consumers use to evaluate products (Richardson and Dick, 1994).

Style

A classic style is a look that is always available in some form that is appropriate for many occasions, and acceptable to many consumer groups (Brannon, 2000:7). According to the Fairchild Dictionary of Fashion (in Perna, 1987:48), fashion is the custom or style of dressing that prevails among any group of persons.

Convenience

Darian and Cohen (1995) proposed two dimensions of convenience. The first one concerns the type of convenience, which can be saving time, physical energy and/or mental energy. The second dimension refers to the stage of the meal process that convenience is obtained.

Attractiveness

Good design for a product is not important only for the appearance of the product but also for attracting the potential consumer to look at and try to use the product.

Appropriateness

Poffenberger and Franken (1923) asked people to rank order the appropriateness of 29 fonts for each of five ''commodities'' (auto mobiles, building materials, coffee, jewelry, perfume) and five 'abstract qualities'' (cheapness, dignity, economy, luxury, strength).

Fashion

The purpose of fashion is to facilitate differentiation of "types" in the process of social interaction. The only aspect of a fashion garment that is important in the model is its "look" or design.

Good Fit

The idea of fit, match, or congruence between the sponsor and the organization, event, activity, individual, or sport is not only confined to sponsorship.

Easy of Care

Easy of care is activities to maintain or keep the facility of product and held repair adjustment or replacement needed so that there is a state of production satisfying in accordance with what planned Sofjan, (2004).

Previous Research

The Importance of Product Attribute Influencing Purchase Decision: A Comparative Study between FMCG Laundry Soaps" by Robaka Shamsher (2014). This research is dedicated to exploring and examining the importance of product attribute on customer decision making for low involvement product. The results reveal significant difference between the two selected brands of laundry soaps with respect to smell and hygiene. This study failed to validate any difference between the selected brands of laundry soaps with respect to quality, durability, price, availability, attractive packaging, and brand reputation. Finally overall no significant difference was found between the two selected brands of laundry soaps that affects purchase decision.

Conceptual Framework
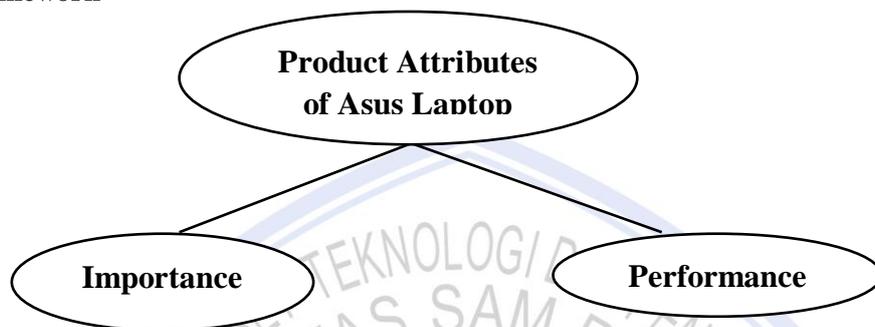
Figure 1. Conceptual Framework

RESEARCH METHOD

Type of Research

The type of this research is descriptive research with quantitative approach. The method used in this research is Importance and Performance Analysis (IPA).

Place and Time of Research

The place of this research will be conducted in Manado, North Sulawesi. The research started from March to April 2017.

Population and Sample

Population is the entire group of people, events, or things that the researcher desires to investigate (Sekaran and Bougie, 2009:262). The population in this research is all Asus laptop buyers in Manado. The sample size of this research is 100 and used convenience sampling.

Data Collection Method

Hox and Boejie (2005) explain that primary data is original data collection for a specific research goal. Primary data were collected from interviewing a total of 100 respondents through questionnaire from the users of Asus Laptop. There were two sections in the questionnaires that should be filled in by respondents. The first section asked about respondents identities and the second section asked about things that related with the variables.

Operational Definition of Research Variable

1. Product Attributes: characteristics of ASUS Laptop which make it distinct from other products.
2. Durability: the ability of the product how long the product can be used or the expired of the product.
3. Price: a number of money charged on a goods or service.
4. Quality: the products that we use not easily damaged and lasted long.

5. Color: the element of art that is produced when light, striking an object, is reflected back to the eye.
6. Brand Name: the characteristic of the company.
7. Style: a set of rules telling you how to acknowledge the thought, and ideas.
8. Convenience: a quality or situation that makes something easy.
9. Attractiveness: a quality that causes an interest or desire in something.
10. Appropriateness: quality of being just right for the requirements.
11. Fashion: something that popular among the people.
12. Good fit: the consumer need what is want and like the product.
13. Easy of care: a product easy to maintain.

Data Analysis Method
Validity and Reliability
　　　Validity test used to measure the validity of the questionnaire. To analyze that, Pearson Product Moment was used. If probability of correlation is less than 0.05 (5%) then the research instrument is considered valid. This reliability test in this research used Alpha Cronbach. If Alpha is less than 0.6 then it is unreliable.

Importance and Performance Analysis
　　　The IPA model is divided into four quadrants, with importance on the y-axis and performance on the x-axis. The four-quadrant IPA matrix is shown in figure below. Developing this idea, Martilla and James (1977) devised Importance-Performance Analysis (IPA) as a simple graphical tool to further the development of effective marketing strategies based on judgment of the importance and performance of each attribute. Applying IPA following the example of Martilla and James (1977) is simple. In the leisure research context participants in a survey could be asked a series of questions about specific facilities and services (product attributes) being important to them and also asked for a rating of performance on each attribute.

QUADRANT I **Concentrate Here** High Importance Low Performance	**QUADRANT II** **Keep Up the Good Work** High Importance High Performance	
QUADRANT III **Low Priority** Low Importance Low Performance	**QUADRANT IV** **Possible Overkill** Low Importance High Performance	
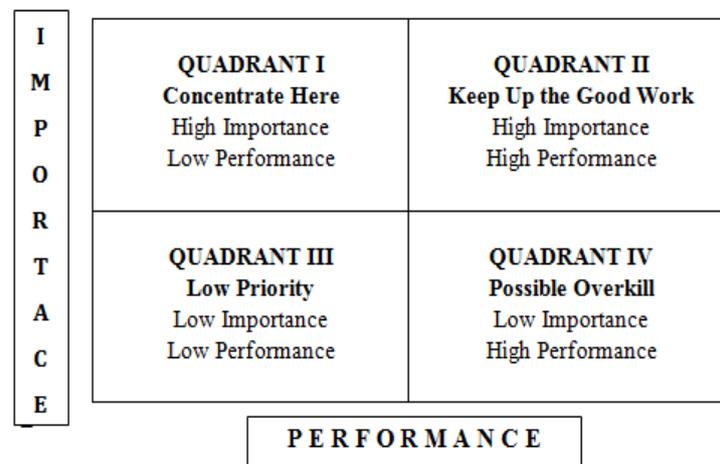
PERFORMANCE

Figure 2. IPA Framework
Source: Martila and James (1977)

　a. Quadrant I
　　Attributes are perceived to be very important to respondents, but performance levels are fairly low. This sends a direct message that improvement efforts should concentrate here.
　b. Quadrant II
　　Attributes are perceived to be very important to respondents, and at the same time, the organization seems to have high levels of performance on these activities. The message here is To Keep up the Good Work.
　c. Quadrant III

Attributes are with low importance and low performance. Although performance levels may be low in this cell, managers should not be overly concerned since the attribute in this cell is not perceived to be very important. Limited resources should be expended on this low priority cell.

d. Quadrant IV
This cell contains attributes of low importance, but relatively high performance. Respondents are satisfied with the performance of the organizations, but managers should consider present efforts on the attributes of this cell as being overutilised.

RESULT AND DISCUSSION

Validity and Reliability Result

Validity Test
Table 1. Validity Test Result

		Avg_imp	Avg_perf	Avg_imp_perf
Avg_imp	Pearson Correlation	1	.603*	.963**
	Sig. (2-tailed)		.038	.000
	N	12	12	12
Avg_perf	Pearson Correlation	.603*	1	.795**
	Sig. (2-tailed)	.038		.002
	N	12	12	12
Avg_imp_perf	Pearson Correlation	.963**	.795**	1
	Sig. (2-tailed)	.000	.002	
	N	12	12	12

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2017

Table 1. Shows that the correlation index is higher than 0.3 and below the significance level of 5%. Therefore the data is considered valid.

Reliability Test
Table 2. Reliability Test Result

Cronbach's Alpha	N of Items
.874	3

Source: SPSS Output, 2017

Table 2. Shows that Alpha Cronbach is 0.833 which is above the acceptance limit of 0.6; therefore the research instrument is reliable.

Importance and Performance Analysis of Product Attributes
Table 3. Attributes, Importance Mean, Performance Mean, Quadrant

Product Attributes	Importance Mean	Performance Mean	Quadrant
Durability	4.33	3.76	I
Price	4.01	3.54	III
Quality	4.56	3.92	II
Color	3.37	3.62	III
Brand Name	3.74	3.94	IV
Style	3.78	3.69	III
Convenience	4.4	3.9	II
Attractiveness	3.95	3.83	III
Appropriateness	4.59	4.17	II
Fashion	3.98	3.89	IV
Good Fit	4.3	3.84	II
Easy of Care	4.29	3.88	II
Average	**4.11**	**3.83**	

Source: Data processed, 2017

Discussion
Quadrant I

      This part summarizes the result of analysis as shown in Figure 5.4. The figure Show that there are four quadrants. Durability is located in quadrant I (Concentrate Here) considered relatively high in importance level but the performance level is low, here researcher found that the durability of battery life need to be improved because some consumer think the battery life cannot last a long time. Based on previous research, it shown that durability not significantly influenced consumers purchase decision. Laptop Asus should consider to this attributes, evaluate what it is need in order to increase the performance and make consumer satisfied. They should take action in make the durability of battery life is longer as consumer expected. Durability is the ability of a product to perform its required function over a lengthy period under normal conditions of use without excessive expenditure on maintenance or repair (Cooper 1994).

Quadrant II

      Quality, Convenience, Appropriateness, Good fit, and Easy of Care located in quadrant II (Keep up the good work) it means that the five attributes are perceived to be very importance to consumer and at the same time has the highest performance level. It is a sign that these attributes has affected most of customer. Quality is characteristic of product or service that bear on its ability stated or implied needs (Summers 2009:549). Like in previous research, quality has not significantly related with consumer purchase decision. Quality of laptop Asus is good, the convenience when we use laptop Asus is very good, the appropriateness when consumer buy the laptop no one part of laptop is broken, the consumer good fit/like to the product and the maintenance of laptop Asus very easy it can bring to service station of Asus. This five attributes are perceived to be very importance to consumer and at the same time has the highest performance level. Product quality is always being thought to contribute to the expansion of competitive advantage whereas the product is to be designed and also

manufactured to achieve customer requirements in enhancing the product performance (Benson, Saraph and Schroeder, 1991).

Quadrant III

Price, Color, Attractiveness and Style are located in quadrant III (Low Priority) these four attributes have a low level of importance to the consumer and at the same time also have a low level of performance. The greater the importance of price in purchases decisions, the greater the intensity of information and the greater the amount of comparisons between competing brands (Mazumdar and Monroe, 1990). There is significantly correlation shown in this study that product attribute which is price and consumer purchase decision. The consumer think these four indicator not really importance for them but still need an attention, and also did not have much effect toward consumer purchase decision. According Mazumdar and Monroe price importance in purchase decision but for the respondent of this research it is not importance for them. The company should increase the performance affordable prices of laptop Asus and make more attractiveness with new style of laptop and many more color options. Color is one of the first things that consumers recognize and are therefore one of the most imperative design instruments used by retailers to communicate to their consumers (Bell and Ternus, 2006).

Quadrant IVF

The brand name is very significant choice because some time it captures the central theme or key association of a product in a very condensed and reasonable fashion (Keller 2008). Fashion and Brand Name are located in quadrant IV (Possible Overkill) it means this contain attributes of low importance, but where performance is relative high. In this case the fashion and brand name not really importance for the consumer but they keep doing the best that is why the fashion and brand name has a high performance. A great brand name can be solid competitive advantage for your company, especially when feature sets between two or more brands are roughly the same so brand name it is importance.

CONCLUSION AND RECOMMENDATION

Conclusion

The conclusions drawn from this research are as follows:
1. Durability which is very importance product attributes for consumer, but the performance of laptop Asus in these products is perceived to be low. Durability is very important because it can make the consumer can used the laptop longer without charging. But the performance of durability in laptop Asus fairly low this means the battery life rapidly exhausted.
2. Quality, Convenience, Appropriateness, Good fit, and Easy while the performance of laptop Asus is perceived as good as what consumer of laptop Asus expected and these five attributes are perceived to be very importance to consumer.
3. Price, Color, Attractiveness and Style which are assessed to low priority product attributes when the importance and performance level are perceived low for consumer of laptop Asus.
4. Fashion and Brand Name which are unimportance product attributes for consumer of laptop Asus, however the performance of laptop Asus is perceived good more than what the consumer of laptop Asus expected.

Recommendation

After looking at the result, the researcher provided recommendations to laptop Asus to improve their product attributes. Some recommendations have listed as below:
1. The company of laptop Asus need to pay attention and should find on their durability of battery life like the capacity of battery should be maintain so the consumer can used the laptop longer without charging. In order to increase the level of performance in this attributes and make customer will feel satisfied.
2. These attributes is the biggest factor that influence to laptop Asus. Consumers feel satisfied with the quality, convenience, appropriateness, good fit, and easy of care that laptop Asus gives to them, so laptop Asus should maintain their quality, convenience, appropriateness, good fit, and easy of care and keep doing the best in order to keep the consumer expatiation.

3. The company of laptop Asus does not need to be concern about the performance of these attributes since it is not perceived to be very importance to the consumers. Therefore, laptop Asus should improve their price, color, attractiveness and style such as make more color options, make the new style of the laptop, and the price of laptop is affordable so the consumer attracted to laptop Asus.

4. Laptop Asus was doing a good job because these attributes shows that they offer a high performance maybe the brand name so the brand name can known to the public, but the company also should be careful do not give too much attention in these attributes, but in other hand they should keep doing this good things so the consumer will feel satisfied with the product.

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