
**ANALYZING VIRTUAL ATMOSPHERIC OF TOKOPEDIA USING
IMPORTANCE-PERFORMANCE ANALYSIS****ANALISA ATMOSFIR VIRTUAL PADA TOKOPEDIA MENGGUNAKAN
ANALISIS KEPENTINGAN DAN KINERJA**

By

**Wowor Brenda¹
S.L.H.V. Joyce Lapian²
Merinda Pandowo³**

¹²³Faculty of Economic and Business, International Business Administration, Management Program
Sam Ratulangi University Manado

Email: ¹wowor.brenda@yahoo.com²joycelapian@yahoo.com³iinpan@yahoo.com

Abstract: Internet is experiencing explosive growth over these past few year and become a fast-growing business that resulted in online shopping trend. Tokopedia as one of the popular e-commerce in Indonesia provides online selling experience to the sellers and their customer. This research aims to analyze the Virtual Atmospheric of Tokopedia. The type of this research is descriptive with quantitative approach and IPA used as the measurement tool. The sample size of this research is 100 respondents who are the customer of Tokopedia. The sampling method used in this research is purposive sampling by distributing online questionnaire to the customer. The result of the Virtual Atmospheric shows that Percentage of White Space and Font attributes are important to the customers and the company delivered a good performance to the customers, these attributes are located in Quadrant II. Meanwhile, Background Color and Color Scheme attributes are located in Quadrant III with low importance and low performance level. Based on the result of this study, it is wise for web store owner, in this case Tokopedia, to pay more attention for its virtual atmospheric aspect as it has an influence on customer behavior. A better virtual atmospheric performance could lead to customer attraction and increasing sales.

Keywords: *importance and performance analysis, virtual atmospheric, tokopedia.*

Abstrak: *Internet mengalami ledakan pertumbuhan ini beberapa tahun terakhir dan menjadi bisnis yang berkembang pesat yang mengakibatkan tren belanja online. Tokopedia sebagai salah satu e-commerce populer di Indonesia menawarkan pengalaman menjual online untuk para penjual dan pelanggan mereka. Penelitian ini bertujuan untuk menganalisis atmosfer Virtual dari Tokopedia. Jenis penelitian ini deskriptif dengan pendekatan kuantitatif dan IPA digunakan sebagai alat pengukuran. Ukuran sampel dari penelitian ini adalah 100 responden yang merupakan pelanggan dari Tokopedia. Metode pengambilan sampel yang digunakan dalam penelitian ini adalah purposive dengan mendistribusikan kuesioner online kepada pelanggan. Hasil dari atmosfer virtual menunjukkan bahwa persentase ruang putih dan font atribut penting untuk pelanggan dan perusahaan memberikan kinerja yang baik kepada pelanggan, atribut ini terletak di kuadran II. Sementara itu, warna latar belakang dan skema warna atribut terletak di kuadran III dengan tingkat pentingnya rendah dan tingkat kinerja rendah. Berdasarkan dari hasil penelitian ini, sebaiknya pemilik situs web, dalam hal ini Tokopdeia, untuk lebih memperhatikan aspek pada atmosfer virtual di situs web Tokopedia karena memiliki pengaruh terhadap perilaku pelanggan. Kinerja atmosfer virtual yang lebih baik dapat menarik minat pelanggan dan meningkatkan penjualan.*

Kata kunci: *analisis kepentingan dan kinerja, atmosfer virtual, tokopedia.*

INTRODUCTION

Research Background

Sophisticated technology is getting easier to use and makes the activity of surfing the internet increased rapidly. The Internet as a virtual platform which provides a wide range of products and services to customers. The location is not a problem for customers who want to buy products that are not available in his home area, thanks to the development of the internet and the emergence of a rapidly growing e-commerce or online shopping.

The current trend of online shopping has spread throughout Manado. People in Manado are starting to change their habits from buying things that are in the physical store into the online marketplace, with the growth of internet and smartphone development things are easier to do now compared to before especially in case of purchasing.

Tokopedia is an internet company that allows individuals and business owners in Indonesia to open and manage their own online stores easily and for free. People across the globe can be either the seller or the buyer in Tokopedia, as of now there already many seller set up their stall in Tokopedia. The facilitate provided by Tokopedia, there are many Manadonese people exchange their trade in Tokopedia, even more the customer from Manado that are searching for their desired product in Tokopedia.

E-commerce such as Tokopedia, create more opportunities for the seller as well as their customer. The variety of product, the practical way to do business and the atmosphere that Tokopedia offered is well-received by the customer. As one of the elements in Tokopedia website, virtual atmospheric has an influence toward consumer behavior, that can be analyze to know how important it is and how the performance Tokopedia delivered to the customer.

Research Objective

The research aim to know:

1. The importance of virtual atmosphere in Tokopedia.
2. The performance of virtual atmosphere in Tokopedia.

THEORETICAL FRAMEWORK

Marketing

The study of marketing can be define as the process of exchanging value from one to another. According to Kotler (2001), marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and exchanging products and services of value freely with others

Consumer Behavior

Consumer behavior research attempts to understand the buyer decision-making process, both individually and collectively. It studies individual consumer characteristics such as demographics and behavioural variables in an attempt to understand people's wants. Consumer behaviour research allows for improved understanding and forecasting concerning not only the subject of purchases but also purchasing motives and purchasing frequency (Schiffman and Kanuk in Furaiji, 2012)

Online Customer Behavior

There are few theories that Cao and Mokhtarian (2007), and Jeddi, Atefi, Jalali, Poureisa, and Haghi (2013) develop which explain the online consumer behaviors such as consumer buying decision process, theory of reasoned action, technology acceptance model, innovation diffusion theory and social influence theory (Ling and Yazdanifard, 2014).

The consumer buying decision process refers to consumers who buy products and services which are based on external factors such as culture, race and marketing activities, and internal factors such as experience, motivation and personality. When consumers make purchasing behavior, the decision making process includes identifying problem, searching information, evaluating options, purchasing and after purchasing behavior such as satisfaction (Jeddi in Ling and Yazdanifard, 2014).

E-Business

In modern day businesses, e-business is no longer a new topic as it has affected the working aspect of businesses. According to Bhaskar (2012), E-Business defined as an information system or application which is delegated to business processes.

E-Commerce

Electronic commerce is one of the main criteria of revolution of Information Technology and communication in the field of economy. According to Nanehkaran (2013), the definition of e-commerce is the interaction between communication systems, data management systems and security, which because of them exchange commercial information in relation to the sale products or services, will be available, so the definition, the main components of electronic commerce are: communication systems, data management systems and security.

Virtual Atmospheric

In the context of retail store, virtual "atmospherics" refers to aesthetics and ambiance of the online store. The atmospheric cues such as color, music, lighting, smell, crowding, windows display and storefront reflect the store atmosphere and play an important role in shoppers' perception and evaluation of the store at large (Chebat and Sirgy, 2010).

Background Color

Harrington and Mackie that define color as light carried on wavelengths absorbed by the eyes that the brain converts into colors that we see (Singh, 2006). According to Roberts, colors are located within precise ranges of the visible spectrum. If a color is not blended with the other primary colors. Colors can also be differentiated based on their chromaticity (Richardson, 2014).

Color Scheme

According to Merriam Webster online dictionary, color scheme is a particular combination of color. According to Hall and Hanna (2004) the effect of different combinations of background and text color on readability.

Percentage of White Space

Whitespace, or sometimes called negative space, is the open space found between other design elements or objects (Pracejus, 2006). Percentage of white space refers to the ratio of whitespace to design elements.

Font

All compositions of a typographic character composing letters, numbers, punctuations and other symbols are called a font. Capital letters, small letters, numbers, punctuations, mathematical symbols are the elements of a font (Shaikh, Chaparro, and Fox in Nakilcioğlu, 2013).

Previous Research

Store atmosphere in web retailing by Vrechopoulos (2004), provides a conceptual framework for studying the effect of online store atmosphere on consumer behavior. The Online Store Environment Framework (OSEF) that was introduced in this paper is used for this current study as reference to analyze about the online store atmospheric. The framework is useful for researcher to know what the virtual atmospheric.

Meanwhile, An Analysis of the Online Store Atmosphere: Influence on Consumer by Bojei and Shahabudin (2005), found that virtual store that has animation, layout that makes it easy to understand the flow of information, well organized merchandise, colors that differentiate the functions, simple blinks and pop-up icons to indicate important information, pleasing and relaxing color, influence customers' positive perceptions towards the virtual store. While virtual store that as boring and dull color, small font and product size, confusing layout and links, gives the opposites perception towards the store.

Conceptual Framework

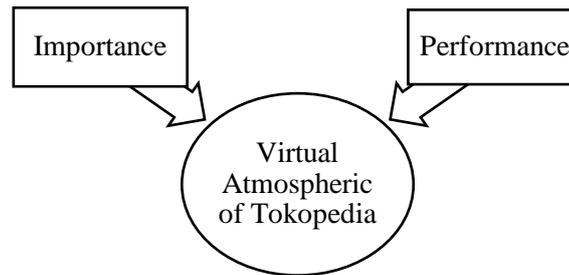


Figure 1. Conceptual Framework

Source: Data Processed. 2017

This research analyzes the Importance and Performance of Virtual Atmospheric of Tokopedia customer in Manado.

RESEARCH METHOD

Type of Research

This study is descriptive with quantitative method consist of numerical measurement and analysis. The research method of this research is Important-Performance Analysis (IPA).

Place and Time of Research

This research was conducted more or less for 3 month in May 2017 to July 2017 in Manado.

Population and Sample

In order to determine the sample of this research, a rule to set the population is important. The target population is defined as the entire group of people the researcher is interested in (Easton and McColl, 1997). The population in this research is all the online shoppers in Manado which already purchase goods in Tokopedia. The sample size of this research is 100 respondent and used purposive sampling.

Data Collection Method

Primary data is original information collected for the first time Kothari (1985:11). Primary data collected using data collection method by distributing a structured questionnaire to the respondent directly and indirectly using online questionnaire.

Operational Definition of Research Variable

Virtual Atmospheric: virtual aesthetic and ambience of the Tokopedia

Data Analysis Method

Validity and Reliability

Validity test is need for a research to test the validity of the data gathered. 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

Importance-Performance Analysis was first proposed and introduced by Martilla and James as a means by which to measure client satisfaction with a product or service (Silva and Fernandes, 2010). The IPA consists of a pair of coordinate axis where the 'importance' (y-axis) and the 'performance' (x-axis) of the different elements involved in the service are compared. The four-quadrant IPA matrix is shown in figure below.

Quadrant I is labeled "Concentrate Here", with high importance/low performance, which indicates that the attributes are perceived to be very important to respondent, but performance levels are fairly low. This sends a direct message that improvement effort should concentrate here. Quadrant II is labeled "Keep up the Good Work" with high importance/high performance, indicating that the attributes are perceived to be very important

to respondent, and at the same time, the firm seems to have high level of performance on these actions. The message here is to keep up the good work. Quadrant III is labeled “Low Priority” with low importance/low performance. Any attributes falling into this quadrant are non-important and pose no threat to organizations. Quadrant IV is labeled “Possible Overkill” with low importance/high performance, indicating that employees are satisfied with the performance, but the specific attribute is relatively non-important.

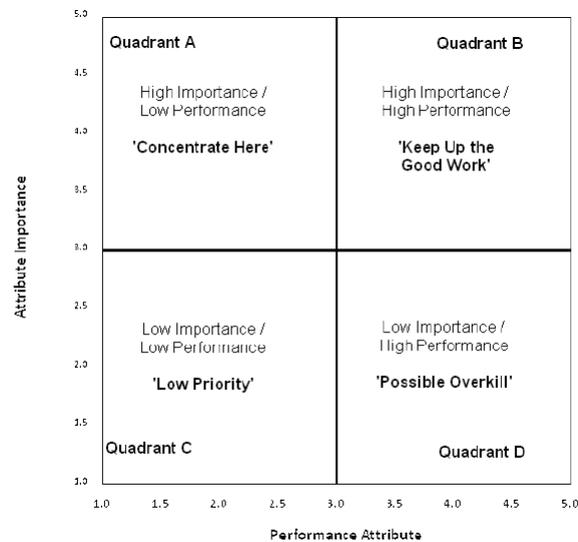


Figure 2. IPA Framework
Source: Silva and Fernandes. 2010

RESULT AND DISCUSSION

Validity and Reliability Result

Validity Test

Table 1. Validity Test Result

		avg.impt	avg.perf	avg.impt.perf
avg.impt	Pearson Correlation	1	.860**	.961**
	Sig. (2-tailed)		.000	.000
	N	100	100	100
avg.perf	Pearson Correlation	.860**	1	.967**
	Sig. (2-tailed)	.000		.000
	N	100	100	100
avg.impt.perf	Pearson Correlation	.961**	.967**	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

** . 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%. Thus, the data is considered valid.

Reliability Test**Table 2. Reliability Test Result**

Cronbach's Alpha	N of Items
.974	3

Source: SPSS Output, 2017

Table 2. Shows shows that Alpha Cronbach is 0.974 which is above the acceptable limit of 0.6. Thus, the research instrument is reliable.

Importance and Performance Analysis of Virtual Atmospheric**Table 3. Attributes, Importance Mean, Performance Mean, Quadrant**

Virtual Atmospheric Attributes	Importance Mean	Performance Mean	Quadrant
Background Color	3.696666667	3.716666667	3
Color Scheme	3.716666667	3.686666667	3
Percentage of White Space	3.91	3.856666667	2
Font	3.853333333	3.873333333	2
Average	3.794167	3.783333333	

Source: Data processed, 2017

Discussion

The evolution of internet over these past few years brought us many changes in our life. Out of many things happen on the internet, online shopping is the most popular and attractive trend to customer. In this research, the researcher takes consideration into all the supporting theories, journal, books, previous research and other sources to build online questionnaire to gather the data. The result of this research obtained from using importance performance analysis to know the importance and performance of virtual atmospheric. Based on the result, the data then visualized through the figure of all its attributes.

There are two attributes of virtual atmospheric, which are the percentage of white space and font. These two attributes gained position in quadrant II. Quadrant II represent the "high importance and high performance" category in IPA method. Attribute that placed in this quadrant is considered as major strengths. The study conducted by Chapparo, Baker, Shaikh, Hull and Brady (2004) shows the effect of white space on reading spend and comprehension and the result favored the use of margin in white space. In this study, researcher found out that website appearance is the most important indicator in white space. Meanwhile the margin usage ration and composition of design elements are less important and. As for the performance, tidiness and simplicity of website appearance proved as high performance level, and the margin usage ratio on a website gives a different impression on the user has a low performance level.

The result generated from the collected data that shown in the figure indicates that the size of the font used to differentiate the main title, sub title, content played a major role for the font importance and the font composition used on the website did not have much influence for it. Although the result shows that the composition and choosing the right font has a lower importance, Nakilcioğlu (2013) gets a different result in his study; Fonts, when used properly, make the script attract more attention to the parts it wants to direct the reader's attention and thus makes sure the subject is better understood. Even so, the customer is satisfied with its current performance of font. Out of three indicators, the size of the font used to differentiate the main title, sub title, content has the highest point and the use of right fonts makes the website more interesting even if it only consists of writing and drawing has the lowest point for its performance.

Quadrant III represents "low importance and low performance" category. According to the data plotting result, attributes that are positioned in this quadrant are background color and color scheme. the result of this study indicates that background color is less important compared to other attributes of virtual atmospheric that were mention in this study. Out of the three indicators of background color the harmony of background color with the main object score the highest mean and the intensity of the color may be darker or lighter scored the lowest with mean for its importance. The choice of color for background as a visual decoration score the highest mean and the intensity of the color may be darker or lighter scored the lowest mean. Despite the fact that Tokopedia chooses a

neutral color for its background color which is white color, based on the result it can be said that the customers dissatisfied with Tokopedia performance.

The result that shows in the figure indicate that out of the three indicators of color scheme, for its importance, the use of certain color to promote the product to the customer in order to evoke certain emotion or action has the highest mean and the choice of colors on the color scheme aligned with the product offered has the lowest mean, at the same time for its performance, color combination has the highest mean and the choice of colors on the color aligned with the product offered has the lowest mean. With that said for Tokopedia, customer felt that color scheme less important and the performance is somehow lacking.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The conclusion below are drawn using IPA tools to link the importance and performance value.

1. Background Color and Color Scheme as the attributes of Virtual Atmospheric are classified as low importance and low performance which indicates as “low priority”.
2. Percentage of White Space and Font as the attributes of Virtual Atmospheric are classified as high importance and high performance which indicates as “keep up the good work”.

Recommendations

The researcher provided recommendation to the company in order to improve the Service Quality even deliver a worth price based on the result above. The recommendation is listed as follows:

1. Tokopedia should not underestimate background color as it is considered as low importance and low priority. It would be wise to choose a color that not only easy to the eye, but also harmonize with another color in the color scheme such as white or blue color.
2. The result may indicate color scheme as “*low priority*”, in fact, creating the perfect chromatic palette for color scheme is important. Tokopedia better to avoid any colors that looks uninspiring and forgettable to communicate the message effectively.
3. Percentage of white space is categorized as “*keep up the good work*” based on the result of this research. Tokopedia only need to manage the amount white space ratio in order to keep its website appearance into a commendable level.
4. Font attribute has a high importance and high performance level of performance. This attribute is regarded as “*keep up the good work*” category, which means that Tokopedia has done a great job. Maintaining the current performance is highly suggested and improve the quality of the element should be considered.
5. It is wise for web store owner, in this case Tokopedia, to pay more attention for its virtual atmospheric aspect as it has an influence on customer behavior. A better virtual atmospheric performance could lead to customer attraction and increasing sales.
6. Tokopedia should choose a clean and minimal color palette to create elegant look. The combination of cool gray and sea blue should work well with the concept of Tokopedia website that looks minimalist.

REFERENCES

- Bhaskar, P. K., N.K. Sinha., B.K. Choudhary, and S.K.Mishra. 2012. E-Business and E-Commerce – Its Emerging Trends. *Journal of Intelligence Systems* Volume 2, Issue 1, 2012. Retrieved from: https://bioinfopublication.org/files/articles/2_1_2_JIS.pdf. Accessed on: October 12, 2017. pp. 14-16
- Bojei, Jamil., Sharifah, Fauziah Syed., and Omar, Shahabudin. 2005. An analysis of the online store atmosphere: Influence on consumer. *International Conference on E-Commerce (ICoEC) 2005*, 10-11 Jan 2005, The Summit Hotel, Subang USJ, Selangor, Malaysia. Retrieved from: http://icoec.my/download/icoec_2005/ICoEC-3a3-An%20Analysis%20of%20the%20Online%20Store%20Atmosphere-Influen.pdf. Accessed on: February 27, 2017.

- Chaparro, B.S., J.Ryan Baker., A.Dawn Shaikh., Spring Hull., and Brady, Laurie. 2004. Reading Online Text: A Comparison of Four White Space Layouts. Usability News, Vol. 6, No. 2. Retrieved from: <http://usabilitynews.org/reading-online-text-a-comparison-of-four-white-space-layouts/>. Accessed on: February 27, 2017.
- Chebat, Jean-Charles., M. Joseph Sirgy., and Stephan, Grzeskowiak. 2010. How Can Shopping Mall Management Best Capture Mall Image?. Journal of Business Research, 63(7). Retrieved from: www.sciencedirect.com/science/article/pii/S0148296309001660. Accessed on: March 1, 2017. pp. 735-740.
- Easton, V. J., and McColl, J. H. 1997. Statistics Glossary v1.1 [Website]. Retrieved from <http://www.stats.gla.ac.uk/steps/glossary/>. Accessed on April 7, 2017.
- Furajji, F., Malgorzata, Latuszynska., and Agata, Wawrzyniak. 2012. An Empirical Study of the Factors influencing Consumer Behaviour in the Electric Appliances Market. Contemporary Economics, Vol. 6, Issue 3. Retrieved from: https://www.researchgate.net/publication/235901579_An_Empirical_Study_of_Factors_Influencing_Consumer_Behavior_in_Electric_Appliances_Market. Accessed on: May 8, 2017. pp 76-86.
- Hall, R. and Patrick, Hanna. 2004. The Impact of Web Page Text-Background Color Combinations on Readability, Retention, Aesthetics and Behavioral Intention. Behaviour and Information Technology, Vol. 23, No. 3. Retrieved from: lite.mst.edu/media/research/ctel/documents/LITE-2003-04.pdf. Accessed on: February 27, 2017. pp. 183-195.
- Kothari, C.R. 1985. *Research Methodology- Methods and Techniques*. Wiley Eastern Limited. New Delhi
- Kotler, P. 2001. *Marketing Management, Millenium Edition*. Prentice-Hall, Inc.A Pearson Education Company. New Jersey.
- Ling, L. P. and Rashad, Yazdanifard. 2014. Does Gender Play A Role In Online Consumer Behavior?. Global Journal of Management and Business Research: E-Marketing Volume 14 Issue 7 Version 1.0 Year 2014. Retrieved from: https://globaljournals.org/GJMBR_Volume14/6-Does-Gender-Play-a-Role-in-Online-Consumer-Behavior.pdf. Accessed on: April 1, 2017.
- Nanehkaran, Yaser Ahangari. 2013. An Introduction to Electronic Commerce. International Journal of Scientific and Technology Research Volume 2, issue 4, April 2013. Retrieved from: www.ijstr.org/final-print/apr2013/An-Introduction-To-Electronic-Commerce.pdf. Accessed on: October 12, 2017.
- Nakilcioğlu, İsmail Hakkı. 2013. The Effects of Font Type Choosing on Visual Perception and Visual Communication. Online Journal of Art and Design, volume 1, issue 3, 2013. Retrieved from: www.adjournal.net/articles/13/134.pdf. Accessed on: February 27, 2017.
- Pracejus, J.W., G. Douglas Olsen., and Thomas, C. O'Guinn. 2006. How Nothing Became Something: White Space, Rhetoric, History, and Meaning. Journal of Consumer Research, Vol. 33. Retrieved from: https://www.researchgate.net/publication/23547310_How_Nothing_Became_Something_White_Space_Rhetoric_History_and_Meaning. Accessed on: February 27, 2017. pp. 82-90.
- Richardson, Rick. T., Tara, L. Drexler., Donna, M. Delparte. M. 2014. Color and Contrast in E-Learning Design: A Review of the Literature and Recommendations for Instructional Designers and Web Developers. MERLOT Journal of Online Learning and Teaching Vol. 10, No. 4, December 2014. Retrieved from: http://jolt.merlot.org/vol10no4/Richardson_1214.pdf. Accessed on: April 1, 2017.
- Silva, F., and Paula, Odete Fernandes. 2010. Using Importance-Performance Analysis in Evaluating of Higher Education: A Case Study. ICEMT 2010 International Conference on Education and Management Technology. IEEE. ISBN: 978-1-4244-8617-5. Retrieved from: https://bibliotecadigital.ipb.pt/bitstream/10198/7120/1/IBIMA_2.pdf. Accessed on: February 27, 2017. 121-123.

- Singh, Satyendra. 2006. Impact of color on marketing. *Management Decision* Vol. 44 No. 6, 2006 pp. 783-789. Retrieved from: https://www.researchgate.net/publication/235320162_Impact_of_color_on_marketing. Accessed on: April 1, 2017. pp. 783-789.
- Vrechopoulos, A.P., Robert, M. O'Keefe., Georgios, I. Doukidis., George J. Siomkos. 2004. Virtual store layout: an experimental comparison in the context of grocery retail. *Journal of Retailing*, Vol. 80, No. 1. Retrieved from: www.sciencedirect.com/science/article/pii/S002243590400003X. Accessed on: February 27, 2017. pp. 13-22.

