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**ANALYSIS OF INDIHOME WIRELESS FIDELITY (Wi-Fi) SERVICES BETWEEN MALE AND FEMALE CUSTOMER IN MANADO****ANALISA PELAYANAN NIRKABEL INDIHOME (Wi-Fi) ANTARA PELANGGAN PRIA DAN WANITA DI MANADO**

by  
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**Abstract:** Technology has dramatically changed people behaviors. The role of technology continues its long-standing expansion and becomes increasingly important to everyone. Peoples rely on the Internet to search for travel information, communicate with friends and sharing status updates on social media (Ahmed, 1991). Indihome is one of PT. Telkom service product in the form of communication and data service package. Indihome began to be developed in 2015 and was previously named Speedy. The aim of this study is to analyze the difference perception of Indihome Wi-Fi services to its customer divided by male and female group in Manado based on perceived ease of use, perceived usefulness, and speed and brand image. This research is a quantitative research and uses independent sample t-test. The sample size of this research is 100 customer of Indihome (50 male and 50 female) who have already experienced Indihome Wi-Fi services. The results showed that there is no significant difference in Indihome Wi-Fi services based on perceived ease of use, perceived usefulness, and brand image. While for the variable of speed there is a significant difference. The recommendation which are Indihome should open more access to it is services to the other part of Indonesia, Indihome should take care of it is product regarding router, Indihome should more pay attention to its speed of service in order to fulfill it is customer needs and wants.

**Keywords:** wireless fidelity, wi-fi, comparative analysis, indihome, perceived ease of use, perceived usefulness, speed, brand image.

**Abstrak:** Teknologi secara dramatis telah mengubah perilaku orang. Peran teknologi melanjutkan ekspansi jangka panjang dan menjadi semakin penting bagi banyak orang. Masyarakat sudah bergantung pada internet untuk mencari informasi perjalanan, berkomunikasi dengan teman dan berbagai dan berbagai pembaruan status di media sosial (Ahmed, 1991). Indihome mulai dikembangkan pada tahun 2015 dan sebelumnya bernama speedy. Tujuan dari penelitian ini adalah untuk menganalisis perbedaan persepsi layanan WiFi Indihome kepada pelanggannya dibagi oleh kelompok pria dan wanita di Manado berdasarkan persepsi kemudahan pelanggan, persepsi kegunaan, kecepatan dan citra merek. Penelitian ini merupakan penelitian kuantitatif dan menggunakan independent sample t-test. Ukuran sample penelitian ini adalah 100 pelanggan indihome (50 laki-laki dan 50 perempuan) yang pernah menggunakan layanan WiFi Indihome. Hasil dari penelitian ini menunjukkan bahwa tidak ada perbedaan yang signifikan dalam layanan WiFi Indihome berdasarkan persepsi kemudahan penggunaan, kegunaan yang dirasakan, dan citra merek. Sedangkan untuk variabel kecepatan ada perbedaan yang signifikan. Rekomendasi untuk penelitian ini adalah Indihome harus membuka layanan akses lebih ke bagian lain di Indonesia, Indihome harus menjaga layanan yang disediakan dan Indihome harus memberi perhatian lebih untuk kecepatan layanan untuk memenuhi kebutuhan dan keinginan pelanggan.

**Kata Kunci:** nirkabel, koneksi wifi, indihome, persepsi kemudahan penggunaan, kecepatan, citra merek.

## INTRODUCTION

### Research Background

Technology has dramatically changed people behaviors. The role of technology continues its long-standing expansion and becomes increasingly important to everyone. Peoples rely on the Internet to search for travel information, communicate with friends and sharing status updates on social media (Ahmed, 2005). Hence, Wi-Fi connections can easily be found in many places such as mall, restaurant, campus, terminal, airport even at home to provide comfort and easy access to information.

The above scenario illustrated how important this technology for people to be able to have an enjoyable and comfortable trip by using Wi-Fi services. Meanwhile, in Kuala Lumpur, free Wi-Fi is available at major shopping malls and public transportation facilities. Nevertheless, limited studies have explored the quality of Wi-Fi services with using Wi-Fi, especially in Malaysia.

Developed cities like Japan has started to provide the free Wi-Fi service via card specifically for foreigners which can be access throughout various attractions in Tokyo. The above scenario illustrated how important this technology for people to be able to have an enjoyable and comfortable trip by using Wi-Fi services. Meanwhile, in Kuala Lumpur, free Wi-Fi is available at major shopping malls and public transportation facilities

Indihome is one of PT. Telkom service product in the form of communication and data service package. Indihome began to be developed in 2015 and was previously named Speedy. Wi-Fi user in Indonesia can be said very good, seen from the development of Indonesian society using internet through Wi-Fi to do work and social interaction with others and easily available and find at mall, restaurant, terminal, campus, airport, etc. Although

Wi-Fi networks are not yet available in several remote areas of Indonesia such as the hinterland of Papua, Borneo and other areas. The data below will explain statistically about the total users of Indihome in Indonesia from 2015, 2016 until 2017 as reported from Indihome Annual Report of 2017.

The problems that often occur in Indihome services are slow connection and slow response of customer service, regarding consumer complaints. Another problem that arises is the error amount of the bill, thus making the decline in the level of consumer confidence as reported from detiknews.com on February 2018. Related with the problems that have been described above, the researcher want to conduct a research using t-test analysis to compare the service quality between male and female of Indihome users in Manado.

The researcher use male and female to compare the service quality of Indihome in order to know the different perception between male and female. As nowadays internet become needs for everyone including male and female and can be seen from the fact that most of male customer use internet for play online games, while female use internet for shopping on online shop. Besides that, male and female use internet for their social life.

### Research Objective

1. There is any significant difference in wireless fidelity (wi-fi) services of Indihome between male and female based on perceived ease of use
2. There is any is significant difference in wireless fidelity (wi-fi) services of Indihome between male and female based on perceived usefulness
3. There is any significant difference in wireless fidelity (wi-fi) services of Indihome between male and female based on speed
4. There is any significant difference in wireless fidelity (wi-fi) services of Indihome between male and female based on brand image

## THEORETICAL REVIEW

### Marketing

Marketing is how a company promoting and selling the products or services. Marketing is divided by the term reveals one term as follows: "The most important aspect in the world of business is marketing. This is because marketing deals with identifying and meeting social needs of man and the surrounding environment" and one of the shortest definitions of marketing is meeting the needs of profitability". There is also a sense of marketing, namely: "Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders (Kotler, 2009 : 4-7).

## **Customer Satisfaction**

Customer satisfaction is to measure how the product or services performance to the customer. Customer satisfaction is important because it provides marketers and business owners with a metric that they can use to manage and improve their businesses. Satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire defined satisfaction as a judgment following a consumption experience-it is the consumer's judgment that a product provided (or is providing) a pleasurable level of consumption-related fulfillment (Oliver, 1997 : 46).

## **Technology Acceptance Model (TAM)**

Technology Acceptance Model is an information system theory that models how users come to accept and use a technology. TAM was proposed by Davis and has been one of the most widely-applied individual-level technology adoption models. TAM is a useful model. (Plouffe, 2001 : 11-13) have pointed out that although the characteristic of parsimony in TAM is an important consideration, perceptions of individuals faced with new technologies are likely to differ depending on the context within which they are encountered. A complete understanding of the acceptance behaviour across different contexts is necessary as well.

## **Service Quality of Wi-Fi**

Service Quality is an assessment of how well a delivered service conforms to the client's expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess client satisfaction. Defined service quality as the overall evaluation or attitude of overall excellence of services and stated that service quality is the extent to which the services provided at the travel site satisfy tourist needs and expectations. It is the difference between the customer's subjective judgments regarding how much expectations and perceptions (Chuang (2010)).

## **Perceived Ease of Use**

Perceived ease of use, in contrast, refers to "the degree to which a person believes that using a particular system would be free of effort." This follows from the definition of "ease": "freedom from difficulty or great effort." Effort is a finite resource that a person may allocate to the various activities for which he or she is responsible (Radner and Rothschild, 1975). All else being equal, we claim, an application perceived to be easier to use than another is more likely to be accepted by users.

## **Previous Research**

Roy (2013). The results of this study should not be generalized extensively since this study is based on the student of different universities of Dhaka who have higher education level and previous knowledge on internet technology which make data collection more convenient. Future research could be conducted in order to identify the influence factors of customer's satisfaction on wireless internet services in Bangladesh. Although it seems to be a reasonable conclusion to say that the results of this study serve to provide a considerably more thorough understanding of the current wireless internet service market of Bangladesh.

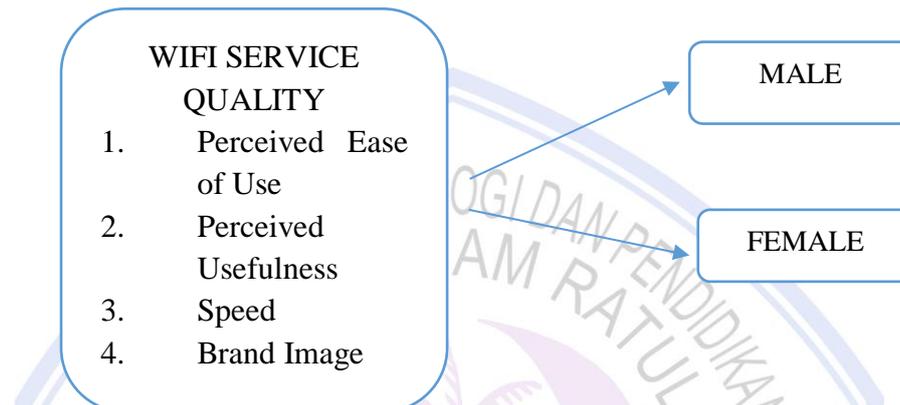
Lee (2015). The Influence of Wi-Fi Service on Hotel Customer Satisfaction. From the overall results, some managerial implications can be derived as a guidance of Wi-Fi service adoption and development. At first, it is critical to provide Wi-Fi service in a hotel if it is not available yet, especially for ones whose main customers are business travelers and long-stayers. When compared with video streaming and photo/video uploading) and have a high possibility of spreading negative eWOM when they are not satisfied with the cost of Wi-Fi service, it can be of wiser decision to keep the fare for the Wi-Fi service low or even free as opposed to setting the price higher to further invest corporate budgets for the enhancement of Wi-Fi service performance. the result may not apply to various situations in other countries. It is suggested that an enriched data set from other settings would strengthen the findings of this study for further investigation and comparison on this emergent topic.

Song (2014). Analysis of WiFi and WiMax and Wireless Network Coexistence. Analyse the performance of the co-existence network of WiMAX and WiFi through existing OPNET simulation models and the network was performing as anticipated. The data traffic received and delays were measured. Undeniably the advantages of WiMAX technology in some areas are quite obvious, but the difficulties it faced indeed hindered its further development. If WiMAX wants to continue to develop, it must be redeployed and make a reasonable

plan for its market positioning. WiMAX enables low cost mobile access to the internet and provides integrated wireless fixed and mobile services using single air interface and network architecture. But the place of WiFi cannot be replaced in the recent years.

Millar (2007). WiFi Availability and Accessibility As Stated on Hotel Websites. This exploratory study investigated the current utilization of hotel websites as marketing tools for the services of wireless networks. It was found that several hotels are using their websites to communicate information about the availability of wireless services. However, the results also reflect a lack of detailed information about these services on hotel websites. As such, this could indicate that hotels are not fully utilizing the marketing potential of websites. As a result, it is possible the some properties may be losing potential guests to those hotels that are more efficiently using their website as a marketing tool.

### Conceptual Framework



**Figure 1. Conceptual Framework**  
Source: *Data Analysis Method (2018)*

### RESEARCH METHOD

#### Type of Research

In order to collect data this research uses a quantitative approach. According to Maholtra (2009), Quantitative research seeks to quantify data. It seeks conclusive evidence based on large, representative samples and typically involving some form of statistical analysis and it defined comparative research or analysis is a broad term that includes both quantitative and qualitative comparison of social entities. The purpose of this research is to compare the Wi-Fi services of Indihome in Manado between male and female customers

#### Population, Sample and Sampling Technique

The population is “the entire group of people, events, of things of interest that the researcher wishes to investigate”. A population is a group of experimental data, persons (Sekaran, 2010 : 67). The population in this research is all users of Indihome Wi-Fi services in Manado.

Sample is subset of the population. The sample consisted of the population elements that the researcher could study most conveniently, and was based on the selection of respondents at the place where and the time when the study was performed (Sekaran and Bougie, 2010 : 32-33).

Sampling technique are classified as either probability or nonprobability. Based on the calculations above, this study uses a sample size of 100 customer (50 male and 50 female) in Manado. The sampling method of this research is convenience sampling that is considered as the best way of getting some information quickly and efficient.

## Data Analysis Method

### Validity and Reliability Test

Validity test is used to measure the legitimacy or validity of a questionnaire. The validity test is the degree to which a test procedure accurately measures what was designed to measure. Validity is the strength of our conclusion, inferences of proposition. Validity means the instrument can be used to measure what should be measured (Sugiyono, 2003 : 17). Reliability test is the degree to which an assessment tool produces stable and consistent results. Reliability addressed the issue of accuracy of measuring instruments.

### Independent Samples T-test

The independent-samples *t* test evaluates the difference between the means of two independent or unrelated groups. That is, we evaluate whether the means for two independent groups are significantly different from each other. The independent-samples *t* test is commonly referred to as a between-groups design, and can also be used to analyze a control and experimental group. With an independent-samples *t* test, each case must have scores on two variables, the grouping (independent) variable and the test (dependent) variable.

The grouping variable divides cases into two mutually exclusive groups or categories, such as boys or girls for the grouping variable gender, while the test variable describes each case on some quantitative dimension such as test performance. The *t* test evaluates whether the mean value of the test variable for one group differs significantly from the mean value of the test variable for the second group. Unlike the dependent samples *t*-tests, the independent samples *t*-test is used to compare two groups whose means are not dependent on one another. In other words, when the participants in each group are independent from each other and actually comprise two separate groups of individuals, who do not have any linkages to particular members of the other group (in contrast to dependent samples).

## RESULT AND DISCUSSION

The data collected from 100 respondents (50 male, and 50 female) of Indihome's customer. The data is analyzed with IBM SPSS (Statistical Package for Society Science) version 22.0 program. This section provides the description of the object of research used in this study.

This study is to compare the Indihome Wireless Fidelity services between male and female. The objects of this study are male and female that is using Indihome wifi services. Researcher used convenience sampling. Data had found from the questionnaire that distributed to customer in Manado that use Indihome. Thus, the sample size is 100 50 male and 50 female as determined. After revealing the sample size of this research, data had found and the researcher finally calculated the result using SPSS by Independent sample T-test. The entire processes are in use to answer the research problem and hypothesis.

This research attempts to answer the problem statement as has been expounded earlier in this thesis. Hence, this research has identified the difference of Indihome wi-fi services between male and female. Research has considered all sources of theories, books, journals and other supporting sources in constructing the whole research. Questionnaire is used to collect data and Likert scale is used to score the data. Then, the data are analyzed with Independent Sample *t*-Test. This method is useful to know the difference Indihome wi-fi services between male and female.

**Table 1. Independent Sample T-test Indihome Wi-Fi Services**

		Levene's								95% Confidence	
		Test for								Interval of the	
		Equality of								Difference	
		Variances				t-test for Equality of Means					
						Mean					
						Sig. (2-		Std. Error			
						tailed)		Difference			
						nce		Difference		Lower Upper	
		F	Sig.	T	Df						
Perceive	Equal										
d_Ease_	variances	,040	,842	1,111	98	,269	,40000	,36007	-,31454	1,11454	
Of_Use	assumed										
	Equal										
	variances not			1,111	97,9	,269	,40000	,36007	-,31455	1,11455	
	assumed				70						
Perceive	Equal										
d_Useful	variances	3,785	,055	,866	98	,389	,32000	,36960	-,41346	1,05346	
ness	assumed										
	Equal										
	variances not			,866	91,9	,389	,32000	,36960	-,41406	1,05406	
	assumed				72						
Speed	Equal										
	variances	1,974	,163	2,313	98	,023	,92000	,39779	,13060	1,70940	
	assumed										

	Equal									
	variances not	2,313			96,0	,023	,92000	,39779	,13040	1,70960
	assumed				19					
BrandIm	Equal									
age	variances	,268	,606	-,565	98	,573	-,26000	,46028	-1,17342	,65342
	assumed									
	Equal									
	variances not				97,2					
	assumed				33	-,565	-,26000	,46028	-1,17351	,65351

Source : SPSS 22 (2018)

**Table 2. One-Sample Kolmogoro Smirnov Test**

		Perceived Ease of Use	Perceived Usefulness	Speed	Brand Image
N		100	100	100	100
Normal Parameters <sup>a,b</sup>	Mean	3.5570	3,5251	3.7800	3.4457
	Std. Deviation	.46272	.47272	.49045	.46542
Most Extreme Differences	Absolute	.094	.086	.086	.085
	Positive	.060	.058	.081	.059
	Negative	-.094	-.086	-.086	-.085
Test Statistic		.940	.855	.086	.085
Asymp. Sig. (2-tailed)		.340 <sup>c</sup>	.457 <sup>c</sup>	.064 <sup>c</sup>	.072 <sup>c</sup>

Source : SPSS 22 (2018)

Based on table 2 above further decisions are resulted as follows:

1. It appears that significant column (Asymp. Sig (2-tailed)) for perceived ease of use is 0.340 or more than 0.05 then the probability of  $H_0$  received population mean of perceived ease of use normally distributed.
2. It appears that significant column (Asymp. Sig (2-tailed)) for perceived usefulness is 0.457 or more than 0.05 then the probability of  $H_0$  received population mean of perceived usefulness normally distributed.
3. It appears that significant column (Asymp. Sig (2-tailed)) for speed is 0.064 or more than 0.05 then the probability of  $H_0$  received population mean of speed use normally distributed.
4. It appears that significant column (Asymp. Sig (2-tailed)) for brand image is 0.072 or more than 0.05 then the probability of  $H_0$  received population mean of brand image normally distributed.

### Implication of Research Result

Comparison of Indihome Wi-Fi Services between Male and Female based on Perceived Ease of Use, comparing the results of independent sample t-test of Indihome wi-fi service between male and female, It shows

there is no significant difference between the groups. Male and female are answering the perception of perceived ease of use based on their experience used the service in this case is Indihome wi-fi. The results of perceived ease of use mean between male and female, male mean value is bigger than female mean value. It shows that male has positive perception of perceived ease of use. By looking at the mean value group of male in this research is more astute regarding using the Indihome wi-fi than the female group.

Comparison of Indihome Wi-Fi Services between Male and Female based on Perceived Usefulness. The results also found there is no significant difference in Indihome wi-fi service based on perceived usefulness. Male and female are answering the perception of perceived usefulness based on their experience used the service in this case is Indihome wi-fi. The mean value it shows that male has bigger mean value than female. By looking at the mean value it is stated that the group of male think wi-fi is more useful in order to help their activities every day or at work.

Comparison of Indihome Wi-Fi Services between Male and Female based on Speed. The results regarding speed of Indihome wi-fi service between male and female in table it shows that there is a significant difference. Male and female are answering the perception of speed based on their experience used the service in this case is Indihome wi-fi. The mean value explains that the group of male has bigger mean value than female group. By looking at the results it can be said that the group of male feel satisfy with the speed of Indihome wi-fi rather than female group.

Comparison of Indihome Wi-Fi Services between Male and Female based on Brand Image. The results for brand image shows that there is no significant difference as can be seen in table 4.5. Male and female are answering the perception of brand image based on their experience used the service in this case is Indihome wi-fi. The results in table 4.4 explain that the mean value of female group is bigger than the mean value of male group. By looking at the results it can be said that female more consider the brand image of something, in this case is Indihome wi-fi rather than male group.

### **Limitation of Research and Future Research Recommendation**

This sections describe the limitation of the research as well as recommendations for further research into the topic discussed. This research are limited to exploring the data from respondents obtained in Manado City area. If the research done in different geographical region, it may yield different results. The respondent in this research just for people that using Indihome WI-Fi services which is from different, gender, ages, marital status, educational background, occupation, and Income in Manado Area

The future recommendation also for the future researcher it would be better to explore more as long as it related, and can get more knowledge from this research.

### **Discussion**

This research attempts to answer the problem statement as has been expounded earlier in this thesis. Hence, this research has identified the difference of Indihome wi-fi services between male and female. Research has considered all sources of theories, books, journals and other supporting sources in constructing the whole research. Questionnaire is used to collect data and Likert scale is used to score the data. Then, the data are analyzed with Independent Sample *t*-Test. This method is useful to know the difference Indihome wi-fi services between male and female.

Service Quality is an assessment of how well a delivered service conforms to the client's expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess client satisfaction. Parasuraman (1985), defined service quality as the overall evaluation or attitude of overall excellence of services. In addition, Chuang (2010) stated that service quality is the extent to which the services provided at the travel site satisfy tourist needs and expectations. It is the difference between the customer's subjective judgments regarding how much expectations and perceptions conform.

Wireless fidelity (Wi-Fi) is frequently but incorrectly thought to be the full version of the term Wi-Fi, which refers to the IEEE (Institute of Electrical and Electronics Engineers) 802.11 wireless LAN standards. Indihome is one of PT. Telkom service product in the form of communication and data service package. Indihome began to be developed in 2015 and was previously named Speedy. Wi-Fi user in Indonesia can be said very good, seen from the development of Indonesian society using internet through Wi-Fi to do work and social interaction with others and easily available and find at mall, restaurant, terminal, campus, airport, etc.

Although Wi-Fi networks are not yet available in several remote areas of Indonesia such as the hinterland of Papua, Borneo and other areas. The data of Indihome Annual Report year of 2017 explain

statistically about the total users of Indihome in Indonesia from 2015 is 1 million users, 2016 become 1.509 million users and 2017 become 2.150 million users.

## CONCLUSION AND RECOMMENDATIONS

### Conclusion

Based on the data analysis and discussion, the conclusion of this research outline as follows:

1. There is no significant difference in Indihomewi-fi services between male and female measured by perceive ease of use with a normal data distribution.
2. There is no significant difference in Indihomewi-fi services between male and female measured by perceived usefulness with a normal data distribution.
3. There is a significant difference in Indihomewi-fi services between male and female measured by speed.
4. There is no significant difference in Indihomewi-fi services between male and female measure by brand image.

### Recommendations

There are several constructive recommendations that can be concluded from overall result in this research, which are listed as follow:

1. Indihome should open more access to its services to the other part of Indonesia which are Papua, Borneo and Nusa Tenggara since nowadays internet become a needs in order to connect people and to reduce costs.
2. Indihome should take care of its product regarding router so every customer can easily operate it.
3. Indihome should more pay attention to its speed of service in order to fulfill its customer needs and Wants.

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