Advances in Economics, Business and Management Research, volume 201
International Conference on Sustainable Innovation Track Accounting and Management Sciences (ICOSIAMS 2021)

Interest Analysis of the Financial Technology-based Applications Usage during the COVID-19 Pandemic in Soloraya

Gustita Arnawati Putri[1,2,*], Wahyu Widarjo[3], Ari Kuncara Widagdo[3]

[1]*Doctoral Student of PDIE, Faculty of Economics and Business, Universitas Sebelas Maret Surakarta, Indonesia*
[2]*Faculty of Economics, Universitas Veteran Bangun Nusantara Sukoharjo, Indonesia*
[3]*Faculty of Economics and Business, Universitas Sebelas Maret Surakarta, Indonesia*
[*]*Corresponding author. Email: gustita.ap@student.uns.ac.id*

ABSTRACT
Currently, people face the phenomenon of the rapid development of digital technology. The public has started implementing a payment system that uses electronic means of financial technology or fintech. That changes the transaction habits to be more practical and convenient. The digital transformation, which is rapidly developing, becomes more urgent in the conditions of the COVID-19 pandemic because many activities have become very dependent on digital services, including fintech. The fintech industry has helped financial transactions, particularly during large-scale social restrictions (PSBB) in Indonesia. The fintech payment system has facilitated and supported public transactions, and it is helpful for individuals, micro, small, and medium enterprises (MSMEs). Hence, the purpose of this study is to examine the factors that influence the public interest in using OVO financial technology-based applications during the COVID-19 pandemic in the Soloraya region. The testing model used in this study was the Technology Acceptance Model (TAM). This research targeted the users of the OVO digital payment service living in Soloraya. The sampling technique used was a non-probability sampling technique with incidental sampling method and using Google form.
Meanwhile, the data of this research was primary data gathered from questionnaires distributed online. From a total of 140 questionnaires received, the researcher could process 124 only. The results showed that the price and income factors had a significant positive effect on using the OVO applications. In contrast, the factors of satisfaction, benefit, and convenience did not significantly affect the interest in using OVO during the COVID-19 pandemic.

Keywords: *Technology Acceptance Model (TAM), fintech, COVID-19 pandemic, Soloraya*

1. INTRODUCTION

The rapid development of technology in these recent days has led to changes in various aspects of life, including social, economic, educational, or cultural, from something conventional to digital. Financial technology known as fintech can change public transaction habits to be more practical and effective. Fintech can also help people gain access to financial products easier and improve financial literacy.

Niki Luhur, the chairman of the Indonesian Fintech Association (Aftech), explained that the rapid development of digital transformation becomes more urgent during COVID-19 because many activities are highly dependent on digital services, and fintech is no exception. The fintech industry has helped people with their financial transactions, especially during large-scale social restrictions (PSBB). Undeniably, fintech facilitates and supports payment transactions for individuals, micro, small, and medium enterprises (MSMEs).

Fintech services that are now very handy to use are digital wallets [3]. The digital wallet allows its users to store money in the application and use it for payment transactions at offline and online merchants. The advantage of digital wallets lies in their convenience and practicality. The users do not need to bring physical money with them. They do not need to keep the changes from each transaction, and they can complete the payment with just a few steps, including using a QR code scan to speed up the transaction time. Some examples of popular digital wallets in Indonesia are Go-Pay, OVO, T-Cash, and Dana.

PT. Visionet International or OVO is one of the leading platforms in digital payments, rewards, and financial services in Indonesia [11]. Now, OVO has been present in 115 million devices and can be used to access payments, transfers, top-ups, and withdrawals, as well as asset and investment management. More than 373 cities in Indonesia have accepted OVO, and the company has committed to establishing the best payment and fintech in Indonesia. Even more, since April 2020, OVO has been chosen as the official

partner of government-owned pre-employment card digital payments.

Although this most popular digital payment application has various beneficial features, it does not guarantee that OVO will never experience problems. Not a few people also complain about OVO service errors or experiencing troubles. Among others, the users complain about being unable to log in, forced-close app, and failed OVO transactions. It must be very annoying for the users, especially when it is about to be used in a critical situation (ovoint.com).

There are several studies regarding the use of OVO, such as the [7] on the factors that affected the acceptance and use of mobile payments in OVO payment technology. The results showed that mobility, reachability, compatibility, convenience, perceived usefulness, perceived ease of use, trust, and attitude toward using had a positive effect on the acceptance and use of mobile payments in OVO payment. Another research conducted by [6] how perceived usefulness, perceived ease of use, price, and social influence affected the interest in using OVO in Grab student customers.

In 2020, research of [13] had also analyzed the interest among the OVO users in Pontianak using the Unified Theory of Acceptance and Use Technology (UTAUT) model. The results confirmed that the variables of performance expectancy, effort expectancy, social influence, and facilitating conditions together affected the variable of interest in using OVO. Meanwhile, [16] examined the interest among the generation Z of OVO users in Bandung with the UTAUT2 model. Their research suggested that social influence, facilitating conditions, hedonic motivation, and price values significantly influenced behavior intention. Meanwhile, other independent variables such as performance expectancy, effort expectancy, and habit had no significant effect. However, according to the research, facilitating conditions, customer attitude, and behavior intention positively and significantly affected user behavior.

Solo, tagline as The Spirit of Java, is a city full of achievements and a nice place to live. Besides, Solo is also the most kid-friendly city in Indonesia. It is a city of dreams, a city of cyber, and a city of culture. Even more, Solo is a city of trams and bicycles. Solo also won the title as the best city according to the Corruption Eradication Commission (KPK) version [1]. Located in Central Java, Solo was chosen as a research site because it is the most residential city in Indonesia. The Indonesian Association of Planning Experts (IAP) gave Solo that predicate in 2018 [17]. In this survey, IAP assessed five aspects when determining livable cities in Indonesia. Some of them are clean water management, educational facilities, health facilities, religious facilities, and transportation facilities. Freddy Numberi, serving as the Minister of Transportation at the time, stated that land transportation in Solo advanced rapidly with the presence of double-decker buses, Batik Solo Trans (BST), and railbus. Moreover, people in Solo can use the Batik Solo Trans (BST) with cashless payments since 2020. Besides using electronic money cards, people can utilize electronic wallets, such as Go-Pay, OVO, Link Aja, Dana, and others [12].

Hence, this research aims to contribute to the development of science, especially the theories of consumer behavior on the interest in using OVO through observation of the factors that might affect it. Additionally, PT. International Visionet or OVO also expects this research to help arrange the policy, especially in the Soloraya area. The rest structure of this research consists of (1) Section 2, presenting the literature review and hypotheses development of the study, (2) Section 3, explaining the research methodology, (3) Section 4, describing the presentation and discussion of research findings, and (4) Conclusion, providing recommendations and limitations of the study.

2. THEORETICAL FRAMEWORK

2.1. Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a model of information technology system acceptance that began to be used by the wearer. Davis et al. (1986) was the one who developed this model. TAM model has five constructions, namely perceived usefulness, perceived ease of use, attitude toward using, behavioral intention to use, and actual system use.

2.2. Financial Technology (Fintech)

Financial technology, known as fintech, is a combination of financial services or those that use digital technology in conducting various types of transactions needed by the community. The purpose of fintech is to maximize the use to change, sharpen or accelerate some aspects of financial services. Bank Indonesia has classified fintech into four types, namely:

2.2.1. Peer-to-Peer (P2P) Lending and Crowdfunding

P2P lending and crowdfunding are said to be financial marketplaces. Such a platform can bring together parties who need funds with those who provide funds as capital or investment. Usually, the funding process through P2P lending is more practical because one online platform can be sufficient to solve the problem.

2.2.2. Investment Risk Management

In this type, its work is to monitor financial conditions and arrange financial planning easily and practically. The investment risk management type is usually present and is

accessible via smartphone. So, the customers only need to provide the necessary data to control their finances.

2.2.3. Payment, Clearing, and Settlement

Some financial startups often provide a payment gateway or e-wallet where both products are still in the category of payment, clearing, and settlement.

2.2.4. Market Aggregator

The market aggregator is a type of fintech currently referring to portals that collect financial-related information and then present them to the target audience or users. Usually, this type contains a variety of information, financial tips, credit cards, and investments. This fintech, nonetheless, allows the users to grasp lots of information about finances before making any financial decisions.

2.3. Usage Interests

Interest is the desire to behave. [5] suggested that interest in behaving is the level of how strong a person desires or encourages to engage in certain behaviors. When a person considers something beneficial, he will become interested and thus will bring encouragement to achieve that satisfaction. Interest is a desire driven by an eagerness after seeing, observing, comparing, and considering its desired needs. Consumer interest in innovative products is analyzed by looking at the internal and external sides of the product. The knowledge related to the capacity, resources, and technology used in the company is the internal factor. Meanwhile, the needs of consumers and the expectations from the owner toward the products are external factors [22].

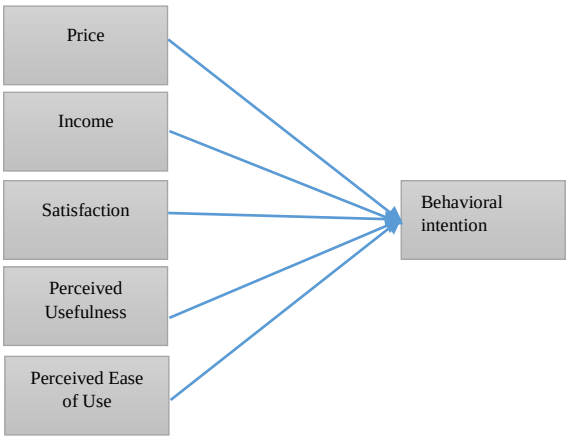

Figure 1. Conceptual Framework

H1: Price positively affects the interest in using OVO during the COVID-19 outbreak

H2: Income positively affects the interest in using OVO during the COVID-19 outbreak

H3: Satisfaction positively affects the interest in using OVO during the COVID-19 outbreak

H4: Perceived usefulness positively affects the interest in using OVO during the COVID-19 outbreak

H5: Perceived ease of use positively affects the interest in using OVO during the COVID-19 outbreak

3. RESEARCH METHODS

3.1. Population and Samples

The population in this study was all users of OVO services in the Soloraya region. The sample used was a user who had used OVO services. The sampling applied non-probability sampling techniques with accidental sampling methods as well as using Google form tools. The incidental sampling method is a technique of determining samples based on coincidence. Anyone who accidentally or incidentally meets with researchers can be used as a sample if the person happens to be found matches as a data source with the main criteria of ever using OVO services [22]. The specific criteria for this research were the users of the OVO application who had used its services at least twice. *The calculation of the minimum number of samples is in the following formula (Ferdinand, 2006).*

4. DEFINES OPERATIONAL AND VARIABLES MEASUREMENT

4.1. Dependent Variable

4.1.1. OVO Usage Interests

Interest is a desire driven by a desire after seeing, observing, comparing, and considering its desired needs. Consumer interest in innovative products is analyzed by looking at the internal and external sides of the product. The knowledge related to the capacity, resources, and technology used in the company is the internal factor. Meanwhile, the needs of consumers and the expectations from the owner toward the products are external factors [22].

4.2. Independent Variables

4.2.1. Price

[10] suggests that price is the sum of all the values that customers give to gain benefits from owning or using a product or service.

4.2.2. Income

Income is a source of income for a person to meet their daily needs and is very important for the survival and livelihood of a person directly or indirectly [10].

4.2.3. Satisfaction

Consumer satisfaction is how the consumer feels, either satisfied or dissatisfied, about a product after comparing the perceived performance or when the results do not meet their expectations. Customer satisfaction is also a measurement of performance provided by a product related to the expectations of users or consumers. If the product performance is less than expected, the buyer is likely not feeling satisfied [9].

4.2.4. Perceived Usefulness

It is a level where one believes that the usage of a particular subject can improve the performance of personal work. People who perceive technology useful will encourage their behavior using such technology [14].

4.2.5. Perceived Ease of Use

The perception of the ease of use of technology is a measure by which one believes that technology can be easily understood and used [5]. [21] suggest that the perception of convenience can be defined as the level of individual trust that using technology will be free from effort.

5. RESULTS AND DISCUSSION

Data retrieval in this study employed questionnaires using Google form. The questionnaire consisted of 27 statement items, with 140 questionnaires were distributed online.

Table 1. Field Data Results

No.	information	sum
1.	Questionnaires distributed online	140
2.	Questionnaires that do not meet the criteria	16
3.	Questionnaires used	124

Source: Primary data processed (2020)

5.1. Validity Test

Table 2. Validity Test Results

Variables	*Item*	*Factor Loading*	*Information*
Price	*HG1*	*1,00*	*Valid*
	HG2	*0,60*	*Valid*
	HG3	*0,17*	*Valid*
	HG4	*0,30*	*Valid*
Income	*PD*	*1,00*	*Valid*
Satisfaction	*KP1*	*1,00*	*Valid*
	KP2	*0,48*	*Valid*
	KP3	*0,58*	*Valid*
	KP4	*0,31*	*Valid*
	KP5	*0,42*	*Valid*
	KP6	*0,56*	*Valid*
Perceived Usefulness	*KF1*	*1,00*	*Valid*
	KF2	*0,38*	*Valid*
	KF3	*0,60*	*Valid*
	KF4	*0,81*	*Valid*
Perceived Ease of Use	*KD1*	*1,00*	*Valid*
	KD2	*0,40*	*Valid*
	KD3	*0,62*	*Valid*
	KD4	*0,48*	*Valid*
OVO Usage Interests	*MP1*	*1,00*	*Valid*
	MP2	*0,45*	*Valid*
	MP3	*0,48*	*Valid*

Source: Processed primary data (2020)

Table 2 shows the validity test results for statement items relating to factors affecting the use of financial technology (OVO) applications from a total of 124 respondents. Six variables from 27 questionnaire items were valid since the loading factor >r table with the loading factor >0.15.

5.2. Reliability Test

Table 3. Reliability Test Results

Variables	*Cronbach's Alpha*	*Information*
Price	*0,78*	*Reliable*
Income	*1,00*	*Reliable*
Satisfaction	*0,79*	*Reliable*
Perceived Usefulness	*0,81*	*Reliable*
Perceived Ease of Use	*0,80*	*Reliable*
OVO Usage Interests	*0.84*	*Reliable*

Source: Processed primary data (2020)

Based on Table 3, in general, all research variables were declared reliable because they had a Cronbach's alpha value >0.60.

After the reliability test, the author conducted another necessary test, namely the classic assumption tests. The tests included normality test, multicolored test, autocorrelation test, and heteroscedasticity test. In this case, the test results were declared qualified.

5.3. Linear Regression Test

Table 4. Linear Regression Test Results

		Coefficients		
Variables	*Pred. Sign*	*Coef.*	*T-value*	*P-value*
(Constant)	*+/-*	*-0,05*	*-0,04*	*0,97*
Price	*+*	*0,30*	*2,81*	*0,01**
Income	*+*	*0,22*	*2,20*	*0,03**
Satisfaction	*+*	*0,07*	*0,77*	*0,40*
Perceived Usefulness	*+*	*0,22*	*1,78*	*0,08*
Perceived Ease of Use	*+*	*0,05*	*0,40*	*0,71*
F-statistics		*0,00*		

R^2	*35,00%*
Observations	*124*
**Denote significant at 5%*	

Source: Processed primary data (2020)

6. DISCUSSION OF RESEARCH RESULTS

6.1. Influence of Price on OVO Application User Interest during COVID-19

The results showed that the price significantly influenced the interest in using OVO application in the Soloraya area during this COVID-19 outbreak. It means that the higher the affordability of the price offered, the higher the interest in using the OVO application will be. However, even with higher price offers, it sometimes does not hinder the buying interest of users because they believe that higher prices have better quality or services. The results of this study support the research conducted by [6].

6.2. Influence of Income on Interest in Using OVO Application during COVID-19

The results showed that income significantly influenced the interest in using OVO application in the Soloraya region during the COVID-19 pandemic. It proves that when the earning is higher, the interest in using the app will also follow. In Soloraya, the average revenue of OVO users is around Rp 2,000,000 up to Rp 5,000,000 that is considered more than enough. The sufficient income makes a person frequently transact using non-cash payment applications such as OVO. In addition, users also see the efficiency offered by the application since they can do the transactions anywhere and anytime based on their needs. In this case, the results of this study support the previous research conducted by [1] and the research from [2].

6.3. Influence of Satisfaction on the Interest in Using OVO Application during COVID-19

In this study, satisfaction did not influence the interest in using the OVO application during COVID-19. The users were likely dissatisfied with the app usage. It might happen since they used not only one payment application but also other applications, such as Link Aja, Danaku, BRI Mobile, BCA Mobile, or Sakuku, that suited their needs more than OVO. Based on this finding, the study is contrary to the researches from [4] and [12].

6.4. Influence of Perceived Usefulness on the Interest in Using OVO Application during COVID-19

In this study, perceived usefulness did not affect the interest in using the OVO application during COVID-19. According to the responses, many merchants get problems with the top-up system and thus cannot use their account balance. That condition leads the users to think they got no profit from using the app. Another factor that affects the OVO application usage is the security factor. It is related to the protection of the user accounts from any account abuses. Hence, the finding of this study does not support the research from [8] and [18].

6.5. Influence of Perceived Ease of Use on the Interest in Using OVO Application during COVID-19

The finding affirmed that, during the COVID-19 outbreak, perceived ease of use did not affect the interest in using the OVO application in Soloraya. It is because not all sellers use OVO as their payment transaction tool. Thus, the users do not feel the ease. Another factor that affects the OVO application usage is that the users only use the OVO application for non-cash payment transactions in cooperation with OVO, such as online transportation services (Grab). Hence, the results of this study are not in line with the research from Priambodo et al. (2016) and research conducted by [18].

7. CONCLUSIONS

This study aims to examine the factors that influence the interests of the Soloraya community to use the OVO digital wallet. Of the five variables tested, the results affirmed that the significant factors affecting the interest of the Soloraya community on the OVO digital wallet usage were price and income. On the contrary, other aspects such as customer satisfaction, perceived usefulness, and perceived ease of use did not affect the public interest. The average income of the OVO users is between IDR 2,000,000 to IDR 5,000,000 a month. This number is considerably high for the people of Soloraya. However, the OVO users still seek the available promos that make the prices of a product or service more affordable. Also, many OVO users have used other applications such as Link, Dana, BCA mobile, Mandiri mobile, or others, reasoning that they need to adjust their individual needs. The users also responded that not all agents/merchants can top-up OVO balances. Even more, there is still a lack of breadth of merchant partners working with OVO, especially in Soloraya.

Furthermore, the results of this study will be helpful for the policy-makers at PT. Visionet Internasional or OVO in the Soloraya area, particularly in the policies related to increasing user loyalty and expanding merchant partners. However, this study has several limitations where this research only examines behavioral intention. Another limitation of this research is the respondents who did not go through a grouping or categorization process. Suggestions for further researchers are to deepen the research in the OVO

user behavior. In addition, respondents should be grouped according to their categories so that the results become more detailed and in-depth.

REFERENCES

[1]Adiyanti, A.I. (2015). Pengaruh Pendapatan, Manfaat, Kemudahan Penggunaan, Daya Tarik, Promosi, dan Kepercayaan Terhadap Minat Menggunakan Layanan *E-Money*. *Jurnal Ekonomi dan Bisnis Universitas Brawijaya*, pp. 3-13.

[2]Ahmad, & Pambudi, B.S. (2014). Pengaruh Persepsi Manfaat, Persepsi Kemudahan, Keamanan, dan Ketersediaan Fitur Terhadap Minat Ulang Nasabah Bank dalam Menggunakan Internet Banking. *Jurnal Studi Manajemen*, vol.8, no.1, pp.1-11.

[3]Akseleran. (2021). Macam-Macam Fintech yang Berkembang di Indonesia. Available online at https://teknologi.id/technology/macam-macam-fintech-yang-berkembang-di-indonesia (Accessed April 2021)

[4]Ar-Robi, M.R., & Wibawa, B.M. (2019). Analisis Tingkat Kepuasan dan Performa pada *Merchant* OVO di Surabaya. *Jurnal Sains dan Seni ITS*, vol. 8, no. 1, pp. 2337-3520.

[5]Davis, F.D. (1989). *Perceived Usefulnes, Perceived Ease of Use and Acceptance of Information System Technology*. *Mls Quarterly*, vol.13, no.3 pp 319 – 339.

[6]Fajar, B. M, dkk. (2019). Menelusuri Faktor-Faktor yang Mempengaruhi Minat Penggunaan Ovo pada Pelanggan Grab Mahasiswa IAIN Surakarta Fakultas Ekonomi dan Bisnis Islam. *Academia*, vol.3, no.1, pp 109-122. https://www.ovoint.com/ovo-bermasalah-hari-ini/

[7]Jayaningrum, V.A. (2019) Analisis Faktor-Faktor yang mempengaruhi Penerimaan dan Penggunaan *Mobile Payment* pada Teknologi Pembayaran OVO. *Universitas Sanata Dharma Yogyakarta*, hal. 1-44.

[8]Joan, L., & Sitinjak, T. (2019). Pengaruh Persepsi Kebermanfaatan dan Persepsi Kemudahan Penggunaan Terhadap Minat Penggunaan Layanan Pembayaran Digital Go-Pay . *Jurnal Manajemen*, vol. 8, no. 2, pp. 27-39.

[9]Kotler, Philip dan Armstrong, Gary. 2012. Principles of Marketing. New Jersey: Prentice Hall.

[10Kotler, Philip, Kevin Lane Keller. (2012). Marketing Management, 14th Edition United States of America : Pearson

[11]Mayasari, Selvi. (2021). Tingkatkan kenyamanan transaksi digital, Adira Finance gandeng OVO. Available online at https://keuangan.kontan.co.id/news/tingkatkan-kenyamanan-transaksi-digital-adira-finance-gandeng-ovo (Accessed Juli 2021)

[12]Nurhalim, A.D. (2019). Faktor-Faktor yang Mempengaruhi Loyalitas Pengguna Ovo pada Grab. *Jurnal Bina Manajemen*, vol. 8, no. 1, pp 58-73.

[13]Oktafani, D & Sisilia, K. (2020). Analisis Penerapan Model Unified Theory of Acceptance And Use of Technology 2 (UTAUT2) Pada Adopsi Penggunaan Dompet Digital OVO Dayeuh Kolot Bandung (Studi kasus pada Generasi Z sebagai pengguna OVO. Jurnal Menara Ekonomi, vol 6, no.1. pp 24-36.

[14]Rafique H., Shamim A. & Anwar F., Investigating acceptance of mobile library application with extended technology acceptance model (TAM), Computers & Education (2019), doi: https://doi.org/10.1016/j.compedu.2019.103732.

[12]Sholikah, Binti. 2019. Naik Batik Solo Trans Bisa Bayar Nontunai Mulai 2020. Available online at https://www.republika.co.id/berita/q2cik7368/naik-batik-solo-trans-bisa-bayar-nontunai-mulai-2020 (Accessed Maret 2021)

[16]Suhendry, wendy. (2020). Minat Penggunaan OVO di Kota Pontianak menggunakan Model Unified Theory of Acceptance And Use of Technology (UTAUT). Jurnal Ekonomi Manajemen, vol. 6, no. 1, pp 1-12.

[17]Sushmita, Chelin Indra. (2021). 5 Hal Ini Bikin Solo Dijuluki Kota Ternyaman di Indonesia, Sepakat?. Available online at https://www.solopos.com/5-hal-ini-bikin-solo-dijuluki-kota-ternyaman-di-indonesia-sepakat-1107365 (Accessed Juni 2021)

[18]Utami, S.S., & Kusumawati, B. (2017). Faktor-Faktor yang Mempengaruhi Minat Penggunaan E-Money. *Jurnal Balance*, vol. 14, no. 2. Pp 29-41.

[19]Wibowo, Anggun, Rifen. (2013). Sejarah Kota Solo. Available online at https://ptik.fkip.uns.ac.id/portofolio/gis/wisata/tentangsolo.php (Accessed Juli 2021).

[20]Venkatesh, V., Bala, H., 2008. Technology acceptance model 3 and a research agenda on interventions. Decis. Sci. J. 39 (2), 273–315.

[21]Venkatesh, V., Davis, F.D., 2000. A theoretical extension of the technology acceptance model: four longitudinal field studies. Manag. Sci. 46 (2), 186–204.

[22]Zhang, S., Zhao, J., Tan, W., 2008. Extending TAM for online learning systems: an intrinsic motivation perspective. Tsinghua Sci. Technol. 13 (3), 312–317.

APPENDIX 1

Characteristic	Frequency	Percentage (%)
	Gender	
Woman	70	56,50 %
Man	54	43,50 %
	Age	
16 s/d < 26 th	77	62,10 %
26 s/d < 36 th	37	29,80 %
36 s/d < 46	6	4,80 %
46 s/d 56	4	3,20 %
	Domicile	
Wonogiri	35	28,20 %
Sukoharjo	43	34,70 %
Surakarta	20	16,10 %
Klaten	10	8,10 %
Karanganyar	8	6,50 %
Sragen	7	5,60 %
Boyolali	1	0,80 %
	Work	
Students	2	1,60 %
Student	55	44,40 %
Private	9	7,30 %
Employees	23	18,50 %
PNS	20	16,10 %
Self employed	15	12,10 %
Other		

Characteristic	Frequency	Percentage (%)
	Use of OVO	
1- 3 times	42	33,90 %
4- 6 times	13	10,50 %
7- 9 times	2	1,60 %
> nine times	67	54,00 %