Analysis of Factors Which are Able to Influence the Admittance of BPJS Ketenagakerjaan Participants towards BPJSTK Mobile by using Technology Acceptance Model 3 (TAM 3)

Suryaningsih

Magister of Management, Faculty of Economic and Business, Universitas Airlangga, Surabaya -Indonesia

Keywords: BPJSTK Mobile, Perceived Usefulness, Perceived Ease of Use, Intention to Use.

Abstract: Information and Technology are rapidly evolving along with the evolution or the development of an era. BPJSTK Mobile is a service application intended for the participants as a form of expansion in BPJS Ketenagakerjaan Program information services, a medium for complaints if any discrepancy status appears, information regarding the total amount of salary and employee that can be accessed through smartphones. However, the performance of BPJSTK Mobile service is considered poor, given that it is only providing information of the employees at the Surabaya Darmo branch which amount are relatively lower than the total amount of participants who have actually registered. This research aims to analyze factors which are able to influence the admittance of BPJS Ketenagakerjaan participants at Surabaya Darmo Branch towards BPJSTK Mobile by using Technology Acceptance Model 3 (TAM 3). Variables that are used in this study are subjective norm, image, computer self-efficacy, computer/system anxiety, perceived usefulness, perceived ease of use, and intention of use (IU). Respondents chosen for the research are laborers who have not used the BPJSTK Mobile Application registered at BPJS Ketenagakerjaan of Surabaya Darmo branch. The data are gathered directly by conducting the deployment of questionnaires to 150 respondents. The sampling technique used in this research is incidental sampling. The result of the hypothesis test showed that SN or subjective norm does not have any positive effect towards intention to use (IU) and image (IMG) does not have any positive impact towards perceived usefulness (PU).

1 INTRODUCTION

The development and growth of Information and Technology made many informational search activities, which hold an important part in human's life, no longer be held conventionally. Humans only need to make use of technologies like the internet to be able to access various needed information from various sources that are not limited by time and distance, unlike when conventional technology was still around and commonly found (Hong *et al.*, 2002; Ayele and Sreenivasarao, 2013). One of the forms of information technology is the appearance of the mobile service application that can be accessed via mobile phones or smartphones. The application is able to answer demands from customers who want fast service, safety, comfort, cheapness, available at any time (24/7), and able to be accessed from everywhere through smartphones (Rahayu, 2015).

There are now many banks and insurance agencies, commercial and social ones, that offer mobile access to financial information, one of them is BPJS Ketenagakerjaan that is BPJSTK Mobile. BPJSTK Mobile is a service application intended for the participants as a form of expansion to the information service media of BPJS Ketenagakerjaan program, medium to the complaint service regarding status discrepancy of customers, and the total amount of salary and employees that can be accessed anywhere and anytime via smartphones.

BPJSTK Mobile service has many advantages and is very beneficial for participants since its launch in 2014, the socialization carried out has been maximized and awareness is high. But when viewed from the statistics of its usage at the Surabaya Darmo Branch Office, where this research will be conducted, that BPJSTK mobile service performance for the number of participants utilizing the mobile BPJSTK is relatively smaller or very low than the total number of registered participants. The

number of participants registered at the Surabaya Darmo Branch of BPJS Ketenagakerjaan until June 2017 was 108,101 workers with 2,438 companies. Of the total 108,101 participants, only 20,587 or 19.04% of participants used or used BPJSTK Mobile.

The problem of how participants can receive and utilize the BPJSTK Mobile service can be explained optimally using the TAM (Theory Acceptance Model) framework. TAM is a model built to analyze and understand the factors that influence the acceptance of technology use (Davis, 1989). In 2008, Venkatesh and Bala conducted theoretical development and testing of Technology Acceptance Model 2 (TAM2) by identifying the determinants of perceived ease of use (PEOU) developed by Venkatesh in 2000 to become Technology Acceptance Model 3 (TAM3) (Venkatesh and Bala, 2008). TAM3 examines more deeply the determinants of user perceptions of perceived usefulness and the user's perception of perceived ease of use (Davis, 1989).

User Trust in the ease of use and usefulness of new technologies is influenced by computer self-efficacy. Users with high levels of computer self-efficacy will find it easier to use a new information technology (Hong *et al.*, 2002).

Subjective norm is one of the variables of social influence in the form of social pressure received to do or not do something. It is very important to determine how social influence influences the commitment of users in utilizing information systems to understand, explain, and predict acceptance behavior and use of information systems (Malhotra and Galletta, 1999).

Image is interpreted as someone's perception that the use of innovation will improve their social status. (Venkatesh and Davis, 2000) describe the large impact of social influences (subjective norms, and images) on technology acceptance. (Venkatesh *et al.*, 2003) assert that social influence is a direct determinant of intention to use technology.

The use of technology usually has side effects, such as negative emotions that increase not only during interaction with technology but even before. Frustration, confusion, anger, anxiety, and similar emotions can affect the process of interaction with technology (George Saadé and Kira, 2009).

Based on the description above, the formulation of the problem will be compiled which will be answered with this research, namely:

1. Does subjective norm (SN) have positive effect(s) towards intention to use (IU).
2. Does subjective norm (SN) have positive effect(s) towards perceived usefulness (PU).
3. Does image (IMG) have positive effect(s) towards perceived usefulness (PU).
4. Does computer self-efficacy (CSE) have positive effect(s) towards perceived ease of use (PEOU).
5. Does system anxiety (CANX) have positive effect(s) towards perceived ease of use (PEOU).
6. Does perceived ease of use (PEOU) have positive effect(s) towards perceived usefulness (PU).
7. Does perceived ease of use (PEOU) have positive effect(s) towards intention to use (IU).
8. Does perceived usefulness (PU) have positive effect(s) towards intention to use (IU).

2 THEORICAL FRAMEWORK

The TAM 3 study was previously conducted by Venkatesh and Bala in 2008 entitled Technology Acceptance Model 3 and a Research Agenda on Interventions. The results to be achieved in this study are to present a research agenda that identifies a set of interventions for researchers and practitioners to investigate further about employee acceptance and adoption of information technology to be effective in a company. The results of this study indicate that perceived ease of use has a positive effect on perceived usefulness, perceived ease of use has a positive effect on behavioral intention, perceived usefulness has a positive effect on behavioral intention and behavioral intention has a positive effect on use behavior.

The similarity is also found in this study where this study decided to use the Technology Acceptance Model 3 (TAM 3) model to identify external factors and perceived ease of use or perceived usefulness that are most influential in using a technology. The difference is that some variables are not used because the variable is a research object that varies and is adapted to the existing environment. Furthermore, this study took the field of labor regarding social security.

The following is the BPJSTK Mobile TAM 3 research model at the Surabaya BPJS Ketenagakerjaan of Darmo Branch which will be used by the researcher:
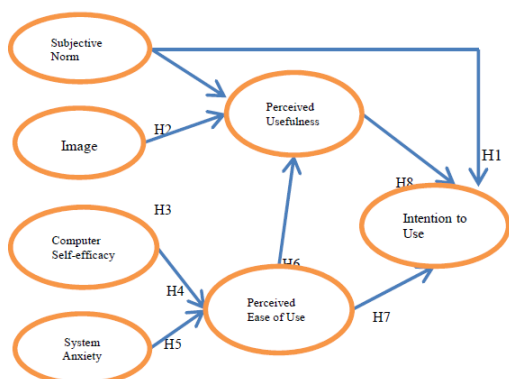
Figure 1: Research Model.

3 RESEARCH METHOD

The research method is classified as a type of confirmatory research that aims to test or confirm the hypothesized model (Sholihin, Mustafid and Safitri, 2014). The type of data used in this study is quantitative data. The source of data used in this study is primary data which is the result of answers from the questionnaire distributed to respondents.

Respondents in this study are workers who have not used the BPJSTK Mobile application registered at the BPJS Ketenagakerjaan of Surabaya Darmo Branch. The determination of the number of respondents for the analysis of Structural Equation Modeling (SEM) is by using the formula of the number of indicators from times 5 to 10 (Ferdinand, 2005). Because the number of indicators used in this study is 22, then the minimum respondents for this study are 110. Furthermore, Hair, in (Ferdinand, 2005) found that the size of respondents suitable for SEM is between 100-200 samples. By referring to the formula for determining the number of respondents and opinions of Hair, the number of respondents used in the study was 150 respondents.

The statistical analysis tool used to test hypotheses is Structural Equation Modeling (SEM), that is the reason as to why the structure or pattern of relationships between a set of latent variables or theoretical variables can be explained through one or several indicator variables (Rizal, 2014). Data processing is done using a software called AMOS (Analysis of Moment Structure) version 24.

4 ANALYSIS

Based on the data of respondents' characteristics, it was shown that male respondents were more than

female respondents, namely by the percentage of males by 58.67%. When viewed from the age group, the majority of respondents aged 26-35 years is 48.67%. Based on the respondents' education, it was shown that the majority of respondents had an S1 degree (Strata One), which was 49.33%.

Convergent validity is a measure of construct validity that shows that items or indicators of a latent construct must converge or share (share) high variance proportions. High loading values on a factor (latent construct) indicate that they converge at one point. Loading factors of variables SN, IMG, CSE, CANX, PU, PEOU, and IU are all valued at ≥ 0.5 so it can be concluded that all indicators used to measure subjective norm variables, image, computer self-efficacy, system anxiety, perceived usefulness, perceived ease of use, and the intention to use are declared valid and constitutes a unity of indicators examined.

Table 1: Convergence Validity Test.

Indicators		Variables	Loading Factors Value
SN1	<---	SN	0,812
SN2	<---	SN	0,659
SN3	<---	SN	0,892
SN4	<---	SN	0,912
IMG1	<---	IMG	0,906
IMG2	<---	IMG	0,942
IMG3	<---	IMG	0,742
CSE1	<---	CSE	0,9
CSE2	<---	CSE	0,994
CSE3	<---	CSE	0,742
CANX1	<---	CANX	0,947
CANX2	<---	CANX	0,976
CANX3	<---	CANX	0,92
PU1	<---	PU	0,932
PU2	<---	PU	0,942
PU3	<---	PU	0,895
PEOU1	<---	PEOU	0,958
PEOU2	<---	PEOU	0,935
PEOU3	<---	PEOU	0,929
IU1	<---	IU	0,922
IU2	<---	IU	0,949
IU3	<---	IU	0,844

After the convergent validity is achieved, the second validity test is done, namely discriminant validity, which aims to test whether a construct is completely different from other constructs. The square root value of AVE has a higher value than the correlation value between constructs. It can be said that the measurement model has met discriminant validity.

Table 2: Discriminant Validity Test.

	IMG	SN	CSE	CANX	PU	UI	PEOU
IMG	**0.825**						
SN	0.414	**0.868**					
CSE	0.074	0.348	**0.885**				
CANX	0.123	-0.210	-0.207	**0.948**			
PU	0.214	0.652	0.415	-0.325	**0.923**		
UI	0.093	0.567	0.376	-0.446	0.833	**0.906**	
PEOU	0.114	0.510	0.325	-0.369	0.701	0.682	**0.941**

In SEM analysis, the reliability of the model is examined using construct reliability. A model is said to be reliable when the construct reliability value of each variable/construct is more than 0.7 (Solimun, 2002). (Ghozali, 2017) describe the rule of thumb the value of construct reliability must be > 0.70. AMOS calculation's result for testing construct reliability shows that the variables/constructs of the study consist of subjective norm, image, computer self-efficacy, system anxiety, perceived usefulness, perceived ease of use, and intention to use has a value of construct reliability > 0.70. Based from the above, it is concluded that these variables are *reliable* in developing the model developed in this study.

Hypothesis testing is conducted to determine whether exogenous variables on endogenous variables and endogenous variables on endogenous variables are affecting one another. The hypothesis is stated acceptable if the value of prob (P) < 0.05. There are 2 rejected hypothesis, H1 and H3, while H2, H4, H5, H6, H7 and H8 are all accepted.

Table 3: Hypothesis Test.

Hypothesis	Causality Relation	Estimate	S.E.	C.R.	P	Label	Information
H1	SN ---> IU	.025	.062	.400	.689	par_16	Rejected
H2	SN ---> PU	.391	.073	5.351	***	par_18	Admitted
H3	IMG ---> PU	-.028	.077	-.360	.719	par_19	Rejected
H4	CSE ---> PEOU	.321	.096	.3335	***	par_21	Admitted
H5	CANX ---> PEOU	-.311	.076	-4.074	***	par_22	Admitted
H6	PEOU ---> PU	.550	.074	7.434	***	par_23	Admitted
H7	PEOU ---> IU	.194	.074	2.610	.009	par_20	Admitted
H8	PU ---> IU	.623	.086	7.235	***	par_17	Admitted

5 RESULTS

H1: Subjective norm (SN) has positive impact(s) towards intention to use (IU)

Based on data from the results of data processing, it is known that the P value (probability) is 0.689. These results do not meet the requirements of < 0.05 so that it can be concluded that H1 in this study was not accepted/rejected. This is not in line with Park's study which states that subjective norms influence both behavioral intentions and attitudes towards e-learning (Park, 2009). (Jimantoro and Tjondro, 2014) state that subjective norms (subjective norms) do not have a significant effect on the intention of taxpayers in the use of e-filling (intention to use e-filing). This means that the social environment such as friends, family, and superiors in the company have no effect on participants' intention to use the BPJSTK Mobile application. The intention of the participants to use the BPJSTK Mobile application is because of their awareness of the importance of using BPJSTK Mobile.

H2: Subjective norm (SN) has positive impact(s) towards perceived usefulness (PU)

Based on the results of data processing, it is known that the P value (probability) is 0,000. These results meet the requirements of < 0.05 so it can be concluded that H2 in this study can be accepted. This is consistent with Park's study which states that subjective norms can affect the usefulness of e-learning to users (Park, 2009). Fang Xu's study also states that subjective norms have a positive influence on the usefulness of the MOOC (Massive Open Online Courses) (Xu, 2015). This means that the social environment such as friends, family, and employers in the company has an influence on participants' perceptions of the benefits of the BPJSTK Mobile application. Participants will consider the BPJSTK Mobile application useful if the social environment is the same.

H3: Image (IMG) has positive impact(s) towards perceived usefulness (PU)

Based on the results of data processing, it is known that the P value (probability) is 0.719. These results do not meet the requirements of < 0.05 so it can be concluded that H3 in this study was not accepted. This is not in line with Fang Xu's research which states that image has a positive influence on the usefulness of the MOOC (Massive Open Online Courses) (Xu, 2015). But in line with Ying Wu's research on user acceptance of the Web 2.0 website which states that the image has no positive effect on perceived usefulness (Wu *et al.*, 2011). This means that the social status does not affect participants' perceptions about the usefulness of the BPJSTK Mobile application, even though the use of the BPJSTK Mobile application does not improve social status both in the work environment and other social environments, they still consider BPJSTK Mobile useful.

H4: Computer self-efficacy (CSE) has positive impact(s) towards perceived ease of use (PEOU)

Based on the results of data processing, it is known that the P value (probability) is 0,000. These results meet the requirements of < 0.05 so that it can be concluded that H4 in this study can be accepted. This study proves that the higher the level of trust of participants in the ability to use the BPJSTK Mobile application, the easier the use of BPJSTK Mobile. This is in line with Fang Xu's research which states

that computer self-efficacy has a positive influence on the ease of use of MOOC (Massive Open Online Courses) (Xu, 2015). After participants are convinced of their ability to use the BPJSTK Mobile application, participants will get the ease of downloading and using the BPJSTK Mobile application without having to drain their energy and mind, this is also consistent with the research conducted by Park (2009). Through the BPJSTK Mobile application, participants can check fast and accurate online old-age (JHT) balances, calculate the Old Age Guarantee (JHT), Pension Insurance simulation (JP), get program and Co-Marketing information, branch office information, central information service and social media, and complaint services.

H5: System anxiety (CANX) has negative impact(s) towards perceived ease of use (PEOU)

Based on the results of data processing, it is known that the P value (probability) is 0,000. These results meet the requirements of < 0.05 so that it can be concluded that H5 in this study can be accepted.

This is in line with the research of Saade and Kira which states that computer/system anxiety has a significant influence on perceived ease of use from the use of LMS technology (Learning Management System) (George Saadé and Kira, 2009). Celik's study of consumer acceptance of online retail shopping states that anxiety has a negative influence on perceived ease of use (Çelik, 2011). This means that if the level of anxiety, concern or even fear of the participants when faced with the possibility of using the BPJSTK Mobile application increases, their perception of the ease of using BPJSTK Mobile will decrease

H6: Perceived ease of use (PEOU) has positive impact(s) towards perceived usefulness (PU)

Based on the results of data processing, it is known that the P value (probability) is 0,000. These results meet the requirements of < 0.05 so that it can be concluded that H6 in this study can be accepted. The ease of using the BPJSTK Mobile application and obtaining the information needed in connection with participation in the BPJS Employment provides usefulness in the use of the BPJSTK Mobile application by participants. This is in line with the research of Venkatesh and Davis that perceived ease of use can affect perceived usefulness because the more easily a technology is used, the more useful the technology is (Venkatesh and Davis, 2000). (Igbaria

and Chakrabarti, 1990) explains in his research that perception has an impact on individual behavior. This is explained in more detail that the greater the individual has the perception of ease in using a new system, it will lead to an increase in the use of information technology. Through the BPJSTK Mobile application participants can access JHT and JP balances and calculation simulations, complaint services, information on the BPJS Ketenagakerjaan branch office, as well as other information regarding the BPJS Ketenagakerjaan program anytime and anywhere via a smartphone without having to come to the office of BPJS Ketenagakerjaan. With a little skill and internet access, participants can find the information they need without wasting time so participants will feel the use of the BPJSTK Mobile application will be very useful in increasing the productivity of their effectiveness.

H7: *Perceived ease of use* (PEOU) has positive impact(s) towards *intention to use* (IU)

Based on the results of data processing, it is known that the P value (probability) is 0.009. These results meet the requirements of < 0.05 so that it can be concluded that H7 in this study can be accepted. This study proves that the easier use of the BPJSTK Mobile application, the higher the intention to use it. In line with Park's research, perceived ease of use has a significant direct effect on intention and behavior using e-learning (Park, 2009). Cheng's study states that perceived ease of use will encourage the use of e-resources (Cheng, 2014). To use the BPJSTK Mobile application, participants simply download it on the Play Store via smartphone. Then, in the initial display, there are instructions and guidelines for using BPJSTK Mobile so that participants will not have difficulties. When the BPJSTK Mobile service makes it easy for users to download and search for the required information, the participants' intention to use Mobile BPJSTK will also increase.

H8: Perceived usefulness (PU) has positive impact(s) towards intention to use (IU)

Based on the results of data processing, it is known that the P value (probability) is 0,000. These results meet the requirements of < 0.05 so that it can be concluded that H8 in this study can be accepted. In line with Park's study, perceived usefulness has a significant direct effect on intention and behavior using e-learning (Park, 2009). Cheng's study states that someone who has a perception that using e-resources will bring benefits to him, and of course will affect the intention to use it (Cheng, 2014).

TAM states that the factor of user's perception of perceived usefulness is believed to be the basis for determining the acceptance and use of various information technologies (Handayani, Kusrini and Sunyoto, 2013). Through the BPJSTK Mobile application, participants are going to be able to check quickly and accurately regarding online old age (JHT) balance, simulation of Old Age Insurance (JHT) calculation, Pension Guarantee simulation (JP), Program Information and Co-Marketing information, branch office information, central information service, and social media, as well as complaints service, so that participants feel very helped by the existence of this application. Therefore, it will make the perception of usefulness and usefulness of the BPJSTK Mobile application becomes a factor that influences participants' intention to use BPJSTK Mobile.

6 CONCLUSIONS

Based on the results of the research and discussion in the previous chapter, the conclusions obtained from this study are as follows:

1. The H1 hypothesis which states that subjective norm positively influences intention to use is not accepted
2. The H2 Hypothesis which states that subjective norm positively influences perceived usefulness is accepted.
3. The H3 Hypothesis which states that image positively influences perceived usefulness is not accepted
4. The H4 Hypothesis which states that computer self-efficacy positively influences perceived ease of use is accepted
5. The H5 Hypothesis which states that system anxiety negatively influences perceived ease of use is accepted
6. The H6 Hypothesis which states that perceived ease of use positively influences perceived usefulness is accepted
7. The H7 Hypothesis which states that perceived ease of use positively influences intention to use is accepted
8. The H8 Hypothesis which states that perceived usefulness positively influences intention to use is accepted.

Based on the conclusions above, some suggestions can be given as follows:

1. The researcher hopes that further research will be carried out related to the TAM technology acceptance model, especially mobile application technologies with the use of different variables, such as job relevance.
2. Future research will be conducted qualitatively, namely by taking primary data not only by questionnaire but by field observations and direct interviews with respondents so that the results of the analysis are comprehensive.
3. This study proves that perceptions of usefulness and perceived ease of use have a positive effect on the intention to use BPJSTK Mobile. Therefore, BPJS Ketenagakerjaan should be able to add new features that are useful and easy to use on the BPJSTK Mobile application. Additionally, the institution should be willing to further promote BPJSTK Mobile in terms of perceived benefits and convenience, so that more participants are willing to be using the BPJSTK Mobile application.

REFERENCES

Ayele, A. A. and Sreenivasarao, V. (2013) 'A Case Study of Acceptance and Use of Electronic Library Services in Universities Based on SO-UTAUT Model', *International journal of innovative researche in computer ans communication engineering*. doi: 10.1016/j.revmed.2013.03.311.

Çelik, H. (2011) 'Influence of social norms, perceived playfulness and online shopping anxiety on customers' adoption of online retail shopping: An empirical study in the Turkish context', *International Journal of Retail & Distribution Management*. doi: 10.1108/09590551111137967.

Cheng, Y. M. (2014) 'Why do users intend to continue using the digital library? An integrated perspective', *Aslib Journal of Information Management*. doi: 10.1108/AJIM-05-2013-0042.

Davis, F. D. (1989) 'Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology', *MIS Quarterly*. doi: 10.2307/249008.

Ferdinand, A. (2005) *Structural Equation Modeling dalam Penelitian Manajemen, Aplikasi Model-model Rumit dalam Penelitian untuk Tesis Magister dan Disertasi Doktor*. Semarang: Badan Penerbit Universitas Diponegoro.

George Saadé, R. and Kira, D. (2009) 'Computer Anxiety in E-Learning: The Effect of Computer Self-Efficacy', *Journal of Information Technology Education: Research*, 8, pp. 177–191. doi: 10.1007/s00595-010-4394-x.

Ghozali, I. (2017) *Model Persamaan Struktural Konsep dan Aplikasi dengan program AMOS 24 Update Bayesian SEM*. Semarang: Badan Penerbit Universitas Diponegoro.

Handayani, T., Kusrini and Sunyoto, A. (2013) 'Analisis Penerimaan Sistem Informasi Akademik Berbasis Web Mengunakan Technology Acceptance Model (TAM) Dan Usability (Studi Kasus Pada STTNAS Yogyakarta)', *Prosiding Seminar Nasional Rekayasa Teknologi Industri dan Informasi*, 5(1), pp. 63–74. Available at: https://journal.sttnas.ac.id/ReTII/article/view/120.

Hong, W. *et al.* (2002) 'Determinants of user acceptance of digital libraries : An empirical examinati ...', 18(3), pp. 97–124.

Igbaria, M. and Chakrabarti, A. (1990) 'Computer anxiety and attitudes towards microcomputer use', *Behaviour and Information Technology*. doi: 10.1080/01449299008924239.

Jimantoro, C. and Tjondro, E. (2014) 'Analisis Niat Penggunaan E-Filing di PT "X" dan PT "Y" Surabaya Dengan Structural Equation Modeling', *Tax & Accounting Review*, 4(2), pp. 1–8.

Malhotra, Y. and Galletta, D. F. (1999) 'Extending the technology acceptance model to account for social influence: theoretical bases and empirical validation', *Proceedings of the 32nd Annual Hawaii International Conference on Systems Sciences. 1999. HICSS-32. Abstracts and CD-ROM of Full Papers*, 00(c), p. 14. doi: 10.1109/HICSS.1999.772658.

Park, S. Y. (2009) 'An analysis of the Technology Acceptance Model in understandind university student's behavioral intention du use e-learning', 12(3), pp. 150–162. doi: 10.1007/s00340-009-3513-0.

Rahayu, I. S. (2015) 'Minat Nasabah Menggunakan Mobile Banking dengan Menggunakan Kerangka Technology Acceptance Model (TAM)', *Jurnal Ekonomi Syariah Indonesia*, V(2).

Rizal, A. (2014) 'Analisis Penerapan Project Management Information System (PMIS) Menggunakan Metode Technology Acceptance Model (TAM) Studi Kasus PT. INDOSAT, Tbk', *Jurnal Telekomunikasi dan Komputer*, 1, pp. 1–24.

Sholihin, I., Mustafid and Safitri, D. (2014) 'ANALISIS FAKTOR KONFIRMATORI STRATEGI POSITIONING PASAR MODERN INDOMARET (Studi Kasus Wilayah Tembalang Kota Semarang)', *JURNAL GAUSSIAN*, 3(3), pp. 431–440. doi: 10.1007/s00204-009-0425-z.

Solimun (2002) *Multivariate Analysis Structural Equation Modelling (SEM) Lisrel dan Amositle*. Malang: Fakultas MIPA, Universitas Brawijaya.

Venkatesh *et al.* (2003) 'User Acceptance of Information Technology: Toward a Unified View', *MIS Quarterly*. doi: 10.2307/30036540.

Venkatesh, V. and Bala, H. (2008) 'Technology acceptance model 3 and a research agenda on interventions', *Decision Sciences*. doi: 10.1111/j.1540-5915.2008.00192.x.

Venkatesh, V. and Davis, F. (2000) 'A Theoretical extension of the technology acceptance model: four longitudinal field studies', *Management Research Review*. doi: 10.1287/mnsc.46.2.186.11926.

Wu, M. *et al.* (2011) 'TAM2 Based Study of Website User Behavior', 8(4), pp. 133–151. doi: 10.1628/001522105776072771.

Xu, F. (2015) 'Research of the MOOC Study Behavior Influencing Factors', *International Conference on Advanced Information and Communication Technology for Education*, 11(Icaicte), pp. 18–22. doi: doi:10.2991/icaicte-15.2015.5.