THE BEHAVIOR IN UTILIZING INTERNET BANKING AS COMMUNICATION MEDIA

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ABSTRACT

The rapid development of information technology is the impact of globalization. The development of information technology requires that every organization needs information, not only business or government, but also the world of financial institutions. In accordance with this, the information technology has very important position in banking.

The purpose of this research is to analyze and to test empirically the influence of social factors, *affect* on intentions and its impact on financial behavior in utilizing *internet banking* technology as communication media. The method used in data collection is survey method by spreading the questionnaires. The research data obtained is based on the perception of students of Economics Faculty, University of Semarang on the use of *internet banking* technology implemented by Assistant Branch Bank of BNI Bank in University of Semarang environment as medium of communication between students and University of Semarang, with 96 respondents. The research method used validity test, reliability test, and classical assumption test, hypothesis test, multiple linear regression models with SPSS 23.

Result of testing and analysis found that social factor and *affects* directly and indirectly did not affect the financial behavior of *internet banking* technology utilization implemented by Assistant Branch Bank of BNI Bank in University of Semarang environment as communication media of students with university, through the intention of *internet banking* technology usage by showing insignificant results.

Keywords: social factors, affect, behavior, internet banking

ABSTRAK

Perkembangan yang pesat pada teknologi informasi merupakan dampak dari globalisasi. Perkembangan teknologi informasi mengharuskan setiap organisasi membutuhkan informasi, tidak hanya kalangan bisnis maupun pemerintah saja, tetapi juga dunia lembaga keuangan. Sehubungan dengan hal tersebut, maka teknologi informasi mempunyai kedudukan sangat penting dalam suatu perbankan.

Tujuan penelitian untuk menganalisis dan menguji secara empiris pengaruh faktor sosial, *affect* terhadap minat dan dampaknya pada perilaku keuangan dalam memanfaatkan teknologi *internet banking* sebagai media komunikasi. Metode yang digunakan dalam pengumpulan data adalah metode survei dengan menyebarkan kuesioner. Data penelitian yang diperoleh didasarkan pada persepsi mahasiswa Fakultas Ekonomi Universitas Semarang atas pemanfaatan teknologi *internet banking* yang dilaksanakan oleh Bank Cabang Pembantu Bank BNI di lingkungan Universitas Semarang sebagai media komunikasi antara mahasiswa dengan pihak Universitas Semarang, dengan responden sebanyak 96 orang.

Metode penelitian menggunakan uji validitas, uji reliabilitas, dan uji asumsi klasik, uji hipotesis, model regresi linier berganda dengan SPSS 23.

Hasil pengujian dan analisis ternyata faktor sosial dan *affects* secara langsung dan tidak langsung tidak berpengaruh terhadap perilaku keuangan pemanfaatan teknologi *internet banking* yang dilaksanakan oleh Bank Cabang Pembantu Bank BNI di lingkungan Universitas Semarang sebagai media komunikasi mahasiswa dengan pihak Universitas, melalui minat pemanfaatan teknologi *internet banking* dengan menunjukkan hasil yang tidak signifikan.

Kata kunci : faktor sosial, affects, minat, perilaku keuangan

INTRODUCTION

The development of information technology (IT) today has penetrated into various areas of life and it cannot be denied that information technology can improve the effectiveness and efficiency of an organization. Information is a resource that is not less important with the factory, equipment, and other company assets (Bodnar and Hopwood, 2003). IT investments in organizations often require substantial and risky funds. For each organization, information systems are needed in its development to compete. Therefore, the decision-making tool is expected to provide good information, not only business and government, but also begin to penetrate the banking world. In accordance with that, the information technology has very important position in banking world, especially internet banking. The term *internet banking* is concerned with the utilization of computer / internet technology. Computer / internet -based *internet banking* is a set of hardware and software designed to transform data into useful information.

The positive attitude of the individual is positively related to the intention of adoption and a positive attitude towards online transactions affect the intention of using (Chau and Ngai, 2010; Wessels and Drennan, 2010). Research on intentions that are influenced by attitudes related to technology adoption has become the standard reference of behavioral research used. Information technology in universities is expected to be utilized to improve the quality of student learning, among others, by facilitating students with ease of internet access. Information banking in internet banking is also carried out by Bank BNI, which one of which is located in the University of Semarang. Through the implementation of *internet banking* by Assistant Branch Bank of BNI Bank in the University of Semarang environment, it will help students and facilitate in financial administration for lecturing as well as communication

media with University of Semarang. Therefore, the utilization of internet banking is strongly influenced by the behavior of students who use it. One of the factors that influence the behavior of the utilization of information technology is interest. Interest in the utilization of information technology is the level of desire or intention of the users to use technology continuously with the assumption that they have the access to the information. Sumistar (2011) in his research shows that there were positive influences among the utilization of information system interest on the use of information systems. Meanwhile, the interest is also influenced by two dominant factors, its namely social factors and *affects* factors (individual feelings).

Social factors are defined as the degree to which an individual assumes that another person assures him that he or she should use information technology. In Indonesia, the researches on the factors that affect the utilization of IT have been done. Tjhai (2003) and Rahmawati (2012) examined the factors that influence the utilization of information technology. The results showed that there was positive and significant relationship between social factors and the information technology utilization behavior.

Still related to social factors, the other Tjhai (2003) revealed social factors affect the interest of utilizing information technology positively. However, Sumistar (2011) shows exactly the opposite result that there is no influence between social factors and the interest of information technology utilization. On the other hand, Hasyim (2010) found different research results that there was indirect influence between social factors and the use of information technology.

The other factors that influence the intentions of utilizing information technology is the affect factor (individual feeling). Affect can mean how an individual feel, whether fun or unpleasant in doing the job by using information technology. Tjhai (2003) examined the factors that influence the utilization of information technology. The results showed that the affect factor had no significant effect on information technology utilization behavior. The results of this study contradict with the results of Thompson, et.al. (1991) which stated that the affect factor had significant influence on the information technology utilization behavior.

Based on the inconsistency of the research results that occurred in the above studies, the research gaps were found, among others the research objects had never been implemented in the university environment (so far it was done in the general public, UMKM and banking), and from the previous researches results resulted no difference between one variable and other

variables then it was assumed there were intervening variables. These matters that as far as researcher know have not been studied so we conduct this research. The purposes of his research are to analyze and to test empirically the influence of social factors, *affect* on financial behavior in the utilization of *internet banking* technology with intentions as intervening variable.

LITERATURE STUDY AND HYPOTHESES DEVELOPMENT

Information Technology

Information technology can be utilized effectively because it can contribute to the performance, then members in the organization must be able to use the technology well. One important aspect to understand the utilization of information technology is to understand the factors that can influence the utilization of information technology. Utilization of information technology is also very needed to improve the existence and productivity for education management in universities. Currently almost all universities are competing in developing learning systems that utilize the internet (Ricoida and Pibriana, 2016)

The research conducted by Brynjolfsson and Hitt (1996) provide empirical evidence that investment in information technology can contribute positively to individual performance and productivity of the company. According to Rockart (1988) information technology has important role because it can be strategic weapon for an organization in obtaining competitive advantage. Rahmawati (2012) stated that investment in information technology in an organization is mostly aimed to give positive contribution to the performance of individual members of organization and institution. Information technology can be utilized effectively because it can contribute to the performance, sothe members in the organization must be able to use the technology well. One important aspect to understand the utilization of information technology is to understand the factors that can affect the utilization of the information technology.

2. Information Technology Utilization Behavior

An information technology can have positive impact on behavior if the technology is used appropriately and should be compatible with the tasks supported (Goodhue et al., 1995). Someone behavior is an expression of one's desires or interests (*intention*), where such wishes are influenced by social factors and feelings (*affect*) (Triandis, 1980). The presence of benefits felt by information technology users will increase their interest in using information

technology (Davis et al., 1989). Someone's belief on the benefit of information technology will increase their interest and finally the individual will use information technology in his work or in other words the presence of rewards in the future also the factor that may affect the interest of utilizing information technology on the use of information technology (Thompson, et al., 1991).

Information technology is used as a means of supporting the organization to achieve its goals (Rahmawati, 2012). The utilization of information technology as an individual behavior to use information technology because the benefits that will be obtained to assist in completing the work. Another opinion was expressed by Goodhue and Thompson (1995) in Sumistar (2011) stated that the use of information system is behavior to use information technology in completing the tasks. Therefore, the utilization of this information technology is not only influenced by the interest of utilizing information technology, but also influenced by the feeling (*affect*) of the user.

3. Intentions of Information Technology Utilization

Theory of Reasoned Action (TRA) is a special model that has proven successful for predicting and explaining about one's behavior in utilizing a technology (Fishbein and Ajzen, 1975). TPB describes the factors that influence an individual's behavior, where an individual will perform an action based on the factors that influence it (Nugroho, 2012). According to Theory of Reasoned Action (TRA), intention is a function of behavior. Someone will do a behavior (behavior) if have desire or intention (behavioral intention) to do it. intention in utilization can be said as an expression of one's wishes or expectations by using technology continuously can have positive impact on them (Davis, et.al, 1989). Their interest will increase to use information technology if it is useful.

Triandis (1980) argued that one's behavior is an expression of one's desire or interest (intention), where the desire is influenced by social factors and feeling (*affect*). Other researchers also found that one's belief in the usefulness of information technology will increase their intention and eventually the individual will use the information technology in his work (Thompson, et. al., 1991).

4. Social Factors and Affects of Information Technology Utilization

According to the model developed by Thompson et. al. (1991), which adopted some of the theories proposed by Triandis (1980), stated that 2 factors of the 6 factors that influence the utilization of information technology are:

(a) Social Factor

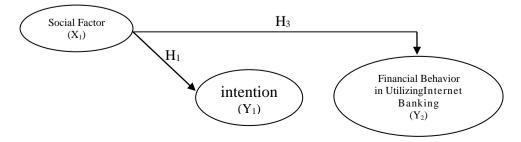
Social factor is defined as the degree to which an individual assumes that another person assures them that he or she should use information technology. In certain environments, the use of information technology will enhance one's status (*image*) in the social system (Moore &Benbasat, 1991). The results found positive and significant correlation among social factors of technology users, in which social factors were indicated by the great support of co-workers, senior managers, leaders and organizations (Thompson, et. al., 1991). According to Triandis (1980) social factors have positive relationship with the utilization of information technology. This suggests that individuals will increase the use of information technology if they have the support from other individuals.

(b) Affect

Affect (individual feeling) can be interpreted as how the individual feelings, whether fun or unpleasant in performing the job using information technology. Agus (2006) proved that individual feelings have positive and significant effect on the utilization of information technology. This means that if the individual is happy to do the work by using information technology, then the individual will improve the utilization of information technology. Meanwhile, Tjhai (2003) examined the factors that influence the utilization of information technology in Public Accountant included in BIG FIVE in Indonesia. The results showed that the *affect* factor has positive and insignificant influence with the utilization of information technology.

Research Model

The effect of each variable on the financial behavior in *internet banking* technology utilization can be described in the following model:



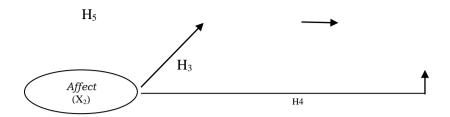


Figure 1.

Research Model of *Internet Banking* Utilization Behavior

Hypothesis

H1: Social Factors affect the intention in utilizing *internet banking* technology.

H2: Affect gives effect on the intention in utilizing internet banking technology.

H3: Social Factors affect the financial behavior in utilizing *internet banking* technology.

H4: Affectgives effect on financial behavior in utilizing internet banking technology.

H5: intentions affects financial behavior in utilizing *internet banking* technology.

RESEARCH METHODOLOGY

This study used primary data obtained through the dissemination of questionnaires to the students of Economics Faculty, University of Semarang Academic Year2016/2017 who utilized *internet banking* in implementing their students' financial administration as media of communication with University of Semarang. The population of this study was the students of Economics Faculty, University of Semarang Academy Year 2016/2017. All members of the population have homogeneous properties so that researchers use probability sampling technique with 96 student. The data collection method used in this research was survey method by distributing questionnaires as well as from various other sources that can support this research. The research method used validity test, reliability test, and classical assumption test, hypothesis test, multiple linear regression models with SPSS 23

RESULTS AND DISCUSSION

1. Classical assumption

Normality test indicated that the data were normally distributed because it showed the value of Kolmogorov-Smirnov $X_1 = 1,682$; $X_2 = 1,692$; $Y_1 = 1.527$ and $Y_2 = 1.848$ greater than 0.05, so the data in the regression model of this study were stated to be normally distributed. The multicollinearity test showed that all VIF values in the first regression result of variable $X_1 = 1.0534$; $X_2 = 1,032$; and the value of *Tolerance variable* $X_1 = 0.969$; $X_2 = 0.958$ while the VIF value on the regression result of the two variables $X_1 = 1.864$; $X_2 = 0.958$

1,130; Y1 = 2,137 and the value of *Tolerance variable* X1 = 0,543; X2 = 0.895; Y1 = 0.495 then multicollinearity did not occur in the regression model.

The result of regression test 1 showed that the influence among social factors, *affect* on the intentions of utilizing *internet banking* technology did not occur heterocedasticity problem. This was proven by spreading dots randomly and spreading high above or below the number of 0 on the irregular Y axis and did not form certain pattern, so it was concluded that this test did not occur heterocedasticity problem.

Regression test 2 showed that the influence among social factors, *affect* on financial behavior in utilizing *internet banking* technology did not occur heterocedasticity problem. This was proven by spreading dots randomly and spreading high above or below the number of 0 on the irregular Y axis and did not form certain pattern, so it was concluded that this test did not occur heterocedasticity problem.

2. Hypothesis Testing

(a) Hypothesis I

Hypothesis 1 will test the influence of social factors on the intentions of utilizing *internet banking* technology. Hypothesis 1 testing was done through multiple linear regression with path analysis, determinant coefficient test, F statistical test and t statistical test.

The Effect of Social Factors on the Intention of Utilizing Internet Banking Technology

 $Table \ 1$ $R^2 \ and \ t \ Test \ of \ Social \ Factors \ on \ the \ intention \ of \ Utilizing \\ \underline{\textit{Internet Banking Technology}}$

Model	R ² Test	t Test		
	Adjusted R Square	Standardized Coefficients (Beta)	Sig	p
Social Factors	0.241	0.390	0.001	0.05

According to table 1, the number of Adjusted R Square is 0.241, meaning that 24,1 % of social factors can be explained by interest of utilizing *internet banking* technology variables, while the remaining 75,9 % are explained by other causes outside the research variables.

The first equation can be made to calculate the path coefficient that is by regression equation showing the hypothesized relationship.

$$Y_1 = b_1.X_1 + e_1$$

$$Y_1 = 0.390. X_1 + 0.579....(1)$$

*** e_1 value = $(1-0.241)^2 = (0.759)^2 = 0.579$

Standardized beta coefficient of social factor 0,390 and significant (p \leq 0,05) that is 0,001 means social factors have effect on the intention in utilizing Internet Banking technology. For the value of standardized betacoefficient 0.390 is the path value p1.

The Effect of Social Factors on Financial Behavior in Utilizing *Internet Banking*Technology through Intention

Table 2
R², t and F Test of Social Factors on Financial Behavior in Utilizing *Internet Banking* Technology through Intention

Model	R ² Test	t Test			F Test	
		Standardized	Sig	p		Sig
		Coefficients				
	Adjusted R Square	(Beta)				
	0.068			0.05	2,097	0.143
Social Factor		0,247	0,076			
Inttention		0,031	0,781			

According to table 2, the Adjusted R *Square* number is 0.068 means that 6.8% Intentions can be explained by social factor variables, while the remaining 93.2% are explained by other causes outside the research variables.

According to ANOVAtest or F test, the value of F arithmetic is 2.097 with significance level of 0.143. Because the probability of 0.143 is greater than 0.05 then social factors and Intention do not affect the financial behavior in utilizing internet banking technology simultaneously.

Based on Table 2, the path coefficient is calculated by making structural equation i.e regression equation showing the hypothesized relation. In this case the equation of both is:

$$Y_2 = b_1.X_1 + b_2.Y_1 + e_2$$

 $Y_2 = 0.247 X_1 + 0.031 X_2 + 0.580$ (2)
***e2 value = $(1 - 0.247)^2 = (0.760)^2 = 0.580$

For value of *standardized beta* coefficient of social factor 0,247 and Intention 0,031 with significance level respectively 0,076 and 0,781. The value of *standardized beta* coefficient 0.247 is the path value p3 and the value of *standardized beta* coefficient 0,031 is the path value p2.

Path Analysis Result of Social Factors on Financial Behavior in Utilizing *Internet Banking* technology through Intention

According to the results of *path analysis*, figure 1 and table 5 show that the direct influence of social factors on financial behavior in utilizing internet banking technology is positive 0,247 and significant 0.076 (above 0,05), so it can be concluded that social factors do not have direct effect on financial behavior in utilizing *internet banking* technology. While the indirect influence among social factors on financial behavior in utilizing *internet banking* technology through intention shows no insignificant influence because it is above 0.05 i.e 0.781.

Totally, the effects of social factors on financial behavior in utilizing internet banking technology are:

The direct effect of social factors on financial behavior in utilizing *internet banking* technology (p3) = 0.247

The indirect effect of social factors on financial behavior in utilizing *internet banking* technology (p1 x p2) = 0.012

Total effect of social factor correlation on financial behavior in utilizing *internet banking* technology (p3 + (p1xp2)) = 0.259

According to the results of *path analysis* in hypothesis test 1 states that there is no direct effect of social factors on financial behavior in utilizing *internet banking* technology through intention. This indirect effect is supported by empirical evidence. This is because the multiplication values of *standardized beta* p1 and p2 coefficients are smaller than the value of *standardized beta* p3 coefficient.

It is possible to explain these results, namely:

First, the results of the model in this study is proven not good, because if they are analyzed based on the comparison of *Adjusted R Square* value with the *estimated error*, the resultis that the standard error is larger.

Second, theoccurrence of errors in the data structure in this research includes:

- (1) the possibility that there is mistake of recording or inputting data to the computer;
- (2) the number and characteristics of the sample are only 96 people and the characteristics of the data obtained from the questionnaire is limited, means that the data limitations to be processed make the quality lower. This is because there are some respondents who do not fill correctly, consequently the results are not in accordance with reality.

Overall it shows that social factors do not directly affect the financial behavior in utilizing *internet banking* technology, while the interest does not have significant effect among social factors on financial behavior in utilizing *internet banking* technology. Therefore Ha is rejected.

(b) Hypothesis Test 2 Result

Hypothesis 2 will test the effect of *affect* on financial behavior in utilizing *internet* banking technology either directly or indirectly through intention. Hypothesis testing was done through multiple linear regressions with path analysis, determination coefficient test, F statistical test, and t statistical test.

The Effect of Affect on Financial Behavior in Utilizing Internet Banking Technology through Intention

Table 3

R² and t Test Affecton Financial Behavior in Utilizing Internet Banking Technology

Model	R ² Test	t Test		
	Adjusted R Square	Standardized Coefficients (Beta)	Sig	р
Affect	0.110	0.237	0.003	0.05

According to table 2, the R *Square* number is 0.110 or 11.0% i.e interest can be explained by the *affect* variable. The remaining 89 % is explained by other variables outside the study.

According to table 2 an equation can be made to calculate the coefficient of the path, i.e by the regression equation that shows the hypothesized relationship, namely:

$$Y_1 = b_2.X_2 + e_1$$

$$Y_1 = 0.237 X_2 + 0.773...$$
(1)
***e₁ value = $(1-0.110)^2 = (0.89)^2 = 0.773$

The number of *standardized beta affect* coefficients 0.237 and significant ($p \le 0.05$) is 0.003 meaning *affect* gives effect on intention. The value of *standardized beta* coefficient 0.237 is the *path* value or p4 path.

The Effect of Affect on Financial Behavior in Utilizing *Internet Banking*Technology

Table 4
R², t and F Test of *Affect* on Financial Behavior in Utilizing*Internet Banking* Technology through Intention

Model	R ² Test	t Test			F Test	
		Standardized	Sig	p		Sig
		Coefficients				
	Adjusted R Square	(Beta)				
	0.031			0.05	1,914	0.163
Affect		0,231	0,086			
Intention		0,021	0,986			

According to table 4, the *adjusted R Square* number is 0.031. It means the ability of *affect* and interest variables in explaining the variable of financial behavior in utilizing *internet banking* technology are 3.1%. The remaining 96.9% is explained by other variables outside the study.

According to the anova test or F table, F arithmetic obtained is 1.914 with significance level of 0.163. Because the probability 0.163 is greater than 0.05, then the regression model can not be used to predict financial behavior in utilizing *internet banking* technology or in other words *affect* and intention do not affect the financial behavior in utilizing *internet banking* technology.

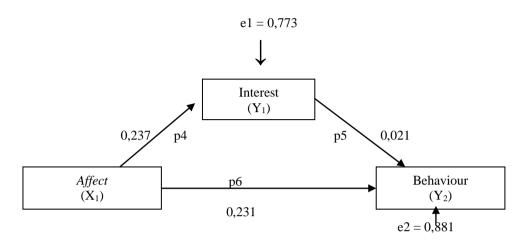
According to table 4,an equation can be made to calculate the path coefficient is by regression equation that shows the hypothesized relationship, namely:

$$Y_2$$
 = $b_1.X_1 + b_2.Y_1 + e_2$
 Y_2 = 0,231 X1 + 0,021X2 + 0,881(2)
***e2 value = $(1 - 0.061)^2 = (0.939)^2 = 0.881$

For the value of *standardized beta affect* coefficient 0.231 and intention 0.021 with significance level of each 0.086 and 0.986. For the value of *standardized beta* coefficient

0.231 is the path value of p6 and the value of *standardized beta* coefficient 0,021 is the path value of p5.

Figure 3
The Results of Path Analysisof Affecton Financial Behavior in Utilizing
Internet Banking Technology through Interest



According to *path analysis*, figure 2 and table 10, the direct effect of *affect* on financial behavior in utilizing *internet banking* technology is 0.231 and significant is 0.086 (above 0.05). So it can be concluded that *affect* does not directly affect the financial behavior in utilizing *internet banking* technology. The indirect effect of *affect* on financial behavior in utilizing *internet banking* technology through intention shows insignificant effect because above 0.05, that is 0.086.

In total the effects of *affect* on financial behavior in utilizing *internet banking* technology, are:

The direct effect of affect on the financial behavior in utilizing internet banking technology (p6) = 0.231

The indirect effect of affect on the financial behavior in utilizing internet banking technology $(p4 \times p5) = 0.005$

In total the correlation effect of *affect* on financial behavior in utilizing *internet banking* technology (p6 + (p4xp5)) = 0.236

According to *path analysis* on hypothesis 1 test, there is not direct effect of *affect* on financial behavior in utilizing *internet banking* technology through intention. This indirect relationship is supported by empirical evidence. This is because the multiplication of the *standardized beta* p4 and p5 coefficient values is smaller than the coefficient value of *standardized beta* p6.

It is possible to explain these results, namely:

First, the results of the model in this study are provennot good, because if they are analyzed based on the comparison of Adjusted R *Square* value and *estimated error*, the result is that the standard error mistake is larger.

Second, the errors in the structure of data in this research are: (1) the possibility of errors in recording or inputting data to the computer; and (2) the number and characteristics of the sample used by the researcher are only 96 people and the characteristics of the data obtained from the questionnaire are limited. It means that the data limitations to be processed make the quality lower. This is because there are some respondents who do not fill in the questionnaire correctly; consequently the results are not in accordance with the fact.

The result of hypothesis 2 research shows that *affect* can not directly affect financial behavior in utilizing *internet banking* technology, while intention does not have significant effect between *affect* and financial behavior in utilizing *internet banking* technology, so Ha is rejected.

CONCLUSION

- a. Social factors directly or indirectly do not have effect on financial behavior in utilizing internet banking technology through intention by showing insignificant results, while affect does not influence directly on financial behavior in utilizing internet banking technology.
- b. Affect directly or indirectly does not affect the financial behavior in utilizing *internet* banking technology through intention by showing insignificant results, while affect does not directly affect the financial behavior in utilizing internet banking technology.

LIMITATION OF RESEARCH

There is limitation in this study i.e the results of research have not been able tobe generalized on all universities because not many universities utilizing *internet banking* optimally, so that the sample obtained is limited.

SUGGESTION FOR FUTURE RESEARCH

With the limitation of the research then the next research needs to add independent variables other than those already used in this study, such as social norms, intention, etc.

REFERENCE

- Agus, S, I Kadek. 2006. "Analisis Faktor-Faktor yang Berpengaruh terhadap Penggunaan Teknologi Sistem Informasi serta Pengaruh Penggunaan Teknologi Sistem Informasi terhadap Kinerja Chief Accounting pada Perusahaan Cargo di Denpasar". Fakultas Ekonomi Universitas Udayana Denpasar
- Agustiani, Nurul Huda. 2010. Pengaruh pemanfaatan sistem informasi akademik terpadu (sikadu) terhadap Kinerja individual dengan kemudahan penggunaan sebagai variabel moderating (studi empiris pada fakultas teknik Universitas Negeri Semarang), Program Pascasarjana Universitas Diponegoro. Semarang
- Handayani, Rini, 2007, Analisis Faktor-faktor Yang Mempengaruhi Minat Pemanfaatan Sistem Informasi. SNA X. UNHAS Makasar 26-28 Juli. STIE Arma Bhakti Surakarta
- Hasyim. M. 2010. Analisis Pengaruh Ekspektasi Kinerja, Ekspektasi Usaha, dan FaktorSosial Terhadap Penggunaan Sistem Informasi (Studi Kasus PT Semen Basoa Maros). Program Pascasarjana Universitas Hasanuddin . Makassar
- Maharsi. S. 2000. Pengaruh Perkembangan Teknologi Informasi Terhadap Bidang Akutansi. Jurnal Akutansi dan Keuangan Vol 2. No 2.
- Moore, G. C., dan Benbasat, I. 1991. Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation. Information Systems Research (2:3)
- Rahmawati, Diana. 2012. Analisis Faktor-Faktor yang Berpengaruh Terhadap Pemanfaatan Teknologi Informasi (Suatu Kajian Teori). Artikel, Makalah Teknologi Informasi. 4 Juni 2012
- Sagung, R.D. 2007. "Analisis Faktor-Faktor yang Mempengaruhi Pemanfaatan Teknologi Informasi dan Pengaruh Pemanfaatan dan Kepercayaan terhadap Teknologi Informasi pada Kinerja Individual pada Bank Perkreditan Rakyat di Kabupaten Tabanan". Fakultas Ekonomi Universitas Udayana Denpasar
- Sumistar, Ethik Aprilia. 2011, Pengaruh Minat Pemanfaatan Sistem Informasi dan Penggunaan Sistem Informasi Terhadap Kinerja Individu (Studi pada PT. Samator Gas Industri), Februari 2011, Fakultas Ekonomi Universitas Diponegoro Semarang
- Thompson, Ronald L, Haggings, Christoper A., dan Howell, Jane M., 1991. "Personal Computing: Toward a Conceptual Model of Utilization", Mis Quarterly.
- ",,,, 1994. "Influence of Experience on Personal Computer Utilization: Testing A Conceptual Model," Journal of Management Information systems.

Tjhai, Jin, Fung. 2003. "Analisis Faktor-Faktor yang Mempengaruhi Pemanfaatan Teknologi Informasi dan Pengaruh Pemanfaatan Teknologi Informasi Terhadap Kinerja Akuntan Publik". Jurnal Bisnis dan Akuntansi. 2003.

Triandis, H.C., 1972, The Analysis of Subjective Culture, New York: John Wiley & Sons.

...., 1994, Theoretical and Methodological Approaches to the Studi of Collectivism and Individualism, In Kimu. U. Triandis H.C. Kagicibasi.