FACTORS AFFECTING IS SUCCESS AND TECHNOLOGY ACCEPTANCE: A CASE STUDY

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ABSTRACT

Today, Information technology is the concern of corporate executives, and a challenge in ensuring alignment between the functions of information systems and business. PT. XYZ is one of the insurance company in Indonesia that has implemented the core information system for operational, however, the fact is that the number of complaints against the system, and the reluctance to use the system continues to increase. This study will evaluate the core operational information system in PT. XYZ using IS success model Delone McLean and technology acceptance model in evaluating factors influencing IS success and technology acceptance and determining factors that still need to be improved in achieving IS success and technology acceptance to company information system that has been implemented. The number of samples is 194 respondents, and all of them are employees of PT. XYZ that uses the core information system. Data obtained from questionnaires distributed to respondents and measurement of validity, reliability and regression analysis using SPSS 20. Found that the most important factor of IS success and technology acceptance is information quality.

Keywords: *Core Information System, Application, Technology Acceptance, IS Success, Insurance Company*

1. INTRODUCTION
1.1 Background

Today, Information technology is the concern of corporate executives, and a challenge in ensuring alignment between the functions of information systems and business [1][2]. One of the most important is the quality of information systems services and add value for the user [3][4]. If there is no perceptual fit between IS professionals and IS users then IS investment is likely to be expensive and user satisfaction may decrease which may lead to lower IS usage levels [5].

Indonesian insurance companies continue to grow and trusted either individuals or companies in insuring themselves or employees of their company. The companies also continue to develop products that will be offered to the community in addition to health products, life, there are also investment products. This has certainly attracted the attention of management to develop ICTs that

support the company's ongoing processes, stalled sales, slow agent processing, slow policy processing, and monthly reconciliation of payments stalled.

Some of the problems that insurance companies face, such as the slow registration of agent certificates, the number of agents that continue to increase, the underwriting processing to check customer data and risk calculations that will take time and accumulate when done manually. There is also in the financial section where the reconciliation of policy payments with the receipt of the bank takes time and the number of outstanding transactions if done through excel. Therefore, the company built a core operational information system called the Precentia Life (PL) to solve the problem. PT. XYZ is one of the insurance company in Indonesia that has implemented the above information system, which is expected to assist the process of agent registration, underwritting policy, policy payments, insurance claims, insurance claim

payments and so on become more efficient and effective. However, the fact is that the number of complaints against the system, and the reluctance to use the system continues to increase, it is assumed that the developed ICT does not meet the needs or does not provide satisfaction for the user.

Table 1. Total complaints per period

Period	Total Complaints
2015	576
2016	756
2017	564

Based on the above problems, this study will evaluate the core operational information system in PT. XYZ using IS success model Delone McLean and technology acceptance model in evaluating factors influencing IS success, technology acceptance and determining factors that still need to be improved in achieving IS success and technology acceptance to company information system that has been implemented.

1.2 Research Problem

Based on the background and problems described above, the research problem will be formulated as follows:

1) what factors affect the IS success and technology acceptance at PT. XYZ?
2) What factors still need to be developed by the company for future information systems development in the context of IS success and technology acceptance at PT. XYZ?

1.3 Scope of The Research

The scope of this research focuses on, as follows:

1) The research was conducted only at PT. XYZ.
2) All respondents are employees of PT. XYZ.
3) The results of this study will be used to improve the IS success and technology acceptance at PT. XYZ.

1.4 Research Objectives

The objectives of this research are as follows:

1) To investigate the factors that influence the IS success and technology acceptance in PT. XYZ.
2) To investigate the factors that still need to be developed by the company for future information systems development in the context of IS success and technology acceptance.
3) Provide advice to IT departments for future information systems development in order to meet the IS success and technology acceptance.

4) Provide an overview and be a reference for future similar research in the future.

2. THEORITICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

2.1 Technology Acceptance Model (TAM)

TAM was introduced by Davis [6] based on Theory of Reasoned Action (TRA) introduced by Ajzen and Fishbein [7]. The ultimate goal of the TAM model is to provide a basis for seeing the belief-attitude-intention-behavior relationship predicting user acceptance of information technology.

Davis asserted perceived usefulness and ease of use represented beliefs. Perceived usefulness is the level at which a person believes that the information system will improve the performance of his work. Perceived ease of use is the degree to which a person believes that using a particular information system will make the job easier [6].

Two other concepts of TAM are the attitude towards use and behavioral intention to use. Attitude towards use is the evaluation of the user against the desire to use certain information system applications. Behavioral intention of use is a measure of the likelihood that someone will use the app [7].

TAM dependent variable is actual usage, indicating the time size or frequency of application usage. Some other authors have added links and some have ignored the intention of use or attitude [8][9][10][11][12], instead studied the effects directly on ease of use and usefulness against usage. Findings of the effects of attitude and intention are not always significant.

Two TAM studies, finding usefulness and ease of use predict usage, where usefulness has a strong effect [12]. Other studies of ease of use predict usage [13].

2.2 Information System Success Model (ISSM)

Quality has three main dimensions: information quality, systems quality and service quality. Each dimension is measured, controlled separately because they affect the use and user satisfaction.

Given the difficulty of interpreting the multidimensional aspects of use - mandatory vs. voluntary - informed vs. uninformed - effective vs. ineffective, etc. DeLone and McLean [14] suggest an intention to use, the intention of use is attitude, while use is behavior. However, attitude and its relationship with behavior are very difficult to measure, and many researchers may

choose to keep using *use*. Use and user satisfaction are closely intertwined. Use must precede user satisfaction, and based on positive experience with use will result in greater user satisfaction. Similarly, increasing user satisfaction will lead to increased intention to use and use.

2.3 ISSM and TAM integration

Three measurements of quality, system quality, information quality and service quality have a significant impact on perceived ease of use and usefulness [15].

TAM's main objective is to examine the impact of external variables on beliefs, attitudes and intentions. This shows that perceived ease of use and perceived usefulness are the most important factors in explaining system usage [16].

Perceived usefulness has a strong impact on user satisfaction, users feel satisfied when they

believe the use of information systems will improve their performance and productivity [17].

Perceived usefulness predicts intentions to use, whereas perceived ease of use is secondary because it has to go through perceived usefulness. Perceived ease of use has no significant effect on user satisfaction [18].

Attitudes have a small effect mediate between perceived ease of use, perceived usefulness and intention to use. So a simple model can predict acceptance [6]. In TAM, attitudes do not significantly predict intention of use [19] [20].

As a result of use and user satisfaction is a net benefit. If the information system or service is sustainable, it is assumed that net benefit from the owner or sponsor's perspective is positive, thus strengthening the use and user satisfaction [14].

Table 2. Comparison of TAM Model, ISSM and Integrated Model

	TAM	ISSM	Integrated Model
External Variables	✓	✓	✓
Perceived Usefulness	✓		✓
Perceived Ease of Use	✓		✓
Attitude Toward Using	✓		
Actual System Use	✓	✓	✓
Intention to Use		✓	✓
User Satisfaction		✓	✓
Net Benefits		✓	✓

2.3.1 System Quality

There are several dimensions of system quality namely: reliability refers to the reliability of the operation of the system; flexibility refers to the way the system adapts to changing user demands; integration refers to the way systems allow data to be integrated from multiple sources; accessibility refers to the ease of information accessible or extracted from the system; and timeliness refers to the rate at which the system offers timely responses to information requests [21].

2.3.2 Information Quality

The quality of information is shaped by four dimensions: completeness represents the degree to which the system provides all the necessary information; accuracy represents the user's perception that the information is correct; format represents the user's perception of how the information is presented well; and currency is the perception of the user about the extent to which the information is up to date [21].

2.3.3 Service Quality

Service quality is based on user evaluation of the performance of information systems that provide services, including: responsiveness,

warranty and hospitality [14]. In empirical studies, [22] emphasizes the information sector, service quality is an essential element for the success of information systems. The results indicate that good service quality not only makes users complete tasks effectively, but can make them want to use the system.

2.3.4 Perceived Usefulness and Perceived Ease of Use

Perceived usefulness indicates the use of technology that will advance a job, whereas perceived ease of use represents the level of technology use does not require a certain effort, where one does not need to learn or exercise, the system is considered easy to use [6].

In a previous study using TAM explains the perceived ease of use effect on the intention of use and perceived usefulness. Perceived usefulness has an influence on the intention of use [6][23][24][25].

2.3.5 Intention to Use

The intention of use IT for the future is a sustainable behavior [26]. The intention of use shows experiments by individuals seeking new IT usability beyond current usage [27]. So the intention of use is the behavior of trying to

innovate on IT, which is an important activity that has the potential for sustainable use, exploration and innovation. Ventakesh and Davis [28] which is a continuation of TAM with TAM2, the authors found an influence directly to usage intention in the context of user acceptance.

2.3.6 Use

The use of the system is the evaluation of the use of the information system by the user, which includes the overall use, the reason to use, the intention to continue using the system [14][29][10][30]. All found that if users perceive information systems to effectively improve performance in the workplace, then most likely they use them voluntarily.

2.3.7 User Satisfaction

User satisfaction is a person's emotional reaction to using a certain product or service, such as satisfaction or dissatisfaction compared to expectations before using [14][31]. In empirical research [32][33][34], indicating the level of satisfaction after using the information system will impact on the user's subjective opinion of the system and the desire to reuse. [26] adopts user satisfaction as an important indicator in evaluating information systems that can help users to improve their work performance.

2.3.8 Net Benefits

In net benefit measurement, divided into three areas, including: finance, efficiency and customer relationship. Multiple measurements at the individual level [35] include individual learning, problem understanding, information retrieval, more effective decision-making, increased productivity [36].

2.5 Related Work

Previous research 'A Theoritical Integration of User Satisfaction and Technology Acceptance [21]' in understanding the system features that affect the use of IT using the integrated model of User Satisfaction and TAM shows a significant effect of usefulness, ease of use, and attitude toward use with 59% variance to intention. Information satisfaction has a significant influence on perceived usefulness with 67% variance. System satisfaction has a significant influence on perceived ease of use with a variance of 65%. Information quality and system satisfaction have a significant impact on information satisfaction with variance 71%. System quality also has a significant influence on system satisfaction with 53% variance. Completeness, accuracy, format and currency also have a significant impact on information quality. Reliability, flexibility, integration and accessibility have a significant impact on system quality, but timeliness has no effect.

Other related research 'The relation of interface usability characteristics, perceived usefulness and perceived ease of use to end-user satisfaction with enterprise resource planning (ERP) systems' [17], discusses the application of ERP systems around the world in business process reengineering. The results indicate that perceived usefulness and learnability have an effect on end-user satisfaction. This is confirmed by several other studies that indicate that perceived usefulness has an effect on end-user satisfaction [6][37][10]. Learnability has a relatively small significant effect on end-user satisfaction. Perceived ease of use has an indirect effect on end-user satisfaction through perceived usefulness. System capability also has a strong influence on perceived usefulness, so the system must pay attention to the analysis of user needs in determining the expectations and needs of the system. Then the user guidance has an influence on perceived usefulness and learnability. The importance of these factors is supported by [38] which indicate a strong relationship between user guidance against perceived usefulness and learnability.

3. METHODOLOGY

3.1 Research Model

This study uses an integrated model of TAM and IS Success Model that has been described in the previous section., as we can see in Figure 1. below:
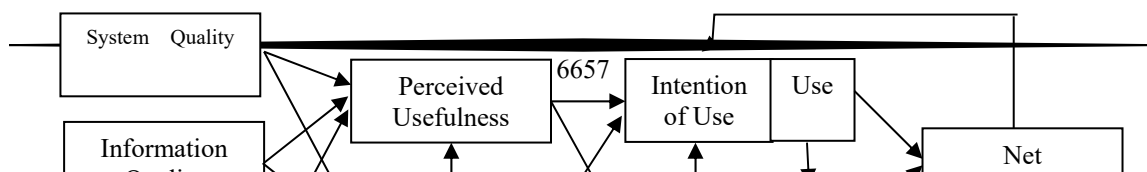
Figure 1. ISSM and TAM integration model

3.2 Hypotheses

based on the model of research formed, it can be put forward the following hypothesis:

H_{01}: *Information Quality* does not have affects to *Perceived Usefulness*

H_{a1}: *Information Quality* does have affects to *Perceived Usefulness*

H_{o2}: *System Quality* does not have affects *Perceived Usefulness*

H_{a2}: *System Quality* does have affects *Perceived Usefulness*

H_{o3}: *Service Quality* does not have affects *Perceived Usefulness*

H_{a3}: *Service Quality* does have affects *Perceived Usefulness*

H_{04}: *Perceived Ease of Use* does not have affects *Perceived Usefulness*

H_{a4}: *Perceived Ease of Use* does have affects *Perceived Usefulness*

H_{05}: *Information Quality* does not have affects *Perceived Ease of Use*

H_{a5}: *Information Quality* does have affects *Perceived Ease of Use*

H_{o6}: *System Quality* does not have affects *Perceived Ease of Use*

H_{a6}: *System Quality* does have affects *Perceived Ease of Use*

H_{o7}: *Service Quality* does not have affects *Perceived Ease of Use*

H_{a7}: *Service Quality* does have affects *Perceived Ease of Use*

H_{o8}: *Perceived Usefulness* does not have affects *Intention to Use*

H_{a8}: *Perceived Usefulness* does have affects *Intention to Use*

H_{o9}: *Perceived Ease of Use* does not have affects *Intention of Use*

H_{a9}: *Perceived Ease of Use* does have affects *Intention of Use*

H_{o10}: *User Satisfaction* does not have affects *Intention to Use*

H_{a10}: *User Satisfaction* does have affects *Intention to Use*

H_{011}: *Net Benefit* does not have affects *Intention to Use*

H_{a11}: *Net Benefit* does have affects *Intention to Use*

H_{o12}: *Perceived Usefulness* does not have affects *User Satisfaction*

H_{a12}: *Perceived Usefulness* does have affects *User Satisfaction*

H_{o13}: *Use* does not have affects *User Satisfaction*

H_{a13}: *Use* does have affects *User Satisfaction*

H_{014}: *Net Benefit* does not have affects *User Satisfaction*

H_{a14}: *Net Benefit* does have affects *User Satisfaction*

H_{015}: *Use* does not have affects *Net Benefit*

H_{a15}: *Use* does have affects *Net Benefit*

H_{016}: *User Satisfaction* does not have affects *Net Benefit*

H_{a16}: *User Satisfaction* does have affects *Net Benefit*

3.3 Population and Data Collection Technique

The population of the sample is all employees at PT. XYZ that uses information systems at the company. The total employee is 677 peoples while the number of the population using the application in the company about 378 peoples.

The sample is part of the population. In this study, researchers used Slovin calculation formula to determine the number of samples with a margin of error of 5% as follows:

$$n = N / (1 + N\alpha^2)$$
$$n = 378 / (1 + 378 * 0.05^2)$$
$$n = 378 / 1.945$$
$$n = 194 \text{ respondents}$$

Data collection techniques use probability sampling, which gives equal opportunity for each member of the population to be a member of the sample. Based on the calculation results obtained by the number of samples is 194 respondents. Then the sample population will be given a questionnaire that will be disseminated through email or online surveys.

3.4 Variable Measurement Indicators

The following are the indicators used by each variable in the research model:

Table 3. Operational variable

Variable	Dimension	Indicator	Reference
Information quality(IQ)	Accuracy	o The resulting information is accurate/correct o Few mistakes from the information I received o The information I receive from the application system is accurate	[21]
	Currency	o Provide up-to-date information o Generate updated information o The information is always up-to-date	
	Completeness	o Application system that provides complete information o Application system that provides comprehensive information o Provide all necessary information	
	Format	o Information is available in a good format o Well organized information o The information provided on the screen is clear	
System Quality(SYQ)	Accessibility	o Allows information to be easily accessible o Makes information very accessible	[21]
	Reliability	o The system operates reliably o System appears reliable o Operation of reliable systems	
	Flexibility	o Can be customized to meet various needs o Can flexibly adjust to new demands or conditions o Versatile in handling needs as they arise	
	Integration	o Integrate data from different areas of the company o Gathering information that was once different places in the company o Effectively combine data from different areas of the company	
	Timeliness	o It took too long to respond to my request o Providing information in a simple way o An immediate retention response to my request	
Service Quality(SEQ)		o Personalized system services can respond to user inquiries in a timely manner o Service system with professional knowledge that can be trusted o Service system that is attentive and able to interact with users	[39]
Perceived Usefulness(PU)		o System usage improves performance o The use of the system increases productivity o The use of the system makes the work complete more effectively	[40]
Perceived Ease of Use(PEOU)		o Learning to use the system is easy o Interaction with the system is clear and easy to understand o Easy to become an expert in system usage	[40]
Intention to Use(IU)		o There is a system usage intent to complete the job o In the future there is intention to use the system o There is an intention to frequently use the system	[28]

Use(U)	o The system helps facilitate the job o In my work I relied on the system o I will continue to use the system	[39]
User Satisfaction(US)	o Satisfied with engagement and participation in the operation of systems and applications o Satisfied with support and system services o Satisfied with information, tools, software and documents provided by the system unit o Completely satisfied with the system and services o Recommend other users to use the system	[39]

4. RESULT AND DISCUSSION

4.1 Respondent Demographics

Table 4. is a demographic of 194 respondents based on questionnaires that have been distributed

Table 4. Respondent Demographics

Profile	Frequency	Percentage
Gender:		
Male	78	40.2%
Female	116	59.8%
Age:		
18-25	37	19.1%
26-29	83	42.8%
30 or above	74	38.1%
Years working:		
<1 year	21	10.8%
1-5 year	135	69.6%
>5 year	38	19.6%
Job Level:		
Manager or above	36	18.5%
Supervisor	19	9.8%
Staff	139	71.7%

4.2 Validity and Reliability Measurements

Table 5. Measurement results on the validity of indicators by using SPSS 20 with the Degree of freedom is 192 (N-2) and the Confidence Level is 0.95. The *r* table is 0.12, so we can assert that all indicators are valid because Rcal is greater than *r* table. All indicators are reliable because they have Cronbach's Alpha of 0.974 which is bigger than 0.700 [41]. Therefore, the indicator is feasible to be used as a tool for measuring the variables of this research.

Table 5. Validity and Reliability Test Result

Variable	Indicator	Rcal	Variable	Indicator	Rcal
Information Quality(IQ)	IQ1	0.154	Service Quality(SEQ)	SEQ1	0.595
Mean = 3.2047	IQ2	0.745	Mean = 3.2251	SEQ2	0.750
	IQ3	0.408		SEQ3	0.575
	IQ4	0.663	Perceived Usefulness(PU)	PU1	0.759
	IQ5	0.869	Mean = 3.6722	PU2	0.544
	IQ6	0.952		PU3	0.649
	IQ7	0.692	Perceived Ease of Use(PEOU)	PEOU1	0.682
	IQ8	0.418	Mean = 3.2784	PEOU2	0.846
	IQ9	0.491		PEOU3	0.588
	IQ10	0.801	Intention to Use(IU)	IU1	0.695
	IQ11	0.601	Mean = 3.5979	IU2	0.612
	IQ12	0.572		IU3	0.746
System Quality(SYQ)	SYQ1	0.726	Use(U)	U1	0.804

Mean = 3.3326	SYQ2	0.167	Mean = 3.4278	U2	0.758
	SYQ3	0.445		U3	0.655
	SYQ4	0.734	User Satisfaction(US)	US1	0.682
	SYQ5	0.611	Mean = 3.2959	US2	0.643
	SYQ6	0.652		US3	0.656
	SYQ7	0.669		US4	0.648
	SYQ8	0.422		US5	0.601
	SYQ9	0.764	Net Benefit(NB)	NB1	0.736
	SYQ10	0.748	Mean = 3.3608	NB2	0.705
	SYQ11	0.683		NB3	0.671
	SYQ12	0.639		NB4	0.573
	SYQ13	0.763			
	SYQ14	0.692	Cronbach's Alpha		0.972
	SYQ15	0.802			

4.3 Regression Analysis

Table 6. is a summary of the results of regression analysis using SPSS 20 and acceptance or rejection of hypotheses that have been described in the previous section.

Table 6. Summary Results of Regression Analysis

Dependent Variables	Independent Variables	Adjusted R Squares	β	t Stat	P –value	Decisions
Perceived Usefulness	Intercept	0.611	1.064	5.326	0.000	
	Information Quality		0.300	2.204	0.029	H_01 rejected
	System Quality		0.114	1.225	0.222	H_02 accepted
	Service Quality		0.057	0.953	0.342	H_03 accepted
	Perceived Ease of Use		0.330	5.767	0.000	H_04 rejected
Perceived Ease of Use	Intercept	0.652	-1.141	-4.769	0.000	
	Information Quality		1.041	6.708	0.000	H_05 rejected
	System Quality		0.465	4.126	0.000	H_06 rejected
	Service Quality		-0.145	-1.927	0.055	H_07 accepted
Intention of Use	Intercept	0.500	0.333	1.079	0.282	
	Perceived Usefulness		0.12	0.109	0.913	H_08 accepted
	Perceived Ease of Use		0.402	4.724	0.000	H_09 rejected
	User Satisfaction		-0.034	-0.225	0.823	H_010 accepted
	Net Benefit		0.599	4.779	0.000	H_011 rejected
User Satisfaction	Intercept	0.760	0.592	4.651	0.000	
	Perceived Usefulness		0.143	3.181	0.002	H_012 rejected
	Use		0.329	7.477	0.000	H_013 rejected
	Net Benefit		0.312	6.199	0.000	H_014 rejected
Net Benefit	Intercept	0.629	0.771	4.939	0.000	
	Use		0.222	3.749	0.000	H_015 rejected
	User Satisfaction		0.555	6.633	0.000	H_016 rejected

In Table 6., dependent variables that have a significant influence on independent variables are those having *P-value* < 0.05 (sig. level) or *t stat* > 1.65 (*t table*). So that can be formed equation as follows:

(1) PU = 1.064 + 0.300. IQ + 0.330. PEOU
(2) PEOU = -1.141 + 1.041. IQ + 0.465. SYQ
(3) IU = 0.402. PEOU + 0.599. NB
(4) US = 0.592 + 0.143. PU + 0.329. U + 0.312. NB
(5) NB = 0.629 + 0.222. U + 0.555. US

The dependent variables used in the above equation are those having significant influence on the independent variable, where in equation (1), perceived usefulness will increase by 0,300 per point of IQ and 0.330 per point of PEOU, with the weight of 61.10% (R^2) and the remainder influenced by factors not discussed in this study. In equation (2), perceived ease of use is affected by 1,041 IQ and 0.465 SYQ, with the weight of 65.20% (R^2). Equation number (3), the intention of use will be affected by 0.402 per point of PEOU and 0.599 per point of NB, with the weight

of 50% (R^2). On the user satisfaction equation (4), influenced by PU 0.143, U of 0.329 and NB of 0.312, with the weight of 76.00% (R^2). In equation (5), the net benefit is affected by 0.222 per point of U and 0.555 per point of US, with the weight of 62.90% (R^2), and the rest is influenced by factors not discussed in this study.

Based on the above equation, net benefit received by the user is influenced by the use of the system and also the user's satisfaction itself [14][29][10][30], where user's satisfaction is influenced by perceived usefulness, system usage and net benefit [14][26][31][32][33][34], so net benefit and user satisfaction influence each other. In addition, the predecessor use factor, intention of use is influenced by perceived ease of use [6][23][24][25] and net benefit. found that perceived ease of use is influenced by information quality and system quality, whereas perceived usefulness is influenced by information quality as well [21] and perceived ease of use [6]. However, the service quality factor has no significant effect on any factor in this research, unlike previous studies [14][22][21], it can happen because this application is only used internally company cause service quality factor does not have influence to IS success and technology acceptance.

All dependent factors have sufficient mean values Table 5., such as system quality of 3.3326, information quality of 3.2047, and service quality of 3.2251. Information quality is a factor that must always be improved, because it has the lowest mean value compared to other dependent variables.

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Based on the results and discussion of research in the previous section, it can be concluded as follows:

1) The results of this study is consistent with previous research, the most influencing factor IS success and technology acceptance are the user satisfaction and net benefit perceived from the use of the application system itself.

2) Information quality is a factor that must always be improved, because it has the most significant influence on perceived usefulness and perceived ease of use that affect significantly on the user satisfaction and net benefit.

3) Among the three dependent factors, factors that need to be considered in the development of future information systems are information quality and system quality because it has influence on IS success and technology acceptance through perceived ease of use and perceived usefullness.

4) Information quality and system quality are the significant factors for future information systems development in PT. XYZ (include accuracy, currency, completeness, format, accessibility, reliability, flexibility, integration, and timeliness).

5.2 Limitations and Assumptions

Based on the results and discussion of research in the previous section and conclusions, the limitations and assumptions are:

1) This research is limited to only one system that is core operational information system, so it is not necessarily the result of this research applies equally to other information system, especially in insurance company.

2) There are several other variables that are not discussed in this study, such as age, gender, user involvement, experience, management support, training participation, etc., which according to other studies have an influence on IS success and technology acceptance.

5.3 Recommendation

Based on the above conclusions, the recommendations for future research are:

1) To provide further research on service quality factors, there must be other factors that cause service quality to have no effect on perceived usefulness and perceived ease of use that affect user satisfaction and net benefits, in contrast with previous research.

2) There should be further research on other factors that affect IS success and technology acceptance, but not only on one information system.

3) Future research should be able to discuss the factors that are not discussed in this study such as age, gender, user involvement, experience, management support, training participation, etc.

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