

Determinant of Task and Technology Compatibility towards Use and User Performance of Hotel Reservation Information System (Study to the Employees of Star Hotels in South Borneo Province)

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Abstract:

This research has studied about user performance of information technology towards Hotel reservation information system. This research population are 239 front office employees, which are system information user at the hotels in South Borneo province, sample has taken by using saturated sampling (census) and has gained 68.62% rate respond or 164 respondent. Data analysis technics has used were descriptive statistical analysis and inferential statistical which used Generalized Structured Component Analysis (GSCA). This research result found that task characteristic has significantly influence towards Compatibility of task technology in implementing Hotel reservation information system. Technology characteristic has significantly influence toward task technology compatibility in implementing hotel reservation information system. Usage has significantly influence towards task technology compatibility in implementing hotel reservation information system. Usage has significantly influence towards performance in implementing hotel reservation information system. Performance has significantly influence towards using of hotel reservation information system.

Keywords: *Technology compability, User performance, Use of information technology, Hotel reservation, Information System*

1. INTRODUCTION

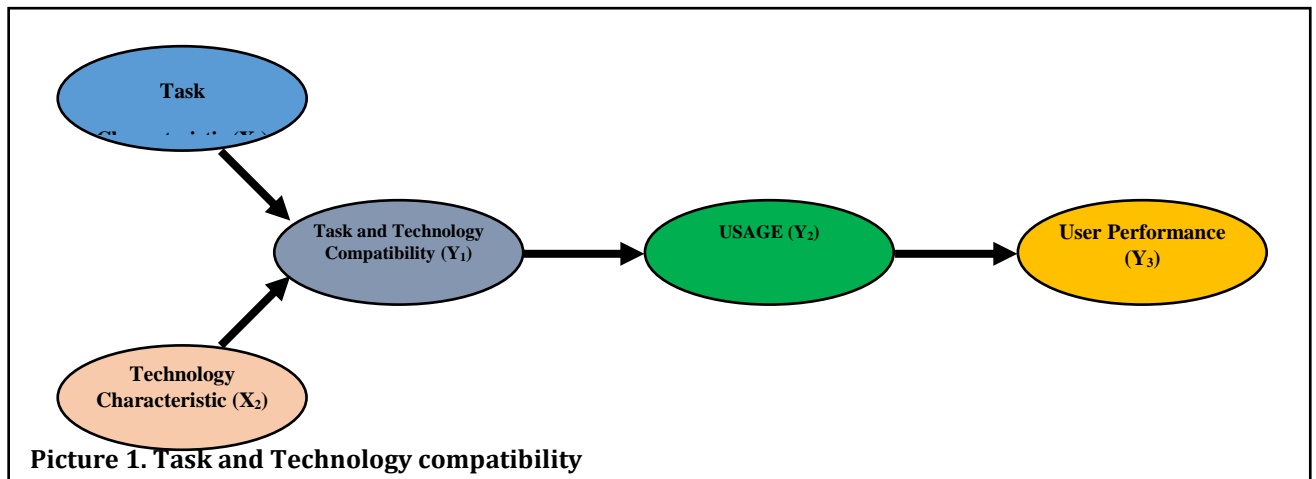
Approaching of information system theory based on next behavior has used as model determination basis in this research was D&M IS Success Model theory. DeLone & McLean (2003) has explained that success model of information system is used to measure factors which were reflected whether or not success a system information implementation. Specially, in this research was not adopted whole variable existed in D&M IS Success Model. There were 2 D&M IS Success Model main predictors not adopted in this research which are information quality and system quality. That was because information quality and system quality has described in technology characteristic variable.

Technology user will have interest to use technology if they feel that system technology are advantage and easy to use. Otherwise, if the information system is difficult, the less user will use the information system. The success of company information system depend on how the system implemented, system easiness for user and technology utilizer is used (Goodhue and Thompson; 1995). The use of application system will increase performance and also found surely strong relationship between computer user and task (Davis; 1989). Individual performance achievement stated according to achievement of the series individual tasks with information technology support (Goodhue and Thompson; 1995).

Performance is a result that define a success of completing job tasks. Bernardin and Russel (2000) has explained that performance is the result of job completion align with individual job description as an employees mandated in certain time. It means that, performance achievement level is according to policy decided by the company. Individual capability cannot separated from skills in using information system when doing their job tasks. More skilled someone in using technology information the less effort they need in completing their tasks. It has shown that technology information implementation and communication has quite effective and efficient.

The more advance an information system, it is more possible an awkward feeling occur in individual as user. It is caused by less knowledge regarding information system mastery. Otherwise, individual is more enthusiastic in information system they have never used. They will thought they gain new knowledge. That various possibilities were depend on situation and condition where information system implemented and how far can be used easily by employees.

Therefore, we need research about tasks and technology compatibility according to the use of hotel reservation information system towards employees performance. It determines to figure out about employees performance towards implementation of hotel reservation information system.



Based on analysis above, Hypothesis and early assumptions of this research are as follows:

- H1 : there is significantly influence between task characteristic towards task and technology compatibility
- H2 : there is significantly influence between technology characteristic technology towards task and technology compatibility

H3 : there is significantly influence between task and technology compatibility towards use of hotel reservation information system.

H4 : there is significantly influence between usages towards user performance.

The aims of this research is to measure the success of implementation hotel reservation information system in South Borneo province by using Task technology fit model and identify factors which are influence the success of Hotel reservation information system usage. By achieving this research aims, it can have contribution as an input for Hotel management section that task given must be compatible with provided technology and also with hotel reservation information system that has implemented.

2. RESEARCH METODOLOGY

This research object is front office employees who are user of reservation information system in South Borneo. Researcher purpose to observe Front office employees as reservation information system user in South Borneo Province, are:

- System usage which has mandatory character so the employees are obligated to use the existing system, so it needs discussion to improve reservation information system which is able to support employees to do their job. Discussion of user behavior and provided system by management is needed to improve the system in the future, so hotel reservation information system will optimally use.
- The location is consider only in South Borneo province, which is reachable so it is easy to access required information.
- Research cost and time consideration. This location selection is expected to describe research problem that are design in conceptual framework.

Data used in this research is consist of primary data. Primary data has obtained through direct observation in the field guided by research instrument using questioner. Scoring for the question items toward research problem using likert scale. Scoring alternative consist of 5 choices, gradation are from very positive to very negative; these are Very Agree (Score 5), Agree (Score 4), Hesitant (Score 3), Disagree (Score 2), Very Disagree (1). Population in this research is Front office employees, hotel reservation information system user in South Borneo province. Sample is a part of population, by researching part of population, we expect it can describe its population character. Sampling technique used in this research is simple random sampling.

Table 1. Variable and Indicators

Variables	Indicators
Task Characteristic(X₁)	Applicable (X _{1.1})
	Detail (X _{1.2})
	Urgency (X _{1.3})
	Explainable (X _{1.4})
	Comprehensive (X _{1.5})
Technology characteristic(X₂)	Technology reliability (X _{2.1})
	Processing speed (X _{2.2})
	Minimum <i>Troubleshooting</i> (X _{2.3})
	Flexibility (X _{2.4})
	Compatibility (X _{2.5})
Task and technology compatibility(Y₁)	Adequate (Y _{1.1})
	Functional (Y _{1.2})
	Responsiveness (Y _{1.3})
	Recency (Y _{1.4})
	Consistence (Y _{1.5})
	Accessibility (Y _{1.6})
Usage (Y₂)	Easy to understand (Y _{2.1})
	Usable (Y _{2.2})
	Easy to implement (Y _{2.3})
	Controllable (Y _{2.4})
	Easy to maintenance(Y _{2.5})
Performance (Y₃)	Finishing job rapidity (Y _{3.1})
	Mistake level reduction (Y _{3.2})
	Increasing job quality (Y _{3.3})
	Incrising productivity (Y _{3.4})
	Incrising effectivity (Y _{3.5})
	Achieving efficiency(Y _{3.6})

Data analysis technic has used are descriptive analysis and quantitative analysis. Descriptive analysis by analyzing questioner using frequent distribution and Likert scale percentage. Quantitative analysis has done by using statistic to test the hypothesis. This quantitative analysis has used structural equation model (Generalized Structured Component Analysis (GSCA)).

3. RESULT AND DISCUSSION

3.1 Respondent Description

Respondents are Front office employees who are Hotel reservation information system user in South Borneo Province. Based on their gender, there are 56 or 34.15% male respondent and 108 or 65.85% female respondent.

3.2 Research Variable Description

Research variable description can be seen as follows:

Table 2. X₁Variable Distribution

Indicator s	Respondent Answer									
	STS	%	TS	%	RR	%	S	%	SS	%
X _{1.1}	0	0	5	3,00	58	35,4 0	50	30,50	51	31,10
X _{1.2}	2	1,20	17	10,4 0	40	24,4 0	63	38,40	42	25,60
X _{1.3}	2	1,20	13	7,90	46	28,0 0	65	39,60	38	23,20
X _{1.4}	2	1,20	20	12,2 0	32	19,5 0	71	43,30	39	23,80
X _{1.5}	0	0	18	11,0 0	33	20,1 0	73	44,50	40	24,40

There are facts that has found that respondent has agree that reservation information system has able to finish their job tasks.

Table 3. X₂Variable Distribution

indicator s	Respondent answer									
	STS	%	TS	%	RR	%	S	%	SS	%
X _{2.1}	3	1,80	23	14,00	38	23,10	54	32,90	46	28,00
X _{2.2}	3	1,80	27	16,50	29	17,70	61	37,20	44	26,80
X _{2.3}	0	0	23	14,00	34	20,70	64	39,00	43	26,20
X _{2.4}	4	2,40	18	11,00	37	22,60	60	36,60	45	27,40
X _{2.5}	1	0,60	23	14,00	36	22,00	67	40,90	37	22,60

Respondent has agreed with using information technology especially reservation information system which is function to help employees to finish their job task in front office.

Table 4. Y₁Variable Distribution

indicator s	Respondent answer									
	STS	%	TS	%	RR	%	S	%	SS	%
Y _{1.1}	1	0,6 0	25	15,20	30	18,30	64	39,00	44	26,80
Y _{1.2}	3	1,8 0	14	8,50	41	25,00	60	36,60	46	28,00
Y _{1.3}	1	0,6 0	20	12,20	40	24,40	55	33,50	48	29,30
Y _{1.4}	1	0,6 0	18	11,00	39	23,80	67	40,90	39	23,80
Y _{1.5}	1	0,6 0	16	9,80	42	25,60	54	32,90	51	31,10
Y _{1.6}	3	1,8 0	21	12,80	35	21,30	65	39,60	40	24,40
Y _{1.7}	3	1,8 0	21	12,80	37	22,60	60	36,60	43	26,20

Facts has obtained that respondents agreed that there are compatibility between employees task and technology prepared by hotel management so it can help employees to do their job.

Table 5. Y₂Variable Distribution

indicators	Respondent answer									
	STS	%	TS	%	RR	%	S	%	SS	%
Y _{2.1}	0	0	22	13,40	38	23,10	55	33,50	49	29,90
Y _{2.2}	1	0,60	25	15,20	39	23,80	70	42,70	29	17,70
Y _{2.3}	0	0	26	15,90	42	25,60	57	34,80	39	23,80
Y _{2.4}	0	0	31	18,90	36	22,00	53	32,30	44	26,80
Y _{2.5}	1	0,60	14	8,50	48	29,30	67	40,90	34	20,70

Facts has obtained that respondent agreed by using reservation information system, they are able to finish their job faster and did less mistakes.

Table 6. Y₃Variable Distribution

Indicator	Respondents answer									
	STS	%	TS	%	RR	%	S	%	SS	%
Y _{3.1}	1	0,60	28	17,10	40	24,40	58	35,40	37	22,60
Y _{3.2}	2	1,20	18	11,00	41	25,00	54	32,90	49	29,90
Y _{3.3}	3	1,80	19	11,60	44	26,80	58	35,40	40	24,40
Y _{3.4}	1	0,60	22	13,40	39	23,80	56	34,10	46	28,00
Y _{3.5}	1	0,60	21	12,80	37	22,60	64	39,00	41	25,00
Y _{3.6}	1	0,60	19	11,60	43	26,20	62	37,80	39	23,90

Facts has obtained that respondent agreed in existence of compatibility between employee's task and technology prepared by hotel management will make the employees always use that hotel reservation information system. That means, their performance will improve.

3.3 Validity and Reliability Test

Validity and reliability is done by using α coefficient Cronbach, and if $\alpha > 0.6$ then resarch instrument is considered reliable.

Table 7. Research instrument reliability and validity test

Variable	α Cronbach	Explanation
X ₁	0.834	Valid dan Reliable
X ₂	0.824	Valid dan Reliable
Y ₁	0.850	Valid dan Reliable
Y ₂	0.816	Valid dan Reliable
Y ₃	0.846	Valid dan Reliable

Research instrument to all sub dimension and variable is valid. While reliability test result has shown that to all sub dimension and variable is reliable. However, research data is valid and reasonable to test research hypothesis.

Table 8 Linearity Test Result

The relationship between variables	Test Result	Explanation
Task Characteristic(X ₁) → Task Technology Compatibility(Y ₁)	Sig Linier Model 0.000 < 0,05	Linier
Technology Characteristic(X ₂) → Task Technology Compatibility (Y ₁)	Sig Linier Model 0.000 < 0,05	Linier
Task Technology Compatibility (Y ₁) → Usage (Y ₂)	Sig Linier Model 0.000 < 0,05	Linier
Usage (Y ₂) → User Performance (Y ₃)	Sig Linier Model 0.000 < 0,05	Linier

According to Table 8 data, it has found that the whole relationship between variable produce linear and significant relationship at the level of less than 0,05 (<0,05). It has shown that linearity assumption test has completed, so the research can be continued.

3.4 Goodness of Fit Overall Model Test Result

Theoretical model in research conceptual framework has considered fit if supported by empirical data. There are two indications whether the model good or not, which are by measuring goodness of fit model structural and goodness of fit model overall. Goodness of fit model structural and overall model test result is compatible with GSCA analysis result. It presented in this table below.

Table 9. Goodness of fit Overall model test result table

Criteria	Cut-of value	Model Result	Explanation
FIT	≥ 0,500	0,561	Good Model
AFIT	≥ 0,500	0,555	Good Model
GFI	≥ 0,900	0,979	Good Model

Goodness of fit model structural is decided from FIT and AFIT which are from each of them meet the qualification if produce ≥0,05 cut of value. While GFI is meet the qualification if it produce ≥0,9 cut of value. Based on Table 5.15 data, found that FIT score are 0.561 which means research model has formed well so it represent and explain the existing variable. Various task characteristic, information technology characteristic, fit, performance and user satisfactory which are able to explain by that model are 56.100% and the rest 43.900% were explanation of another variable did not include in this research.

GSCA Analysis Result in Structural Model

Table 10. GSCA structural model result

Hypothesis	Relationship between variable	Estimate	CR	Explanation
H1	Task Characteristic(X ₁) → Task technology compatibility (Y ₁)	0,675	9,76*	Significant
H2	Technology characteristic(X ₂) → Task technology compatibility (Y ₁)	0,124	2,10*	Significant
H3	Task technology compatibility (Y ₁) → Usage (Y ₂)	0,490	6,80*	Significant
H4	Usage (Y ₂) → User performance (Y ₃)	0,819	43,24*	Significant

3.5 Hypothesis Test Result

➤ Hypothesis Test Result 1

Hypothesis test result has shown that task characteristic (X_1) significantly positive towards compatibility (Y_1) by estimate score 0.675 and critical ratio score $9.76^* > 1.96$. Estimation score which has positive sign indicate both relationship is in the same direction. Which means the higher task characteristic (X_1) the higher compatibility score (Y_1).

➤ Hypothesis test result 2

Hypothesis test result has shown that technology characteristic (X_2) influence significantly positive towards compatibility (Y_1) with estimate score 0.124 and critical ratio score $2.10^* > 1.96$. Estimation score which has positive sign indicated that both relationship is in the same direction, which means the higher technology characteristic (X_2) the higher compatibility score (Y_1).

➤ Hypothesis test result 3

Hypothesis test result has shown that compatibility (Y_1) influence significantly positive towards Usage (Y_2) with estimate score 0.490 and critical ratio score $6.80^* > 1.96$. Estimation score which has positive sign indicated that both relationship is in the same direction, which means the higher compatibility (Y_1) the higher usage score (Y_2).

➤ Hypothesis test result 4

Hypothesis test result has shown that Usage (Y_2) influence significantly positive towards User performance (Y_3) with estimate score 0.819 and critical ratio score $43.24^* > 1.96$. Estimation score which has positive sign indicated that both relationship is in the same direction, which means the higher usage score (Y_2) the higher user performance (Y_3).

4 CONCLUSION

According to the explanation above, we can conclude that:

- The fact has obtained that task characteristic need a software which compatible to support the given task and job.
- The more technology characteristic has fulfilled the more compatible job task and reservation information system implemented at hotels front office in South Borneo Province. Technology characteristic is involved with hardware used to operate software.
- The fact has obtained that more often the use of reservation information system will more support front office employees performance at the hotels in South Borneo Province.

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