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Research Paper

THE IMPACT OF ACCOUNTING SOFTWARE ON BUSINESS PERFORMANCE

Norfarah Syahirah Binti Mohd Fadzilah
Lecturer
School of Accounting and Business Management
FTMS College, Malaysia
Syahirah@ftms.edu.my

ABSTRACT

The objective of this paper is to investigate the impact of Accounting Software on business performance of Malaysian firms. This study is examined to help the firm's owners and manager in understanding the importance of using Accounting Information System (AIS) derived from Accounting Software to achieve the business performance. The previous researches show that it is crucial for firms to use AIS to ensure the survival and sustainability of business in the increasingly competitive environment besides enhancing their business operations competency and efficiency. This study uses the several characteristics which are efficiency, reliability, ease of use, data quality and accuracy as influence of the use of AIS on the performance of firms. The quantitative data required for this study is a sample size of 78 participants that consists of accountants or employees who involve in using accounting software in their work. The result indicates the efficiency and ease of use have significant impacts on business performance. Meanwhile, the other three characteristics which are reliability, data quality and accuracy are not found to have a significant impact on business performance. In overall, the results show that the accounting software have impact on the Malaysian business performance. Therefore, this study proposes that dimensions of using AIS are important for improving the performance of business organisations.

Key Terms: *Accounting Software, Accounting Information System, Efficiency, Reliability, Ease of Use, Data Quality, Accuracy and Business Performance*

1. INTRODUCTION

The increasing globalization of the world economy precipitated companies around the world to compete in the global marketplace leading to emergence of a new set of accounting challenges such as multiple currencies and follow a horde of accounting and tax rules. Hence, a more sophisticated accounting software packages competent of managing international accounting intricate issues is increasingly in need (Adhikari, Lebow & Zhang, 2004). But the tremendous technology advancement has rendered the options of utilising the accounting information from a strategic point of view. Adoption of Accounting Software becomes key factor in determining the survival and success of an organization as companies require more information, be it financial or non-financial, to deal with a higher scale of uncertainties in the competitive market and require data processing capacity and system to ameliorate to suit their

information needs (Van de Ven & Drazin, 1984) in this global economy era. Hence, the purpose of this research paper is to analyse the influence of the accounting software characteristic (Efficiency, Reliability, Ease of Use, Data Quality and Accuracy) on the firm's performance. The results of this paper will assist software developer to come up with new software that suit with user's need and also benefits the firms in acquiring the appropriate accounting software. The purpose of this paper is to conduct a study on how various leadership styles has influence employee performance.

2. LITERATURE REVIEW

Accounting system is an organised set of documents, records, reports and procedure for preparation and timely delivery of accurate financial data for economic decision making purposes (Sharkasi, 2011) while Computerised Accounting System integrates, simplifies and streamlines all the business processes cost-effectively easily and helps reflect the true picture of the business ventures to stakeholders. This method of book keeping is becoming popular with the decline of computers and accounting programs pricing (Raymond & Bergeron, 1995).

2.1. AIS and Business Performance

Dibrell, Davis and Craig (2008) suggest that performance of firms will be enhanced with integration of either a product or process oriented innovation strategy with investment in IT/IS. The group of SMEs with high AIS alignment achieved better organizational performance than firms with low AIS alignment (Ismail & King, 2005). Prior researches have shown that accounting information system adoption does increased firm's performance, profitability and operations efficiency in Malaysia, Spain, Finland, Pakistan and Iran (Gullkvist, 2002; Kouser et al., 2011; Sajady, Dastgir and Nejad, 2008), but there are little research conducted on the impact of computerized accounting system on business performance of firms in Malaysia. Therefore, this study aims to fill in that knowledge gap.

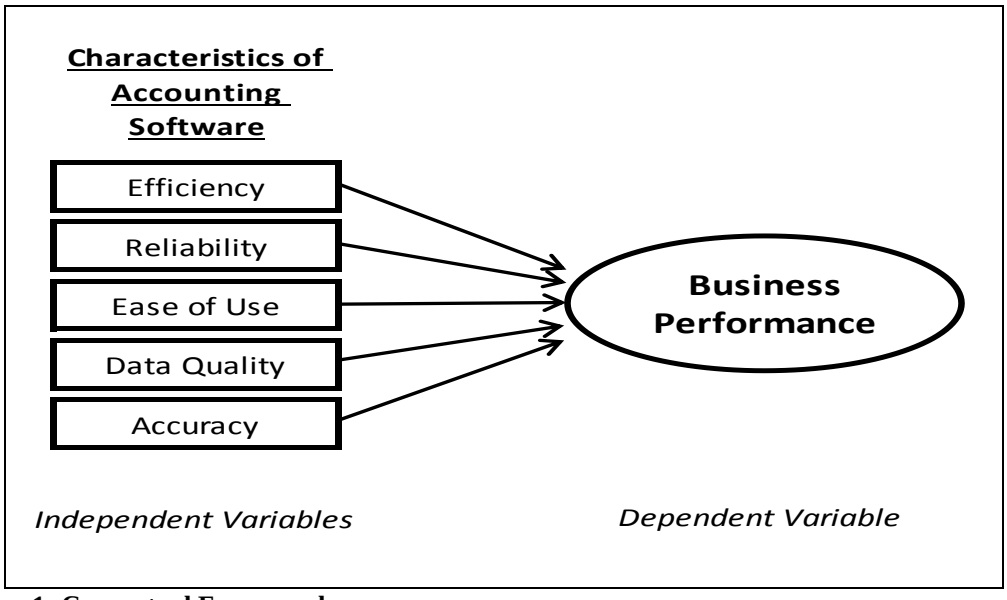

Figure 1: Conceptual Framework

2.1.1 Efficiency and Business Performance

Efficiency in business context refers to ability of firm to maximize firm value by using the least inputs to achieve higher outputs. efficiency increase profitability of the firms. Therefore, this study hypothesizes

H1: *There is a significant positive impact of Software Efficiency on Business Performance*

2.1.2. Reliability and Business Performance

Studies found a significant relationship in reliability of system to decision-making satisfaction in an e-commerce environment. Accounting software system is reliable when information delivered on time and with error-free performance will result in timely and efficient decision making, which in turn leads to better internal organizational efficiency. Therefore, this study hypothesizes

H2: *There is a significant positive impact of Software Reliability on Business Performance*

2.1.3. Ease of Use and Business Performance

User will be contented in using the system due to ease of use. Few studies identify a significant relationship between perceived ease of use and performance. Therefore, the study hypothesize

H3: *There is a significant positive impact of Software Ease of Use on Business Performance*

2.1.4. Data Quality and Business Performance.

Output of accounting information system (AIS) very much depends on the data quality as poor data quality will result in garbage in garbage out (Xu, 2003). More scientific studies on found data quality and AIS performance are strongly related (Emeka-Nwokeji, 2012). Norwahida and Shukeri (2014) noted data quality is strongly related and positively impacts the perception of company internal auditors. Thus, this study hypothesizes

H4: *There is a significant positive impact of Software Data Quality on Business Performance*

2.1.5. Accuracy and Business Performance

The information is accurate and credible when it does not contain significant errors, it is not biased, and users can trust that it accurately represents what it has set out to be or what they expected to. With the aid of the software, accountants tend to improve the overall accuracy of their record thus eliminating or reducing human error. Accuracy of financial data is consistency and efficiency driver across the entire organization enhancing the company's performance and the achievement of key business goals, operationally and financially (Colvin, 2010).

H5: *There is a significant positive impact of Software Accuracy on Business Performance*

3. RESEARCH DESIGN AND METHODS

This research is designed by using exploratory, descriptive and explanatory methods. In this study, quantitative research approach was adopted as it allows collecting more data to investigate the facts, testing theories and hypotheses.

Primary data was collected for this research, because primary data is more dependable and accurate Questionnaire is an organized technique to collect primary data. There are two sections. Section A contained demographic questions focused on information of participants and ensure that the participants chosen users of accounting software and Section B captured information on the dependent variable and independent variables. A total of 48 items were contained in the questionnaire with 42 items measured the variables identified and 7 items determined the demographic of respondents. In Section B, data was gathered using the Likert scales. The research used close – ended questions in order to source information from responses. The questionnaire was structured in a five point likert format to extract the data or information. A weighting was given to each point in the scale in order to convert the likert scale to internal scale as follows:

Table 1 Scale measurements

Scale	Weighting
Strongly Agree / Very Important / Very Great Extent	5
Agree / Important / Great Extent	4
Neutral / Moderate Extent	3
Disagree / Unimportant / Little Extent	2
Strongly Disagree / Very Unimportant / Not at All	1

A total 150 questionnaires were distributed, 100 returned and out of 100, 22 questionnaires were rejected due suspicious answers. This research used cross-sectional data collection technique. The sampling technique used in this research was random probability sampling method. For this study, target population is accountants or user of accounting software working in companies operating in Malaysia.

4. RESULTS AND ANALYSIS

4.1. Demographic Analysis

Table 2: Demographic

Demographic Statistics					
Variables	**Measures**	**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Gender	Male	29	35.8	37.2	37.2
	Female	49	60.5	62.8	100.0
Experience in Using Accounting Software	0 - 2	5	6.2	6.4	6.4
	3 - 4	7	8.6	9.0	15.4
	5 - 6	14	17.3	17.9	33.3
	Over 7	52	64.2	66.7	100.0
Years of Service in current firm	Up to 5	27	33.3	34.6	34.6
	6 – 10	18	22.2	23.1	57.7
	11 – 15	15	18.5	19.2	76.9
	Over 15	18	22.2	23.1	100.0
Firm used Computerised System?	Yes	78	96.3	100.0	100.0
Firm used Computerised Data Recording?	Yes	77	95.1	98.7	98.7
	No	1	1.2	1.3	100.0
Software Package used by current firm	Sage	14	17.3	17.9	17.9
	Quick Books	5	6.2	6.4	24.4
	SAP	21	25.9	26.9	51.3
	Peachtree	3	3.7	3.8	55.1
	Autocount	18	22.2	23.1	78.2
	Others	17	21.0	21.8	100.0

The table above showed the distribution of demographics for the respondents.

4.2. Descriptive Analysis and Normality Analysis

This research comprise of five independent variables and one dependent variable. The dependent variable is business performance which is measured using efficiency, reliability, ease of use, data quality, and accuracy. The skewness and Kurtosis value were within ±1 indicates the distribution for this study is normal (Hair et al., 2010). All the independent variables and dependent variable indicate normally distributed since it the value were within ±1.

Table 3: Descriptive and Normality Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Business Performance (BP)	78	3	5	4.05	.597	.015	.272	-.593	.538
Accuracy (A)	78	2	5	4.14	.708	-.821	.272	.091	.538
Reliability (R)	78	3	5	4.39	.631	-.791	.272	-.443	.538
Efficiency (Ef)	78	2	5	4.11	.642	-.662	.272	.183	.538
Ease of Use (EOU)	78	3	5	4.33	.605	-.610	.272	-.392	.538
Data Quality (DQ)	78	3	5	4.37	.578	-.792	.272	.236	.538
Valid N (listwise)	78								

4.3. Reliability Analysis

The below table show all constructs in this research are reliable where the values are ranged between 0.80-0.90 as based on a general accepted rules describing internal consistency using Cronbach's alpha is as follows: Excellent ≥ 0.9 ; Good ≥ 0.8; Acceptable ≥ 0.7; Questionable ≥ 0.6; Poor ≥ 0.5; Unacceptable ≤ 0.5 which may vary depending on the sample size (DeVellis, 2016; Hair et al., 2010).

Table 4: Cronbach's Alpha Coefficients

Constructs	Number of Items	Cronbach's Alpha
All Variables	42	**0.975**
Efficiency	7	**0.879**
Reliability	9	**0.924**
Ease of Use	6	**0.821**
Data Quality	6	**0.857**
Accuracy	7	**0.858**
Business Performance	7	**0.911**

4.4. Exploratory Factor Analysis (EFA)

This method is used as the researcher has no pre-existing knowledge about the factors that may explain the correlations between a set of variables. The original 42 variables were subjected to principal component analysis and orthogonal varimax rotation with Kaiser Normalization. The suitability of data for factor analysis was assessed prior to performing the EFA. The correlation matrix showing the relationships of all 42 variables in this study. Inspection of the correlation matrix revealed the presence of many coefficients of 0.3 and above. The correlation matrix produced a significant number of large correlations suggesting that factor analysis is a relevant statistical methodology. Moreover, each of the diagonals of the anti-image correlation matrix was above 0.7. The Kaiser–Meyer–Olkin (KMO) test and

Bartlett test of Sphericity were undertaken. These tests are used to establish the adequacy of the item correlation matrix upon which factor analysis is based. The Kaiser–Meyer–Olkin (KMO) test and Bartlett test of Sphericity were undertaken to establish the adequacy of the item correlation matrix upon which factor analysis is based. The KMO coefficient for this dataset fell at Meritorious Level 0.855 (in between 0.80 to 0.89) exceeding the recommended value of 0.6 (Kaiser 1960), indicating that the sample is adequate (Hutcheson & Sofroniou, 1999). The approximate of Chi-square is 3307.151 with 741 degrees of freedom and Barlett's Test of Sphericity is significant at 0.000 which is less than 0.05 (Cerny & Kaiser, 1977) indicating that properties of the correlation matrix justified factor analysis to be used. Hence Factor Analysis is considered as an appropriate technique and valid for further analysis of the data.

Table 5: KMO and Barlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855
Bartlett's Test of Sphericity	Approx. Chi-Square	3307.151
	df	741
	Sig.	0.000

4.5. Regression Analysis:

The Table 6 shows that this model is found to be a good fit as it predicted above 60% of the entire model whereby indicating that 69.1% of the variance of accounting software characteristics can be predicted by the independent variables of efficiency, reliability, ease of use, data quality and accuracy. The ANOVA statistics is used and it concludes that the regression model is statistically significant.

Table 6: Regression Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.843[a]	.711	.691	.33183	1.546

a. Predictors: (Constant), Data_Quality, Efficiency, Accuracy, Ease_of_use, Reliability

b. Dependent Variable: Business_Performance

5. RESULT AND DISCUSSION

Table 7 displays the results of hypothesis testing for the five independent variables based on the significant value from regression analysis. For software Efficiency and Ease of Use has a moderate and significant impact of 46% and 36.5% on Business Performance respectively with the p-values (Sig.) less than 0.05. This indicates that software efficiency and ease of use place a significant impact on the business performance of business firms in Malaysia. Levy, Powel and Yetton (2011) stated that firms have good performance with improves system efficiency. Furthermore, there are many previous studies supported the ease of use characteristics increased the firm performance such as increase the sales and revenues, favourable positive attitudes, productivity and customer satisfaction (Bias & Mayhew, 2005). The software Data Quality has a negligible -8.7% impact on Business Performance which is also not statistically significant as p-value (Sig.) is more than 0.05. This finding contradicts with most of the trending empirical findings in literature. The standardized beta coefficient

for software Accuracy and Reliability are 0.066 and 0.118 shows a 6.6% and 11.8% of a positive impact of the independent variable (Accuracy and Reliability) on dependent variable (Business Performance) with a significance value of 0.462 and 0.275 respectively. This indicates that software reliability places an insignificant impact on the business performance of business firms in Malaysia. For accuracy, the result also shown contradicts with past research findings. Colvin (2010) noted accuracy of financial data is the consistency and efficiency driver across the entire organization enhancing the company's performance and the achievement of key business goals, operationally and financially.

Table 7: Coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.405	.319		1.270	.208		
	Accuracy	.055	.075	.066	.739	.462	.509	1.965
	Reliability	.112	.102	.118	1.101	.275	.348	2.875
	Efficiency	.428	.096	.460	4.441	.000	.373	2.677
	Ease of use	.361	.102	.365	3.547	.001	.378	2.643
	Data Quality	-.090	.091	-.087	-.983	.329	.516	1.937

a. Dependent Variable: Business Performance

Table 8: Hypotheses Testing Results

Hypotheses	Beta Coefficient	Significant (P<0.05)	Decision	Interpretations
H1: *There is a significant positive impact of Software Efficiency on Business Performance*	0.46	0 *Significant as the calculated p-value is less than 0.05.*	Accepted	The beta coefficient of 0.460 indicates that Software Efficiency has a 46.0% positive impact on business performance.
H2: *There is a significant positive impact of Software Reliability on Business Performance*	0.118	0.275 *Not Significant as the calculated p-value is more than 0.05.*	Rejected	The beta coefficient of 0.118 indicates that Software Reliability has a 11.8% positive impact on business performance.
H3: *There is a significant positive impact of Software Ease of Use on Business Performance*	0.365	0.001 *Significant as the calculated p-value is less than 0.05.*	Accepted	The beta coefficient of 0.365 indicates that Software Ease of Use has a 36.5% positive impact on business performance.
H4: *There is a significant positive impact of Software Data Quality on Business Performance*	-0.087	0.329 *Not Significant as the calculated p-value is more than 0.05.*	Rejected	The beta coefficient of 0.329 indicates that Software Data Quality has a 32.9% positive impact on business performance.
H5: *There is a significant positive impact of Software Accuracy on Business Performance*	0.066	0.462 *Not Significant as the calculated p-value is more than 0.05.*	Rejected	The beta coefficient of 0.066 indicates that Software Accuracy has a 6.6% positive impact on business performance.

6. CONCLUSION AND RECOMMENDATION

In conclusion accounting software systems is of great importance and has a great value to businesses, organization and the economy. The accurate and reliable information flow is very crucial to the growth of economy. Performance management plays a key role in improving the overall value of an organization. Prior researches have shown that accounting information system adoption does increases firm's performance, profitability, and efficiency operations. This study showed that there is

strong relationship between the characteristic of accounting software and business performance, which means access to accurate accounting information, will lead to organizational effectiveness. Therefore, it can be concluded that accounting software has an impact on business performance of firms in Malaysia.

However, this study comprises of few limitations. Firstly, this study was conducted in English. The study could have included the survey questions in the local language, Bahasa Malaysia. This would make the survey sample more evenly distributed among the population and would eliminate misinterpretation of the survey questions. Secondly, this research was done generally on any business organization in Malaysia without specifically looking into one industry

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