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Organizational Performance and Competitive Advantage Determinants of Creative SMEs

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ABSTRACT

The purpose of this paper is to examine the determinants that associated with IT utilization and further how IT utilization influences competitive advantage and organizational performance in creative SMEs sector. The samples used in this research were 400 creative SMEs in Yogyakarta, Indonesia. Purposive sampling method was taken. Structural Equation Modeling (SEM) by using Partial Least Squares (PLS) was conducted to examine the validity, reliability, and the proposed hypotheses. The determinants of IT utilization covering management commitment, and direct and indirect supports from government were significantly influence IT utilization. IT utilization does not significantly influence performance directly. The influence of IT utilization on performance is indirect via competitive advantage. Considering that management commitment and government supports is vital to IT utilization, management and government collaborations should be developed and improved. Strategic IT development is vital to create competitive advantage and further to achieve higher organizational performance. The management commitment to build people equity for employees and management is urgent since it provides the basis for IT successful engagement.

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1. INTRODUCTION

Toffler has made a forecast about creative economy wave as the fourth generation wave which nowadays has become a reality (Tofler, 1980). Creative economy that is represented through creative industry with creative ideas and skills as its foundation is finally certifiable to support Indonesia as well as its national economy. Creative industries in Indonesia, including Daerah Istimewa Yogyakarta (DIY), have lately grown well. Although it is still in small and medium scales, it has been able to open up employment opportunities with promising prospects. The potential of local products from creative industry are still widely open and spacious. In Yogyakarta, the potency of creative industry to grow is still major (http://krjogja.com, 2013; Kedaulatan Rakyat, 2013). It is largely known among Indonesians that the province of Yogyakarta is considerably more advanced in terms of creative industry, especially

in handcraft, animation, and fashion industries. This has made the province as one of the barometer of highly creative products that has its own attraction for tourists.

The creative assets that are spread across creative SMEs in Yogyakarta are in accordance with the target of Indonesia's government to make Indonesia as the center of creative industry of ASEAN region in 2014. The Governor of Yogyakarta, Sri Sultan Hamengkubuwono X has continuously motivating all SMEs (Small and Medium Enterprises) business to increase their creativities and innovations by applying business and technology incubation. In order to make Yogyakarta as the center of creative economy, information and communications technology, an ICT center has been built as the center of ICT business incubation to complement digital creative ecosystem. The objective is to increase the number of game, edutainment, music, animation and software developers especially in the city of Yogyakarta (http://jogjadigitalvalley.com, 2013). Unfortunately, in general, the utilization of IT in creative SMEs is relatively low (Achjari *et al*., 2010). The reason is limitation of budget, human resource, technology investment, knowledge and expertise in managing business (Levy and Powell, 2005; Gutter and Saleem, 2005; Cui, *et al.*, 2008). Besides, there is a finding of low management commitment and expectation for government support. Survey proved that management commitment (Ghobakhloo *et al.*, 2011) and government support (Alam and Noor, 2009; Mensah and Saffu, 2010) have influenced IT utilization. It is already known that SMEs with IT possession in Yogyakarta haven't utilized their IT for strategic activities (Wahid and Indarti, 2007; Muafi, *et al.*, 2012b). These problems can be said as the main causes of IT utilization failure. This IT utilization failure may influence business development (Zhu, *et al*., 2002) and competitive advantage (Majeed, 2011; Harari, 1997) as well as long-term organizational performance (Sarosa, 2007; Silvius, 2006), particularly for SMEs in Indonesia (Asmarani, 2006; Handriani, 2011).

2. THEORY AND HYPHOTESES

2.1. Management commitment and IT utilization

A consistent quality of technology resource and human resource is an important factor in utilizing IT. This utilization will create problems if there is no commitment from management to succeed it. There is a necessity for high commitment and positive attitude towards change because it will affect positively for organization (Steers, 1977). Management commitment has a direct influence to IT utilization on SMEs in developing countries (Thong and Yap, 1995). Armstrong (2000) explained that there are two important matters in measuring commitment: strong willingness to accept organization value and objectives and readiness to run a business by the name of organization. Armstrong (2000) also adds that a committed organization tends to relate in consistent activities. Several things that need to be considered when an organization has commitment themselves are: (1) management should communicate their value to increase creativity and ability to adapt with change, (2) if organization's intention is not the same with its members', then there shall be an acceptance for such intention so it will still provide benefits, safety and comfortability for its members.

The importance of management commitment towards organization has also been stated by Natalisa (1999). Top management should express their commitment constantly and transparently to the other organization member within the organization. Natalisa (1999) advised that a leader with high management commitment should be able to motivate the employees and show that he is a good and highly motivated leader. Management commitment and attitude in utilizing IT has a significant influence towards IT utilization (Ghobakhloo, *et al.*, 2011; Jones and Griffith, 2005, Kwahk, 2006). Compeau and

Higgins (1995) proved that persuasion from managers to organization members has a higher correlation in utilizing IT as compared to social pressure from peers and subordinates. The role of top management has a strategic central position for all company activities for current and future conditions, including IT utilization (Ghobakhloo, *et al*., 2011). Endraswari (2006) stated that the success of IT implementation relies on the participation of top management. The involvement of top management becomes an important matter to apply IT because IT is an integrated part of company planning and it depends on top management decision. Top management support includes two senses, which is participation and involvement.

Top management should take an active role to learn the benefits that can be gained from the use of computers and their use in the organizational activities daily, in addition to the strategic interests of their company, even though (Jarvenpaa, *et al.,* 1991) suggested that the executives do not need to have expertise in IT. Endraswari (2006) and Jarvenpaa, *et al.,* (1991) further added that top management participation means involvement and decision-making in utilizing IT, especially in the process of planning, developing, and implementing information system. Such participation may take form as time and energy related to IT. Furthermore, Endraswari (2006) also added that the role of top management is creating and reviewing the process of planning, monitoring, and evaluating results. Other statement by Molla (2004) emphasized that management should have a continuous commitment in utilizing IT for long term use. Management commitment is important considering that future SMEs is becoming more and more depending on IT utilization. The theoretical and empirical discussions thus led to this following hypothesis:

Hypothesis 1. There is a significant positive influence of management commitment on IT utilization

2.2. Government Support and IT Utilization

Government has a significant role in IT utilization for SMEs, including promoting and supporting SMEs' network (Alam and Noor, 2009). Government could also serve to encourage the use of e-commerce for a company (Xu, *et al.*, 2004). Supports can take form as a financial support for online tax and e-procurement system, the enactment of law and policy regarding IT utilization and safety, as well as deciding software standard to be used by a company (Chui *et al.,* 2008). Sarosa and Underwood (2005) stated that government support and regulation are expected by SMEs in Indonesia to support their businesses. Based on the review by Hoffman (2012), in giving IT support for society, government should act in two stages: (1) formative, means creating and building new system to push efficiency, and (2) scaling up, means generating benefits. In formative stage, government enables in: the implementation of regulation balance and monitoring the feedback process. In scaling up stage, government may function itself as participant. Both stages can be used to push IT usage efficiently. Further, government as facilitator can build new facility in the future. The significant role of government's supports in improving SME's performance has been stated in some studies (e.g. Mensah and Saffu, 2010; Tambunan, 2007; Maynard, 2007). This support can be direct or indirect. Indirect support can shape policy making and legislation as well as creating conducive environment for SME's business development (Tambunan, 2007; Maynard, 2007), while direct support could take form as financial support and business development services such as marketing and training (Tambunan, 2007; Maynard, 2007). Molla (2004) added that government should be committed to SMEs in utilizing IT through promotion, support, facilities, and e-commerce as well as providing tools and other aspects. Munizu (2010) adds that external factors like Indonesian's government policy have a significant and positive influence towards SME's performance. Based on the above rationale the following hypotheses are proposed:

Hypothesis 2. There is a significant positive influence of indirect government support on IT utilization.

Hypothesis 3. There is a significant positive influence of direct government support on IT utilization.

2.3. IT Utilization, Competitive Advantage and Organizational Performance

Information technology (IT) is defined as a set of technology used by an organization to generate, process, and disseminate information in every form. Therefore, information technology provides the support for company operational effectively and efficiently (Laudon and Laudon, 2000; Utomo and Dodgson, 2001). IT is useful to reduce cost in business activity, especially for SMEs to allocate and save their budget for other use. Several literatures explained that IT is vital to support businesses and to increase organizational performance (Sarosa, 2007; Andrew and Papp, 2000). Furthermore, IT utilization on business organization in Malaysia has been proven to be very strategic to support competitive advantage (Valida, *et al.*, 1994). IT has the capacity to support and influence competitive advantage. IT helps organization to optimize and control functional operation in the decision-making process. IT can also be used as a competitive tool as a popular instrument to influence organizational performance and process coordination of technology and corporation, as well as a business strategy (Daneshvar and Ramesh, 2010). Sarosa (2007) explained that the utilization of IT on SMEs can be classified into four groups: (1) internal development where SMEs may use and develop IT to solve company's internal resources issues, (2) external development where SMEs may use and develop IT software for external use, (3) commercial off the self (COTs) implementation where SMEs may obtain COTs product with or without IT adaptation, and (4) management application managed by vendors.

In comprehension of Soh and Markus (1995) study, IT can make businesses to run more efficiently, more effectively, and more flexible and more innovative. The outcome from IT is also affecting organization structure, task, and employee. IT users often feel resistant later when IT has been implemented (Pinto, 1994; Jones and Griffith, 2005). The outcome of IT will not only have an impact on organizational change, but also it will change the structure, task, and individual employees. Furthermore, in relation to organizational performance, it needs to be known that several empirical studies show that organizational performance can be measured by using different methods. Based on several authors, organizational performance can be determined by financial and non-financial performance (Muafi, 2009). In this study, non-financial measurement is used, including affectivity, efficiency, and organization adaptation (Homburg, *et al.*, 1999), job satisfaction (Harel and Tzafrif, 1999), and service (Alleyne, *et al.*, 2005). Superior organizational performance reflects a company's competitive advantage. Competitive advantage is an ability to win market competition through distinct ways that cannot be done by competitors (Poter, 1998). The results from several previous researches show that competitive advantage influences organizational performance (Majeed, 2011; Agha and Alrubaiee, 2012; Rose, *et al.*, 2010). Competitive advantage will be obtained if a company is able to use their superior resources, including the skills to achieve a superior customer value and a relatively low cost (Porter, 1998). Competitive advantage can also be enhanced from the company's age (Ismail *et al.*, 2010). The age of the company turned out to have an impact to strengthen the competitive advantage held by the company. A finding by Rose *et al.* (2010) concluded that the company's age is the only thing able to enhance the relationship between competitive advantage and organizational performance. Such relationship can be achieved in a really old company while the company size has no enhancement effect on the relationship between competitive advantage and organizational performance. Based on the above rationale the following hypotheses are proposed:

Hypothesis 4. There is a significant positive influence of IT utilization on organizational performance.

Hypothesis 5. There is a significant positive influence of IT utilization on competitive advantage.

Hypothesis 6. There is a significant mediation of competitive advantage on the influence of IT Utilization to organizational performance.

3. METHODOLOGY

By conducting survey method, the population for this research was all creative SMEs residing in Yogyakarta. The main reason is that most SMEs in this region have positive response in IT utilization (Achjari, *et al*. 2010; Muafi, *et al*., 2012b). Data from this study was solicited by mailed instruments from the owners or managers of all 400 creative SMEs. Even though 100 respondents are sufficient for research that uses PLS statistical analysis (Hair, *et al.*, 1995), this study distributed 400 questionnaires across five regencies in Yogyakarta in order to better represent the population. Purposive sampling was chosen resulting 368 questionnaires well returned (response rate of 92%). A Likert Scale was used with 7 alternatives answers from highly disagree to highly agree. The items used are as follows: management commitment (Com = 4 items), direct government support (DG = 5 items), indirect government support (IG = 6 items), IT utilization (IT Util = 5 items), organizational performance (Perf = 4 items) and competitive advantage (CA = 5 items). SEM technique using PLS (Partial Least Square) was used due to its powerful technique to analyze latent variables in structural equation models with various indicators (Sirohi, et al., 1998). PLS also does not require a normal data distribution (Ringle, *et al.*, 2005; Roostika, 2011). The practicality of the PLS application is supported by Fornell and Bookstein (1982, p.440) who argue that data from social science research often do not satisfy the requirements of multi-normality and attain the sample size required for maximum likelihood estimation. PLS is also a prediction-oriented technique. The PLS approach is particularly useful for predicting a set of dependent variables when a large set of independent variables is involved (Chin, 1995). In the management areas, the use of PLS software has been noted in a number of studies (e.g. Ulaga and Eggert, 2006, Whittaker, *et al.* 2007, Wang, *et al*. 2007).

4. RESULTS

4.1. Descriptive data

Data from valid 368 respondents' response is shown in Table 1. The descriptions for respondents' characteristics analyzed in this research were based on respondents' status, type of business, company's age, number of employees, and IT functions. The respondents in this research mostly work on handicraft businesses (112 respondents – 30%), with less than 5 years of age (152 SMEs – 41%), having a number of employees less than 50 people (298 SMEs – 81%), and using IT to type their reports (200 SMEs – 54%).

Table 1

Respondents' Characteristics

Respondents' Characteristics	Amount	Percentage
Business Type		
Advertising	67	18
Handcraft	112	30
Fashion	30	15
Printing & Publishing	40	8
Architecture	27	11
Design	37	7
Antique Goods	17	5
Others	20	5
Age of Company		
< 5 Years	152	41
5 – 10 Years	98	27
11 – 15 Years	59	16
15 – 20 Years	34	9
> 20 Years	25	7
Number of Employees		
< 50 people	298	81
51 – 100 people	59	16
100 – 500 people	11	3
IT Utilization		
Typing Reports	200	54
Designing Products	88	24
Accessing Internet	39	11
Presentation	24	7
Others	17	5
Totals	368	100

4.2. Validity and reliability assessment

PLS allows the measurement and structural models to be analyzed at once (Chin, 1998). However, in using PLS researchers are usually follow two stages: 1) the assessment of the measurement model, which focuses more on the reliability and validity of the measures; and 2) the assessment of the structural model which is more concerned with the path coefficients, and selecting the best final model (Hulland, 1999). The measurement model is to test that each construct is a good measure. The measurement model in PLS is evaluated by examining convergent validity involving: (1) the individual loading of each item, (2) Internal Composite Reliability (ICR), and (3) Average Variance Extracted (AVE) (Roostika, 2011). The analysis of discriminant validity involves cross loadings and AVE square roots.

The examination in measurement model have resulted that some items were not considered as valid and reliable. Items IG1, IG2, IG3, IT 1, and CA4 were found to have low loadings. Chin (1998) recommended that item loading less than 0.5 should be dropped as a measure. Item Perf5 also faced problem with CA1 and CA2 in cross loading examination. Item Perf5 was dropped for further analysis. As part of the measurement model, six items were dropped and were not included in the following structural model analysis. After dropping all problematic items, re-running PLS, and carefully re-examine the outer loadings, AVE, ICR, cross loading, and AVE square roots, no more validity and reliability problems occurred and the results are described in the following tables and figure. Table1. Shows the evidence of validity in terms of item loading where all items included in the measure have satisfied Chin (1998) recommendation that all item loadings should not be less than 0.5.

Table 1. Outer loadings

	Original Sample (O)	Sample Mean (M)	T Statistics (|O/STERR|)
CA1 <- Comp Advantage	**0.8526**	0.8504	25.8678
CA2 <- Comp Advantage	**0.866**	0.8678	29.811
CA3 <- Comp Advantage	**0.8001**	0.7914	16.4879
Com1 <- Commitment	**0.8748**	0.8761	40.3381
Com2 <- Commitment	**0.8889**	0.8913	32.1716
Com3 <- Commitment	**0.8674**	0.8616	21.7424
Com4 <- Commitment	**0.8259**	0.8217	16.228
DG1 <- Direct Govt Support	**0.917**	0.9194	58.0887
DG2 <- Direct Govt Support	**0.7879**	0.7787	12.0071
DG3 <- Direct Govt Support	**0.7231**	0.7104	8.5132
DG4 <- Direct Govt Support	**0.841**	0.8414	21.0585
DG5 <- Direct Govt Support	**0.8671**	0.8689	25.2931
IG4 <- Indirect Govt Support	**0.6341**	0.6152	4.7402

IG5 <- Indirect Govt Support	**0.8561**	0.8503	23.0456
IG6 <- Indirect Govt Support	**0.8615**	0.8614	28.1252
IT2 <- IT Utility	**0.551**	0.5465	4.028
IT3 <- IT Utility	**0.8345**	0.8298	17.5577
IT4 <- IT Utility	**0.8787**	0.8758	26.1875
IT5 <- IT Utility	**0.8077**	0.8068	18.919
Perf1 <- Performance	**0.8017**	0.7997	17.1379
Perf2 <- Performance	**0.8148**	0.8118	17.7716
Perf3 <- Performance	**0.8482**	0.8501	29.937
Perf4 <- Performance	**0.782**	0.7764	16.3543

The AVE, ICR, and Cronbachs alpha as shown in table 2. PLS provides a reliability test using Internal Composite Reliability (ICR) and Cronbach Alpha. Even though Fornell and Larcker (1981) suggested that ICR should produce a value of 0.7 or higher, some of the ICR value in this study were lower than 0.7. This value is considered acceptable since ICR is not the only reliability measure while Cronbachs alpha in this study is satisfactory (> 0.6). AVE measures the average variance that is shared between a set of items and their respective construct (Hulland, 1999). AVE examines how a latent construct explains the variance of a set of items that are supposed to measure that latent construct. A construct should have AVE above 0.5 to satisfy convergent validity which explains that at least 50% variance of the indicators is captured by the construct (Fornell and Larcker, 1981). Table 2 shows that all AVE value were higher than 0.5.

The discriminant validity is shown when the indicators relate higher to their corresponding construct than they are with other constructs. Cross loadings and AVE square roots were used to assess the discriminant validity. Table 3 shows that each group of indicators/items loads higher for its respective construct than indicators/items of other constructs. The last procedure of testing discriminant validity was by checking AVE square root. It is done by comparing the square root of the AVE for each construct/dimension with the correlations between the construct and other constructs in the model. The AVE square root of each construct should be larger than the correlations between the construct and any other constructs (Staples et al., 1999). Table 4 shows that all AVE square root are higher as required.

Table 2. AVE, ICR, Cronbachs Alpha

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
CA	**0.7057**	**0.8778**	0.0748	**0.7912**	0.7057	0.0522
Com	**0.7475**	**0.9221**	0	**0.8877**	0.7475	0
DG	**0.6887**	**0.9166**	0	**0.8897**	0.6887	0
IG	**0.6257**	**0.8312**	0	**0.6969**	0.6257	0
IT Util	**0.6061**	**0.8569**	0.4647	**0.7826**	0.6061	0.1129
Perf	**0.6594**	**0.8856**	0.655	**0.828**	0.6594	0.4113

Table 3. The crossloadings

	CA	Com	DG	IG	IT Utility	Performance
CA1	**0.8526**	0.214	0.0392	0.2766	0.2111	0.6543
CA2	**0.866**	0.2904	0.1011	0.3614	0.288	0.7093
CA3	**0.8001**	0.3455	-0.0171	0.2538	0.1828	0.6378
Com1	0.1962	**0.8748**	0.31	0.4693	0.5193	0.2609
Com2	0.2192	**0.8889**	0.3013	0.4545	0.4242	0.2473
Com3	0.3042	**0.8674**	0.1969	0.4229	0.4032	0.2855
Com4	0.4684	**0.8259**	0.2115	0.5634	0.4178	0.4493
DG1	0.0662	0.3027	**0.917**	0.2374	0.5346	0.1083
DG2	0.0587	0.119	**0.7879**	0.0506	0.313	0.1444
DG3	-0.0242	0.2179	**0.7231**	0.0878	0.2055	0.0781
DG4	0.0743	0.2811	**0.841**	0.2034	0.4117	0.1234
DG5	0.016	0.2767	**0.8671**	0.2339	0.5146	0.0546
IG4	0.2897	0.3166	0.0867	**0.6341**	0.2934	0.2453
IG5	0.3111	0.521	0.1189	**0.8561**	0.4126	0.2441
IG6	0.2629	0.4538	0.2784	**0.8615**	0.4697	0.2359
IT2	-0.1197	0.1845	0.4222	0.1907	**0.551**	0.0271

IT3	0.281	0.4697	0.3027	0.4315	**0.8345**	0.3455
IT4	0.2044	0.4027	0.5179	0.4002	**0.8787**	0.2961
IT5	0.3111	0.4659	0.4107	0.4739	**0.8077**	0.3372
Perf1	0.5392	0.3613	0.0831	0.3191	0.3959	**0.8017**
Perf2	0.6467	0.2009	0.1082	0.1136	0.2278	**0.8148**
Perf3	0.7296	0.2613	0.1183	0.3199	0.2871	**0.8482**
Perf4	0.6489	0.3446	0.0703	0.2219	0.2747	**0.782**

Table 4. AVE Square root

	CA	Com	DG	IG	IT Utility	Performance
Competitive Advantage	**0.84**	0	0	0	0	0
Commitment	0.3363	**0.8465**	0	0	0	0
Direct Govt Support	0.0522	0.2992	**0.8298**	0	0	0
Indirect Govt Support	0.3569	0.552	0.2175	**0.791**	0	0
IT Utility	0.2735	0.5155	0.5127	0.5053	**0.7785**	0
Performance	0.7955	0.3559	0.118	0.3003	0.3608	**0.812**

4.3. The structural model

An overview of the structural model resulting from PLS analysis is presented in Figure 1. and table 5. The following sections will evaluate the structural model by using: (1) R-square (2) structural path coefficients; and (3) t-statistics. R Square (R^2) measures the percentage of the construct's variation and the extent to which the independent constructs predict the dependent construct (Chin, 1998). The bigger the R2, the more predictive power the model implies. The R^2 of IT utility is 0.465, meaning that together, commitment, direct government support, and indirect government support explain IT utility 46.5%. R^2 of competitive advantage is very low 7.5%, and R^2 of organizational performance is high (65.5%). As can be seen from both table 5 and figure 1, the path coefficient between IT utility and performance is not significant ($\beta = 0.155$), meaning the relationship is rejected. This means that to gain performance, the SMEs should build competitive advantage in the IT sector. The path coefficient showing relationship between competitive advantage and performance is considered high (0.753). The path coefficient between IT utility and competitive advantage is 0.274 which is significant at $\alpha = 0.03$. All the three exogenous variables have significantly influenced IT utility with respectively: commitment = 0.243, direct government support = 0.377, and indirect government support = 0.289. Table 5 summarizes the t-statistic explaining the significance of all the relationships and hypotheses proposed.

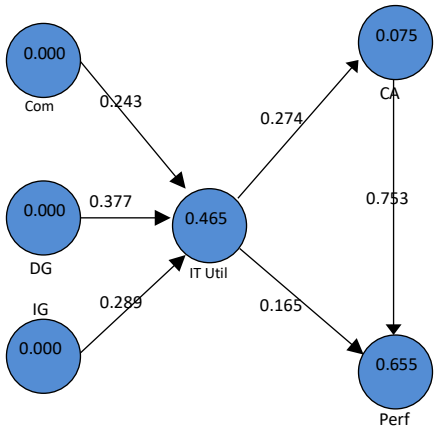

Figure 1. Result of the proposed research model (Standardized Coefficient)

Table 5. Path Coefficients

Path coefficient	t-statistic	Original Sample	Sign	Result
H_1 : Com → IT utility	2.4915	0.2431**	0.013	H1 is accepted
H_2 : IG → IT utility	2.9281	0.289**	0.003	H2 is accepted
H_3 : DG → It utility	4.3929	0.3771**	0.000	H3 is accepted
H_4 : IT util → Performance	1.42	0.1549	0. 16	H4 is rejected
H_5 : IT util → Comp Advantage	2.1472	0.2735*	0.03	H5 is accepted
H_6 : CA → Performance	9.5416	0.7531**	0.000	H6 is accepted

Note: * α = 0.05; ** α = 0.01

5. DISCUSSIONS

It is undeniable that SMEs could increase the strength of the Indonesian economy (Muafi, *et al*., 2012b; Sarosa, 2007). There are 3.9 million Indonesian SMEs in 2013 that absorbed 10.3 millions labors and contributed as much as 19.579 million dollar export value (http://www.antaranews.com, 2013). First finding in this research shows that SMEs owners have a high level of commitment in IT utilization (Hypothesis 1 is accepted). SMEs have well participated, given fund support, and well motivated. This finding reinforces the study by Ghobakhloo, *et al*. (2011), Jones and Griffith (2005), Kwahk (2006), and Thong and Yap (1995) on the influence of commitment to IT utility. Unfortunately, the use of IT is mostly as far as for typing, working on reports, internet access, presentations, product design, and other applications that are not considered as strategically significant and have not been employed to optimize the business growth and global competition. In general, they have not yet engaged in an information system that could integrate all functions of management, such as finance and accounting, production, sales, purchasing, and project management services as strategic IT assets to support their business competitiveness.

In other words, the SMEs lack an integrated information system for all management functions such as finance and accounting, production, sales, purchasing, project management, service, and various others. The limitation of resources, be it human resources, technology, financial, and other resources are most common problems occurred in Indonesian SMEs. This finding also is in accordance with most business process owned by SMEs where most business are done manually and only few employees who are able to implement IT application to help their operational business. Major parts of the operational activities are still being done separately (Saputro, *et al*., 2010). The increasing trend of IT utilization in the societies and SMEs therefore makes it necessary for the management to keep encouraging and communicating the value of IT benefits to their employees. The participation in IT utility is not only benefitting the business but also so increasing employees' creativity as well as their adaptability, safety, and comfortability.

As advised by Endraswari (2006), management can devote the time and energy to manage IT for the sake of strategic and operational decisions, especially in planning, reviewing, and monitoring the results. Besides that, management should initiate constant and transparent training for organizations member within the company. Compeau and Higgins (1995) advised that persuasion from manager to organizations member has a higher correlation with IT utilization rather than social pressure from colleagues and underlings. Top management or owners have a strategic central position in all company activities including IT utilization (Ghobakhloo, *et al*., 2011). Top managers need to involved and actively take part in the planning processes, developing, and implementing information system. All of the IT investments being made would be meaningless if there is no support from the government.

The result shows that direct and indirect support by the government has a significant influence on IT utilization (Hypothesis 2 and 3 are accepted). The government should give supports to SMEs either direct or indirectly. Indirect support includes: government regulations, exhibitions/promotions, payment services, and business climate, as well as protecting design, process, and products of creative SMEs through copyrights. This supports will help SMEs from foreign pursuit and claim. Direct support includes: giving work capital with low interest, donation, facilities, tax reduction, training, mentoring, and software assistances. These supports are deemed important for creative SMEs considering global era is highly competitive now. The finding is also in accordance with the studies by Sarosa and Underwood (2005), Mensah and Saffu (2010), Tambunan (2007), Maynard (2007), and Munizu (2010) which stated that support and regulations by the government are expected by SMEs in Indonesia to motivate and protect their businesses. The result from this research also concluded that by utilizing IT, competitive advantage will be gained and further, SME's operational performance will be higher.

The result from this research showed that IT utilization has a significant positive influence on competitive advantage of creative SMEs in Yogyakarta (Hypothesis 5 is accepted). Further, SMEs competitive advantage has a significant positive influence on the performance of creative SMEs (hypothesis 6 is accepted). This finding is in line with the study from Majeed (2011), Agha and Alrubaiee (2012), and Rose, *et al.* (2010). Their studies have identified the IT utilization and competitive advantage relationship. The significance of IT utilization consequence on competitive advantage has been analyzed by Valida, *et al.* (1994). On the other hand, this study rejects Hypothesis 4 proposing the IT utilization direct influence on performance. This means that this study does not support Sarosa's (2007) and Andrew and Papp's (2000) findings. Sarosa (2007) and Andrew and Papp (2000) believed that the utilization of IT will make their companies become more effective, efficient, and can increase job satisfaction and services as well as making the organization be able to adapt with external environment pressure.

Performance can only be reached when the creative SMEs engaged in competitive advantage. Competitive advantage as found in the model explains 65.5% meaning that it is considered strong variable to predict performance. The low predictive value (R-square) of IT utilization to competitive advantage can be interpreted that the dependency of creative SMEs in IT utilization is very low. Even though competitive advantage contributes strongly to organizational performance, however, IT usage contribution remains weak for both competitive advantage and performance. The limitation of SMEs human resources, IT investments, and other SMEs resources lacking have made IT contribution to performance is very limited. Competitive advantage in terms of ability to strategically exploiting integrated IT for creative SMEs business should be established otherwise high performance is hard to achieve. With many young generations involve in SMEs creative business, there is a positive trend that increase in IT utilization among creative SMEs in Yogyakarta could be expanded and be more optimized.

With the introduction of ERP (*Enterprise Resources Planning*) among business in any size, ERP could be one of the alternatives to solve this problem. SMEs lack ability to win market competition through regular IT support. In reality, due to many higher education institutions reside in Yogyakarta, the government has promoted the contributions of academic institutions to support IT utilization among creative SMEs. Training and application on ERP for creative SMEs can be speeded up with the involvements of the higher education students. Mutual benefits will exist while students can learn the challenges in running creative SMEs, the creative SMEs acquire the IT knowledge more effectively. Overall, it is obvious that we cannot let the creative SMEs to stand by themselves. Supports from all parties including government, industries and academic institution are a must. The government continuous involvements in terms of providing support subsidies, providing attractive markets, and protecting the creative industry from bigger and foreign industries are the works that the creative SMEs would appreciate. Industries via CSR could be one solution as to increase the creative SMEs productivities that proved to employ more than 95% of Indonesian labor. Academic institutions similarly should increase the involvements and contributions, in terms of building creativity, better technology, and better networking.

6. CONCLUSIONS AND IMPLICATIONS

The findings in this research show that IT utilization of creative SMEs in Yogyakarta Indonesia is influenced by management commitment and government support be it direct or indirect. IT utilization has been believed as an important factor that may influence competitive advantage and organizational performance. This finding concludes that IT utilization has no significant direct influence on organizational performance. However, this study have identified that IT utilization could indirectly influence organizational performance via competitive advantage. The lack of human resource capability and SMEs resource limitation are the major reason why IT utilization has not directly increase creative SMEs performance. Only SMEs which enable to employ IT strategically as competitive advantage that may benefit IT utilization as to increase their performance.

In theory, this study enriched the contribution of IT utilization model in creative SMEs sector in a developing country that academic should considers the role of competitive advantage as mediating variable on the IT utilization and organizational performance. Managers' commitments, direct and indirect supports from government are important variables to predict IT utilization in the SMEs creative industries in developing countries.

In practice, with the significant of IT utilization indirect influence to performance via competitive advantage, SMEs need to increase their skill, knowledge, and ability to improve creativity and innovation for their organizations (Muafi, 2012a). Moreover, creative SMEs in Yogyakarta need to be committed to have people equity for employees and management because it could serve as strategic assets for the higher IT engagement to increase competitive advantage. Work experience and competency of human resource can be done by doing human capital mapping related to their capability to plan, implement, and evaluate the company's IT. The mapping is highly needed so that SMEs can better compete in the current global era. All will run smoothly if there are management commitment and supports from the government, either directly or indirectly.

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