

## Original Paper

# Entrepreneurial Environment, Information Technology Adoption and Entertainment Enterprise Performance in Kenya

David Serгон<sup>1</sup>, Bernard K. Nassiuma<sup>1\*</sup> & Peter Omboto<sup>2</sup>

<sup>1</sup> Moi University, Department of Management Science and Entrepreneurship, Eldoret, Kenya

<sup>2</sup> Moi University, Department of Economics

\* Bernard K. Nassiuma, Moi University, Department of Management Science and Entrepreneurship, Eldoret, Kenya

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### **Abstract**

*This study was anchored on the diffusion of innovation theory to analyze the influence of information technology adoption on a firm's performance. The study identified information technology adoption (ICT) as a mediator in the relationship between entrepreneurial environment and entertainment enterprise' performance. A post-positivism research philosophy anchored on a deductive research approach and a cross-sectional time horizon was employed. The study target was bars and night club enterprises in Nakuru town. Slovincs' formula was used to determine the study sample size. A probability sampling technique aided in selecting respondents. Primary data was captured in a questionnaire. Data analysis comprises descriptive and inferential statistics. Findings show that bars and nightclubs had adopted low-end technology tools and applications. The study concludes that technology adoption mediates in the relationship between external contexts of entrepreneurial environment and enterprise performance ( $\beta=-.0227, p=.000$ ). The study recommends an analysis of entertainment enterprise needs by stakeholders in the ICT sector in order to support enhanced ICT adoption.*

### **Keywords**

*Mediation, information and communication technology adoption, entrepreneurial environment, performance*

### **1. Introduction**

Small and Medium Enterprises (SMEs) are perceived to be the major economic drivers in both developed and developing economies (Ongori, Atambo, & Bosire, 2015) hence, plays an important role in economic development, poverty reduction and employment creation in all economies (Esselaar et al., 2008). The enterprises create employment opportunities, adopt innovations and generate export opportunities (Ongori & Migiro, 2011; Wanjau et al., 2012; Nduati et al., 2015). According to Khosla (2013) inability of SMEs to penetrate regional and global markets is owed to partly stiff competition and low application level among SMEs. Information communication tools thus offer SMEs an opportunity to compete globally.

Most Governments globally have recognized the importance of ICT adoption by SMEs and hence have created special groups to study various aspects of ICT adoption (Ashrafi et al., 2008). The ICT uptake by enterprises globally has increased over time not only for cutting costs and improving efficiency, but also for providing better customer services. Adoption of ICT facilitates the easing information gaps in the SME sector (Makau & Wawire, 2013). This in essence fulfills the basic requirement for enterprise creation, growth and survival. ICT adoption has a host of benefits to the SMEs among them enhancing efficiency, reducing costs, job creation, and broadening market reach, locally and globally and overall country competitiveness (Mokaya & Njuguna, 2010; Wachira, 2014). One of the greatest benefits of ICT is its role in the development, growth and survival of enterprises however its adoption and use by SMEs has been low (Smallbone et al., 2001; Mokaya, 2012). For the Kenyan case ICT adoption has been below expectation (Mokaya, 2012).

A host of factors hinder the adoption of ICT by SMEs among them is a weak knowledge base, resource constraints and affordability, accessibility and poor infrastructure. The adoption of ICT by enterprises requires an environment that encourages open competition, trust and security, interoperability, standardization and access to finance (Mohd et al., 2014). SMEs have not installed computer systems to support enterprise processes (Parker & Castelman, 2007; Shiels et al., 2003; Fink & Disterer, 2006; Taylor, 2015), in comparison to large enterprises (Mohammed et al., 2013; Taylor, 2015). The service sector utilizes ICTs for data processing, transmitting, storing, and retrieving in their transactional and administrative purposes; both locally and also inter-organizationally (Mingle & Dzandu, 2013). Various authors suggest that for SMEs to remain competitive and enhance innovation abilities they must adopt ICT (Nguyen, 2009; Wanjau et al., 2012; Mohammed et al., 2013; Mohd et al., 2014). SMEs are susceptible to customer pressure and hence adopt ICT in order to meet customer demand in enhancing efficiencies of their inter-organizational operations (Levy et al., 2005).

In European countries government support for facilitating information transfers to SMEs is increasing, however, there are adoption barriers in the governmental agencies' mechanisms (Mokaya, 2012; Wachira, 2014). This points to a gap in an understanding of the needs of SMEs and what is provided by the government (Sarosa & Zowghi, 2003; Akomea-Bonsu & Sampong, 2012; Mokaya, 2012). Despite increased government support towards ICT adoption, little impact has been felt (Nduati et al., 2015; Mpfu & Gono, 2016). ICT applications improve information and knowledge management in a firm can reduce transaction costs (Adebayo et al., 2013) and increase the speed and reliability of transactions for both business-to-business (B2B) and business-to-consumer (B2C) transactions (Mingle & Dzandu, 2013; Tarute & Gatautis, 2014; Mpfu & Gono, 2016).

The contribution of ICT to enterprise development has been recognized and many countries including Kenya have made great efforts in integrating ICT into the enterprise development agenda (Mokaya & Njuguna, 2010; Wanjau et al., 2012; Mokaya, 2012; Makau & Wawire, 2013; Wachira, 2014). Kenya has developed and enacted an ICT policy, targeting among others the enterprise sector (Mokaya, 2012; Mbataru et al., 2013). Some studies have confirmed a positive effect of ICT on enterprise performance in terms of productivity, profitability, market value and market share (Brynjolfsson & Yang, 1996; Love et al., 2004; Akomea-Bonsu & Sampong, 2012; Adebayo et al., 2013). Equally, ICT has some effect in terms of intermediate performance measures, such as process efficiency, service quality, cost savings, organization and process flexibility and customer satisfaction.

In Kenya, the SME sector employed 7.5 million people accounting for 80 per cent of the total employment and it also contributed to 18.4 percent of the GDP. In addition, the sector contributed 87% of all the new jobs created and it employed 77% of the total number of the workforce (Ongori & Migiroy, 2011; Wachira, 2014). The current situation manifests low levels of ICT adoption among SMEs owing to a number of factors which range from the enterpriser's orientation, enterprise capabilities and enterprise environment. This thus begs the key question: why do SMEs lag behind in ICT adoption as a strategy for enterprise performance compared to large scale enterprises? It is against this backdrop that the researcher intends to find out the influence of the external entrepreneurial environment on enterprise performance when mediated by ICT adoption in the entertainment sector in Nakuru town, Kenya.

HO<sub>1</sub>: There is no statistically significant mediating effect of Information Communication Technology adoption in the relationship between external enterprise environment and enterprise performance.

## 2. Method

### 2.1 Study Area

The study was conducted in Nakuru town Kenya, the site was selected purposively.

### 2.2 Research Design

The study was based on a post-positivist paradigm utilizing a quantitative research approach. The design was a cross-sectional survey. The study was carried out in the entertainment sector in Nakuru town. A survey design was used in this study owing to lack of a control group, and non-manipulation of variables. This study employed probability sampling techniques namely; stratified and systematic sampling to select 213 owners-managers. The dependent variable was the entrepreneurial environment and the independent variable was enterprise performance. The mediator in the study was information technology adoption. The study employed a cross-sectional design (Singleton & Straits, 2010).

### 2.3 Participants

The target population for the study consisted of all bars and night club enterprises in the town as per jurisdictional definition of the County Government of Nakuru. The study used Slovinc's formula to determine a sample size of 213 enterprises from a target population of 615 bars and nightclubs.

### 2.4 Data Collection and Instruments

The data collection instrument was a questionnaire. Primary data was sourced using a questionnaire for owner and/or managers. The data collection instruments were researcher administered. The primary data collected were measured on a nominal, ordinal scale and ratio scales. Good reliability is indicated by a coefficient  $> 0.8$ , so the researcher (s) achieved reliability within this level. Internal consistency was checked using Cronbach's alpha.

### 2.5 Data Analysis

Data was analyzed using descriptive and inferential statistics with the aid of SPSS version 22 and Preacher and Hayes output model (Hayes, 2013).

### 2.6 Conceptual Framework

The research framework for this study was developed as a modified hybrid of the three theoretical models aforementioned. *Diffusion of Innovation theory* by Rogers (1995). The theory contributed to the independent variables in the study. Singuaw et al. (2006) developed an empirically tested model for measuring ICT adoption. The three elements were *availability of ICT components*, *integration of ICT components* and the *intensity of ICT usage*. The final item in the construct was enterprise performance measured by dimensions such as quality, quantity, cost and time.

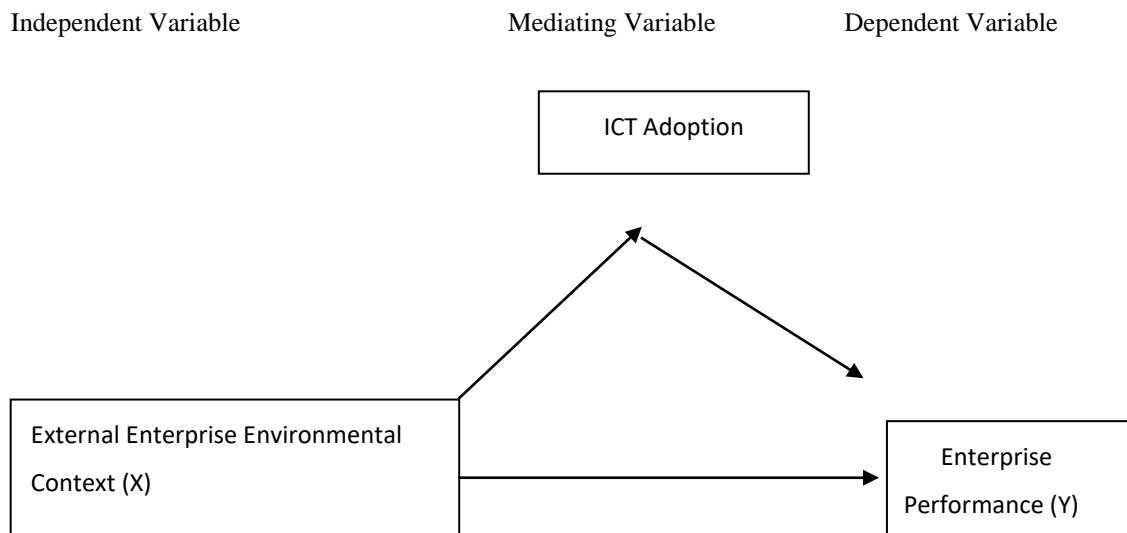


Figure 1. Conceptual Model

**3. Result**

The findings showed that the majority (64.6%, 148) of the managers of enterprises were Employed while the rest (35.4%) were the owners. Most (34.1%, 78) of the owner-managers were aged between 36-45 years. The gender composition of owner-managers showed some parity with males accounting for 48.9% (112) while the rest 51.1% (117) were female. Most (34.5%, 79) of the owner-managers had a diploma level of education while 2.2%, 5 of them had the highest educational level primary. The results show that 40.6% (93) of owner-managers had been in the sector for between 6 to 10 years. On competence level the results show that the majority (65.9%, 151) of the owner managers had been trained on computer proficiency. Ironically, only 11.4% (26) of the owner-managers proclaimed to be extremely proficient in the use of ICT tools and applications.

The findings show that the majority (55.5%, 127) of the owner-managers were in the business category of bar enterprises compared to 44.5% (102) from night clubs. Of these premises, 80.8% (185) were sole proprietorship and the rest being partnership (18.8%, 43) and private limited (0.4%, 1). The findings further indicated that the majority (89.1%, 204) of the owner-manager, were full-time entrepreneurs compared to 10.9% (25) who were part-time entrepreneurs. Additionally, findings indicated that computers (64.6%, 148), mobile phones (52.8%, 121), television (87.8%, 201), music system (89.1%, 204), DSTV (77.7%, 178), disco lights (76.9%, 176) and fridge (69.4%, 159) were tools and applications *always* used in these enterprises. The study further indicated that use of credit card payment (69.4%, 159), customer database (70.7%, 162), website (83.8%, 192) and Internet (72.5%, 166) were *never* used. Most of these enterprises reported non- existence of these latter ICT tools and applications.

**Inferential Statistics**

Model=1

Y=Enterprise

Performance

X=External environment

M=ICT Adoption

Sample size: 213

**Table 1. External Environment and ICT Adoption Model Summary**

Model	R	R-sq	SME	F	df	Df	P
	.3558		.0335	30.5781	11.0000	221.0000	.0000
coeff	se	t	p	LLCI	ULCI		
constant	1.0385	.0295	35.1765	.0000	.9803	1.0967	
External	-.2396	.0433	-5.5297	.0000	-.3250	-.1542	

Output 2 tested the influence of the external environment on ICT adoption. External environment significantly predicts ICT adoption,  $\beta = -.2396$ ,  $t = -5.5297$ ,  $p < .0001$ . The  $R^2$  (.1266) means that the external environment explains 12.7% of the variance in ICT Adoption. The  $\beta$  value is negative meaning that an increase in the external environment leads to a decrease in ICT Adoption.

**Table 2. External Environment, ICT Adoption and Enterprise Performance**

	R	R-sq	SME	F	df	df	p
	.2058	.0424	.0087	4.6438	1210.0000	2.0000	.0106
Model	coeff	se	t	p	LLCI	ULCI	
constant	1.2051	.0395	30.5356	.0000	1.1273	1.2828	
Adoption	.0948	.0351	2.7004	.0075	.0256	.1641	
External	-.0085	.0237	-.3595	.7196	-.0551	.0381	

Output 4.2 shows the results of the regression of enterprise performance predicted from both external environment and ICT adoption. It shows that the external enterprise environment does not significantly predict enterprise performance in the model,  $\beta = -.0085$ ,  $t = -.3595$ ,  $p = .7196$ ; but ICT adoption significantly predicts enterprise performance,  $\beta = .0948$ ,  $t = 2.70$ ,  $p = .0075$ . The  $R^2$  value (.0424) indicates that the model explains 4.24% of the variance in enterprise performance. The positive  $\beta$  value for ICT adoption shows that an increase in the adoption leads to an increase in enterprise performance. The  $\beta$  value for the external environment is negative indicating an increase in external factors leads to reduction in enterprise performance.

Output 4. External environment and enterprise Performance (c)

Outcome: Performance Model Summary

**Table 3. External Environment and Enterprise Performance**

Model	R	R-sq	SME	F	df1	df2	p
	.0954	.0091	.0090	1.9378	1.0000	211.0000	.1654
		coeff	se	t	p	LLCI	ULCI
constant		1.3035	.0153	85.2804	.0000	1.2734	1.3337
External		-.0312	.0224	-1.3920	.1654	-.0754	.0130

Output 4.3 shows the total effect of the external environment on the enterprise performance. Total effect refers to the effect of the predictor on the outcome in the absence of the mediator. When ICT adoption is not in the model, the external environment does not significantly predict enterprise performance,  $\beta = -.0312$ ,  $t = -1.392$ ,  $p = .1654$ . The  $R^2$  value (0.0091) assigns a 0.9% variance to the outcome. The predictor also has a negative relationship with the outcome and that  $\beta$  value includes a zero value (-.0754, .013) hence no effect.

Output 5. Indirect Effect of ICT adoption

Indirect effect of X on Y

Effect	Boot SE	BootLLCI	BootULCI Adoption
-.0227	.0088	-.0405	-.0071

The output 5 indicates the indirect effect of the external environment on enterprise performance. The model results are  $\beta = -.0227$ , with bootstrap confidence intervals, 95%BCaCI (-.0405, -.0071). If the  $\beta$  value does not include a zero value, then there is an indirect effect. The  $\beta$  value does not include a zero value hence existence of an indirect effect in the model. This implies that when the external environment is mediated by ICT adoption, it leads to an effect in enterprise performance.

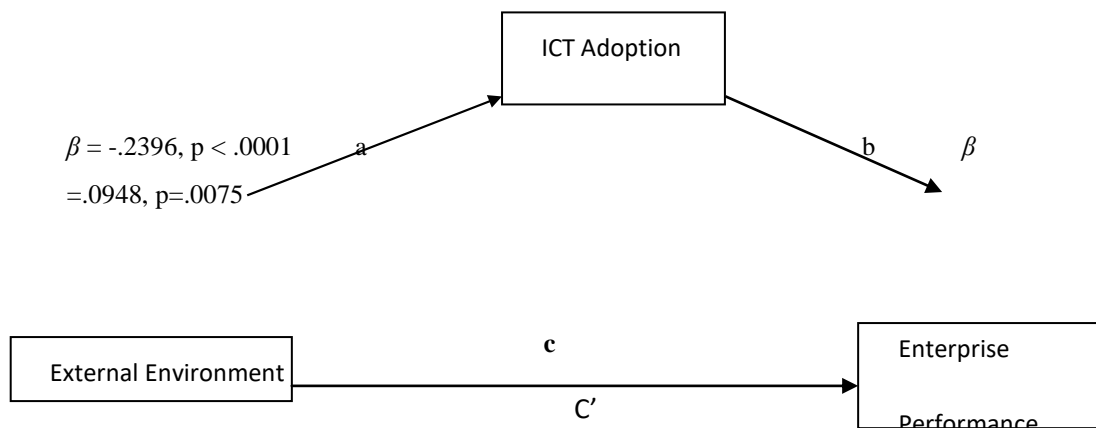
Output 6. Indirect effect on External Environment and Enterprise Performance

Completely standardized indirect effect of X on Y

**Table 4. Indirect Effect on External Environment and Enterprise Performance**

	Effect	Boot SE	BootLLCI	BootULCI
Adoption	-.0694	.0275	-.1247	-.0214
Preacher and Kelley (2011) Kappa-squared				
	Effect	Boot SE	BootLLCI	BootULCI
Adoption	.0656	.0255	.0199	.1162
Normal theory tests for indirect effect				
	Effect	se	Z	p
	-.0227	.0095	-2.3951	.0166

Output 6 shows the effect size of ICT adoption is  $\beta = -.0694$ , 95% BCaCI [-.1247, -.0214] and also,  $k^2 = .0656$ , 95% BCaCI [.0199, .1162] and both do not include a zero value hence an indication that there is an indirect effect. Finally, it shows the results of the sobel test. The results indicate  $\beta = -.0227$ ,  $se = .0095$ ,  $z\text{-score} = -2.395$  and  $p < .05$ . This result confirms that the external environment is mediated by ICT adoption to influence enterprise performance. Therefore, there was an insignificant indirect effect of the external environment on enterprise performance through ICT adoption,  $\beta = -.0227$ , BCaCI [-.0405, -.0071]. This represents an indirect effect,  $k^2 = .0656$ , 95% BCaCI [.0199, .1162].



C: Direct effect,  $\beta = -.0085$ ,  $p = .7196$

C': Indirect effect,  $\beta = -.0227$ , BCaCI [-.0405, -.0071].

Figure 2. Final Mediation Model

Table 5. Summary of Output Model

Factor		A	B	C	c'	Indirect Effect
External	Beta	-.2396	.0948	-.0085	-.0227	Yes
	Sig.	.0000	.0075	.7196	BCa [-.405, -.0071]	Full Mediation
	R square	.1266	.0424	.0091		

Hypothesis Testing

H0: There is no significant relationship between external environment and enterprise performance, mediated by ICT adoption

The model tested the indirect effect of ICT adoption on the relationship between external enterprise environment and enterprise performance. The standardized indirect effect of the three variables were,  $\beta = -.0227$ , BCaCI [-.0405, -.0071],  $p = .000$ . Thus, the hypothesis stating that there is no significant relationship between external enterprise environment and enterprise performance with mediating effect of ICT adoption was not supported ( $\beta = -.0227$ ,  $p = .000$ ). In effect, this means that an increase in 1 standard deviation of the external enterprise environment leads to a decrease of 0.0227 standard deviation of enterprise performance. This means that the standardized indirect effect of the external

enterprise environment on enterprise performance was significant, hence indicating that the predictor variable had an effect on the outcome variable.

This also implied that an increase in external determinants: Potential partnerships with suppliers of ICT; Government legal and regulatory compliance; Cost of set-up and maintenance and availability of technical staff or consultants through ICT adoption negatively affects the enterprise performance when mediated by ICT adoption. It also emerged that ICT adoption accounted for 12.66% ( $R^2 = .1266$ ) of the effect in enterprise performance.

Using ICT adoption as a mediator in the relationship between external environment and enterprise performance, the relationship assumed a significant stance ( $\beta = -.0227$ ,  $p = .000$ ) unlike when it was standardized the direct effect ( $\beta = -.0085$ ,  $p = .7196$ ). The relationship therefore indicated a full mediation (Kenny & Baron, 1986). The implication is that external factors negatively influence enterprise performance due to its financial commitment and governmental compliance on the part of the enterprise (Ghobakhloo et al., 2012; Agboh, 2015). However, according to Olise et al., (2014), SMEs invest in ICTs to help leverage their performances (Ghobakhloo et al., 2011; Ongori & Migiyo, 2010). Additionally, Jaganathan et al. (2014) opined that ICTs play an important role in external relationships, enhancing communication and collaboration processes.

More specifically, ICT can reduce business costs, improve productivity and strengthen growth possibilities for SMEs (Onwuka et al., 2015). Internet-based ICT usage by South African SMEs, had a positive effect of ICT on enterprise performance in terms of productivity, profitability, market value and market share (Nduati et al., 2016; Ongori & Atambo, 2016). Many authors (Ghobakhloo et al., 2012; Adebayo et al., 2013; Wachira, 2014) opined that external environment (cost of set-up and maintenance; availability of technical staff & consultants; government legal and regulatory compliance and potential partnerships with suppliers) were inhibiting enterprise performance. However, ICT adoption enabled these variables to impact on the enterprise performance (Wanjau et al., 2012; Makau & Wawire, 2013; Jaganathan et al., 2014). It was therefore confirmed that ICT adoption had fully mediated the relationship between external environment and enterprise performance.

#### 4. Conclusion

The performance of entertainment enterprises is influenced by the adoption of information technology in the Kenyan context. This conclusion is evidenced through the finding on information communication technology fully mediating the relationship between the external environment and enterprise performance. This suggests that the adoption of information communication technology enhances enterprise performance. The positive impact is however inhibited by a host of policy-related challenges on the adoption of information technology in entertainment enterprises in Kenya. There is thus a need for the government to create a favourable information technology environment through appropriate policies. Policies should guide on the entrepreneur's information technology needs as such enhancing an understanding of ICT providers on the ICT needs of Small and Medium Enterprises in the entertainment sector in Kenya. Cultivation of a networking relationship between the stakeholders and entrepreneurs can pave the way for smooth implementation and acceptance of regulations on ICT adoption. The creation of awareness through sensitization and training of entrepreneurs in the entertainment sector on ICT adoption should be provided and enhanced. The study suggests that further studies on ICT adoption in other sectors be undertaken.



## References

- Adebayo, O. S., Balogun, O. J., & Kareem, T. S. (2013). An Investigative study of the Factors Affecting the adoption of Information and Communication Technology in Small and Medium Scale Enterprises in Oyo State, Nigeria. *International Journal of Business and Management Invention*, 2(9).
- Agboh, D. (2015). Drivers and challenges of ICT adoption by SMES in Accra metropolis, Ghana. *Journal of Technology Research*, 6.
- Ahuja, V., Yang, J., & Shankar, R. (2009). *Study of ICT adoption for building project management in the Indian construction industry*.
- Akomea-Bonsu, C., & Sampong, F. (2012). The impact of Information and Communication Technologies (ICT) on Small and Medium Scale Enterprises (SMEs) in the Kumasi Metropolis, Ghana, West Africa. *European Journal of Business and Management*, 4(20).
- Ashrafi, R., & Murtaza, M. (2008). Use and impact of ICT on SMEs in Oman. *The Electronic Journal Information Systems Evaluation*, 11(3).
- Brynjolfsson, E., & Yang, S. (1996). Information technology and productivity: A review of the literature. *Advances in Computers*, 43. [https://doi.org/10.1016/S0065-2458\(08\)60644-0](https://doi.org/10.1016/S0065-2458(08)60644-0)
- Rogers, M. E. (1995). *Diffusion of innovations*. New York: The Free Press.
- Esselam, S., Stork, C., Ndiwalana, A., & Deen, S. M. (2008). ICT usage and its impact of profitability of SMEs in 13 Africa Countries. *Information Technologies and International Development*, 4(1).
- Fink, D., & Disterer, G. (2006). International case studies: To what extent is ICT infused into the operations of SMEs? *Journal of Enterprise Information Management*, 19(6).
- Ghobakhloo, M., Hong, T. S., Sabouri, M. S., & Zulkifli, N. (2012). Strategies for Successful Information Technology Adoption in Small and Medium-sized Enterprises. *Interdisciplinary Journal of Research in Business*, 3. <https://doi.org/10.3390/info3010036>
- Ghobakhloo, M., Sabouri, M. S., Hong, T. S., & Zulkifli, N. (2011). Information Technology Adoption in Small and Medium-sized Enterprises; An Appraisal of Two Decades Literature. *Interdisciplinary Journal of Research in Business*, 1(7).
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Jaganathan, M., Mahmood, R., Ahmad, S., & Ahmad, I. (2014). Effect of Environmental Context on ICT Adoption among Rural-Based Small and Medium Enterprises in Malays. *Advances in Environmental Biology*, 8(9).
- Khosla, B. (2013). ICT: SMEs cannot afford to be laggards. *Expert Voice*.
- Lawson, R., Alcock, C., Cooper, J., & Burgess, L. (2003). Factors affecting adoption of electronic commerce technologies by SMEs: An Australian study. *Journal of Small Business and Enterprise Development*, 10(3). <https://doi.org/10.1108/14626000310489727>
- Levy, M., Powell, P., & Worrell, W. (2005). Strategic intent and e-business in SMEs: Enablers and inhibitors. *Information Resources Management Journal*, 18(4). <https://doi.org/10.4018/irmj.2005100101>
- Love, P. E., & Irani, Z. (2004). An exploratory study of information technology evaluation and benefits management practices of SMEs in the construction industry. *Information and Management Journal*. <https://doi.org/10.1016/j.im.2003.12.011>
- Mingle, J., & Dzandu, M. (2013). The adoption of ICT in the administration of Health Insurance schemes in Ghana. *International Journal of Computer Science and Network*, 2(6).

- Mohammed, J. A., Almsafir, M. K., & Alnaser, S. M. (2013). The factors that affects E-Commerce Adoption in SME: A Review. *Australian Journal of Basic and Applied sciences*, 7(10).
- Mohd, I. D., Kamarul, M., Langgat, J., & Fabeil, N. (2014). *Factors Influencing SMEs Adoption of Social Media Marketing*. International Conference on Strategic Innovative Marketing.
- Mokaya, O. S. (2012). The Adoption of Information and Communication Technology by Small Enterprises in Thika Municipality, Kenya. *International Journal of Business and Social Science*, 3(13).
- Mokaya, O. S., & Njuguna, E. (2010). Adoption & Use of ICT by Small Enterprises in Thika Town. *Kenya Journal paper*.
- Mpofu, K., & Gono, S. (2016). *Exploring ICT adoption by SMEs in Southern Africa*. Centre for Research and Enterprise.
- Nduati, N. L., Ombui, K., & Kagiri, A. (2015). Factors Affecting ICT Adoption in Small and Medium Enterprises in Thika Town, Kenya. *European Journal of Business Management*, 2(3).
- Nguyen, T. U. (2009). Information technology adoption in SMEs: An integrated framework. *International Journal of Entrepreneurial Behaviour and Research*, 15(2).  
<https://doi.org/10.1108/13552550910944566>
- Olise, M., Anigbogu, T., Edoko, T., & Okoli, M. (2014). Determinants of ICT Adoption for Improved SME's Performance in Anambra State, Nigeria. *American International Journal of Contemporary Research*, 4(7).
- Ongori, H., & Migiro, S. (2011). Understanding the drivers of ICTs adoption by Kenyan SMEs. *International Journal of Management Research*, 1(1).
- Ongori, H., & Migiro, S. O. (2010). Information and communication technologies adoption in SMEs: Literature review. *Journal of Chinese Entrepreneurship*, 2(1).  
<https://doi.org/10.1108/17561391011019041>
- Ongori, H., Atambo, R., & Bosire, D. (2015). Challenges faced by Small and Medium Enterprises in Kenya: Theoretical Argument. *International Journal of Innovative Research & Studies*.
- Onwuka, E. M., Uzor, E. I., & Onwuzuligbo, L. (2015). Information and Communication Technology and the performance of selected SMEs in Onitsha Metropolis. *International Journal of Development Research*, 5(11).
- Parker, C. M., & Castleman, T. (2007). New directions for research on SME E-Business: Insights from an analysis of journal articles from 2003 to 2006. *Journal of Information Systems and Small Business*, 1(2).
- Sarosa, S., & Zowghi, D. (2003). Strategy for adopting information technology for SMEs: Experience in adopting email within an Indonesian furniture company. *Electronic Journal of Information Systems Evaluation*, 6(2).
- Shiels, H., McIvor, R., & O'Reilly, D. (2003). Understanding implications of ICT adoption: Insights from SMEs. *Logistics Information Management*, 16(5).  
<https://doi.org/10.1108/09576050310499318>
- Singleton, R. A., & Straits, B. C. (2010). *Approaches to social research*. New York: Oxford University Press.
- Singuaw, J., Simpson, P., & Enz, C. (2006). Conceptualizing innovation Orientation: A framework for study and integration of innovation. *Research Journal of Product Innovation Management*, 23.

- Smallbone, D., & Welter, F. (2001). The Role of Government in SME Development in Transition Economies. *International Small Business Journal*, 63(77).  
<https://doi.org/10.1177/0266242601194004>
- Tarute, A., & Gatautisa, R. (2013). ICT impact on SMEs performance. *Contemporary issues in Business, Management and Education*.
- Taylor, P. (2015). The importance of Information and Communication Technologies (ICTS): An integration of the extant literature on ICT adoption in Small and Medium Enterprises. *International Journal of Economics, Commerce and Management*, 3(5).
- Wachira, K. (2014). Adoption of E-Business by Small and Medium Enterprises in Kenya: Barriers and Facilitators. *International Journal of Academic Research in Business and Social Sciences*, 4(11).  
<https://doi.org/10.6007/IJARBS/v4-i11/1293>
- Wanjau, K., & Macharia, N. R. (2012). Factors Affecting Adoption of Electronic Commerce among Small Medium Enterprises in Kenya: Survey of Tour and Travel Firms in Nairobi. *International Journal of Business, Humanities and Technology*, 2(4).