Mediating Role of Competitive Advantage on the Relationship between Smart Technology Usage and Performance: Empirical Evidence from Non-Governmental Organizations in Nairobi City County, Kenya

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Abstract: *In the increasingly competitive business environment, organizations spend a lot of time on tangible and intangible resources seeking competitive advantage and superior performance. Prior studies investigated the effect of competitive advantage on organizational performance, particularly in developed countries, while there is paucity of similar studies focusing on non-governmental organizations in sub-Sahara Africa. This study examined the mediating role of competitive advantage between smart technology usage and performance. Competitive advantage was measured using services differentiation, market innovations and services quality. Smart technology usage was assessed by social, process, financial and mobile cloud computing usages. Non-governmental organizations performance was assessed by fundraising efficiency, financial transparency, programs outcome and partnerships. The study was anchored on the Dynamic Capabilities Theory. A structured questionnaire was used to collect data from 170 non-governmental organizations operating in Nairobi City County, Kenya. Data was analyzed using descriptive and inferential statistics. The study findings revealed that competitive advantage fully mediates the relationship between smart technology usage and performance of non-governmental organizations in Kenya. Hence, managers are advised to optimize smart technology usage by creating necessary working environment and strategies that encourage innovativeness and value creation for stakeholders to create sustainable competitive advantage and superior organizational performance.*

Keywords: Competitiveness, Performance, Innovation, Technology, Stakeholder

1. Introduction

The meteoric rise in numbers of non-governmental organizations (NGOs) and their involvement in socio-economic development, in the last decade has received a lot of attention from scholars. Such growth in numbers is evident in Kenya, where registered NGOs grew from 8000 in 2012 to over 12,100 in 2022 [22]. In Bangladesh, the number of NGOs increased from 19000 in 1990s to over 40,000 in 2022 [7]. This phenomenal growth is global where the Union of International Associations reported 42,000 active NGOs and an annual increase of 1200 new organizations in the first half of 2024 [58]. NGOs are crucial in development process of both developed and developing countries. According to the [64] report, approximately 90% of projects financed by this organization are undertaken by NGOs. This is an increase from paltry 21% reported in 1990s. According to [41] globally, approximately 20% of bilateral aid go through non-governmental organizations.

For a long time, performance of NGOs has been a subject of interest donors, partners, communities where they operate and governments. Financial transparency is one of the key determinants of NGOs' 'attractiveness'. Despite the critical role played by NGOs in the socio-economic improvement of countries - for more than two decades in sub - Saharan Africa, they have continued to post diminished performance [19]. A report by [21] indicate diminished performance by NGOs' in sub-Sahara Africa, contrary to public expectations.

Enhanced performance of NGOs benefits the communities where they operate by providing both direct and indirect employment opportunities, entrenching confidence among donors, partners and other stakeholders, besides promoting socio-economic development [28]. Therefore, NGO performance determination remains a subject of concern to researchers since the 1990s when multi-national organizations channeled bilateral aid and mega projects through these organizations [44]. Scholars opine that NGOs should account for all the donor funds received by undertaking live-transforming projects in communities where they operate. In so doing, they could attract more donors and partners, hence boosting their performance. Kenya has an established and vibrant NGO sector and a regulatory framework in place within the East Africa region [57]. For instance, out of 8,816 United Kingdom International NGOs working in sub-Sahara Africa, 27% of the work is in Kenya, 3% in Uganda, 3% in South Africa, 2% in Tanzania and

1.7% in Ghana [58].

For a number of years, NGOs in Kenya have been posting dismal performance [39]. This has led to premature abandonment of various projects and programs occasioned by collapse of some of these organizations. These include more than 50 NGOs operating in the Rift Valley and Western parts of Kenya that collapsed due to lack of funds [37]. This caused panic and disenchantment among various stakeholders in the non-profit making sector.

Non-governmental organizations managers' interest to performance measurement and fulfilling their objectives has increased lately. Organizational performance is the collective outcome of all activities aimed at achieving organization's own set targets and objectives [30]. Additionally, NGO's management assess performance since the operating business environment of these organizations continues to be dynamic and dicey. To maintain effectiveness and 'attractiveness' of these organizations entails meeting the demands of stakeholders and designing an achievable and realistic performance measurement method [43].

There is lack of consensus among scholars on the appropriate indicators to leverage on in measuring performance for NGOs [1]. However, NGOs are required to measure their performance from multiple perspectives, taking into account the programs outcome, fundraising efficiency, financial transparency and partnerships formation [1]. Additionally, digital transformation is a key driver for particular opportunities for NGOs and their stakeholders, including donors, regulators and beneficiaries [12]. One such driver of digital transformation in organizations is the smart technology usage. In this study, smart technology is a device that integrates computing and telecommunication technologies into one device that works ubiquitously, such as the smartphone. Smart technology usage, especially for chatting, have changed organizations' civic engagement by providing new means to interact, collaborate and organize communities and stakeholders [22].

According to [53] report, globally, there is an explosion in numbers of smart technology devices in use. Further, [60] noted that the increase in numbers of smart technology devices have led to their enhanced adoption in organizations due to increased flexibility, ability to build community, improved feedback and enriched stakeholder engagement. The leading driver of smart technology usage in organizations is to increase client's outreach, improve accessibility of services and products, enhance efficiency, improve stakeholder engagement, and boost overall performance.

In a study, [45] modeled smart technology usage into process and social usages. Process smart technology usage focus on utilization meant for entertainment, relaxation, and other non-social purposes, such as accessing news, mobile apps and researching. Conversely, social usage entails utilization for social purposes such as chatting, calling, texting and conferencing among others. In another study, [18] categorized smart technology usage into Internet, social media and cloud computing - in form of mobile Apps. Further, [48] viewed smart technologies usage in the lens of

communication, web search, and data management. additionally, [26] grouped smart technology usage into social and communication applications that included short message services, chatting platforms, video creating and data management, in addition to mobile cloud computing. Other usages determined by literature include data management and banking applications. However, the classification proposed by [38] was quite comprehensive and included a total of fourteen usages key among them calling, texting, chatting, emailing, and Internet content searching – like news materials, and purposeful apps such as maps.

Competitive advantage is concerned with exceeding industry average exploitation of market opportunities and neutralizing of competitive threats. This are achievable by the organization developing basic strategies for creating value for its customers and differentiating its products and services from those of competitors' [35]. However, competitive advantage is increasing becoming short-lived occasioned by digital technology empowerment of stakeholders thereby stretching their range of choices. In addition, competitors have more abilities to infer and duplicate effective strategies through big data analytics - anchored decision-making process [11]. Consequently, the usage of digital technology – such as smart technology - in operations, stakeholder management, and differentiation of products and services, is one key strategy that organizations can leverage on to realize competitive advantage [21].

Smart technological innovation enables organizations to offer new and improved products and services to the market ahead of their competitors making them able to enlarge their market share in the industry where they operate. Technology-enabled service differentiation and improved quality of services offered to clients are other ways organizations can create an edge over their rivals and enhance competitive advantage [14]. Previously, several organizations have posted successful outcomes and improved performance traced on smart technology innovation, which creates competitive advantages for them [29], [38].

2. Literature Review

2.1 Theoretical Literature

This study is anchored on Dynamic Capabilities (DC) Theory by [55]. According to DC theory an organization's processes and positions comprise its portfolio of capabilities, which are unique, special, non-replicable, and usable for sustainable competitive advantage and superior organizational efficiency [46]. This theory argues that the extent to which dynamic capabilities contribute to competitive advantage depends on the environment, both internal and external, in which firms operate. The organization must routinely create, adjust and reconfigure internal and external competences to be at par with the fast evolving operating environments characterized by stiff competition, rapid changes in technology and deep uncertainties [54]. In order to realize competitive advantage, there must exist a clearly understood organization strategy that aligns to a technologically anchored business model. This may explain why an organization may leverage of smart technology usage to create an internal bundle of capabilities

that is deployable in a rapidly changing business environment to outperform the competitors.

Based on the foregoing, [42] argues that an organization's dynamic capabilities significantly explain its open innovation performance, which may in turn lead to enhanced or diminished organizational performance. In agreement, [15] based on dynamic capabilities theory, identified strategic fit between dynamism and largesse (abundance) in the business-operating environment as key drivers and sources of an organization's competitive advantage.

Managers in 21st century - more than ever before - face a more complex, ambiguous, and hypercompetitive environment. One critical challenge for them presented by this scenario is stakeholders' satisfaction. Stakeholders have persistently demanded a more proactive role in strategic decisions since they could be a source of challenge as well as opportunity to the organization [66]. Managing stakeholder relationships through interactions, providing feedback and addressing their concerns is one way of satisfying them. Additionally, delivering value and quality can boost stakeholders' satisfaction and loyalty, which ultimately yields competitive advantage for the organization [52].

In a study, [13] sought to determine whether smart technology usage is associated with organizational performance and competitive advantage. The researcher relied on secondary data. Unit of analysis was the marketing firm and the focus was on organizational performance. Empirical data analysis relied on regression and descriptive statistics. The study findings revealed that smart technology usage was a source of differentiation from competitors' offering. Smart technology usage was determined to be an effective means of communication for marketing firms. Moreover, smart technology usage provided consumers with unique brand experience, greater real-time interaction, greater brand recognition, which resulted in superior performance for the firms.

Problematic smart technology usage in the workplace is elaborated in extant literature [2],[20]. Likewise, [33] identified five negative effects of smart technology usage in the workplace including: technology-related stress, overload, anxiety, interruption and distraction, addiction and excessive use. Additionally, [23] established that smart technology notifications lead to interruptions in the workstation. However, these studies focused on behavioral motives to use and adoption of smart technology while the current study investigated smart technology usage [64]. This study investigated smart technology usage at the organizational level and its influences on performance.

In a study, [16] sought to determine the effect of service innovation on firm performance. The study sampled 46 peer-reviewed articles. Meta-regression was used for data analysis. The study concluded that service innovation had a significant positive impact on firm's performance. Additionally, the relationship between service innovation and firm performance was influenced by measurement moderators (economic region and performance measurement), and contextual moderators (firm type, innovation type, customer factors and attitudes toward risk).

Additionally, [40] study modeled service quality into process and product. The study established that service innovation leads to competitive advantage.

In their study, [3] determined existence of positive influence of external pressure by stakeholders on social performance of NGOs. The survey was conducted in Indonesia's NGO sector. Primary data was collected from 355 participants. Data was analyzed using structural equation modeling statistical test implementation. External pressure was established to affect negatively customer's relationship with the organization and production. Additionally, it dented the working relationships which, influenced employees negatively.

A study by [50] concluded that human resource management practices had a positive and a significant effect on employee performance, and innovation. Innovation was determined to explain employee performance. The study surveyed 167 respondents from local NGOs in East Timor. Data analysis was through partial least square modelling. Employee performance indicated the organization's level of achievement of its targets. The study determined that innovation was an important tool in shaping attitudes and behavior of NGOs' employees.

These studies confirmed that there exists an empirical gap in the field of smart technology usage and organizational performance. This study therefore, aims at advancing the existing literature by studying the relationship between smart technology usage, competitive advantage and performance of non-governmental organizations in Nairobi City County, Kenya. Based on the literature reviewed the study proposed the following hypotheses:

H_0: Competitive advantage has no significant mediating effect on the relationship between smart technology usage and performance of NGOs in Kenya.

3. Research Methodology

This study adopted explanatory research design as recommended by [47], and [36]. This design was necessary for explaining the characteristics of the study variables as well as explaining the cause-effect model, investigating patterns and trends in existing data, previously not investigated. Moreover, the study did not anticipate any undue influence on the variables. The study collected primary data through a structured questionnaire. The target population was all 801 NGOs operating in Nairobi City County, Kenya. Slovins formula generated a sample size of 266 NGOs. Out of 193 questionnaires received, 170 were accepted for analysis while 23 were rejected for being incomplete. Primary data was collected for the independent, dependent and mediating variables. The instrument collected both quantitative and qualitative data using close-ended and open-ended questions, respectively. Open-ended responses were analyzed using content analysis while quantitative data relied on statistical software.

3.1 Empirical Model for the Mediated Relationship

To test for the mediating effect of competitive advantage on the relationship between smart technology usage and performance, [6] four steps approach for testing mediation effect is used.
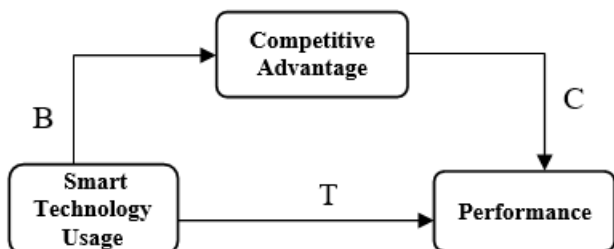

Figure 3.1: Mediation Model

Step 1

A linear regression analysis with smart technology usage predicting performance is conducted to test for path T' which yielded the model below:

$P_n = \beta_0 + \beta_1 STU_n + \varepsilon_n$ ……...................................……3.1
Where:
P_n = Performance of NGO n
STU_n = Composite index for Smart Technology Usage of NGO n
β_1 = Regression coefficient for smart technology usage
ε_n = Error term

This step sought to test whether smart technology usage is a significant predictor of performance. If β_1 is significant then, smart technology usage explained performance.

Step 2

A linear regression analysis with smart technology usage predicting competitive advantage is conducted to test for path B resulting in the model below:

$CA_n = \beta_0 + \beta_1 STU_n + \varepsilon_n$ ....…………………..……....3.2
Where:
CA_n = Composite Index for Competitive Advantage of NGO n
STU_n = Composite index for smart technology usage of NGO n
β_1 = Regression coefficient for smart technology usage

This step aimed at assessing whether smart technology usage is a significant predictor of competitive advantage. If β_1 is statistically significant, then smart technology usage is a significant predictor of competitive advantage.

Step 3

A linear regression analysis with competitive advantage predicting performance is conducted to test for path C generating the following model:

$P_n = \beta_0 + \beta_1 CA_n + \varepsilon_n$ …………………………..…....3.3
Where:
P_n = Performance of NGO n
CA_n = Composite Index for Competitive Advantage of NGO n

β_1 = Regression coefficient for Competitive Advantage

The objective is to test whether competitive advantage is a significant predictor of performance. If β_1 in the models 3.1, 3.2 and 3.3 is not significant, then mediation is not possible. If it is significant, move to steps 3.4.

Step 4

Multiple regression with smart technology usage and competitive advantage predicting performance was done yielding the model below:

$P_n = \beta_0 + \beta_1 STU_n + \beta_2 CA_n + \varepsilon_n$ …………….................3.4
Where:
P_n = Performance of NGO n
STU_n = Composite index for Smart Technology Usage of NGO n
β_1 = Regression coefficient for Smart Technology Usage
β_2 = Regression coefficient for Competitive Advantage
ε_n = Error term

There exists partial mediation if the effect of competitive advantage remains significant after controlling smart technology usage. If smart technology usage is not significant when competitive advantage is controlled, then the findings support complete or full mediation. If both smart technology usage and competitive advantage significantly predict performance, then there exists partial mediation.

4. Results and Discussion

The results of data analysis are presented as follows: descriptive analysis and regression analysis.

4.1 Descriptive Results

4.1.1 Competitive Advantage

In this study, competitive advantage was the mediating variable and was measured using Services Differentiation; Market Innovations and Service Quality as reflected by the primary data collected.
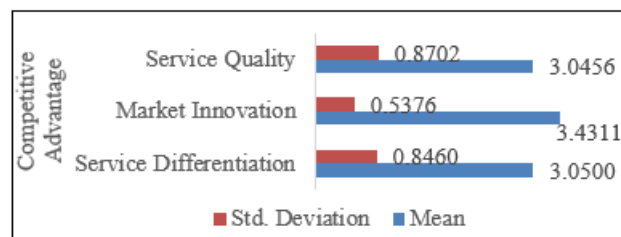

Figure 4.1: Competitive Advantage Summary

The study analyzed service differentiation, market innovation and service quality as measures of competitive advantage. The findings presented in figure 4.1 indicate that the overall aggregate mean for competitive advantage was 3.1756 and a standard deviation of 0.7512. The results further show that service differentiation had a mean 3.0500 and a standard deviation of 0.8460, market innovation had a

mean of 3.4311 and a standard deviation of 0.5376 while service quality had a mean of 3.0456 and a standard deviation of 0.8702. The highest variation within the attributes was observed in service quality while the least variance was seen in market innovation. This agrees with [21], who also determined market innovation to have a significant influence on the competitive advantage of telecommunication companies in Kenya. This implies that NGOs that invest in market innovation in terms of differentiated programs and projects and other innovative methods of reaching out and involving stakeholders creates a competitive advantage for them.

4.2 Test of Hypothesis

4.2.1 Mediation Effect of Competitive Advantage on the Relationship between Smart Technology Usage and Performance

To test for the mediation effect, the study adopted the four steps suggested by [6].

Step One: Smart Technology Usage and Performance

In the first step of testing for mediation effect, a linear regression analysis was conducted with smart technology usage predicting performance of NGOs in Kenya.

Table 4.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
P	.912[a]	.416	.406	.72856
a. Predictors: (Constant), STU				

The model of smart technology usage (STU) and performance (P) generated an adjusted R square of 0.406 implying that smart technology usage accounted for 40.6% of the variation in NGO performance as shown by the model above. The findings implied that smart technology usage had a strong explanatory power on performance of non-governmental organizations in Kenya. The findings agree with those of [49] who determined a relationship between smart technology usage, for Internet access and social media usage, and NGO performance.

Table 4.2: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
P	Regression	11.68540667	1	11.685	88.058	.000[b]
	Residual	44.58735804	168	0.2654		
	Total	56.27276471	169			
a. Dependent Variable: NGO Performance						
b. Predictors: (Constant), STU						

The ANOVA results presented in Table 4.2 indicate that the nexus model between smart technology usage and NGO performance had a goodness of fit as shown by F = 88.058; p = 0.000< 0.05. These findings imply that smart technology usage significantly predicted NGO performance. The findings concur with those of [9] who established that smart technology usage through mobile Apps, explained performance in hotel chains. Likewise, [4] established positive impacts attached to the use of the smartphone in the

workplace through improved communication, mobility and productivity.

Table 4.3: Regression Coefficients Results

		Coefficients[a]				
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
P	(Constant)	2.137	.216		12.333	.000
	STU	.341	.051	.456	6.635	.000
a. Dependent Variable: NGO Performance						

Overall Model for the step one:

$$P_n = 2.137 + 0.341 \text{ (Smart Technology Usage)} + \varepsilon_n$$

In the model, smart technology usage had a beta coefficient of 0.341, p=0.000 <0.05. This implies that smart technology usage significantly predicted performance of non-governmental organizations in Kenya.

Step Two: Smart Technology Usage and Competitive Advantage

Step two involved determining whether smart technology usage (explanatory variable) predicts competitive advantage (Mediating variable). This regression model was created and the findings are presented in tables 4.4 to 4.6.

Table 4.4: ANOVA Results

		ANOVA[a]				
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.383	1	84.383	88.058	.000[b]
	Residual	24.084	168	.143		
	Total	108.467	169			
a. Dependent Variable: Competitive Advantage;						
b. Predictors: (Constant), STU						

The ANOVA results presented in Table 4.4 revealed that the connection model between smart technology usage and competitive advantage had a goodness of fit as shown by F=588.617, p=0.000 <0.05. Consequently, a deduction was made that smart technology usage was a significant predictor variable of competitive advantage.

Table 4.5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.882[a]	.778	.777	.37863
a. Predictors: (Constant), STU				

The model linking, smart technology usage and competitive advantage yielded a value of adjusted R-squared of 0.777, meaning that smart technology usage accounted for 77.7% of the variation in competitive advantage assessed by market innovation, service quality and product differentiation. The findings agree with those of [27] who determined that digital technology radically changed the nature of products, the process of value creation and, above all, firms' competitive environment.

Table 4.6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.073	.173		6.186	.000
	STU	1.295	.053	.882	24.261	.000
a. Dependent Variable: Competitive Advantage						

The beta coefficient of smart technology usage from table 4.6 was β=1.295, p=0.000 p<0.05. The findings imply that smart technology usage had a significant effect on competitive advantage of NGOs in Kenya. The model emanating from these findings was:

Competitive Advantage = 1.073+1.295 (STU) + ε_n

This finding agrees with those of [24] who demonstrated how important smart technology usage was to the transformation of digital marketing. Innovations such as artificial intelligence, machine learning, big data analytics, marketing automation, and customer-relationship management systems, lead to competitive advantage. Likewise, [25] postulates that proactive technology-driven approach to supply chain risk management, combining both external with internal factors, resulted in competitive advantage for the organization.

Step Three: Competitive Advantage and Performance

Step three in testing for mediation involved modeling competitive advantage and performance of non-governmental organizations in Kenya. The findings of this regression analysis are presented in tables 4.7 to 4.9.

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.467[a]	.218	.214	.36178
a. Predictors: (Constant), Competitive Advantage				

The findings of model summary presented in Table 4.7 indicate that the model linking competitive advantage and performance yielded adjusted R=square of 0.214. These findings indicate that competitive advantage accounted for 21.4% of the variation in performance.

Table 4.8: Step ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.147	1	6.147	46.966	.000[b]
	Residual	21.989	168	.131		
	Total	28.136	169			
a. Dependent Variable: NGO Performance; b. Predictors: (Constant), Competitive Advantage						

The ANOVA results presented in Table 4.8 indicate that the model connecting competitive advantage and performance was statistically significant as shown by F=49.966, p=0.000

<0.05. The finding implied that competitive advantage significantly predicted performance. These findings are in tandem with those of [67] who found that competitive advantage partially mediated the relationship between enterprise risk management practices and SME's performance. Moreover, [56] showed that a lean management strategy was positively and significantly related to management control systems, and competitive advantage. Additionally, management control systems had a positive and significant effect on competitive advantage and firm performance.

Table 4.9: Regression Coefficients Results

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	2.417	.110		21.900	.000
	Competitive Advantage	.238	.035	.467	6.853	.000
a. Dependent Variable: NGO Performance						

Based on the regression coefficients in table 4.9, the following model was presented:

Performance = 2.417+0.238 (Competitive Advantage) + ε_n

In the model, competitive advantage had a beta coefficient of 0.238, p=0.000 <0.05. This implies that competitive advantage significantly predicted the performance of non-governmental organizations in Kenya. Therefore, the third step in test for mediation was achieved. The study findings agree those of [51] who determined that there was a correlation between competitive advantage and firm performance. Additionally, the study established that information communication and technology had a positive effect on competitive advantage. Thus, competitive advantage measurement should understand the gap between stakeholder satisfaction and performance perceptions. Similarly, [17] further aver that stakeholder satisfaction and organization's relationships with critical stakeholders lead to better performance.

Step Four: Smart Technology Usage and Competitive Advantage predicting Performance

The last step in testing for mediation involved fitting smart technology usage and competitive advantage on performance of non-governmental organizations in Kenya. The results of this regression analysis are summarized in tables 4.10 to 4.12.

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.476[a]	.454	0.436	0.36089
a. Predictors: (Constant), STU, Competitive Advantage				

The connection model between smart technology usage, competitive advantage and performance produced an R-squared value of 0.436 implying that smart technology usage

and competitive advantage combined explain 43.6% of the variation in performance. The findings show that smart technology usage and competitive advantage had high explanatory power on performance of NGOs in Kenya. The study findings are in harmony with those of [62] who determined that smart technology usage in form of social media help in customer relationship management thus improving marketing adoption strategies and business performance. Further, organizations with a high level of social media usage were more likely to adapt to that environment and achieve an advantage by acquiring customer information and trust earlier than competitors received.

Table 4.11: ANOVA Results

ANOVA[a]					
Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1 Regression	6.386	2	3.193	49.034	.000[b]
Residual	21.750	167	.130		
Total	28.136	169			
a. Dependent Variable: NGO Performance; b. Predictors: (Constant), STU, Competitive Advantage					

The ANOVA results presented in Table 4.10 indicate that the model linking smart technology usage, competitive advantage and performance were both statistically significant. This is shown by F-statistic =49.034, p=0.000 <0.05. The finding implied that smart technology usage and competitive advantage significantly predicted performance of non-governmental organizations in Kenya. The study finding corresponds with those of [63] who established that competitive advantage had a mediating effect on the relationship between corporate strategies and firm performance. Moreover, [32] study revealed the mediating role of social commerce capability, social media use and competitive advantage. Furthermore, the findings illustrated improved business performance because of the competitive advantage derived from relational social commerce capability. Social commerce is a type of business leveraging on social media accessed, largely, via smart technology devices.

Table 4.12: Regression Coefficients Results

Coefficients[a]						
		Unstandardized Coefficients		**Standardized Coefficients**		
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	2.219	.183		12.115	.000
	Competitive Advantage	.150	.074	.295	2.043	.043
	STU	.146	.108	.196	1.354	.177
a. Dependent Variable: NGO Performance						

The regression model show that smart technology usage had a beta coefficient of 0.146, p=0.177 > 0.05, implying that smart technology usage did not significantly predict performance of non-governmental organizations in Kenya. Competitive advantage had a beta coefficient of 0.150, p=0.043 <0.05 implying that competitive advantage significantly predicted performance of NGOs in Kenya. Since not all the variables of the study were significant in

step four, the study concluded that competitive advantage fully mediated the relationship between smart technology usage and NGO performance. The findings concur with those determined by [10] that competitive advantage significantly affect organizational performance. Additionally, [5] posit that competitive advantage is a mediating variable on the relationship between corporate governance, intellectual capital and firm value. Further, [61] established technological innovation, such as smart technology usage, to be a source of competitive advantage for the organization, which lead to superior performance.

5. Conclusions and Policy Recommendation

Anchored on above findings, this study concluded that non-governmental organizations smart technology usage had a significant effect on their performance. The study established that NGOs that leveraged on process smart technology usage, social smart technology usage, financial smart technology usage and mobile cloud computing usage achieved stakeholders' satisfaction and superior performance. The study further concluded that NGOs that leveraged on their competitive advantage achieved enhanced performance. Services differentiation, market innovations and services quality emerged as crucial strategies that NGOs' can use to outperform their competitors and enhance their overall performance. Drawing from the findings, the study recommends to the management of non-governmental organizations to initiate technological reforms, especially smart technology, to achieve enhanced performance and cope with the rapidly evolving industry environment. This will enable them to reach out to many stakeholders, communities, donors and partners to support their programs and to fundraise. Additionally, technology will assist NGOs to enhance financial transparency and increase their visibility and "attractiveness" to prospective partners. The study further recommends that managers of NGOs should consider delivering superior value to the communities where they operate though implementation of smart technology usage. In conclusion, the study recommends that scholars in the field of management information systems utilize the findings of this study to advance knowledge by testing the robustness of other technology theories that are applicable in measuring the effect of smart technology usage on organizational performance.

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