

# Moderating Role of Environmental Dynamism on the Relationship between Opportunity Evaluation and Growth of NGOs in Kenya

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*This study explored the moderating role of Environmental Dynamism (ED) on the relationship between opportunity evaluation and growth of agro-based Non-Governmental Organisations (NGOs) in Kenya. These NGOs play a critical role which includes poverty reduction, through employment creation and food security and therefore their growth is fundamental in continuing to serve the society. Agro-based NGOs in Kenya, operating in dynamic business environments face greater levels of unpredictability and turbulence than those in more stable business environments. The need to link opportunity evaluation and growth is very important for organisations to attain growth. To better understand this relationship, this paper employed a mixed method approach guided by cross-sectional research design. Quantitative and qualitative techniques were employed to analyse the data from 124 agro-based NGOs in Kenya using SPSS version 21 and AMOS graphic analytical software. Structural Equation Model (SEM) was used to analyse the measurement model and test the hypothesized relationships in this study. The study established that, opportunity evaluation has a significant and positive influence on growth of agro-based NGOs and that ED moderates this relationship. The findings are critical to the NGO management who are the core implementers of entrepreneurial projects that satisfy the donors and targeted communities. This study also enriches the social entrepreneurship literature by demonstrating the role of ED on the growth of agro-based NGOs in Kenya and provides a new perspective of conceptualizing development of NGOs in Kenya.*

**Keywords:** Environmental Dynamism, Non-Governmental Organizations, Opportunity Evaluation, Growth

**JEL Classification:** L19

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Article History:

Received 12 February 2020 | Accepted 19 May 2020 | Available Online 7 June 2020

Cite Reference:

Tindika, O.K.N., Wanjau, K.L., Kariuki, G.M. and Muchiri, J., 2020. Moderating Role of Environmental Dynamism on the Relationship between Opportunity Evaluation and Growth of NGOs in Kenya. *Expert Journal of Business and Management*, 8(1), pp.98-109.

## 1. Introduction

Sustainable Growth has still remained one of the central aims of an entrepreneur or management for a long time now (Rahdari, Sepasi and Moradi, 2016). The exploitation of Opportunities is one of the ways entrepreneurs create new ventures and drive their organizations towards achieving growth goals. Entrepreneur's evaluation of the identified opportunity is crucial stage in which entrepreneurs makes decision if an opportunity is of value to exploit or not. Evaluation enables entrepreneurs not only to focus the future needs of the organization but also as a predictor of the resources required to create future wealth if the opportunity is exploited (Santos, 2012). Ability of an entrepreneur to objectively judge an Opportunity as of value worthy exploiting or not is a critical requirement in this managerial goal.

A number of studies have documented how entrepreneurs evaluate an Opportunity and the consequence of such an evaluation on venture performance (Acs, Audretsch and Lehmann, (2013), Hajizadeh and Zali, 2016, George et al., (2016). They argue that entrepreneurs use their cognitive skills to evaluate an opportunity on the basis external factors like resources, network knowledge, and so on. This implies that an entrepreneur's personal skill to recognize and evaluate an opportunity is a key factor towards objective evaluation. Therefore cognitive skills entrepreneurs possess enable them to objectively assess firms' resource capability to initiate sustainable venture creation. One can therefore generally postulate that entrepreneurs that have superior Opportunity evaluation prowess effectively and objectively evaluate opportunities and take action which result to venture creation and growth. Although there are limited Opportunity Evaluation – growth studies in the agriculture sector is limited, their importance is unquestionable.

It is common knowledge that agricultural sector face heightened uncertainties like plant diseases, pest invasion, floods, drought, changes in customer preferences, government regulation, and so on present risks in the organizations that provide services in the sector. A rational entrepreneur must take cognizant of the net impact of each dynamics when evaluating an opportunity of value or not (Wood and Williams; 2014, Holland and Garrett, 2015). Technological, market and social political changes are some the environmental dynamics that also come into play during opportunity evaluation because they present both risks and opportunities. NGOs in the sector play a critical role as agents of development, establishing a model of opportunity evaluation in the context of the environmental dynamics is required in the sector. To date, studies that model the opportunity evaluation factors of an entrepreneur or management and environmental dynamics in the NGO sector in the Kenyan perspective are limited.

Our research was set to address these knowledge limitations in agricultural sector. Broadly we set to find a comprehensive structural growth model among NGOs in Kenya that incorporates Opportunity evaluation and environmental dynamics. Specifically, we set to find answers to two key questions; (1) is there a significant relation between opportunity evaluation and growth of agro based NGOs in Kenya. (2) Do Environmental dynamics have a significant moderating role on the relation between opportunity Evaluation and growth of NGOs in Kenya? We hope the findings are crucial to both literature and practice.

## 2. Literature Review

A study by Haynie et al., (2009) explores how entrepreneurs' existing resources inform their evaluation decisions. The findings suggest that entrepreneurs are drawn to opportunities that are related to their knowledge, skills and abilities. The knowledge, skills and abilities of entrepreneurs have been investigated within the theoretical framework of human capital theory (Alvarez and Busenitz, 2001; Cooper et al., 1994; Davidsson and Honig, 2003). Human capital theory proposes that individuals with more quality human capital achieve higher performance (Gibbons and Waldman, 2004).

Although there have been some findings in support of the notion that, as an entrepreneur possesses more of these general resources, it seems that individuals usually pursue opportunities that are related to knowledge they already possess (Shane, 2000). Scholars have constantly noted that an individual's knowledge, not resources more often than not, dictate the opportunities they value for exploitation. Put together, firm entrepreneurs create positive perception of an opportunity to be of values based on a combination of both cognitive abilities he possess and the availability and suitability of the resources. This literature lead us to our first research hypothesis;

*H1: Opportunity evaluation attributes within a firm has direct positive influence on the growth of a firm.*

Environmental dynamism “is a concept, concerning uncertainty, complexity and unpredictable changes in the environment where businesses are involved (Chirico and Bau, 2014). The terms ‘turbulence’ and ‘volatility’ mainly are related and refers to environmental characteristics which are similar to

environmental dynamism and they all are geared and related to the degree and speed of changes in the environment” (Ansoff, 2007). Environments are considered to be dynamic when they are characterized by unpredictability and they are going through rapid changes in the demand for firm products and services, technologies, and in the demand or supply of materials (Jansen, Van Den Bosch and Volberda 2006).

Adomako and Danso, (2014) in their study on regulatory environment, environmental dynamism, political ties, and performance, found out that, environmental dynamism moderate the regulatory environment-firm performance relationship such that, such relationship is positive and significant.

An entrepreneur’s view of an opportunity as either suitable or not to exploit is anchored in his view of the risks in the environment dynamics (Gruber et al., 2015). In the case the entrepreneur perceives the dynamics to present a favourable opportunity; the entrepreneur will value that opportunity and go ahead to mobilize the resources and networks so as to exploit the opportunity thus expanding the organization’s capacity (Fuentes et al., 2010, Davidsson, 2015). On the other hand, if the perception of the entrepreneur now is contrary, the entrepreneur will see the dynamics as too risky and will not make a move to take action. Considering these arguments together, we propose the second hypothesis;

*H2: Environmental Dynamics has significant moderating effect on the relation between Opportunity evaluation and growth of NGOs in Kenya.*

## **2.1. Firm Growth**

Performance is one of the core managerial goals in any undertaking for profit or non-profit making organizations (Coad and Hözl , 2012). However, there is a lot of divergence when it comes to defining it and therefore many authors have defined it in different ways and perspectives. The common measures of growth from the economic perspective is the increase in firm size over time which is measured in terms of increased firm assets, number of employees and turnover (Santos, and Brito, 2012).

But Poister (2008) defined growth performance measurement as a method of identifying, controlling and utilizing different objective measures of the organization's performance and its programs on regular basis. Furthermore, Lindblad (2006) considered “performance measurement as the utilization of objectives, indicators and information to assess NGOs interventions and services”.

There is little consensus over how to define and measure performance in NGOs since these organizations have unclear goals and uncertain relationship between programs' activities and outcomes (Carman, 2007). However, Carman (2007) asserted that performance measurement is a systematic evaluation of a program's outputs, inputs and impacts. Miller and Wesley (2010) viewed performance measurement as a program assessment method that can be used to evaluate efficiency and effectiveness of a social entrepreneurship initiative program and its impact. Our study adopted the definition of Miller and Wesley.

Because growing NGOs play a critical role in creating the much needed jobs as the first stage to spur the much desired development in the communities they serve, we argue that the level of entrepreneurial mind-set within these NGOs is critical innovate ways to identify, evaluate and exploit opportunities to spur even rapid-growing firms. Entrepreneurial firms that achieve efficiency in both their finances and non-financial creates an enabling environment for even further expansion and growth (Cooney 2012).

## **2.2. Theoretical Review**

In this section, we reviewed two theories which support the study; the human capital theory and social cognitive theory. Human Capital Theory (HCT) was originally developed to study the value of education knowledge and skills (Martin, McNally and Kay, 2013). This theory has been popularly used in the field of entrepreneurship research and it recognizes that people possesses diverse human capital (Marvel, Davis, and Sproul, 2016).

The key relevancy of HCT to this study is in recognizing that individuals with more human capital qualities have better judgment in opportunity evaluating and achieve higher performance in executing relevant tasks than those who have less capital (Roca-Puig, Beltrán-Martín and Ciperes, 2012). Studies have actually supported this theory that an entrepreneur possesses more of human capital than non-entrepreneurs and they value the related to knowledge they already possess (Shane, 2000).

The other theory we found relevant to this study is the Social cognitive theory which offers a useful insight on opportunity evaluation process. The action an individual takes is a product of an individual’s internal thoughts, focal behaviour and the environment (Shirokova, Osiyevskyy and Bogatyreva, 2016). The study used this theory as basis to explain the actions of project managers’ of agro based NGOs in Kenya and the influence off their actions.

### 2.3. Conceptual Framework

Our hypothesized conceptual framework is shown in figure 1. It shows the link between Opportunity Evaluation and growth of NGO with ED as the potential moderator variable. The study proposed the following two research hypothesis H1: Opportunity Evaluation has significant influence on growth of NGOs in Kenya. H2: Environmental Dynamism has a significant moderating influence on the relationship between opportunity evaluation and growth of NGOs in Kenya.

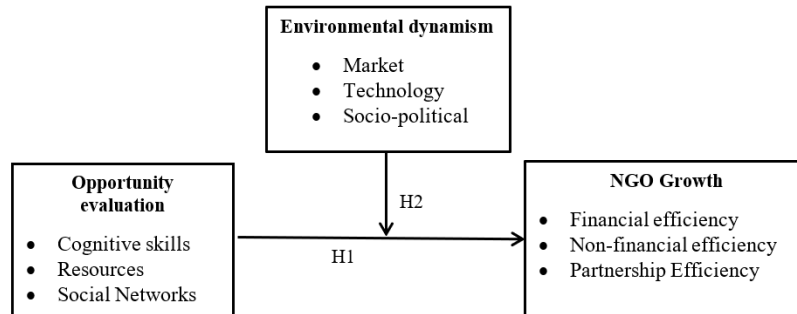


Figure 1. Proposed conceptual model of Opportunity Evaluation, and Growth of NGOs in Kenya

### 3. Methodology

We adopted a mixed method approach in which both qualitative and quantitative approaches were used during data collection and analysis for deeper understanding of the topic and provide the basis to validly and accurately answer the research question Huang, (2015). One of the outstanding strengths of this approach is that it offset the weaknesses of both quantitative and qualitative research (Venkatesh, Brown and Bala, 2013). Also, the analysis of mixed method data provides more accurate conclusions thus contributing valuable ideas to literature (Palinkas, et al., 2015).

#### 3.1. Study Sample

The study focused on NGOs that are classified under the agriculture subsector in Kenya. Kenya is an agricultural country in which over 90% of its population directly depend on agriculture and for that reason, the new insights of this study would have a far-reaching impact to a wider society in terms of development. Again, the agriculture sector is undergoing unprecedented uncertainties caused by among others the unpredictable rains, floods, drought, emerging new diseases, insect invasion, import and export regulations of farm implements and produce. Therefore, the sector was suitable studies are to provide rich information on how these dynamics have impacted on their survival.

A census sampling technique was used by taking all the 135 project managers because of the small sample size. One project manager from each NGO provided the required data regarding their organizations. In most NGOs the managers are the key decision makers in the projects thus they are the among the most suited people to provide the needed information regarding the dynamics, level of opportunity evaluation ED, Project Evaluation and growth. This technique is recommended when the population is small and it has an advantages of eliminating sampling error by providing data on all individuals in the population (Hibberts, Johnson and Hudson, 2012). Therefore, this sample size used is one of the methodological strengths of this study (Burns, Bush and Sinha, 2014).

Prior to conducting main data collection exercise, we piloted the questionnaire on 14 project managers representing 14 NGOs to assess the suitability and reliability of the questionnaire (Dikko, 2016) the. Faculty instructors in the university department assessed the face validity of the questionnaire and suggested reframing of some questions to make them capture the concepts they intended to measure clearly. Cronbach's alpha coefficient approach assessed reliability. The rule of the thumb applies in determining the reliability of the measuring instruments; 0.9 excellent, 0.8 good and 0.7 acceptable (George and Mallery, 2003). In this study, the overall alpha coefficient obtained (appendix I) is greater than the common cut off value of 0.7 (showing that the instrument demonstrated acceptable reliability (Slavec and Drnovšek, 2012).

At this point, it is crucial to note that this study used Structural Equation Modeling (SEM) technique to answer the research questions. This technique has elicited a lot of diverse views among the SEM literature as to which is the appropriate sample size for the technique to provide accurate results (Westland, 2010). Despite the diverse views, there is unanimous agreement that the validity of the SEM results and therefore strength of conclusion drawn, depend on sample the actual size used (Hox, Maas and Brinkhuis, 2010, Wolf

et al., 2013). In this regard, various rules of thumb that include sample sizes below 200 have been advanced were considered in this study. Further, Monte Carlo simulation results by Clarke and Miller (2013) recommend sample sizes of 30 to 460 provided the item loadings in CFA of is at least 0.6. Considering the above sample size discussions, it is means that our sample size of 135 fits well in both the rule of thumb criteria as well as the simulated results criteria.

Out of the 135 questionnaires sent out, 124 were returned translating to 92% response rate. We scrutinized the sample and found that it comprised of 80 males and 44 females; they ranged in age from 38 to 69 years, with a mean of 47.11 years. In terms of experience as project managers, it ranged from 1 to 15 years with a mean of 5.02 years. Finally, the general experience working with NGO, ranged from 1 to 24 years with a mean of 8.43 years. The table 1 result describes salient features of the study sample.

*Table 1. Summary of the of study sample*

	Minimum	Maximum	Mean	Std. Deviation
Age of respondents	38	69	47.11	10.451
Duration in project managers	1	15	5.02	3.118
Experience working with NGOs	1	24	8.43	4.294
Number of employees	6	300	34.59	55.19

### 3.2. Variables and Measures

The independent variable was opportunity Evaluation. It was measured using three sub constructs;

Cognitive skills, Firm Resources and Social Networks. In each sub construct at least three questions were used as indicators. Example in cognitive framework the key question was ‘During opportunity evaluation in this organization, the opportunity reflect entrepreneurs perception’ the responses were captured on 5-point Likert scale in which 1= strongly Disagree to 5= strongly agree

The dependent variable was Growth of NGOs. The performance measures of growth adopted in this study are Partnership, Fundraising efficiency and non-financial efficiency. Partnership is assessed and evaluated by the number of partners, their relevance and importance to the work field of an NGO and their satisfaction. Projects non-financial efficiency is a measure of the relationship between the nonfinancial inputs, such as time, staff, expertise and the outputs. Fundraising Efficiency was measured by ease of access to funding, access to resources and beneficiaries. Finally ED is measured by market dynamism, technological dynamism and socio-political dynamism (Shane, 2000).

The moderator variable was Environmental Dynamism; Prior studies have shown Environmental Dynamism as a factor in the performance indicators. In this study ED was the moderator and was measured using three sub constructs; market dynamism, technology dynamism and social political dynamism. They were captured using 5-point Likert scale.

## 4. Analysis and Results

We made used Structural Equation Modelling (SEM) technique in order to test the research hypothesis H1 and H2 developed in the conceptual framework section. This modelling technique is carried out in steps (Bollen and Pearl, 2013). The first step involves developing a measurement model of the constructs identified from the EFA procedure and then testing its fitness using selected fit indices. If the model is sufficiently fit, the next step is to convert the measurement model to structural model to test the relationship between constructs. The fit indices are also used to assess how well the data fit to the hypothesized relationship between constructs in the structural model. Finally, the regression weights and their respective p values that generated in the structural model are used to make conclusions regarding significance of relationships among constructs. These steps were also followed in this study.

### 4.1. Exploratory Factor Analysis (EFA)

We used Exploratory Factor Analysis (EFA) to explore the factor structure of the dataset (Osborne and Fitzpatrick, 2012) validity and assess reliability of the instrument as well. The suitability of conducting EFA was first assessed using the two common tests; Kaiser-Meyer-Olkin Measure and Bartlett’s test of sphericity of Sampling Adequacy (Yong and Pearce, 2013). The results (appendix II) yielded a KMO value of 0.834 meaning that the sample size was large enough to assess the factor structure. The Bartlett’s test of sphericity ( $\chi^2 = 1783.263$ ,  $p < .001$ ) is significant meaning there is significant relationship among the constructs variables. Only items with loading of greater than 0.6 were retained to ensure construct validity (Zohrabi, 2013) Items which load highly to a given latent construct demonstrate construct validity (Montgomery, Peck and Vining , 2001)

#### 4.2. Fitness of the Measurement and Structural Models

The measurement and structural models were assessed using fit indices which tests how well data and model fit (Shi *et al* 2019, pp.310-334). We used incremental indices in this study, CFI (Comparative Fit Index) and Normed fit index (NFI) in order to compare how well the model is better than the baseline model which has a large chi square under null hypothesis. We also used selected absolute indices (Chi Square), Root Mean-Square Error of Approximation (RMSEA) and GFI (Goodness-of-Fit Index) (Kline , 2012). Indices scores greater than 0.9 indicates good fit and small chi square values (insignificant) are desired. These conditions are met (table 2)

The empirical results of the fitness test for both measurement and structural model statistics indicate that the measurement and the structural model are the same (table 2). This means that the measurement model and structural model are fit models.

**Table 2.** Fit Indices of measurement and structural models Opportunity Evaluation –Growth

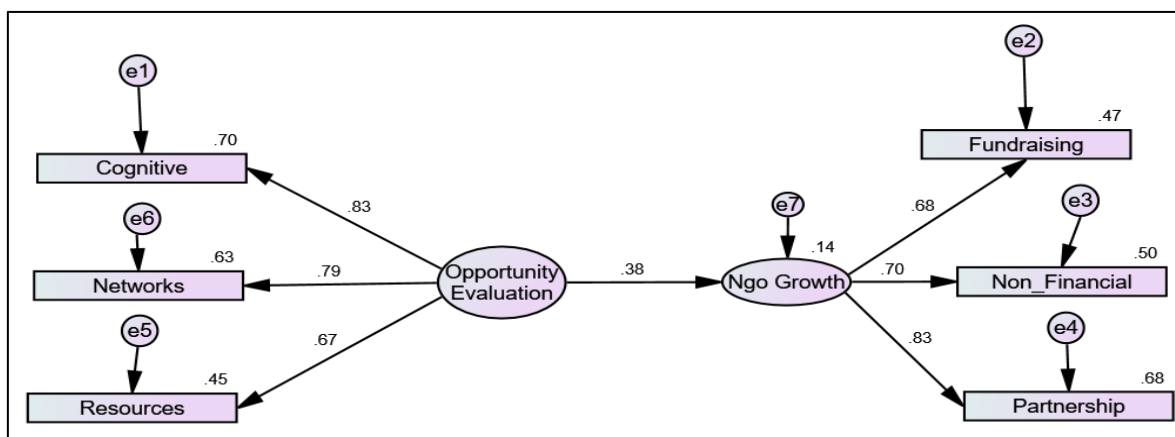
Name of fit statistics	$\chi^2$ (df)	NFI	GFI	CFI	RMSEA
Measurement model fit indices	10.227 (8)	0.901	0.929	0.919	0.056
Structural model fit indices	10.227 (8)	0.901	0.927	0.919	0.056
Fit threshold		$\geq .90$	$\geq .90$	$\geq .90$	$\leq .08$

Standard regression weights from Confirmatory Factor Analysis results were used to assess construct reliability in which reliability is demonstrated if the standardized regression weights are significant ( $p < .05$ ). The regression weight results in table 2 shows that each observed item has significant p-values implying the instrument demonstrated construct reliability. Considering the above validity test results and this reliability results, the instrument demonstrated both validity and reliability.

#### 4.3. Hypothesis H1 Results

The standardized regression weight of opportunity discovery, the exogenous variable and growth, the endogenous variable, is 0.38 and it is significant ( $p = 0.002$ ) (figure 2 and table 3). This means that the probability of obtaining a regression weight as high as 0.38 if the null hypothesis is true is 0.002. Therefore, therefore it is evident to reject  $H_{01}$  in favour of  $H_1$ .

We consider these significant findings on the relation between Opportunity evaluation and growth as core findings in the growth of NGOs in Kenya. The regression weight value 0.38 means that if opportunity Evaluation effectiveness increase by 1.00 standard deviation (100%), the growth of NGO increases by 0.38 standard deviation (38%) if other factors that also influence growth are kept constant. On the other hand, a decrease in Opportunity Evaluation effectiveness by 100% results in a decrease in growth by 38%. In summary, the result means growth can be achieved among NGOs in Kenya if there is an environment that encourages positive opportunity evaluation among NGOs. This, as we noted, is achieved by having individuals who have superior cognitive skills to utilize resources and networks to see value in an opportunity to exploit.



**Figure 2.** Standardized Regression weights from SEM of Opportunity Evaluation and Growth of NGOs in Kenya.

**Table 3. Regression weights of Opportunity Evaluation and Growth model**

			Estimates		S.E.	P
			Std	Unstd.		
Opportunity Evaluation	<---	NGO Growth	.377	.356	.116	.002
Cognitive Framework	<---	Opportunity Evaluation	.685	.893	.152	***
Networks	<---	Opportunity Evaluation	.704	.927	.156	***
Resources	<---	Opportunity Evaluation	.827	1.000		
Fundraising	<---	NGO Growth	.834	1.000		
Nonfinancial	<---	NGO Growth	.791	.963	.138	***
Partnership	<---	NGO Growth	.673	.799	.125	***

#### 4.4. H2: Moderation Hypothesis Test Results

In this section we introduced the hypothesized moderator into the Opportunity Evaluation –growth model so as to test the second research hypothesis. Consequently, Opportunity evaluation, ED, and the product are modelled as exogenous variables and growth as the endogenous variable in the SEM (Sardeshmukh and Vandenberg, 2017). In hypothesis testing using interaction term, the key focus in is the significance of the regression weight of the interaction term (Dawson, 2014) which should be significant to depict significant moderation.

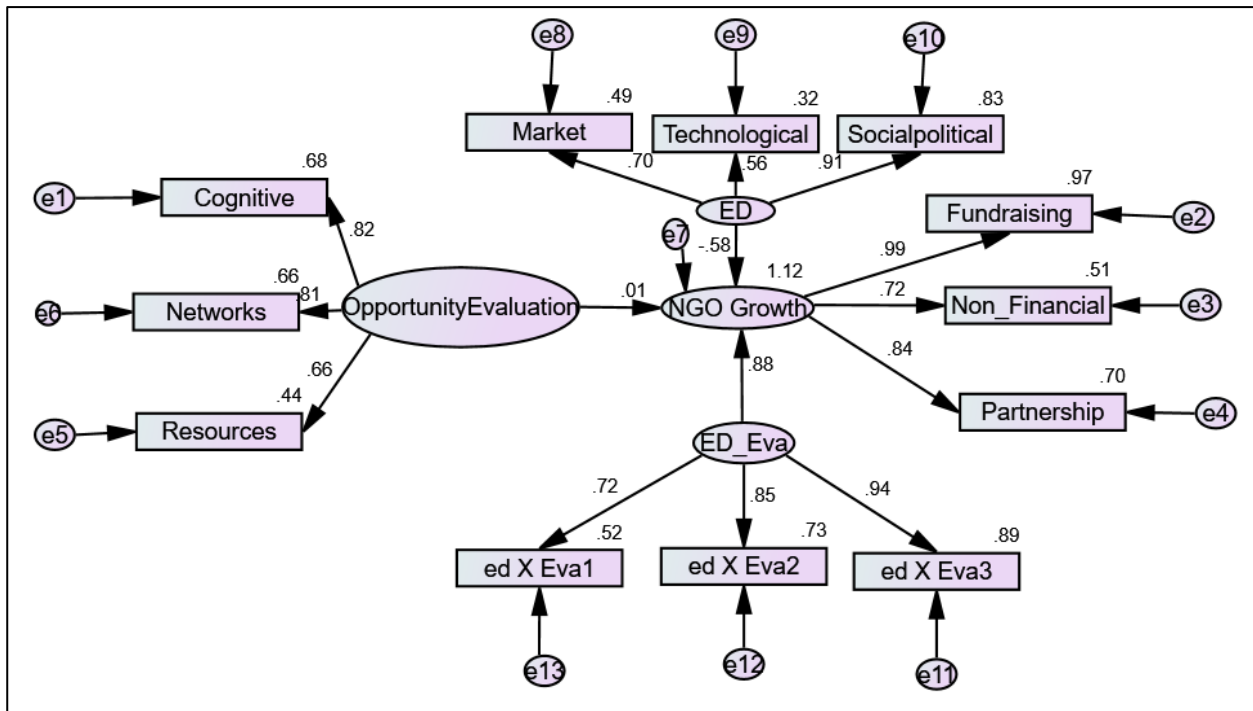
The results presented in figure 3 and table 4 shows that the regression weight of the interaction term (B=0.885) is significant (p<.001) and therefore the study concluded that ED has a significant moderation effect on relationship between opportunity evaluation and growth of agro based NGOs in Kenya. The hypothesis H<sub>0</sub> was thus rejected in favour of H2. This is another key finding of this study which means that Opportunity evaluation factors like cognitive skills, knowledge and networking interacts with the Environmental Dynamics in terms of changing markets and technologies to enhance growth among NGOs (Dawson, 2014). The two results have shown that H1 and H2 hypotheses are all supported and therefore our hypothesized conceptual framework is supported.

This result means that significant developmental milestones of an NGO in terms of growth are explained by a suitable Opportunity evaluation-ED interaction and not through the individual main effect.

The moderation of ED findings obtained in this study are in line with opportunity evaluation and decision making framework that entrepreneur or firm make use of their resources, cognitive and social experience to discern the attractiveness of an opportunity in the face of the economic uncertainties. These findings are also in line with other empirical findings (Mura et al., 2014.) Hmieleski and Baron (2008) found the positive moderation effect on performance of a venture.

**Table 4. Summary of Regression weights of the model with interaction term to test moderation**

			Estimate		S.E.	P
			Std	Unstd.		
<b>NGO Growth</b>	<---	Opportunity Evaluation	.014	.020	.016	.218
<b>NGO Growth</b>	<---	ED	-.580	-.988	.113	***
<b>NGO Growth</b>	<---	ED-Eva	.885	.153	.010	***
<b>Fundraising</b>	<---	NGO Growth	.987	1.640	.108	***
<b>Nonfinancial</b>	<---	NGO Growth	.716	.822	.094	***
<b>Partnership</b>	<---	NGOGrowth	.838	1.000		
<b>Cognitive</b>	<---	Opportunity Evaluation	.823	1.000		
<b>Networks</b>	<---	Opportunity Evaluation	.811	1.001	.148	***
<b>Resources</b>	<---	Opportunity Evaluation	.662	.798	.128	***
<b>Market</b>	<---	ED	.701	1.000		
<b>Technology</b>	<---	ED	.564	.920	.144	***
<b>Socio-political</b>	<---	ED	.913	1.486	.152	***
<b>ED_Evaluation3</b>	<---	ED_Eva	.943	1.000		
<b>ED_Evaluation2</b>	<---	ED_Eva	.854	.830	.055	***
<b>ED_Evaluation1</b>	<---	ED_Eva	.718	.692	.066	***



**Figure 3.** To test the hypothesized moderation Effect of ED on the Relation Between Opportunity Evaluation and Growth of NGOs in Kenya

## 5. Discussions

### 5.1. General Conclusions

We found support for our argument that managers' Opportunity Evaluation attributes has significance influence on the growth of an NGO. Consistent with both the Human Capital Theory and Cognitive Theory, NGOs firms that have entrepreneurial mind-set individuals are able to find more opportunities as suitable to exploit in order to growth than the counterpart firms that have less of such attributes. These findings are well supported in evaluation research literature which explains how the entrepreneur perceives an opportunity with a value to exploit. It argues that an entrepreneur's knowledge and way of thinking and range of information and resources available are key in determining the ability of an entrepreneur to track down an opportunity from discovery stage, exploitation through evaluation.

In the process of identifying the attractiveness of an opportunity, entrepreneurs evaluate if the opportunity is in the first place personally attractive to elicit the desire to pursue it (Haynie, et al, 2009). This means that Entrepreneurs that are equipped with the cognitive skills better recognize the value Opportunities easily than the less equipped ones (Wood et al., 2012). Secondly, they look up for exogenous factors like state of technologies, resources, and market and networks knowledge to make judgments.

Building on these findings, and given the key role growing NGOs play in society, we conclude that individuals NGOs can create significant positive impact in society by investing in strategies to attract and retain project managers who have strong cognitive capabilities. This is in line with the Human Capital theory. Such individuals see more valuable opportunities in order to mobilize firm resources with a view to exploit.

We have also found empirical evidence that Environmental Dynamism (market dynamics, technological dynamics and socio-political dynamics) interacts with Opportunity discovery factors of entrepreneur and organizations (cognitive skills, resources and network) to enhance growth of firms.

The decision of an entrepreneur to appreciate that there is value in an opportunity depend on the knowledge of prevailing economic dynamism and its effect. Specifically the market dynamism, the technological dynamism and social-political dynamism are considered by an entrepreneurial individual in seeing the value of an opportunity.

### 5.2. Implications of the Study to Existing Theory

One of the major tasks of this study was to investigate if Opportunity evaluation by project managers as entrepreneurs is related to the growth of firms NGO. And the results demonstrated that a significant proportion of growth performance of NGO firms in Kenya can as well be explained by the Opportunity evaluation prowess of the managers of those NGOs. These findings enhance understanding that manager



entrepreneurs who have superior cognitive skills are able to identify value in an opportunity which motivates him to mobilize the available firm resources and networks to exploit it.

This study endeavoured to fill the gaps identified at the literature review stage where it was revealed that limited attention has been paid to the moderating role of environmental dynamism on the relationship between Opportunity Evaluation and NGOs growth. It is hoped that, the findings set evidence based for the need for the project managers to evaluate environmental turbulence as a critical factor in meeting the society needs.

### **5.3. Managerial Implications**

These findings provides insight to the management and entrepreneurs by showing that the decision an individual makes regarding an opportunity is a culmination of individual behaviour (cognitive) and organizational features (resources and knowledge gained from social networks). Thus, this study offers new insights for the opportunity evaluation literature and strengthens the understanding and the importance of cognitive ability of individual managers, the firm resources and networks in organizations which depend mostly on donor funded projects targeting NGOs.

### **5.4. Limitations**

The study has some limitations; we assumed that the opportunities each NGO was presented with are identical and therefore there were no inter-opportunity differences among the NGOs, which is practically not the case. So our analysis did not discern these differences. Piloting of the instrument enabled our study to limit the effect of this limitation. Future studies should take cognizant of this factor and should consider conducting a conjoint analysis following best practices so as to factio in the inter-opportunity differences (Shepherd, 2011)

This study was cross-sectional in nature and therefore our study data on opportunity evaluation by the project managers was collected at a single point in time. Like other cross-sectional studies, this data does not regard the differences in time which may not be representative for all the project managers. Finally, we assumed that the project managers are the overall decision makers regarding the Opportunities identification evaluation and action within an NGO. We appreciate that the decision making involve much more than a manager in the actual setting. We used a large sample size to minimize this limitation. To this end, we feel our findings can be used as basis in future studies to identify the best combination of NGO personnel that provide the most credible information and

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## Appendices

### Appendix I: Pilot Results

	N	Cronbach's Alpha
Opportunity evaluation	15	.761
Environmental dynamism	14	.744
NGO growth	10	.737

### Appendix II: The (KMO) and Bartlett's

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.834
Bartlett's Test of Sphericity	Approx. Chi-Square	1783.263
	Df	861
	Sig.	0.000

### Appendix III: Exploratory factor Analysis Results

ITEMS	Components		
	1	2	3
OEV1	.841		
OEV2	.840		
OEV6	.831		
OEV4	.718		
OEV5	.748		
OEV9	.655		
GRO3		.866	
GRO2		.787	
GRO8		.710	
GRO6		.689	

GRO1		.648	
GRO4		.624	
GRO5		.617	
ED9			.870
ED7			.855
ED8			.842
ED4			.831
ED5			.736
ED1			.721
ED6			.697
ED2			.690
ED3			.637

**Appendix IV: Total Variance Explained**

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.454	27.265	27.265	2.363	26.255	26.255
2	2.100	23.329	50.594	1.839	20.429	46.684
3	1.156	12.843	63.436	1.508	16.752	63.436
4	.705	7.837	71.273			
5	.675	7.501	78.774			
6	.672	7.469	86.243			
7	.521	5.786	92.029			
8	.389	4.323	96.352			
9	.328	3.648	100.000			

**Appendix V: One-Factor Method to test for Common Method Bias**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.655	37.930	37.930	2.655	37.930	37.930
2	1.282	18.309	56.239			
3	1.055	15.066	71.305			
4	.753	10.763	82.068			
5	.667	9.524	91.592			
6	.363	5.191	96.783			
7	.225	3.217	100.000			

Extraction Method: Principal Component Analysis.

**Appendix VI: Multicollinearity Test Results**

Model	Collinearity Statistics	
	Tolerance	VIF
Evaluation	.528	1.894
ED	.528	1.894
Growth	.528	1.894

**Appendix VII: Skewness and Kurtosis Statistics to assess Normality**

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
NGO Growth	-.370	.237	-.708	.469
Opportunity Evaluation	-.567	.237	-.139	.469
Environmental Dynamism	-.191	.237	-.612	.469

