





# “Employment creation in Kenya: exploring the Jua Kali enterprises”

## AUTHORS

Eric E. Mang’unyi  <https://orcid.org/0000-0002-5035-104X>  
Christine W. Mwanzia  <https://orcid.org/0000-0002-6419-4831>  
Krishna K. Govender  <https://orcid.org/0000-0002-3079-5989>  
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Eric E. Mang'anyi, Ph.D., Lecturer,  
School of Business, The Catholic  
University of Eastern Africa, Kenya.

Christine W. Mwanzia, AMIHRM,  
MBA, Administrator, Graduate  
School, School of Business, The  
Catholic University of Eastern Africa,  
Kenya.

Krishna K. Govender, Ph.D.,  
Professor of Marketing, School of  
Management, IT and Governance  
University of KwaZulu-Natal Durban,  
South Africa.



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Eric E. Mang'anyi (Kenya), Christine W. Mwanzia (Kenya),  
Krishna K. Govender (South Africa)

# EMPLOYMENT CREATION IN KENYA: EXPLORING THE JUA KALI<sup>1,2</sup> ENTERPRISES

## Abstract

In developing countries, non-agricultural micro-sized informal enterprises are known to create employment and income generation opportunities. However, due to the complexity and unregulated nature of the sector and, in particular, the Jua Kali, achieving efficient and effective sustainability remains a major challenge for the owners and policy makers alike. Since many unknown barriers continue to impact the effective and efficient development of the aforementioned enterprises, the aim of this study was to determine the barriers to effective job creation in a developing country's informal micro enterprise industry using evidence from the Jua Kali sub-sector in Kenya. The data from a survey conducted among a random sample of 118 enterprises, which were listed in one Jua Kali Association Directory Nairobi, were analyzed using exploratory factor and regression analyses. Strong evidence supports the notion that some socio-demographic variables such as age, education and marital status have an impact on entrepreneurial activities in the Jua Kali sector. Training, advice and consultation for Jua Kali entrepreneurs need to be enhanced, as this will be necessary to advance their business prowess. The results contribute to studies in entrepreneurship and management by demonstrating that designing and implementing the systems, activities and programs for supporting employment creation through the informal sector can improve productivity at all levels of the economy and improve the living of these entrepreneurs.

## Keywords

development, enterprise, employment, Kenya

## JEL Classification

L26, J23

## INTRODUCTION

### Background and importance of the informal sector

The informal sector is widely acknowledged in contemporary literature as the key contributor to economic development in low-income economies, providing both employment and household livelihoods through numerous entrepreneurial activities. The informal economy is referred to as unincorporated individual economic units or enterprises, which employ less than five permanent workers and produce for the market (Charmes, 2012). It represents the key resource for economic improvement and growth and plays an important role in the assessment of a country's performance (Obare, 2015; Safavian, Wimpey, & Amin, 2016; Williams & Horodnic, 2015). However, it should be noted that the concept and boundaries of the informal sector have been linked to those who operate in it (Sallah, 2016).

The informal sector is very small, unregistered or unregulated, requires low capital, has mostly self-employed workers, although may hire a few people and is labor intensive (Obare, 2015). Regionally, it

1 This is a Swahili term, which means fierce sunlight, and is used to refer to the informal economy and, in particular, those businesses operating (that is, producing, trading and selling their wares) in open air spaces, literally "under the hot sun".

2 In this study, the term Jua Kali has been used interchangeably with informal sector and thus means one and the same thing.

has been argued that small-scale businesses (both formal and informal) have played a pivotal role in bridging the unemployment and poverty gaps (Ekpe, 2011; Meghana, Demircug-Kunt, & Maksimovic, 2014), accounting for over fifty percent of total employment (Charmes, 2012; Kerr, Wittenburg, & Arrow, 2013) and creation of over 90% of all new jobs (Holt & Littlewood, 2014).

The informal sector in Kenya is large and vibrant, accounting for over 95% of businesses and entrepreneurs (Safavian et al., 2016), and as Bull, Daniels, Kinyanjui and Hazeltine (2016) assert, it is a vital job creation engine in Kenya. The Jua Kali sub-sector consists of support service businesses like welders, painters, scrap metal dealers, among others, and they those deal with metal engineering, furniture, clothing (new and used – aka mitumba), kitchen ware, restaurants, hotels, hawking and other forms of trading. Thus, this sector has a huge potential for enhancing job creation through establishment of industries and initiation of commercial enterprises, and in the process providing income for those with no other means of survival.

In response to job and wealth creation, a number of studies and reports (see, for instance, African Development Bank Report, 2017; Holmes, McCord, Hagen-Zanker, Bergh, & Zanker, 2013; Katua, 2014) advocate for policies and interventions that would continue to create favorable environments for business start-ups and/or self-employment. It has also been documented in extant literature that in Africa, over 22 percent of the working age populace start new businesses (Copley, 2017) and through such businesses, a significant number of people create or get employment. This implies that the share of informal and/or small enterprise category employment exceeds that of large industries in Africa (Meghana et al., 2014).

Holmes et al. (2013) assert that entrepreneurship is a well-known source of employment creation, ensures stability in countries and helps reduce poverty. In the same vein, Atiase, Mahmood, Wang and Botchie (2017) argue that entrepreneurship contributes to the gross domestic product (GDP), and Kenya's Economic Survey Report (2012) indicated that the sector contributed about 25% to the GDP.

Although it is apparent from the above that need for job creation is critical in a developing country environment, globalization, free market policies and trade neo-linearization generate multiple problems for the very small businesses or the informal sector (Obare, 2015; Were, 2016). The Jua Kali sector enterprises in Kenya continue to demonstrate underperformance and lack of competitiveness (Micro and Small Enterprises Authority, 2013) in spite of spirited efforts by the Kenyan government to help grow them, since it has been identified as a priority strategic area for employment creation. It would seem that there are many unknown barriers impeding the development of the sector and these must be identified through research so that they can be managed. Unless the barriers are identified and attended to, businesses would continue to underperform and/or even fail. More specifically, there is a need for business owners and other stakeholders working in this Jua Kali sub-sector of the economy, to have a full grasp of the barriers to effective business performance. Unfortunately, no cogent understanding of such barriers is evident to stakeholders (Atiase et al., 2017; Fumo & Jabbour, 2011; Guma, 2015). In addition, there are also very few academic sources accessible, which outline even a close 'framework' of such barriers in a local Kenyan context (Wawire & Nafukho, 2010). In this study, it is against the aforementioned that this research aims to search for answers to the question: What are the barriers to effective job creation in the Jua Kali sub-sector, in Nairobi, Kenya?

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## 1. LITERATURE REVIEW

### 1.1. Delineating Jua Kali

The term 'informal' is ubiquitous in the entrepreneurship literature, with various studies (Guma,

2015; Safavian et al., 2016) referring to it as enterprises and accompanying activities of production which are unregistered, unregulated and often fall outside the boundaries of a formal tax system. In addition, Henning and Akoob (2017) assert that informal enterprises are run according to other

informal arrangements. In Kenya, the term often used is Jua Kali, which in essence implies the informal sector. The Jua Kali sector is made up of a wide-range of entrepreneurial activities, which normally are miniature on operation, have little or no distinction between labor and capital factors (Wilkinson, 2013), low bargaining power and the competition is intense and cut throat. They also have lower start-up costs, normally involve unskilled labor and make use of adapted technologies (Gadzala, 2009).

The Jua Kali sector continues to attract attention worldwide, and it has been referenced in extant literature (Atiase et al., 2017; Economic Survey Report, 2012; Henning & Akoob, 2017; Meghana et al., 2014; Obare, 2015; Safavian et al., 2016) as a system that contains strategies to reduce poverty and to support the creation of sustainable household livelihoods. Therefore, as Sallah (2016) argues, the informal sector cannot be disregarded if an all-inclusive development pathway for a country is to be attained. However, despite obvious advantages, enterprises within this sector continue to have low growth rates and limited potential (Micro and Small Enterprises Authority, 2013), often resulting from multifaceted environment among other factors.

The literature attempting to explain entrepreneurship development commenced with the work of Joseph Schumpeter in the early 1990's, whose theory states that creativity is the key factor of economic development, however, creativity must work hand in hand with knowledge for successful entrepreneurship. Schumpeter (1990) believed that creativity was essential if the entrepreneur was to make profits in a highly competitive market. Characteristically, the innovation to succeed then there should be risk taking, motivation and talent, coordination and leadership skills. Although this theoretical perspective is important and applicable to the informal economy, however, it overlooks the significant sources of real savings such as deficit financing, budgetary savings, public borrowings and other fiscal measures, as it presupposes that creativity is backed by bank credit, hence, not much convincing.

The trait perspective (Stogdill, 1948, 1974 in Northouse, 2016) postulates that inordinate

leaders are born with distinguished personality traits that make them better suited for management and make them different from other people or their followers. Through a survey, the abovementioned was able to develop the most comprehensive list of traits, and highlighted that leadership or management circumstances vary significantly and place different demands on leaders, destroy trait theory, leading to the emergence of situational and behavioral approaches (Northouse, 2016). This theory is, however, criticized in the sense that it does not accept as true that traits change over time and as such it assumes people are the same at all times regardless of behavioral change in different situations. Furthermore, this theory provides little or no guidance in the changing of negative aspects of a trait (Heffner, 2017).

In another strand of theories, business growth is explained by capabilities and resources, which the business owner possesses or can acquire in a sustainable manner (Barney, 1991; Penrose, 1959). This theory points at the long-term competitive advantage and economic success with adequate resource potentials. Businesses tend to develop when they have key resources and drivers of performance and are perceived as valuable. In a nutshell, the theories reveal the importance of innovation, personality traits and resources to sustain entrepreneurship (Barney, 1991).

A number of studies, especially outside Sub-Saharan Africa, have recently provided evidence on the under-performance of enterprises at micro (individual), medium (industry related) and macro (environmental) levels (Modarresi, Arasti, Talebi, & Farasatkah, 2017), resulting from low enthusiasm and inadequate resources (Shah, Nazir, Zaman, & Shabir, 2013), informal institutions (Ostapenko, 2017) and lack of skills (Deakins, Bensemann, & Battisti, 2016).

Enterprises in less developed countries face many more challenges that would curtail their development and performance and there are many unknown barriers to the development of the informal sector. The following sub-section discusses Modarresi et al's (2017) 'framework' in order to determine the likely barriers to effective and efficient development of the Jua Kali sector.

### 1.1.1. Macro-level barriers

There is overwhelming evidence from earlier studies that points to corruption as the greatest barrier among enterprises in developing countries (Chowdhury, 2005; Kimuyu, 2007; Lavallée & Roubaud, 2018). Evidence from Kenya reveals that enterprises spent significant proportions of their revenue on unofficial and irregular payments for public utilities. For example, a survey by Safavian et al. (2016) established that 53 percent of businesses sampled indicated that they pay bribes in order to stay in business and harassment by government officials was highlighted by 60 percent of the responding businesses.

In Sub-Saharan Africa, Jua Kali businesses' tendency for growth is further limited by access to physical infrastructure and government services (Henning & Akoob, 2017). Some researchers (Atiase et al., 2017; Ouma, 2010; Safavian et al., 2016) have argued that provision of infrastructure (for instance, accessible land/spaces) and access to government services, for instance, cost-effective electricity, would be a major inducement for registration and migration from informality to formality. Another macro barrier to the development of businesses in general is political turmoil. Although Kenya is a relatively stable country, political instability and armed conflict have been suggested to derail economic activities in some African countries (African Development Bank Report, 2017). In Kenya, this has always been an occurrence during electioneering periods and the effects have been devastating (Juma, 2018). There is an evidence to suggest that ethnic stereotypes impact negatively on business. For example, in Kenya, businesses have been seen as a preserve for other communities (Kimuyu, 2007). Such ethnic stereotypes are seen as a significant obstacle for growth, hence, limiting the overall development of informal sector. Such discrimination is often occasioned by political factors, which pose hindrances to entrepreneurial activity, since it lacks the support systems in the social context.

Good governance has been suggested as a key variable for entrepreneurship development in Africa (Meghana et al., 2014; Shibia & Barako, 2017), and the relationship between governance

and entrepreneurial development was found to be positive and significant (Atiase et al., 2017) in that a unit increase in good governance in Africa would lead to more than three (3) percent growth in entrepreneurship, since entrepreneurs are able to fully exploit opportunities without restriction leading to informal sector growth. It is implied here that good corporate governance and management of the economy translate into general positive outcomes for business and its sustainability. Furthermore, a new emerging challenge in African countries impacting local enterprise growth in the informal sector is the presence of Chinese enterprises in these countries. According to Gadzala (2009), Chinese business presence in Kenya results in low-cost products being produced by small scale industries in China and imported to Kenya, which creates greater competition, since the local enterprises cannot compete (on price) due to the costs associated with their production outputs.

### 1.1.2. Industry-related barriers

Jua Kali entrepreneurs in Kenya face a clear and severe bias in accessing bank credit, with real lending rates remaining between 12 percent and 18 percent or higher (Juma, 2017). According to researchers (Gadzala, 2009; Sambo, 2016; Wawire & Nafukho, 2010), specific finance problems related to informal entrepreneurship include: lack of credit history, high transaction costs, lack of collateral, stringent bank conditions, which render them unqualified, insufficient business and management experience as well as inability to assess and manage their risk profile. Entrepreneurs also dread to borrow, in particular, taking responsibility for money that does not belong to them (Ama, Mangadi, & Ama, 2014), which leaves them with the only option of acquiring funds from mainly informal sources or non-banking agencies, which funds are linked to harsh very stringent conditions and terms. Therefore, there is a funding gap, which prevents informal entrepreneurs from attaining the highest level of business realization.

Lack of information has also been a major barrier, and generally speaking, information and, in particular, credit information should be widely available. As Henning and Akoob (2017) sug-



gest, governments should restructure its service centres to enable this information to be readily available and accessible. For example, the government institutions in Kenya such as the Youth and Women Enterprise Development Funds and associated Centres could enable access to information and advising, since such support services, including consultation and guidance, have a strong impact on enterprise growth (Atiase, 2017; World Bank, 2017).

With regards to the availability of raw materials, a study by Bull et al. (2016) on the informal metal working sector in Nairobi reveals that a lack of sources for materials to inspire innovation, as well as lack of incentives to innovate, were key obstacles to innovation among Jua Kali artisans. Intellectual property theft was also cited as a disincentive to innovate. This result elucidates a lack of help offered to such entrepreneurs in generating the innovations.

### 1.1.3. Micro-level barriers

Although personality, demographic characteristics and personal attitudes, business experience and skills are arguably some of the most crucial traits needed for successful entrepreneurship initiatives, these have been found to be challenges impacting entrepreneurship development (Nxumalo & Kaseeram, 2017; Modarresi, 2017). Huang, Nandialath, Alsayaghi, and Karadeniz (2013) ascertained a strong interplay between socio-demographic variables namely age, gender, education and income and their impact on usage of advice-seeking networks by entrepreneurs. A recent study by Clegg (2018), among a sample of UK SME owner-managers on their perceptions of growth-impeding constraints, revealed that inadequate abilities, lack of development expertise in product and service innovations and a lack of skill in information technology were the common limits to growth.

Mbithi (2015) conducted a study among women entrepreneurs in the Kenya's informal sector and

found that confidence and low levels of education hindered their entrepreneurship growth.

Ama et al. (2014) posit that very little education correlates negatively with entrepreneurial activities among women entrepreneurs. Some researchers (for example, Afolabi, Kareem, Okubanjo, Ogunbanjo & Aninken, 2017) state that entrepreneurship education is a noble strategic move if implemented, since it has been confirmed to positively impact on individual's ability to assess and initiate things independently. Their study on a sample of polytechnic students in Nigeria suggested that there is a need to train students on business venture start-ups at very small levels.

Shah et al. (2013) posit that a lack of business management skills and experience is the greatest barrier for informal sector entrepreneurs. Laguir and Besten (2016) postulated that work experience and motivations are cornerstones in the likelihood that an enterprise will upgrade or innovate. In Kenya, Wawire and Nafukho (2010) and Bull et al. (2016) found that a shortage of core competence and skilled workers were major problems faced by entrepreneurs in the informal sector businesses. The aforementioned, however, note that despite being a challenge because of costs and affordability, constant training and contracting competent personnel would increase value to the business. Other constraints identified by traders who conduct cross-border business in the Southern Africa include delays at the borders, long hours of travel, time away from their homes and stiff competition with other traders (Ama et al., 2014). The aforementioned constraints are similar to that experienced by traders on the Kenyan borders who conduct cross-border trade.

Whilst there are many studies showing constraints to entrepreneurship, these results are difficult to generalize and or lack relevance to the Kenyan context; thus, the need for the current study to with specific reference to the Jua Kali sector. Thus, this study was conducted among a sample in the Kenyan Kamukunji<sup>3</sup> market place.

3 This is a commercial Jua Kali niche in Kenya's capital Nairobi – outside the boundaries of the Nairobi Central Business District, and features an active commercial market, which caters for low and middle income consumers in Nairobi, as well as outside the city. It is largely occupied by very small scale businesses.

*Other than makers and business owners, the cluster includes association officers, input suppliers, trainees and agents who bring together producers and buyers (Bull et al., 2016).*

## 2. RESEARCH METHODOLOGY

To understand the barriers to effective job creation in the Jua Kali sub-sector, the researchers were concerned with what constitutes reality and how to generate knowledge about the reality in the field. Objectivism and positivism research philosophies guided this study (Creswell, 2014; Lincoln, Lynham, & Guba, 2011), since the entrepreneurs were 'out there' whose responses could be quantified. A descriptive survey design was used, which facilitated the collection of discrete numerical data using a standardized questionnaire.

### 2.1. Sample selection

The target population comprised all entrepreneurs in the Kamukunji Jua Kali group to ensure adequate representation of all segments of production and trading. However, only those listed and registered in the association's (Kamukunji Jua Kali Association, KJKA) directory at the end of 2017 were targeted. Stratified random sampling was used to limit selection bias (Saunders, Lewis, Thornhill, & Guppa, 2007) and then systematic sampling was used where one out five entrepreneurs in a list of 600 traders (KJKA, 2017), was selected. This process assisted in selecting 118 respondents from the following groups in line with what they manufactured or traded in, namely: building supplies, kitchenware, products used in farms and or for agricultural purposes, storage and other domestic products.

### 2.2. Data collection

Data were collected through standardized questionnaires completed by respondents. The questionnaire comprised mainly five-point Likert scale questions ranging from strongly disagree (1) to strongly agree (5). The questions were subsequently broken down into five measures: education and skills, and traits (10) items each, experience (7), access to finance (8), job creation (10), which form the basis of the investigation results. Experts in the area of study were consulted to check on the questionnaire items' efficacy, thus ensuring content and face validity. The internal consistency method for reliability as estimated by Cronbach Alpha (Leedy & Ormrod, 2013; Warrens, 2015) was used to measure reliability of the question-

naire. This technique helped to ensure that during data analysis stage and particularly when performing factor analysis, the items would meet at least the 70% reliability threshold as advocated by Hair, Black, Babin, and Anderson (2010).

Prior to real field work, all necessary authorizations were sought from the "gate keepers". Adequate information was provided to the participants by the researchers during the survey to encourage voluntary participation, and all participants were assured of their confidentiality and no one was compelled to participate (Leedy & Ormrod, 2013). The questionnaires were left with the participants for completion at their convenience and collected at an agreed date and time. At the time of collection, the researchers were able to clarify the issues, which prevented the respondents from completing the questionnaire.

### 2.3. Data analysis

Descriptive analysis was conducted at the initial stages of the statistical analysis in order to identify patterns on then characteristics of the sample. This was followed by Exploratory Factor Analysis (EFA) (Charry, Coussement, Demoulin, & Heuvinck, 2016; Field, 2009; Tabachnick & Fidell, 2012). Furthermore, the Kruskal-Wallis test was used to test the significance of each relationship, since the Kruskal-Wallis test is merited as a fine level analysis and helps avoid methodological issues (Harazneh, Al-Tall, Al-Zyoud, & Abubakar, 2018). The statistical analyses were performed with IBM SPSS software version 21 and STATA software package.

## 3. DATA ANALYSIS AND FINDINGS

### 3.1. Descriptive information of the sample

According to Table 1, the majority of respondents were males (57.6%); about 34.8% were aged between 36 and 45 years; the vast majority (39.8%) had secondary education, while 36.4% had a college certificate. With regard to the marital status of the entrepreneurs, 31.6% were married. Only 38.9% had between 3 and 5 years of experience in business and the majority (35.6%) dealt with domestic wares.

**Table 1.** The demographic characteristics of the study sample

Source: Research findings (2018).

Variable	Frequency	Percent	Variable	Frequency	Percent
<b>Gender</b>			<b>Marital status</b>		
Male	68	57.63%	Married	37	31.36%
Female	50	42.37%	Single	33	27.97%
–	–	–	Divorced	33	27.97%
–	–	–	Widowed	15	12.71%
<b>Age</b>			<b>Business experience</b>		
18-25 years	14	11.86%	1-2 years	19	16.1%
26-35years	31	26.27%	3-5 years	46	38.98%
36-45years	41	34.75%	6-8 years	36	30.51%
Above 46 years	32	27.12%	9-11 years	17	14.41%
<b>Education</b>			<b>Business type</b>		
University	15	12.71%	Agriculture	12	10.17%
College/tertiary	43	36.44%	Building supplies	21	17.8%
Secondary	47	39.83%	Kitchenware	39	33.05%
Primary	13	11.02%	Domestic	42	35.59%
–	–	–	Storage	4	3.39%

### 3.2. Scale reliability and validity

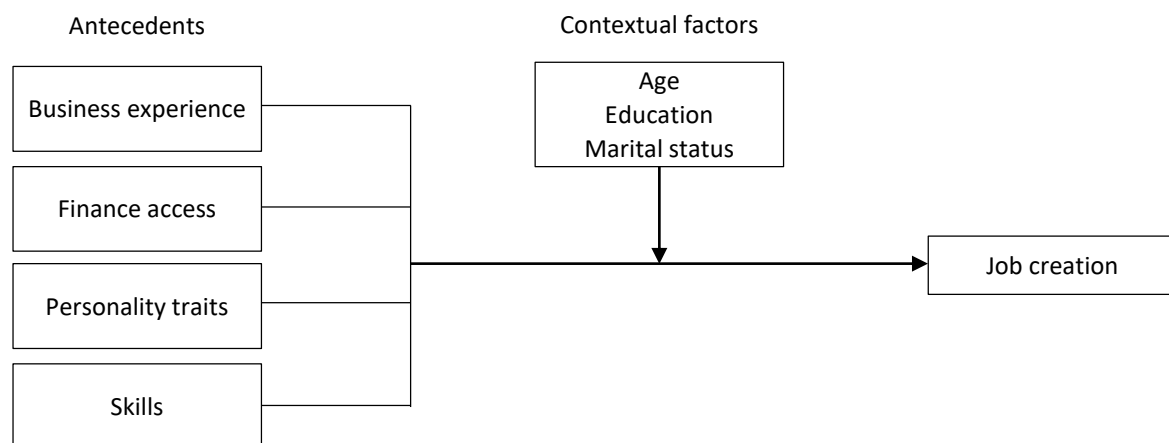
All the scale items fitted into their respective factor and the standardized factor loadings were reasonably above the cut-off of 0.5, as suggested by Hair et al. (2010). Cronbach Alpha values for all factors were in excess of 0.7, which is above the cut-off point and indicating scale reliability. Eigen values were also greater than 1 (see Table 2).

From Table 2, it is evident that business experience emerged as the most important factor by explaining approximately 43.6% of the variance, followed by access to finance, which explained 25.6% of the variance among factors. Personality traits was third factor explaining 20.8% of variance, while skills were followed by education, which explained 19.9% of the variance. Based on these outcomes, we came up with the conceptual model as illustrated in Figure 1.

**Table 2.** Exploratory factor analysis and reliability results

Variables	Scale items	Loadings	Explained variance	Eigen value	Cronbach Alpha
Skills and education	Have a clear vision, a purpose, a plan to create and implement	0.985	19.868	8.144	0.736
	Have a strong realistic, common sense quality	0.985			
	My goals are consistent with my interests, values, motivations, and skills	0.991			
Personality traits	Need to feel a strong sense of control over my own destiny	0.995	20.821	9.103	0.792
	Always feel a need to keep learning	0.995			
	Many see me as having a killer instinct	0.960			
Business experience	Deal successfully with modest to high levels of uncertainty and job insecurity	0.984	43.596	6.105	0.816
	Thrive on responsibility and accountability	0.998			
Finance access	Financing is a setback to the growth of my business	0.993	25.571	7.095	0.886
	Access to finance is freely available for entrepreneurs who wish to start business	0.993			
Job creation	I have added new products/services to my business	0.985	19.868	8.144	0.736
	I tap into new sales and delivery channels	0.985			
	I take charge of quality control of sub-contracts	0.991			



**Figure 1.** Conceptual model

### 3.3. Estimation of regression coefficients on the job creation variables

In order to estimate the association between the variables established to impact on job creation, multiple linear regression analysis was performed, the results are reflected in Tables 3 and 4.

Table 3 shows that business experience is the only variable that significantly affects the job creation. It is confirmed from the analysis ( $t = 4.97$ ;  $p < 0.01$ ) that experience in business is the only significant variable among the four variables that were studied. The  $p$ -value for the coefficient of traits is insignificant ( $t = -0.180$ ), indicating that traits do not positively affect job creation through entre-

**Table 3.** Calculated coefficients of barriers

Job_cre	Coef.	Std. Err.	t	$p >  t $	[95% Conf. interval]	
Traits	-.180375	.1739705	-1.04	0.302	-.5254446	.1646946
Experience	.740741	.1489695	4.97	0.000	.4452608	1.036221
<b>Gender (A1)</b>						
Female	-.1743933	.1068849	-1.63	0.106	-.386399	.0376124
<b>Age (A2)</b>						
26-35 years	.0236321	.1545441	0.15	0.879	-.2829053	.3301695
36-45 years	.7627061	.1328677	5.74	0.000	.4991636	1.026249
46-55 years	.4539737	.1633791	2.78	0.006	.129912	.7780354
<b>Education (A3)</b>						
College/tertiary	-.3993904	.1426049	-2.80	0.006	-.6822466	-.1165343
Secondary	-.2616239	.1210552	-2.16	0.033	-.5017364	-.0215115
Primary	.3291223	.1812914	1.82	0.072	-.0304684	.688713
<b>Marital status (A4)</b>						
Single	-.3629093	.110628	-3.28	0.001	-.5823394	-.1434791
Divorced	-.1575797	0.0960679	-1.64	0.104	-.34813	.0329706
Widowed	-.9488772	.1298339	-7.31	0.000	-1.206402	-.6913523
<b>Business experience (A5)</b>						
3-5 years	.4648879	.1263087	3.68	0.000	.214355	.7154207
6-8 years	.1270802	.1302344	0.98	0.331	-.1312392	.3853996
9-11 years	.2455313	.1416728	1.73	0.086	-.0354761	.5265387
_cons	-.0961354	.2207498	-0.44	0.664	-.5339916	.3417208

Notes: Job\_cre – job creation; Coef. – coefficient; Std. Err. – standard error; \_cons – constant.

preneurship. These results therefore imply that the personality traits of entrepreneurs in Kenya's Jua Kali sector influences (though not significantly) job creation via entrepreneurship.

On the other hand, age was found to be positive and significant, in particular, age between 36 and 45 years ( $t = 5.74$ ;  $p < 0.01$ ) and between 45 and 55 years ( $t = 2.78$ ;  $p < 0.01$ ), which confirms that age positively influences successful job creation. Education also positively influences success in job creation and, in particular, post primary education, as evidenced by secondary ( $t = -2.80$ ;  $p < 0.01$ ) and college level ( $t = -2.16$ ;  $p < 0.05$ ). The  $p$ -value for the coefficients of marital status shows significant results ( $p < 0.01$ ), which implies that those entrepreneurs who are either single ( $t = 3.28$ ) or widowed (7.31) are highly likely to create jobs

in the Kenyan Jua Kali industry. Lastly, regression results also showed that on-the-job experience is positive and significant ( $t = 3.68$ ;  $p < 0.01$ ), which indicates that experience affects job creation.

### 3.4. Entrepreneurs' profiles and job creation

The association between the entrepreneurs' profiles and job creation was analyzed using Kruskal-Wallis test, where job creation was the endogenous variables, while sample demographic characteristics were the exogenous variables. Table 5 shows that there is a variance (significant differences) for education and marital status, implying that these variables play a greater role on the success of entrepreneurship and by extension, to job creation.

**Table 4.** Influence of variables

Variable	Coefficient for job_creation	t-statistic and p-values	Variable influence/importance
Traits	-0.180	(1.04)	–
Experience	0.741	(4.97)**	Very influential
1b. A1 (gender)	0.000	–	–
2. A1 (gender: female)	-0.174	(1.63)	Not influential
1b. A2 (age)	0.000	–	–
2. A2 (age: 26-35 years)	0.024	(0.15)	Not influential
3. A2 (age: 36-45 years)	0.763	(5.74)**	Very significant
4. A2 (age: 46-55 years)	0.454	(2.78)**	Very significant
1b. A3 (education)	0.000	–	–
2. A3 (college education)	-0.399	(2.80)**	Very significant
3. A3 (secondary education)	-0.262	(2.16)*	Significant
4. A3 (education)	0.329	(1.82)	Not influential
1b. A4 (marital status)	0.000	–	–
2. A4 (marital status: single)	-0.363	(3.28)**	Very significant and influential
3. A4 (marital status: divorced)	-0.158	(1.64)	Not influential
4. A4 (marital status: widowed)	-0.949	(7.31)**	Very significant and influential
1b. A5 (business experience)	0.000	–	–
2. A5 (business experience: 3-5 years)	0.465	(3.68)**	Very influential
3. A5 (business experience: 6-8 years)	0.127	(0.98)	Not influential
4. A5 (business experience: 9-11 years)	0.246	(1.73)	Not influential
_cons	-0.096	(0.44)	–
R <sup>2</sup>	0.87	–	–
N	118	–	–

Notes: significant at \*  $p < 0.05$ ; \*\*  $p < 0.01$  percent levels.

**Table 5.** Kruskal-Wallis equality of population rank test

	Contextual factors				X <sup>2</sup> (df)	P	Decision
Age	18-25	26-35	36-45	46-55	6.554(3)	0.0871	No variance
Obs.	14	31	41	32			
Rank sum	754.00	1491.00	2576.00	2200.00			
Education	University	College	Secondary	Primary	21.404(3)	0.0001	Variance exists
Obs.	15	43	47	13			
Rank sum	1180.00	2454.00	2217.00	1170.00			
Marital status	Married	Single	Divorced	Widowed	11.113(3)	0.0111	Variance exists
Obs.	37	33	33	15			
Rank sum	2299.00	2166.00	2072.00	484.00			
Business experience	1-2 years	3-5 years	6-8 years	9-11 years	4.221(3)	0.2386	No variance
Obs.	19	46	36	17			
Rank sum	1222.00	2970.00	1798.00	1031.00			

Notes: X<sup>2</sup> – Chi square; df – degrees of freedom; p = probability; Obs. – observations.

## 4. DISCUSSION

In order to determine which barriers needed to be managed in order to improve the sector in Kenya, factor loadings were used. In Table 2, the estimated factor loadings were above 0.9 for each theme/factor, thus assuring the uni-dimensionality of the items of each barrier (Field, 2009). The ensuing factors were further subjected to regression analysis to identify those that significantly impacted job creation in the industry. The results show that experience in business is the most important aspect to job creation. The problem of little and/or no business expertise for Jua Kali related businesses is somehow similar and directly related to other geographical contexts researches (see, for example, Nxumalo & Kaseeram, 2017; Shah et al., 2013). One of the reasons for this result is that many people opt to do business as a means of survival, hence, they tend not to consider the lack of business know-how as an impediment to work performance and or employment creation. It is worth noting that this problem is more common in the informal setting such as the Jua Kali, as the sector is perceived as one which doesn't require more involvement (set up, human resources, finances etc.), which is not the case (Laguir & Besten, 2016), since this impedes job creation in the long run, as many business start-ups fail to develop, upgrade or innovate.

Personality trait/s were found to be insignificant and therefore unimportant, and not a barrier to job creation within the Jua Kali sector. Although a perception exists among the Kenyan populace

that anyone can involve him or herself in any business, traits remain critical and are desirable for successful entrepreneurship initiatives (Mbithi, 2015; Modarresi, 2017). Therefore, as much as the sector has informal arrangements (Henning & Akoob, 2017), the necessity to have those distinguishing qualities that could enhance the entrepreneurial activity one is pursuing cannot be overlooked.

As regards contextual factors, socio-demographics in particular, the results highlight that entrepreneurs between 36 and 45, and between 45 and 55 years, hold similar views on job creation. In particular, entrepreneurs within the above age groups are more likely to create jobs. This shows that age is an important factor that impacts job creation within the Kenyan Jua Kali scenario. Perhaps the increasing age comes with more experience and knowhow in entrepreneurship as opposed to those of lower age group/s. The outcome validates the findings of Huang et al. (2013) based on studies conducted in Middle East and North Africa. The aforementioned found that there is a strong interplay between age and entrepreneurs' ability to tap into advice-seeking networks. As the findings reveal, this could mean that with age comes experience, thus corroborating our previous results that experience is key in successful job creation and entrepreneurship.

It was also ascertained from the Kruskal – Wallis test performed on the contextual factors, that post-primary education and marital status emerged as key indicators, since they positively

relate to job creation. For instance, secondary and college level education seemed to be vital and a lack of it will have a negative effect on the business and consequently on job creation (Bull et al., 2016; Wawire & Nafukho, 2010). A plausible explanation for this finding is that entrepreneurs in the Jua Kali sector with this level of education, have some knowledge of business management. Furthermore, this could imply that changes in marital status and education levels of entrepreneurs in the informal sector is of concern, and this can be used as an indicative measure for job creation. The present findings are consistent with a previous study by Afolabi et al. (2017) that revealed entrepreneurship education has a positive impact on the individual's ability to assess and initiate things independently. Marital status was significant, since this group of entrepreneurs are highly likely to create jobs in the Kenyan Jua Kali industry. This finding is logical, given the rise in self-confidence (among other characteristics) of specifically single women in self-employment who tend to choose entrepreneurial career path (Giarratano, 2016). It is noted that while a pre-

vious study by Bula (2012) in Kenya showed that the marital status of owner managers of small businesses is not significantly related to their business performance, marital status, in particular, single and widowed persons, is shown to be related to performance. In Kenya, it is a common development where majority of the women are easily able to take part in business, both small or large, and as such are the owners of majority of business enterprises.

Other barriers affecting the Jua Kali sector as identified by the participants include corruption, specifically, bribery, which entrepreneurs have to tolerate to stay in business, a finding that corroborates previous studies (Kimuyu, 2007; Safavian et al., 2016). The difficulty of having access to any form of financial support was also highlighted. While access to credit and related information may seem important for business development, the informal sector businesses support themselves after commencement. This is a barrier in the context of the Kenyan Jua Kali industry (Ama et al., 2014; Henning & Akoob, 2017; Juma, 2017; Sambo, 2016).

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## CONCLUSION

The aim of this paper was to investigate barriers to job creation in the Jua Kali sector in Kenya through a multi-theoretical approach, which helped develop a conceptual framework for identifying the barriers. This framework assisted in developing the study by highlighting the barriers to job creation, which were macro, industry and micro related. Overall, we find strong evidence to conclude that business experience and personality traits are the most important barriers to job creation in the Jua Kali sector. Socio-demographic differences could impact involvement in entrepreneurial activities. Business access to finance was also a barrier to the informal sector, which reflects the significant role of financial support in the Jua Kali sector. This study adds to the growing body of knowledge in the small business management domain through isolation of barriers in the informal sector, enabling managers and policy makers to manipulate them in order to improve the Jua Kali sector.

## RECOMMENDATIONS

Reducing informal sector barriers would improve the Jua Kali success in Kenya. The following recommendations could help deal with the most potent barriers that emerged from this study.

- Having business centers to advise, consult and train entrepreneurs to increase their confidence in their business would help strengthen some traits, as well as business prowess among entrepreneurs.
- In relation to the aforementioned, policy makers could enhance specific plans and programs when introducing and promoting the Jua Kali sector opportunities through different media.

- There should be a community dialogue welcomed by all in the community, because communities that support entrepreneurship and innovation encourage self-employment to develop more rapidly. This is yet to reach the optimum despite high unemployment rates, particularly among the ever-increasing educated population.
- Although Kenya has made some progress to make available access to financing to everybody, particularly through mobile money services in the form of loans, this is yet to cover a wider population. To achieve growth and job creation among Jua Kali enterprises, there is a need to ensure that appropriate and well suited financing options are made accessible to the Jua Kali sector. Government/s must endeavor to develop enabling policy frameworks that would encourage financial providers to develop appropriate products that meet the needs of the entrepreneurs in the Jua Kali industry.
- Corruption has retrogressive consequences, therefore, government policy makers should rationalize all rules and legal issues as pertains the informal sector, to help mitigate corruption, as it is a big challenge within the informal sector. They need to provide licenses to operate or fees chargeable to do business and enforce such policy directives in a systematic manner that would not jeopardize businesses, as well as county's revenue targets.

## LIMITATION AND SUGGESTION FOR FURTHER RESEARCH

This study was limited to a specific industry and sample in the capital city of Nairobi, Kenya. However, barriers to Jua Kali enterprise development could be also influenced by the operational environments, which vary from county to county. Therefore, a barrier in one county may not necessarily be a barrier in another county due to social and geographical differences. Conducting cross-county, cross-cultural or cross-country investigation seems indispensable to better appreciate and explain informal sector businesses and, hence, create a basis for the extension of generalizable theory and related findings. In addition, the link between the variables could further be explored through use of thorough methodical analyses such as Structural Equation Modelling and larger sample sizes to help elucidate the pattern of associations. This could be extended in understanding such associations in different geographical locations, for example, counties, countries and cultures. Studying differences among the barriers to job creation in women-led and men-led businesses is another suggested area. Another limitation is related to the instrument – the questionnaire, which simply generalized the findings, paid no attention to in-depth insights that could be found by use of other data gathering methods. As such, we recommend the use of mixed techniques or approaches to data collection in future studies to supplement the findings. For example, the use of panel data, other publications and reports from the government and research organizations could help refine the barriers.

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