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ARTICLES

Human resource management practices, employee engagement and organizational citizenship behaviours (ocb) in selected firms in Uganda
Joseph Jakisa Owor

Does personality of owners of micro enterprises matter for the relationship between startup capital and entrepreneurial success?
Martin Mabunda Baluku, Julius Fred Kikooma and Grace Milly Kibanja
The purpose of this study was to investigate the relationship between human resource (HR) practices, employee engagement and organizational citizenship behaviours (OCB) in selected firms in Uganda. Adopting a pragmatic philosophy with a quantitative methods strategy using quantitative cross-sectional survey design (N = 210) the researcher examined the relationship between nine antecedents, employee engagement and one outcome – OCB. Self-administered questionnaire of four scales were administered to sampled employees of soft drink and sugar firms Kampala, Mukono and Buikwe districts of Uganda. Hypotheses were tested through correlation and hierarchical regression. All the nine antecedent variables studied were significantly related to employee engagement and employee engagement was significantly related to OCB. The hierarchical regression analysis results shows that five antecedent variables demonstrated a significant relation with OCB - role clarity, collaboration, job security, compensation fairness and development. This research has validated the organizational citizenship behaviour model, extended the engagement model and social exchange theory and established that all the nine antecedents studied were related to engagement but only five were significantly related to OCB.

**Key words:** Employee engagement, antecedents, OCB, HR practices, employee development, job security, compensation fairness, collaboration, Uganda.

**INTRODUCTION**

Researchers within human resource management (HRM) field have been concerned with how HRM can lead to improved organizational performance (Huselid, 1995; Delbridge and Keenoy, 2010). While early HRM studies tended to propose a direct link between HR practices and firm performance, recent evidence suggests that the relationship is most likely mediated by a range of attitudinal and behavioral variables at the individual level—employee engagement, task performance, and organizational citizenship behaviours (OCB) (Guest et al., 2004; Kuvaas, 2008; Snape and Redman, 2010). Prior HRM-performance-studies tended to focus on the macro level and proposed a direct relationship between the two, but lacked convincing theoretical explanations (Guest, 2011).
Recent research has adopted a social exchange framework and quantitative methodologies at the micro level to suggest that the relationship is most likely mediated by attitudinal variables, especially employee engagement which has ushered in a very recent interest in the parallel stream of research linking employee engagement and employee outcomes. Bringing the two streams together suggests that engagement may constitute the mechanism through which HR practices impact individual and organizational outcomes within the framework of social exchange theory.

However, the findings within current stream of HRM research have so far also been largely inconclusive (Alfes, et al., 2013) but evidence has accumulated on the basis of quantitative studies to suggest that high levels of engagement are associated with high levels of performance, citizenship behaviour and individual wellbeing (Christian et al., 2011). In parallel with the development of the Strategic HRM field, researchers in psychology and social psychology have been concerned with exploring how the attitudinal construct of employee engagement could help explain individual performance outcomes. Given the shared focus of these two streams of research, it is perhaps surprising that it is only now that researchers within the HRM field are starting to recognize the relevance of engagement for their endeavours, and studies linking the two are just emerging (Truss, Alfes, Delbridge, Shantz & Soane, 2013; Shuck, Reio & Rocco, 2011; Shuck and Rocco 2013).

Most recent HRM practices–engagement-performance studies situate their analyses within the framework of social exchange theory, arguing that organizational HRM practices send overt and covert signals to employees about the extent to which they are valued and trusted, giving rise to feelings of obligation on the part of employees, who then reciprocate through high levels of performance (Allen et al., 2003; Gould-Williams, 2007; Purcell and Hutchinson, 2007). Studies of mediation often draw on social exchange theory to provide an explanatory framework. Social exchange theory is based on norms of reciprocity within social relationships (Blau, 1964; Emerson, 1976). It is argued that employees are motivated within the employment relationship to demonstrate positive attitudes and behaviors when they perceive that their employer values them and their contribution (Cropanzano et al., 2003; Kuvaas and Dysvik, 2010).

Uganda’s industrial sector, is dominated by Micro, Small and Medium enterprises (MSEs), and contributes 25% to the gross domestic product (GDP). From early 1990s government of Uganda embarked on the country’s Economic Recovery Programme, aimed at removing structural distortions and imbalances in the economy by providing an enabling environment for industry for sustainable industrial development. Despite the government’s efforts to make Uganda’s private sector more competitive, very little appears to be happening in comparison to other countries (Nyanzi, 2012).

The Global Competitiveness Report 2014/15 has ranked Uganda 122 out of 144 economies, in 2013/14. Uganda still lags behind Rwanda (62) and South Africa (56) which are the top performers in Africa - while Kenya is ranked 90 (World Economic Forum, 2014). This leads us to propose that the macro-economic policy environment is a necessary but not sufficient condition for firm performance. The solution to the performance problem lies more at how the HR practices are handled at the firm level. This is in line with researchers who argue that aggregate outcome variables, such as competitiveness, firm financial performance and effectiveness, are too distal from the micro-level HR interventions, and that more proximal outcome indicators at the individual level would provide a better and more reliable measure of individual HR outcomes (Paauwe, 2004; Purcell and Kinne, 2007; Wright and Haggerty, 2005).

The carbonated soft drink sub-sector in Uganda has attracted a number of players in the last two years including Riham, Fizzy and Azam soda resulting into stiff competition causing the two giant franchises – Coca-Cola and Pepsi to cut prices to remain competitive in the market. Bottled water, which is emerging as the fastest growing in the beverage market has eaten into the carbonated soft drink market (New Vision, 2015: Focus on Manufacturing, June 2). The leading competitor in the bottled water industry is Rwenzori Bottling Company Ltd, a subsidiary of SABMiller.

Since there is no empirical data on outcomes, HR or individual attitudinal variables on the sampled firms, it is necessary to bridge the gap by studying the firm level HR factors (antecedents) and employee engagement hypothesized to predict outcomes like turnover intent which has a bearing on performance and competitiveness. Firms often compete by lowering prices, cutting costs, redesigning business processes and downsizing but all these have limits. New approaches to HRM are supported by numerous scholars who call for a more positive HR approaches, for example, engaging employees rather than focusing on problem-coping strategies as vital for employee retention (Luthans and Avolio, 2009; Bakker et al., 2008; Luthans and Youssef, 2007; Avey et al., 2008; Seligman et al., 2005).

**Purpose of the Study**

The purpose of the study is to establish the relationship between HR practices (antecedents),employee engagement and OCB in selected industry in Uganda in the context of the social exchange theory.

**Hypothesis**

$H1$: HR practices (antecedents) are positively correlated
with employee engagement;

**H2:** Employee engagement is significantly positively correlated with OCB;

**H3:** After controlling for HR practices (antecedents), employee engagement will predict unique variance in OCB.

**LITERATURE REVIEW**

The classical approaches to strategic HRM imply that the role of good HR practices is to maximize the contribution of human assets in order to achieve corporate goals (Huselid, 1995). Discussion of HR outcomes suggests that good HR practices act to improve the self confidence and flexibility of the workforce and contribute to increased motivation, morale and OCB, which in turn are related to individual and business performance (Becker and Huselid, 1998, 2006; Appelbaum, 2002; Tamkin, 2004). Because no exact number of practices in the good HR practices ‘bundle’ are agreed upon (Boxall and Macky, 2007, Delery, 1998; Becker and Huselid, 1997; MacDuffie, 1996; Thompson, 2000; Batt, 2002), this study looks at nine very common set of good HR practices (antecedents) – Job design characteristics, role clarity, material supplies, collaboration/teamwork, reward and recognition, perceived social support, compensation fairness, job security, employee development, which have been found to have impact on HR outcomes (Rich et al., 2010; Hackman and Oldham, 1980; Xanthopoulou et al., 2009; Seigts and Crim, 2006; Harter et al., 2002; Demerouti and Bakker, 2011; Kahn 1990; Rhoades and Eisenberger, 2002; Ryan and Deci, 2000) and hence to test the model in the context soft drink industry in Uganda.

Good HR practices represent the conceptual dimensions of social exchange that manifest not only the norms of exchange from an employer’s point of view, but also specify the resources of exchange between employers and employees. Certain HR practices (for example, proper job design, training, pay level, benefits level, and job security) reflect higher levels of rewards offered to employees (Shaw et al., 2009; Tsui et al., 1997). On the other hand, certain HR practices, for example, individual pay-for-performance systems, employee monitoring, and formal performance appraisals reciprocate employer expectations about employee performance levels (Shaw et al., 2009). This presents a fair exchange relationship. Thus, from an exchange theory view, good HR practices will likely increase employees’ perceived obligation to the employer, elicit engagement, as well as high in-role performance (Shaw et al., 2009).

The concept of organizational citizenship behaviours (OCBs) was introduced to the research literature by Organ and Ryan (1995). OCBs are voluntary contributions at work that include altruistic helping behaviours, compliance with work norms and requirements, courtesy to others to ensure smooth working relationships, sportsmanship to maintain performance under adversity, and civic virtue to contribute constructively to issues that arise in the workplace. OCB has been shown to have significant relations with employee engagement (for example Saks, 2006). Schaufeli and Bakker (2004) suggest that job resources (good HR practices) are related to engagement and engagement is in turn, related to employee outcomes like turnover intention, OCB, and organizational commitment.

Previous research has demonstrated that perceptions of the environment are important in predicting work engagement (Alarcon et al., 2008; Saks, 2006). Given that the job resources are expected to predict engagement and engagement predicts outcomes, it is possible that engagement mediates the relationship between the job resources and the outcomes such as job satisfaction, turnover intentions and OCB. This is consistent with the Maslach et al. (2001) model and more likely given that most of the job resources (for example, job characteristics, POS,) have been associated with various outcomes. Furthermore, several studies have found that engagement mediates the relationship between antecedent variables and outcomes (Schaufeli and Bakker, 2004; Sonnentag, 2003).

**Social exchange theory**

Social exchange theory (Homans, 1961; Blau, 1964; Ekeh, 1974) and employee-organization relationship frameworks (Coyle-Shapiro et al., 2004; Tsui et al., 1995) have suggested that organizations create systems that offer different forms of exchange relationships. Social exchange relationship involves unspecified obligations in which there are “favors that create diffuse future obligations, not precisely defined ones, and the nature of the return cannot be bargained but must be left to the discretion of the one who makes it” (Blau, 1964). The exchanged resources can be impersonal (such as financial) or socio-emotional such as care, respect and loyalty (Aselage and Eisenberger, 2003). It is the socio-emotional resources that tend “to engender feelings of personal obligations, gratitude, and trust” (Blau, 1964). A social exchange relationship rests on the norm of reciprocity (Gouldner, 1960).

Employment relationship is seen as an exchange where the employer offers certain returns (for example, pay, benefits, and job security) in exchange for employee contributions (for example, effort, commitment, productivity) and the level of exchange depends on expectations from both sides. Schein (1970) argued that in order for individuals to generate commitment, loyalty and enthusiasm for their organization and its goals, and to obtain satisfaction from their work, there should be a
match between what employees expect from the organization and what they owe the organization. The actual exchange involves, say money for time at work, social-need satisfaction and security in exchange for work and loyalty, opportunities for self-actualization and challenging work in exchange for high productivity, quality work, and creative effort in the service of organizational goals, or various combinations of these.

An exchange starts with one party giving a benefit (an inducement) to another. If the recipient reciprocates, a series of beneficial exchanges occur and feelings of mutual obligation between the parties are created (Coyle-Shapiro and Shore, 2007). A broad notion of reciprocity encompasses a feeling of an obligation to repay favorable treatment and for an employee it includes a belief whether one should care about the organization’s well-being and should help the organization reach its goals (Eisenberger et al., 2001).

Studies of engagement, like those of high performance HRM practices, draw on social exchange theory to suggest that employees will become engaged with their work when antecedents are in place that signal to them that they are valued and trusted (Rich et al., 2010; Saks, 2006). Although no research has examined the link between HRM practices and engagement, empirical studies have demonstrated a link between high levels of engagement and the same outcomes as the high-performance HRM practices literature. Engaged employees invest themselves fully in their roles (Rothbard, 2001), which may lead to the enactment of active in-role performances (Ho et al., 2011; Macey and Schneider, 2008). Engaged employees may achieve higher performance because they focus their efforts on work-related goals, are cognitively vigilant, and are emotionally and socially connected to their work (Kahn, 1990).

Combining formal HR practices and employee engagement to understand HR outcomes within the context of social exchange theory is the major task of this study. As long as managers provide a favourable work environment, employees will engage their minds, emotions and energies with positive impact on various HR outcomes.

As an alternative to studying the impact of HR practices on the usual individual performance, this study investigates the interim outcomes, OCB.

**Conceptual framework**

Basing on the various theories, models and concepts reviewed in the literature, a conceptual framework linking employee engagement, antecedents and OCB have been developed and tested in this study (Figure 1). Empirical studies in this research are discussed in line with the reciprocity framework of the social exchange theory (SET), which proposes that good HR practices (antecedents) influence engagement through the reciprocal exchange of engagement for motivational HR practices which then influences attitudinal and performance outcomes. The nine engagement antecedents studied in this research are job characteristics, role clarity, material adequacy, teamwork, rewards and recognition, perceived social support, compensation fairness, job security and employee development. These antecedents are assumed to separately but also collectively drive employee engagement and engagement influences OCB.
Shuck, — , and the mediator
eswell, 2003 — pledged firms have over 200 employees on average
ined the relationship between nine antecedents,
). The choice was also justified by the
ited (SCOUL) was selected because it
1
OCB
Cronbach alpha, 0.84
University of Utrecht Work engagement scales (UWES
computed (overall scale) reliability coefficient alpha of 0.91.
Employee engagement was determined using the 9-scale
University of Utrecht Work engagement scales (UWES-9, - Cronbach alpha, 0.84).
The dependent variable – organizational citizenship behavior
(OCB) was measured using standardized instruments - (seven
items - Cronbach alpha, 0.84). The responses to the questions
were elicited on a 4 point Likert type scales of - Strongly Disagree (1), - Disagree (2) - Agree (3), - Strongly Agree (4). The regression
model assumes a general equation:

\[
DV = f(IV) \quad OR \quad DV = a + b(IV)
\]

In multiple regression model with 9 IVs:

\[
DV = f(IV_1, IV_2, IV_3, IV_4, IV_5, IV_6, IV_7, IV_8, IV_9)
\]

\[
DV = \alpha + \beta_1{IV_1} + \beta_2{IV_2} + \beta_3{IV_3} + \beta_4{IV_4} + \beta_5{IV_5} + \beta_6{IV_6} + \beta_7{IV_7} + \beta_8{IV_8} + \beta_9{IV_9} + E
\]

Where;

\(\alpha\) is a constant; \(DV\) is the dependent variable; \(IV\) is independent
variable \(\beta_1, \beta_2, \beta_3, \ldots, \beta_9\) are parameters that indicate the variability caused in
the DV by the individual independent constructs.

Given the multiple independent variables, mediator and multiple
dependent variables, the conceptual framework is converted into a
regression equation - representing the outcomes as dependent
variable, the antecedents as independent and employee
engagement as mediator. Using a hierarchical regression analysis
the researcher combines all the independent variables in one block
- job characteristics (JobCh), role clarity (RoleC), material resources
(Mat), collaboration (Coll), reward and Recognition (Rew),
perceived social support (PSS), compensation fairness (CompF),
job security (JobSe), development (Dev), and the mediator
(employee engagement – EE = using 3 factors – ABS, DED, VIG) in
a second block - to examine their unique contributions to the
dependent variable (organizational citizenship behaviours (OCB)
to give the multiple regression equation below:

\[
OCB = \alpha + \beta_1{JobCh} + \beta_2{RoleC} + \beta_3{Mat} + \beta_4{Coll} + \beta_5{Rew} + \beta_6{PSS} + \beta_7{CompF} + \beta_8{JobSe} + \beta_9{Dev} + \beta_{10}{EE} \text{ (ABS, DED, VIG)} + \varepsilon
\]

(Key: ABS – Absorption, DED = Dedication, VIG = Vigour, EE =
Employee engagement, \(\varepsilon\) = error term).

RESULTS

Hypothesis 1

Pearson’s correlation analysis showed that employee
engagement is significantly positively related to each of
the nine antecedents – the coefficients ranging from \(r = 0.48\) to \(r = 0.67\) (Table 2). The three dimensions of engagement (vigor, absorption and dedication) are also
found to be significantly positively related to the
antecedents with the correlation coefficient ranging from \(r = 0.37\) to \(r = 0.65\). Eight of the nine antecedents showed

### Table 1. Population and Sample of the sampled firms.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Firm</th>
<th>Pop. (N) (Total staff)</th>
<th>Sample - following Krejcie and Morgan table</th>
<th>Questionnaire collected (usable)</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Century</td>
<td>500</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Crown</td>
<td>513</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Rwenzori</td>
<td>210</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>SCOUL</td>
<td>550</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1773</td>
<td>317</td>
<td>210</td>
<td>66</td>
</tr>
</tbody>
</table>

SCOUL – Sugar Corporation of Uganda Ltd (Source: Human Resource Department of the various firms).

METHODOLOGY

Target population

The target population was a total of 1,773 employees from the four
purposively sampled firms from Kampala, Mukono, and Buike
districts. The four firms were purposively sampled because they
had well defined organization structure and human resource
management systems which are considered to be appropriate for
study of an emerging construct of employee engagement (Shuck,
2011; Creswell, 2003). The choice was also justified by the
centrality of soft drinks to the healthcare sector, the general
community and the industry’s contribution to the economy as a
source of revenue and employment (UBOS, 2011). Sugar
Corporation of Uganda Limited (SCOUL) was selected because it
produces two important ingredients of the soft drink industry –
sugar and carbon dioxide. The sugar industry is a very vital
extension of the soft drink industry and is similar to the sampled soft
drink firms in terms of size, structure, employment and environment
(UBOS, 2011).

The choice was influenced by the fact that of all the regions of
Uganda, these three districts have the highest concentration of
firms in Uganda. The 2010/11 census of business establishments in
Uganda done by Uganda Bureau of Statistics (UBOS) revealed that
60% of the Businesses were in the central region. The
Manufacturing sector, which includes Food Processing and other
Manufacturing, employed an average of 4 persons per business.
Because the sampled firms have over 200 employees on average
they qualify among the biggest firms in Uganda given 93% of all the
businesses in Uganda employed less than 5 persons (UBOS,
2010/11).

This study using a quantitative cross-sectional survey design \(N = 210\) examined the relationship between nine antecedents,
employee engagement and OCB. Because of the three-step nature
of the study variables, a regression analysis of the quantitative data
was used. The target population was 1,773 employees from four
purposively sampled soft drink firms in Kampala, Mukono, and
Buike districts and a sample of 317 different categories of
employees were drawn using Krejcie and Morgan’s (1970) table.
Out of the 317 questionnaires distributed, 210 usable ones were
collected, giving a response rate of 66% (Table 1).

The instruments used to measure the three variables were
standardized instruments used in several empirical studies
elsewhere. The antecedents were determined using 58 short
questions measuring 9 different antecedents. All antecedents had
computed (overall scale) reliability coefficient alpha of 0.91.
Employee engagement was determined using the 9-scale
University of Utrecht Work engagement scales (UWES-9, - Cronbach alpha, 0.84).

-organizational citizenship behavior
(OCB) was measured using standardized instruments - (seven
large effects correlation coefficients (Cohen, 1988), providing empirical support for H1. Employees who scored highly on employee engagement also reported \( r = 0.65 \). Eight of the nine antecedents showed large effects correlation coefficients (Cohen, 1988), providing empirical support for H1. Employees who scored highly on employee engagement also reported high levels of all the tested antecedents.

**Hypothesis 2: Employee engagement and OCB**

As seen in Table 3 the study showed that engagement is significantly positively correlated with OCB \( r = 0.61, p=0.00 \), hence providing empirical support for H2. The three factor measure of engagement – vigor \( r = 0.49, p=0.00 \), absorption \( r = 0.58, p=0.00 \) and dedication \( r = 0.50, p=0.00 \) are also significantly positively correlated with OCB.

**Hypothesis 3: Engagement antecedents, engagement and OCB**

As seen in Table 4, five of the nine antecedents, role clarity \( (\beta = .21, p = .01) \), collaboration \( (\beta = .21, p = .01) \), compensation fairness \( (\beta = -.26, p = .00) \), job security \( (\beta = -.15, p = .03) \), and development \( (\beta = -.31, p = .00) \) contributed to the prediction of OCB \( (adj. R^2 = .46, p = .00) \). After controlling for the antecedents, employee engagement contributed unique variance in OCB \( (\Delta R^2 = .037, p = .00) \); thus, H3 was supported in this model. This means each of the antecedents contributed between 21 to 30% of the variance in OCB and together the five antecedents contributed 46 percent to the variation in OCB. The detailed and complicated model data in table 4 and whose beta values and significance are described above can be summarized in terms of the factors that predict OCB in the figure 2 below.

**Discussion**

Hypothesis 1 was supported by the Pearson’s correlation analysis which showed that employee engagement is...
Table 4. Summary HRA with antecedents, employee engagement (V, A & D) predicting OCB.

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>R²</th>
<th>Adj.R²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>0.14</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>0.21*</td>
<td>-</td>
<td>-</td>
<td>0.01</td>
</tr>
<tr>
<td>Material resources</td>
<td>0.10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Collaboration</td>
<td>0.21*</td>
<td>-</td>
<td>-</td>
<td>0.01</td>
</tr>
<tr>
<td>Reward and recognition</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Perceived organization support</td>
<td>0.06</td>
<td>-</td>
<td>-</td>
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<tr>
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<td>0.15*</td>
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<td>Development</td>
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<td>Engagement</td>
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<td>Vigour</td>
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<td><strong>BLOCK 2</strong></td>
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Note ** p<.01, * p<.05.

significantly positively related to each of the nine antecedents – the coefficients ranging from r = .50 to r=.67 at 1% level of significance. The three dimensions of engagement (vigor, absorption and dedication) are also found to be significantly positively related to engagement with the correlation coefficient ranging from r =.34 to r=.65. All the antecedents showed large effects correlation coefficients (Cohen, 1988). Discuss of the results of each antecedent variable and its relation to employee engagement now follows.

**Job characteristics**

Employees who experienced high degree of job characteristics in their jobs were more likely to be engaged (r=0.52, p=0.00). Xanthopoulou et al. (2009) found that job resources, including job autonomy, have a positive effect on daily rates of engagement among fast-food employees (n=42). A study by de Lange et al. (2008), found job autonomy, decision making and job design had potential engagement effects and indeed related to levels of engagement over time. Appraising and giving constructive feedback to employees for good performance helps maintain their motivation (Hackman and Oldham, 1980) and consequently engagement as this signals to them that the employer recognizes them and the principle of reciprocity in social exchange theory is invoked (Cropanzano and Mitchel, 2005).

**Role clarity**

Employees who experienced high degree of role clarity in their jobs were more likely to be engaged (r=0.55, p=0.00). Role clarity has been studied by Seigts and Crim (2006) under the idea of “convey” (communicate) where leaders clarify work-related expectations for employees. Similar research appears in Spector’s (1997) Job Satisfaction Survey and House et al. (1983) measure of Role Conflict and Ambiguity. Previous studies found role clarity to be positively related to engagement (Buckingham and Coffman, 1999; Harter et al., 2002). When employees get clear role profiles they feel obliged to respond in kind and “repay” the organization in terms of engagement, hence validating the social exchange theory.

**Materials adequacy**

Employees who experienced high degree of materials adequacy in their jobs were more likely to be engaged (r= 0.62, p=0.00).

The findings of this study are consistent with Seigts and Crim (2006) that inadequate resources are likely to lead to stress, frustration, and lack of engagement. Materials have been found to be positively related to engagement by both Buckingham and Coffman (1999) and Harter et
al. (2002). When employees receive adequate resources to work with they feel obliged to respond in kind and “repay” the organization in form of higher engagement – hence validating the SET theory.

Collaboration/Team work

Employees who experienced high degree of collaboration in their jobs were more likely to be engaged ($r=0.67$, $p=0.00$). Collaborative work environments are often characterized by trust and cooperation and may outperform groups which were lacking in positive relationships (Seigts and Crim, 2003). Employee opinions as cited by Buckingham and Coffman (1999) and Harter et al. (2002) are positively related to engagement. If an employee’s opinion is considered, the employee will feel valued and important and will therefore be willing to emotionally, cognitively and physically engage the self. This finding is in line with the Schaufeli (2002) and Kahn (1990) model and in the spirit of reciprocity expounded by the social exchange theory.

Recognition and rewards

Employees who experienced high degree of recognition/rewards in their jobs were more likely to be engaged ($r=0.53$, $p=0.00$). The findings of this study are consistent with Seigts and Crim (2006) who emphasize that good leaders frequently recognize their employees by congratulating and by coaching them. Recognition has been found to have a weaker but positive relationship to engagement by Harter et al. (2002).

This study found a strong positive relation ($r=0.53$, $p=0.00$) - (large effect size; Cohen, 1988). Recognition/reward given by the employer is interpreted as a gesture that has to be reciprocated in terms of higher engagement (Cropanzano and Mitchel, 2005).

Perceived social support (PSS)

Employees who experienced high degree of PSS in their jobs were more likely to be engaged ($r=0.59$, $p=0.00$). An important aspect of psychological safety (Kahn, 1992) stems from the amount of care and support employees’ perceive to be provided by their organization as well as their direct supervisor. Supportive work environments allow members to experiment and to try new things and even fail without fear of the consequences (Kahn, 1990; May et al., 2004). Basing on the social exchange theory, Rhoades et al. (2001) and Saks (2006) posit that PSS creates a reciprocal obligation on the part of employees to care about the organization’s welfare and to help the organization reach its objectives. This is in line with the Schaufeli/Kahn model and the social exchange theory.

Compensation fairness

Employees who experienced high degree of compensation fairness in their jobs were more likely to be engaged ($r=0.51$, $p=0.00$). Compensation fairness refers
to the perceptions that employees have regarding equity in company internal and external compensation and benefits. Researchers have found that when pay is fair in comparison with other's pay, a worker is more likely to be engaged (Milkovich and Newman, 2005; Vandenbergh and Tremblay, 2008). The perceived fairness will compel them to seek to pay back their employer by engagement. This is consistent with and validates the social exchange theory.

**Job security**

Employees who experienced high degree of job security in their jobs were more likely to be engaged ($r=0.48$, $p=0.00$). Once security is assured employees are more likely to be engaged. This study shows that the relation between job security and engagement is relatively low compared to all the other variables considered here - showing medium effect size (Cohen, 1988). This is not surprising as job security is a major concern of many employees in Uganda. Assurance of job security given by the employer is interpreted as a goodwill that has to be reciprocated in terms of higher engagement (Cropanzano and Mitchel, 2005).

**Employee development**

Employees who experienced high degree of employee development in their jobs were more likely to be engaged ($r=0.63$, $p=0.00$). Work settings in which employees have opportunities for development provide opportunities for growth and employee motivation and engagement (Hackman and Oldham, 1976; Ryan and Deci, 2000). This study found the development - engagement relation ($r=0.63$, $p=0.00$) to be one of large effect size (Cohen, 1988). Opportunities for employee development by the employer are interpreted as a benevolence that has to be reciprocated in terms of higher engagement (Cropanzano and Mitchel, 2005). The study findings validate social exchange theory.

**Hypothesis 2**

Hypothesis 2 stated that there would be a positive correlation between employee engagement and OCB. The results of this study show that engagement was significantly positively correlated with OCB ($r=0.61$, $p=0.00$), hence providing empirical support for H2. The three factor dimensions of engagement – vigor ($r=0.49$, $p=0.00$), absorption ($r=0.58$, $p=0.00$) and dedication ($r=0.50$, $p=0.00$) are also significantly positively correlated with OCB. Other studies have also found positive relationships between employee engagement and OCB (Rurkkhum, 2010). Avey et al. (2008) for example, found that employees with psychological capital and positive emotion were likely to have an employee engagement attitude and performed more OCB. In addition, the result of this study is similar to the finding of Wang (2009) in which a positive and strong relationship between organizational support and OCB was found. Research by Ensher et al. (2001) also reported that when employees perceived sincere organization support in terms development opportunities, they experience engagement and are more likely to reciprocate by willingly participating in their organization’s non-mandatory activities.

**Hypothesis 3**

**Predictors of organizational citizenship behaviour (OCB):** Hierarchical regression analyses were performed to test H3 that stated that after controlling for selected engagement antecedents - employee engagement will predict unique variance in OCB. Testing the first regression model, in the first block, five of the nine engagement antecedents, role clarity ($\beta = .21$, $p = .01$), collaboration ($\beta = .21$, $p = .01$), compensation fairness ($\beta = -.26$, $p = .00$), job security ($\beta = -.15$, $p = .03$) and development ($\beta = -.31$, $p = .00$) contributed unique variance to the prediction of OCB (adj. $R^2 = .46$, $p = .00$) in the regression equation. This means each of the antecedents contributed between 21 to 30% of the variance in OCB, and together the five antecedents contributed 46% to the variation in OCB.

**Contributions to knowledge:** The study contributed to prevailing debate about whether there was a direct link between HR practices (antecedents) and firm performance, or that the relationship is mediated by a range of attitudinal and behavioral variables at the individual level. This study filled that gap by proposing that in the Uganda context, the antecedents-engagement-OCB relationship is mediated by attitudinal variable - employee engagement. This study also contributed to the debate that aggregate outcome variables used in the existing management literature, such as competitiveness, firm financial performance and organizational effectiveness, are too distal from the micro-level HRM interventions, by proposing a more proximal outcome indicator such as OCB to measure individual HRM outcomes (Wright and Haggerty, 2005; Purcell and Kinnie, 2007; Paauwe, 2004).

Besides, most of the studies that have been conducted on the predictors of employee engagement and their outcomes in recent years were mostly centered on the Western world such as the United States (Britt, 2003; May et al., 2004), Netherlands (Schaufeli and Bakker, 2004; Xanthopoulou et al., 2007), Spain (Salanova et al., 2005), Finland (Hakanen et al., 2006; Mauno et al., 2007), Greece (Xanthopoulou et al., 2009), Norway (Martinussen et al., 2007). This study filled that research gap in the Uganda among employees of soft drink firms.
CONCLUSIONS

Variations in OCB in Uganda context can be explained by the changes in employee engagement which in itself is influenced by changes in HR practices. Employee engagement is therefore a significant mediator between the HR practices and OCB. This research has validated and extended the engagement and social exchange theory by establishing that role clarity, collaboration, compensation fairness, job security, and development are significant predictors of OCB.

RECOMMENDATIONS

Arising from the findings of this research, the following recommendations are made, hypothesis by hypothesis: Hypothesis 1: To enhance employee engagement, practitioners should ensure that each of the nine antecedents in their businesses are nurtured - job characteristics, role clarity, material resources, collaboration, reward and recognition, perceived social support, compensation fairness, job security and development. Hypothesis 2: To reap the benefits of employee engagement and increase OCB it is recommended that business should use the finding of this study to develop interventions and strategies for improvement of employee engagement and OCB among employees. Hypothesis 3: The recommendation is that since role clarity, collaboration, compensation fairness, job security, and development as well as employee engagement are significant predictors of OCB, managers need to appreciate role of social exchange in liking these antecedents and OCB.

LIMITATIONS OF THE STUDY

This study used a cross-sectional research design as opposed to a longitudinal research design. Longitudinal and experimental studies are required to provide more definitive conclusions about the causal effects of employee engagement and the extent to which social exchange explains these relationships. In addition, much of the data came from a self-reported questionnaire. This could affect the reliability and validity of the data because respondents may have answered the questions to reflect more socially acceptable responses rather than ones that reflect their real opinions. Although the results of this study might have been affected by method bias, statistical results give us confidence in the results.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future research on OCB, engagement and antecedents should not be limited to a quantitative paradigm. Qualitative studies might assist in better understanding the phenomenon under study. To replicate this study, structural equation modelling (SEM) as well as longitudinal studies could be used to capture changes in the variables over periods of time. Future researchers should expand the sample to include the entire food and beverage industry. A comparative study could also be done with the service industry. A study could also concentrate of the five antecedents which emerged significant – collaboration, reward and recognition, perceived organizational support, compensation fairness, and development. Instead of the intermediate outcome – OCB, future research should consider final outcomes like productivity, profitability, customer satisfaction and competitiveness.

Conflict of interests

The author has not declared any conflict of interests.

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Does personality of owners of micro enterprises matter for the relationship between startup capital and entrepreneurial success?

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Following the devastating effects of the recent global economic and financial crisis, both developing and developed countries are desperate to boost economic development and reduce unemployment rates. Consequently, entrepreneurship is being promoted. The resulting enterprises contribute to economic development and create employment opportunities. However, the contribution to economic development can only be realized if the enterprises themselves are growing. Whereas the contribution of both startup capital and personality to entrepreneurial success is well researched, the interaction between the two leading to entrepreneurial success has not been investigated. Using a sample of 384 owners of micro-entreprises from a cross-section of industry sectors in Uganda, The study examine the moderating effect of Big Five personality factors on the relationship between startup capital and entrepreneurial success. The study observes that startup capital, agreeableness and extraversion positively predict entrepreneurial success. Neuroticism, on the other hand, negatively predicts entrepreneurial success. Extraversion is the only factor in the Big Five model that moderates the relationship between startup capital and entrepreneurial success, highlighting the importance of interpersonal skills in microenterprises. The study also discusses implications for research, entrepreneurial education and support in relation to startup capital, specific personality factors.

Key words: Big Five personality factors, business, entrepreneurial success, micro entrepreneurs, startup capital.

INTRODUCTION

Entrepreneurship stimulates economic transformation (Chattopadhyay and Ghosh, 2002; Ireland and Webb, 2007; Skriabikova et al., 2014; Williams et al., 2013; Zahra, 2005). This is the motivation behind enormous efforts of developing nations and their development partners aimed at intensifying entrepreneurial activities. Whereas these efforts are yielding reasonable results, there are still significant challenges (Singer et al., 2015). For example, an assessment of success rates among self-employed entrepreneurs in developing countries...
found that only seven percent were successful (Gindling and Newhouse, 2014). Moreover, entrepreneurship can only be a vehicle for sustainable development if the enterprises are staying in operations for longer periods and growing.

The commonly cited reason for failure of startups is inadequate financing and failure to realize profits (Singer et al., 2015). Majority of entrepreneurs use their own small resources (Aldrich and Martinez, 2007; Orobia et al., 2011) or borrow funds to finance their entrepreneurial activities. The resources used by micro-entrepreneurs vary in nature including money, personal property, business knowledge and skills as well as experience. Some supplement these with small loans from banks, micro-finance institutions, relatives or friends (Carlton and Wien, 2001; Orobia et al., 2011). The source and amount of funds affect business in different ways including limiting inputs, competitiveness, profitability and the growth of business (Van Gelderen et al., 2006).

Some scholars and practitioners emphasize financial capital, knowledge and experience in managing business (Hsu, 2007; Merz et al., 2010). There is also overwhelming evidence that funding affects entrepreneurial success; however, psychological resources are also important resources for an entrepreneur at the startup phase and nurturing the enterprise to success (Chatterjee and Das, 2015; Nair, 2003). In essence, psychological resources are as important as finances. For example, an entrepreneurs’ character influences entrepreneurial decisions and behaviors (Legohérel et al., 2004) which, in the long run, impact the success of an enterprise. This study particularly focuses on how the entrepreneur’s character influences the relationship between startup capital and success. The study examines whether startup capital and personality predict entrepreneurial success and the moderation effect of personality on the startup capital – entrepreneurial success relationship. Understanding of these relationships can be essential for entrepreneurial support interventions.

**Startup capital and entrepreneurial success**

Startup capital comprises of resources which are necessary for establishing a business venture. Although financial resources are the most highlighted form of capital, other forms including human capital (Unger et al., 2011) and social capital (Lengyel, 2015) may be equally important for entrepreneurial startups. The financial approach particularly focuses on sources and size of startup funds (Van Gelderen et al., 2006). Using this approach, research shows that most entrepreneurial failings are attributed to inadequacy of funds (Fairlie and Robb, 2008; Gindling and Newhouse, 2014) and ineffective sources of funding (Indarti and Langenberg, 2004). Most nascent entrepreneurs who own small businesses start their ventures with small amounts of capital, usually obtained from personal savings or selling their assets (Aldrich and Martinez, 2007). Some complement these sources with loan funds or solely start businesses with loan funds (Carlton and Wien, 2001; Orobia et al., 2011; Robb and Robinson, 2014). This can be dangerous for nascent entrepreneurs (Robb and Robinson, 2014; Van Gelderen et al., 2006). As a result, majority of micro-enterprises are bound to fail given the inadequate startup capital challenge.

Studies have shown that many business startups become insolvent soon after the start (Manolova et al., 2007; Merz et al., 2010). Those who have access to funds must have the ability to use the resources appropriately. However, this ability is not solely dependent on the source and amount of funding, but other factors such as human capital. Human capital includes experience, knowledge and skills which correlate with growth and profitability as measures of success (Unger et al., 2011). Research shows that experience is important for success of a business because it enables one to learn from previous experiences, which improve judgment in entrepreneurial decision-making (Cassar, 2014). Experienced entrepreneurs are also likely to have better access to the required resources (Merz et al, 2010) and use the resources more appropriately. This also determines the likelihood of success in starting another venture (Hsu, 2007). The entrepreneur’s ability to appropriately use startup capital may also be affected by the individual’s character. The study therefore expects startup capital to be significantly correlated to entrepreneurial success.

H1. Startup capital will positively predict entrepreneurial success

**Personality and entrepreneurial success**

The theory of vocational personalities and work environments (Holland, 1997) is particularly relevant to the study of entrepreneurial personality. The theory posits that career choices are partly chosen in congruence with person-occupational environment fit (Barrick, 2005). This fit translates into performance and career satisfaction. Based on these facts, then it can be asserted that entrepreneurial personality exists (Rauch and Frese, 2007; Tokar et al., 1998; Zhao et al., 2010); and differentiates entrepreneurs from non-entrepreneurs. Entrepreneurial personality has been measured using such traits as locus of control, goal orientation, creativity, risk taking propensity, achievement orientation, marketing ability and competitive aggressiveness (Campos et al., 2015; Halim et al., 2012; Hansemann, 2003; Korunka et al., 2010; Litunen, 2000; Shane and Nicolaou, 2015; Utsch et al., 1999; Zaman, 2013).

Gradually, research is also linking traits such as psychopathy and narcissism to entrepreneurial ability
success

H2b. Extraversion will positively moderate the startup capital - entrepreneurial success relationship.

Neuroticism is one of those traits that can be labeled as a ‘dark’ personality trait. It is a tendency towards emotional instability involving experiencing fear, sadness, anger and hostility (Barrick and Mount, 1991; Holt et al., 2007; Reed et al., 2004; Zhao et al., 2010). Behavioral tendencies of neurotic individuals such as being sensitive to negative feedback, distress from small failures and anxious responses to difficult situations (Barrick and Mount, 1991; Reed et al., 2004; Zhao et al., 2010) are indicative of a negative relationship between neuroticism and entrepreneurial success. On the other hand, entrepreneurship requires ability to cope with adversity and taking personal responsibility (Shane and Nicolaou, 2013b; Zhao et al., 2010). Neuroticism also tends to reduce risk-taking propensity (Sinha and Srivastava, 2013), thus reducing the likelihood of persisting in entrepreneurial roles (Patel and Thatcher, 2014). Moreover, neurotic individuals are likely to have lesser social capital arising from their lack the social competence (Barrick, 2005; Cogilser et al., 2012; Patel and Thatcher, 2014). This makes them less successful in entrepreneurial activities that require social skills. However, no research has been carried out to establish whether deficiencies of neuroticism result into poor management of business startup resources and lead to entrepreneurial failure.

H3a. Neuroticism will negatively predict entrepreneurial success.

H3b. Neuroticism will negatively moderate the startup capital – entrepreneurial success relationship.

Openness to experience involves purposeful seeking and appreciation of new experience (Reed et al., 2004). Hence, individuals endowed with openness to experience tend to be open-minded and tolerate a range of values (Lee et al., 2000; Reed et al., 2004; Roccas et al., 2002; Zhao et al., 2010). These characteristics can help entrepreneurs to appreciate customer needs and learn to deal with competition and market trends. Openness to experience is associated with self-direction and stimulation values (Gorgievski et al., 2011) and intellectual curiosity (Zhao et al., 2010), which are necessary for entry, persistence as well as succeeding in entrepreneurial roles. However, individuals scoring high on openness tend to be unconventional entrepreneurs (Holt et al., 2007). They are more likely to question existing ways of doing business, which, in addition to their intellectual capacity, results into identification of new opportunities. This may justify the correlation that research has found to exist between openness to experience and financial success (Shane and Nicolaou, 2013b). This suggests that entrepreneurs with high level of openness are more likely to appropriately use startup

The Big Five personality factors and entrepreneurial success

The Big Five factors model is considered the most complete and accurate description of personality (Holt et al., 2007; McCrae, 2011; Roccas et al., 2002). This model defines personality in five broad factors: extraversion, agreeableness, openness to experience, conscientiousness and neuroticism (Costa and McCrae, 1992). These factors are deemed appropriate for business research because they describe behaviors that tend to demonstrate entrepreneurial competence (Holt et al., 2007; Obschonka et al., 2015; Obschonka et al., 2012; Rauch and Frese, 2007; Zheng et al., 2010). A general description of entrepreneurial personality based on this model shows that entrepreneurs tend to be endowed with conscientiousness, extraversion, openness and low on neuroticism and agreeableness (Lounsbury et al., 2009).

Extraversion predicts success among occupations requiring social interactions (Barrick and Mount, 1991). This is because entrepreneurs need to spend more time interacting with different stakeholders (Shane and Nicolaou, 2013a). The entrepreneurial role is particularly appealing to extraverts because it requires domination, adventure, pleasure-seeking, ambitiousness, impulsiveness and self-confidence (Holland, 1997). Therefore, extraversion is related to both entrepreneurial intentions and success (Fine et al., 2012; Wang et al., 2015; Zarafshani and Rajabi, 2011). Risk taking behavior of extraverts increases entrepreneurial optimism (Nicholson et al., 2005) and self-efficacy (Hartman and Betz, 2007; Rauch and Frese, 2007; Wang et al., 2015), which may enhance entrepreneurial intentions and success. Extraversion also boosts entrepreneurial success via the ability to succeed in business leadership roles (Chan et al., 2015; Cogilser et al., 2012; Hartman and Betz, 2007). Business leadership requires entrepreneurs to be active, good communicators, upbeat, negotiators, marketers and network builders. These tasks are congruent to the extraversion trait profile. However, there is no evidence whether these attributes of extraverted individuals enable them to use startup resources appropriately for the success of their enterprises. The study expects extraversion to positively correlate with entrepreneurial success and to moderate the relationship between startup capital and entrepreneurial success.

H2a. Extraversion will positively predict entrepreneurial success

However, these traits are considered to provide the motivational force to engage in entrepreneurial activities (Mount et al., 2005) and maintain entrepreneurial roles (Wille et al., 2010). Despite a range of these personality traits, entrepreneurial personality research is increasingly dominated by focus on the Big Five Personality Factors model.
resources for the success of their businesses. Unfortunately, there is no evidence to prove whether this is true.

H4a. Openness to experience will positively predict entrepreneurial success.
H4b. Openness to experience will positively moderate the relationship between startup capital and entrepreneurial success.

Agreeableness is the personality factor concerned with interpersonal behavior and attitude (Lee et al., 2000; Zhao et al., 2010). Research has associated high level of agreeableness with inability to succeed in business situations (Patel and Thatcher, 2014; Schröder et al., 2011; Shane and Nicolaou, 2013b). The entrepreneurial incompetence of agreeable individuals is attributed to their low self-interest, low achievement orientation and low competitiveness (Roccas et al., 2002) and possibilities of conflicts in business (Zhao et al., 2010). Their altruistic tendencies also makes agreeable individuals incapable of negotiating challenging deals and influencing others (Schröder et al., 2011) to attain business goals. However, agreeable entrepreneurs can command respect, trust and cooperation (Cogliser et al., 2012). Consequently, agreeableness may be a success factor particularly in service-oriented businesses (Zhao et al., 2010).

Moreover, entrepreneurs with high agreeableness are more likely to have higher social capital (Patel and Thatcher, 2014), which is an important factor for owners of microenterprises who have less opportunities to obtain funding from institutions. But, little evidence is available about the effect of their altruistic behaviors on their ability to use startup resources to achieve the desired business outcomes.

H5a. Agreeableness will positively predict entrepreneurial success.
H5b. Agreeableness will positively moderate the startup capital - entrepreneurial success relationship.

Conscientiousness is the disposition to follow rules and exert effort to achieve goals (Barrick, 2005; Reed et al., 2004). This definition summarizes several positive attributes including personal competence, achievement-striving, self-discipline, confidence, and dependability (Costa and McCrae, 1992; Holt et al., 2007; Mount et al., 2005; Roccas et al., 2002; Watson & Newby, 2005). These attributes can foster achievement values or conformity values (Roccas et al., 2002). The former is more relevant for entrepreneurial roles, given that the need for achievement tends to increase entrepreneurial competence and performance. Conscientious individuals have leadership abilities (Cogliser et al., 2012); therefore, they are capable of managing businesses. Conscientiousness is also related to high level of psychological capital (Luthans et al., 2007). This form of capital can increase an entrepreneur’s effort and persistence towards achieving business goals. Again, little is known about the contribution of conscientiousness towards an entrepreneur’s ability to appropriately use startup funds to achieve the desired business outcomes.

H6a. Conscientiousness will positively predict entrepreneurial success.
H6b. Conscientiousness will positively moderate the startup capital - entrepreneurial success relationship.

**METHODOLOGY**

**Participants and procedures**

The study used a convenient sample comprising of 384 owners of microenterprises in major trading hubs (Kampala city and Wakiso district) in Uganda. Most participants were male youths (52%) with an average age 31; they had a relatively high level of education, bachelor or higher degrees (35.8%). Questionnaires were administered only to owners of micro-enterprises who were able to read, write and understand English. Participants were drawn from a range of industries including whole sale and retail trade (52.6%), financial and insurance intermediaries (12.8%), hotel and food services (8.9), manufacturing (6.1%) and health (5.5%). The others were engaged in construction, agribusiness, communication, quarrying, and education. Using Westhead and Wright (1998) classification, 67.8% of the participants were novice, 13.3% were habitual while 18.8% were portfolio entrepreneurs.

**Measures**

**Personality**

The Big Five Inventory (BFI) developed by John and Srivastava (1999) was adopted. The inventory consists of 44 items measuring the big five personality dimensions namely extraversion — 8 items, agreeableness — 9 items, conscientiousness — 9 items, neuroticism — 8 items, and openness — 10 items. The inventory has an overall reliability coefficient α of .83 and standardized validity coefficients of .92. Each factor also has high reliability and validity coefficients (John et al., 2008). In the present study, the BFI had a high overall Cronbach’s α of .84.

**Startup capital**

The items for measuring startup capital assessed the different forms of capital often used by owners of micro enterprises as indicated in literature. The questionnaire consisted of nine items focusing on financial, material, knowledge and experience capital. The questionnaire had an overall reliability coefficient α of .72. It included items such as ‘How much money (in Uganda Shillings) did you use to start this business ‘ with response options ranging from 1 - <500.000 to 6 >50,000,000); ‘Before starting your business, did you have any experience in handling/managing businesses’ and the response options ranged from 1 - no experience at all to 6 - experience of more than 10 years.

**Entrepreneurial success**

The entrepreneurial success instrument consisted of 16 items items measured on a five-point Likert format scale (1-strongly disagree to 5-strongly agree). The questionnaire had a reliability
coefficient α of .86. The instrument was purposively designed to measure four aspects of success that literature posits to be relevant to micro-entrepreneurs: financial rewards (profitability and liquidity of the enterprise), survival time, owner’s satisfaction and generated employment. For example, ‘I am not satisfied with the profitability of my business.’

**Data analysis**

A Moderated Multiple Regression (MMR) analysis was applied to test for both prediction and moderation effects. The first model of the regression tested whether startup capital predicts entrepreneurial success. The second model tests for whether the five personality factors predict entrepreneurial success. The third model involves the independent and moderator variables to test for the interaction effect of startup capital and the five personality factors on entrepreneurial success. Centering was employed to reduce on multicollinearity. In addition, moderation slopes were constructed to determine the size of the effect of each personality factor on the relationship between startup capital and entrepreneurial success.

**FINDINGS**

The study focused on examining the moderation effect of personality on startup capital, entrepreneurial success relationship, and whether startup and personality predict entrepreneurial success. Results of the regression analysis (Table 1) show that although startup capital is a significant predictor of entrepreneurial success (t = 3.14, p < .001), it only contributed two percent of entrepreneurial success (Adjusted R² = .02). In Model 2, moderator variables were added to the regression analysis. Agreeableness (t = 6.73, p < .001) was the best predictor, while extraversion (t = 3.10, p < .01) also positively and significantly predicted entrepreneurial success. On the other hand, openness to experience (t = -1.69, p < .10) significantly but negatively predicted entrepreneurial success. Conscientiousness and neuroticism were non-significant predictors of entrepreneurial success, yet neuroticism had a negative effect on entrepreneurial success. The model reveals that startup capital and the Big Five Personality factors combined predict 26% of entrepreneurial success (F = 23.12, p < .001, Adjusted R² = .26).

Model 3 of the multiple regression, tests for the moderation effect of personality factors on the startup capital – entrepreneurial success relationship. Interaction variables were derived for each personality factor (personality factor multiplied by startup capital). Results show that only extraversion had a significant moderation taken together had a negligible moderation effect on the relationship (t = 1.74, p < .10). However, the model is significant at F = 12.98, p < .001. Nonetheless, with

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**Table 1. Results of moderated multiple regression analysis.**

<table>
<thead>
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<th>Model 2</th>
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<td><strong>Independent variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Startup capital</td>
<td>3.14***</td>
<td>2.52**</td>
<td>2.72***</td>
</tr>
<tr>
<td><strong>Moderator variables (personality factors)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
<td>-</td>
<td>3.10***</td>
<td>2.98***</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-</td>
<td>6.73***</td>
<td>6.72***</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-</td>
<td>0.20</td>
<td>0.08</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-</td>
<td>-1.28</td>
<td>-.98</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>-</td>
<td>-1.69†</td>
<td>-1.72†</td>
</tr>
<tr>
<td><strong>Interaction effect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Startup capital * extraversion</td>
<td>-</td>
<td>-</td>
<td>1.74†</td>
</tr>
<tr>
<td>Startup capital * agreeableness</td>
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<td>-</td>
<td>-0.48</td>
</tr>
<tr>
<td>Startup capital * conscientiousness</td>
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<td>-</td>
<td>0.79</td>
</tr>
<tr>
<td>Startup capital * neuroticism</td>
<td>-</td>
<td>-</td>
<td>-0.15</td>
</tr>
<tr>
<td>Startup capital * openness to experience</td>
<td>-</td>
<td>-</td>
<td>-0.35</td>
</tr>
<tr>
<td>R²</td>
<td>0.16</td>
<td>0.52</td>
<td>0.53</td>
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<tr>
<td>Adjusted R²</td>
<td>0.03</td>
<td>0.27</td>
<td>0.28</td>
</tr>
<tr>
<td>∆R²</td>
<td>0.02</td>
<td>0.26</td>
<td>0.26</td>
</tr>
<tr>
<td>F</td>
<td>9.84***</td>
<td>23.12****</td>
<td>12.98****</td>
</tr>
</tbody>
</table>

n = 384; † P < .10; ‡ P < .05; §§ P < .01; §§§ P < .001; †† Standardized regression weights.
Adjusted $R^2$ remaining the same (.26) and $R^2$ slightly changing ($\Delta R^2 = .01$), the Big Five personality factors effect on the startup capital – entrepreneurial success relationship between startup capital and entrepreneurial success.

The relationship between startup capital and entrepreneurial success for each personality factor is demonstrated in the moderation slopes (Figure 1). The slopes were generated using statistical package for the social sciences (SPSS), and interpreted using the procedure described by Hayes (2013). The magnitude of the moderation effect of extraversion on the relationship between startup capital and entrepreneurial success is further reflected in its superior $R^2$ linear coefficient of .200. This implies that the correlation between startup capital and entrepreneurial success is .447 for entrepreneurs who have extraversion as their predominant personality trait. Openness to experience has the weakest moderation effect with $R^2$ linear coefficient of .005, indicating a correlation of .071 between startup capital and entrepreneurial success for entrepreneurs whose predominant personality trait is openness.

**DISCUSSION**

The results of the current study reaffirm Nair (2003) proposition that money and mind are important resources for successful business startup. Adequate resources at the startup phase, when effectively utilized, are precedence for entrepreneurial success. Van Gelderen et al. (2006) posit that money is often portrayed as the most important entrepreneurial input against which success is built and measured (whether there is a return on this financial investment). Entrepreneurs who start with higher amounts of money are more likely to realize profits than those who start with fewer inadequate funds. However, the amount of start-up funds does not necessarily
guarantee the long-term survival of the enterprise. The ability to use the available funds appropriately may in fact be more important, this ability is a function of the entrepreneur’s human capital (Hsu, 2007). Therefore, all forms of capital contribute towards specific aspects of success (Appendix

1: correlation between components of startup capital and entrepreneurial success). An important form of startup capital for starting micro-business in developing countries is “material capital”. Due to lack of access to adequate funds, micro entrepreneurs in developing countries use their personal properties to start business ventures (Siemens, 2010). Personal properties such as land, houses, compounds, cars, and phones are being used as important business inputs. Such material inputs relieve them of costs such as rent which would otherwise affect profitability and sustainability of small business ventures.

This study confirms that the Big Five personality model is relevant for predicting entrepreneurial outcomes. Past research has posited that the altruistic nature of agreeable individuals makes them less suited for entrepreneurial roles (Patel and Thatcher, 2014; Schröder et al., 2011; Shane and Nicolaou, 2013b; Zhao and Seibert, 2006). However, in the present study, agreeableness and extraversion were the most significant predictors of entrepreneurial success. High levels of agreeableness may be problematic, particularly in large businesses. Previous studies have suggested that an entrepreneur needs to be socially tough. This guards them against exploitative stakeholders. However, owners of micro enterprises in developing economies may need to be good-nurtured and trustworthy entrepreneurs. Such interpersonal skills are necessary in attracting and retaining more customers, earn respect of their employees and other business stakeholders which in the long run can translate into success. Customers of micro-entrepreneurs tend to be low income populations who value their relations with the sellers.

The finding that extraversion significantly predicts entrepreneurial success among owners of micro-enterprises is less surprising. Extraversion tendencies are relevant to entrepreneurial behaviors and outcomes (Fine et al., 2012; Shane and Eckhardt, 2003; Shane and Nicolaou, 2013b; Zhao et al., 2010). Extraverted individuals are believed to possess high entrepreneurial self-efficacy (Hartman and Betz, 2007), risk-taking propensity (Rauch and Frese, 2007), and social skills (Cogliser et al., 2012; Mount, Barrick, & Ryan, 2003). These attributes are essential for business leadership, decision making and optimum resource utilization which may lead to good entrepreneurial performance.

Conscientiousness has received more attention in entrepreneurship research than the other four factors of the Big Five Personality model; it has consistently been found to be vital for entrepreneurial performance (Schröder et al., 2011; Zhao et al., 2010; Zheng et al., 2010). Although conscientiousness was not a significant predictor of entrepreneurial success in the present study, it positively correlated with financial performance. This still underlines the essentiality of conscientiousness in entrepreneurial roles. On the other hand, the hypothesis that neuroticism negatively predicts entrepreneurial success was supported. Hence, higher levels of neurotic tendencies have a significant negative effect on entrepreneurial outcomes. This confirms that the behavioral inadequacies involved in neuroticism such as anxiety, low self-esteem, fear of failure and poor response to negative feedback (Patel and Thatcher, 2014; Zhao et al., 2010) make individuals endowed with neuroticism less suited for entrepreneurial roles.

The main goal of the present study was to examine the interactive effects of the Big Five personality factors and startup capital on entrepreneurial success among owners of micro-enterprises. The study findings show that only extraversion has significant moderating effect on the startup capital – entrepreneurial success relationship. The moderating effects of the other four factors were weak; moreover, negative for agreeableness and openness to experience. An important observation is that conscientiousness does not significantly predict entrepreneurial success for micro-enterprise owners; neither does it moderate the relationship between startup capital and entrepreneurial success. Yet entrepreneurship psychology literature identifies conscientious as the most relevant trait for most entrepreneurial roles. The ideal attributes of conscientious individuals that enhance their likelihood of succeeding in entrepreneurship (Lounsbury et al., 2009; Patel and Thatcher, 2014; Schröder et al., 2011) do not actually tell us much about their ability to manage business resources. Therefore, this is an area for further research.

With regard to entrepreneurs who are endowed with agreeableness, their gentleness and softness can affect their ability to manage business resources, which negatively affects the relationship between startup capital and entrepreneurial success. Interestingly, although neuroticism is negatively related to entrepreneurial success, its moderation effect on startup capital – entrepreneurial success relationship was stronger than for conscientiousness, agreeableness and openness to experience. This should not be surprising because individuals who are high on neuroticism are self-conscious and high self-monitors (Ang et al., 2006). High levels of consciousness and self-monitoring are important in financial management, financial discipline and handling business resources.

The significant moderation effect of extraversion on the startup capital – entrepreneurial success relationship points to an important role it plays in the management of startup capital among owners of micro-enterprises. The assertive, social, leadership and risk-taking abilities of extraverts are essential for mobilizing resources, making good investment decisions, business related negotiations, and appropriation of business capital. Extraverted individuals are also active, enthusiastic and ambitious
(Costa and McCrae, 1992), attributes that are significant to motivate efforts for achieving business goals. Starting and managing business is a stressful process, hence only those entrepreneurs who can cope succeed. Research shows that extraverted individuals have good coping abilities (Carver and Connor-Smith, 2010; Connor-Smith and Flachsbart, 2007); therefore, they can successfully cope with challenges in startup process and increase likelihood of effective utilization of business resources. Extraversion is also correlated to performance in financial management services (Salgado and Rumbo, 1997). Hence extraverted entrepreneurs can provide sufficient financial control and management, which is important for entrepreneurial success.

Limitations

The study has at least two limitations. First, the design of this study was cross-sectional, and focused on owners of micro-enterprises in major trading centers. This poses a few challenges to the generalizability of the findings. The sample used is likely not to be fully representative of the population of micro-entrepreneurs across all developing countries. As highlighted by Bowen and Wiersema (1999), cross-sectional studies tend to underscore the variability of parameters over time and across contexts. This may result into inflation or underestimation of relationships between variables (Lindell and Whitney, 2001).

Therefore, precautions should be taken when applying these results to different countries and in smaller trading centers given the high variability of business environments.

Secondly, the scales used in measuring variables necessitated self-rating by respondents. It is suspected that some respondents over-emphasized their positive attributes particularly on measures of business success. Consequently, the study cannot rule out the possibility of inflated association between the variables as sometimes it is the case with self-reports (Podsakoff et al., 2003). Relatedly, there is a longstanding debate among entrepreneurship scholars on what constitutes business success. Whereas majority of scholars are inclined to measure in terms of profitability and enterprise growth, owners of micro-enterprises establish businesses for quite different reasons; for example, generation of income for family survival or creating a job for oneself. Such dimensions were considered in assessment of success. Therefore, it is important that in applying these results, caution should be taken on the usage of the term “entrepreneurial success” as used in this study.

Practical implications and directions for future research

One of the practical implications of this research is that it might be helpful to governments of developing countries and their development partners in their efforts to promote entrepreneurship. In developing nations, entrepreneurship is being promoted as a development tool and to reduce unemployment, through ensuring accessibility to microcredit facilities for startup capital, entrepreneurship training, and setting up entrepreneurship support centers. With the knowledge of the relationships between the different entrepreneurial inputs and outputs, managers of these entrepreneurial promotion programs can now be able to focus on those issues that matter most. Programs aimed at helping young entrepreneurs adopt behaviors that increase the likelihood of business success can be pivotal in improving the entrepreneurial success.

The role of psychological testing and behavioral interventions in micro-businesses is largely ignored in developing countries. Services often tend to include guidance to entrepreneurs on accessing capital funds and business related trainings. Thus, the contribution of entrepreneurs’ strengths and weaknesses embedded in personality and behavior is not acknowledged and utilized. Therefore, entrepreneurial support programs do not yield the best possible impact. The study findings suggest that it is imperative to incorporate psychological testing and support in the promotion of entrepreneurial programs. However, it is necessary not to use psychological testing as an excluding criteria, but rather as a tool for assessing the kind of support required by individual entrepreneurs.

The influence of personality on entrepreneurial success as well as its interaction effects with startup capital have implications for career counseling, guidance and training. Entrepreneurship is a challenging vocational role that involves difficult tasks and situations, yet entrepreneurs make important decisions on a daily basis. An individual’s personality attributes influence the entrepreneurial decisions and behaviors, which consequently affects the overall health of the enterprise. The results of this study suggest that career counselors and trainers should emphasize behaviors that increase entrepreneurs’ behavioral tendencies towards high extraversion, agreeableness and conscientiousness. This further highlights the importance of entrepreneurial personality testing as an essential step in the processes of entrepreneurial guidance, counseling and mentoring.

Conclusion

Although the study provides insightful findings on the role of personality in the entrepreneurial process, a number of research implications arise. There are no globally agreed indicators of entrepreneurial success, and future research should focus on developing widely acceptable inventories for measuring entrepreneurial success. This challenge is a similar to measuring startup capital. There is a need to develop measuring instruments that measure all aspects of startup capital, not just over-emphasizing the financial
aspect; this is especially important for research on micro-entrepreneurs. There were some surprising results, some of which contradict previous research findings. These require confirmatory studies because they apply to different entrepreneurial contexts. More research is particularly required to examine the moderation effect of conscientiousness and neuroticism on the relationship between startup capital and entrepreneurial success.

Conflict of interests

The authors have not declared any conflict of interests.

REFERENCES


## Appendix 1. Correlation results of startup capital and entrepreneurial success.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<td>2.82</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Startup funds</td>
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<td>1.47</td>
<td>0.65</td>
<td>1.00</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Material capital</td>
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<td>1.00</td>
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<td>Experiential capital</td>
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<td>1.30</td>
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<td>-</td>
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<td>Knowledge</td>
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<td><strong>1.00</strong></td>
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<td><strong>0.36</strong></td>
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<td>Entrepreneurial success</td>
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<td><strong>0.16</strong></td>
<td><strong>0.17</strong></td>
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<td>Financial rewards</td>
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<td><strong>0.84</strong></td>
<td>1.00</td>
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<td>Owners’ satisfaction</td>
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<td>Generated employment</td>
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<td>1.31</td>
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<td><strong>0.27</strong></td>
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*P < 0.01, *P < 0.05.
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