EFFECUTATION AND CAUSATION DECISION MAKING LOGICS OF MANAGING UNCERTAINTY AND COMPETITIVENESS BY NIGERIAN RETAIL BUSINESS ENTREPRENEURS

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Abstract. Uncertainty is a major dimension of business that alters business plans and courses of actions. Hence, this study primarily examined how entrepreneurs deal with uncertainty using both effectual and causal logics. The study design was cross-sectional while multistage sampling technique was used to collect primary data. These data were analysed using bivariate correlation and hierarchical regression techniques of SPSS version 23. The results of the correlation analysis showed that causation and three of the four sub-dimensions of effectuation had significant relation with competitiveness while pre-commitment did not. The analysis further showed that Nigerian retail entrepreneurs tended more towards causation and effectuation. The results from the hierarchical regression revealed that causation made the most unique impact on competitiveness and was closely followed by experimentation and flexibility. However, affordable loss and pre-commitment did not. This study contributed to knowledge by empirically showing that entrepreneurs will not always be more effectual oriented in all cases. It also confirmed that causation and effectuation should be seen as complementary and not exclusive strategies.

Key words: effectuation, causation, competitiveness, retail business, Nigerian entrepreneurs, uncertainty.

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1. INTRODUCTION

Uncertainty is a major dimension of business environment causing sleeplessness for business entrepreneurs and other decision makers. It often interrupts plans and changes course of actions for businesses. It also presents opportunities and threats (Laine & Galkina, 2016) that can alter market positions of leaders, challengers, and followers. Brettel, Mauer, Engelen and Kupper (2012) defined uncertainty in terms of the variance between the information possessed by an organisation and those it required to execute a particular task, i.e. predicting future events is not possible by means of probability distribution (Frese, Geiger & Dost, 2019). By means of probability distribution, Alvarez and Barney (2005) clearly differentiated risk from uncertainty. Under risk taking, all possible outcomes of a decision to exploit a market opportunity as well as the probability of the outcomes occurring are known at the time of taking the decision. However, under condition of uncertainty, both the possible outcomes and the probability of each outcome occurring are not known as at the time of making the decision. This according to Eijdenberg, Paas and Masurel (2017) is due to the hostility, dynamism, and heterogeneity of a firm’s industry which react to economic and socio-political conditions of a country and the global environment. Uncertainty can vary from high degree to low degree depending on the nature of unanticipated events and the way these degrees are approached for a successful performance has gained the attention of scholars and practitioners of business.

Traditionally, uncertainty has been managed by rational decision-making logic also known as causation logic, an orientation that focuses on the goal (or effect) the decision maker wants to achieve and subsequently determining the means or resources necessary to achieve the goals (Henninger, Brem, Giones, Bican, & Wimschneider, 2020). The causal entrepreneur views the future as a continuation of the past that can be predicted and unpredictability as a function of ignorance, inadequate tools and techniques, or statistical anomalies arising from exogenous shocks and irrationality of agents among others. Therefore, entrepreneurs or decision makers should focus on how to overcome or avoid these contingencies through better planning (Dew, Sarasvathy, Read, & Wiltbank, 2008). Causation orientation further assumes that the task of an entrepreneur is to be alert in discovering and exploiting opportunities in uncertain conditions (Read, Song & Smit, 2009). To achieve these, decision makers engage in collecting data on consumer preferences, analysing competitors’ successes and failure, and applying various strategic and financial tools to reduce uncertainty so as to be able to assemble and coordinate the resources required to exploit the identified market opportunities (Alvarez & Barney, 2005).

A new approach to managing uncertainty, effectuation theory, came to limelight as an alternative to the existing traditional decision model, causation (Dias, Iizuka & Boas, 2019). It is an orientation that assumes that entrepreneurs do not necessarily wait to discover opportunities but can create them through their relationship with their stakeholders (Read et al., 2009). Since the concept emerged in academic discourse, studies have been conducted on how effectuation and causation logics can be adopted to deal with uncertainties in business environment. Effectuation encourages entrepreneurs to deal with the challenges of uncertainty by engaging their business partners with their available means and hoping to create opportunities that the firms can eventually exploit (Dias et al., 2019). They put more efforts at innovation and novelty which make them less dependent on valid information needed ahead of time to enhance business operations and also making it more difficult for competitors to pre-empt their next actions (Gregoire & Cherchem, 2019). In this way, they do not need to predict the future but control it through their actions in the industry.
There are several claims in the literature on which of causation and effectuation is more superior; yields better performance; or if both can be applied simultaneously to yield better results (Eyana, Masurel, & Paas, 2018). However, none of the studies that examined these claims have done so within the context of retail businesses in Nigeria (Eijdenberg et al., 2017; Eyana, et al., 2018; Frese et al., 2019; Henninger, et al., 2020; McKelvie, Detienne, & Chandler, 2013). Therefore, this study identifies this gap and intends to examine how Nigerian retail business entrepreneurs use effectuation and causation logics during uncertainty to maintain competitiveness.

The remaining of the study will be divided into the following headings: literature review, methodology, statistical analysis/results, discussion and conclusion, and contribution to knowledge.

2. LITERATURE REVIEW

2.1. Theoretical Framework and Hypotheses Development


Sarasvathy (2001) developed a theory that best explains entrepreneurial behaviour during uncertainty. According to her, entrepreneurs are more likely to use effectual logic of decision making in uncertain context to control the future instead of predicting it. In this situation, the future is not clear and unpredictable. The entrepreneur sails these troubled waters with his available resources hoping to get a clearer direction as he sails further. She termed this approach “means based” instead of the usual traditional model of defining what is to be achieved before committing resources which Sarasvathy termed, “goal driven” approach. Also, an effectual entrepreneur is more guided by how much he can afford to lose by committing available resources to a project instead of the causal logic of how much is expected in gain. She termed this approach, “affordable loss versus expected return orientation”. Furthermore, an effectual entrepreneur relies on relationship with stakeholders like customers, suppliers and even competitors through “pre-commitment instead of the causal logic of competitive analysis”. Lastly, an effectual entrepreneur leverages on environmental contingencies by being “flexible instead of exploiting pre-existing knowledge”.

Put differently, effectuation and causation according to early researchers are opposing strategies, mutually exclusive, and inverted. Read and Sarasvathy (2005) clearly dichotomised the two concepts in these ways: Causation operates on the logic of “if the future can be predicted then it can be controlled” while effectuation operates on the logic of “if the future can be controlled, then there is no need to predict it”; causation is driven by goals while effectuation is driven by means; causation is reactional and adaptive while effectuation is enactive and exaptive; causation sees environment as exogenous and outside the control of decision makers while effectuation sees environment as endogenous to decision makers who seek to control it by making pre-commitment with stakeholders like customers, suppliers, competitors, etc. However, more recent scholarly works discovered that effectuation and causation seem to be complementary, rather than exclusive (Frese et al., 2019; Laine & Galkina, 2017). This study will also examine the relevance of this discovery within the Nigerian context.

Chandler et al (2011) advanced Sarasvathy theory by providing a framework that allows empirical study to be carried out using quantitative primary data. Effectual logic was treated as a latent variable that can be measured using four constructs which are experimentation,
flexibility, affordable loss, and pre-commitment, while causation was treated as a unidimensional construct. This study adopts this framework and develops two central hypotheses that will be tested using primary data that will be collected from Nigerian retail business entrepreneurs. In the first hypothesis, the four constructs of effectuation will be measured on competitiveness while in the second hypothesis, causation is measured as a single construct on competitiveness as shown below:

**H1:** There is a significant positive relationship between effectual logic a) experimentation b) affordable loss c) flexibility d) pre-commitment and competitiveness during high uncertainty by Nigerian retail business entrepreneurs.

**H2:** There is a significant positive relationship between causal logic and competitiveness during high uncertainty by Nigerian retail business entrepreneurs.

### 2.2 Empirical Review of Literature

Empirical studies have been conducted on these concepts. However, most were based on experiment and use of qualitative data while only a few studies have used quantitative primary data (Eyana, et al., 2018). The first quantitative assessment of the concept of effectuation was carried out eight years after Sarasvathy initially delineated the concept in 2001 and subsequent follow up by other various qualitative studies (Brettel et al., 2012).

For example, Chandler, DeTienne, McKelvie and Mumford (2011) carried out a study with an objective to develop sound quantitative Likert-type measures that promote empirical research on causation and effectuation constructs in new venture creation. The study employed semi-structured interview on entrepreneurs in the sampling frame. The findings revealed causation as a unidimensional construct and effectuation as a multidimensional construct that include experimentation, affordable loss, flexibility and pre-commitments. The study showed a negative association between causation and uncertainty, and a positive correlation between experimentation, a sub-dimension of effectuation and uncertainty. In another instance, Brettel, et al. (2012) conducted a study that investigated how effectuation and causation practices affect R&D project performance. Two central hypotheses were formulated to test if effectuation is positively related to success in highly innovative context or if causation approach is beneficial in projects with low innovativeness. Many of the results from the analyses of the sub-hypotheses supported the two central hypotheses with a few showing otherwise.

Furthermore, McKelvie, et al., (2013) theoretically and empirically examined the appropriate dependent variable in effectuation research with an aim to address the divergent views, lack of evidence and limited guidance on appropriate short-and-long term measure of effectuation performance outcomes. The regression analysis showed a pattern of mixed results for effectuation and causation. The implication for research is that decision making under uncertainty using effectuation theory must theoretically identify an important dependent variable. Also, Laine and Galkina (2016) explored the interplay between effectuation and causation in Russian SMEs’ decision making on their foreign suppliers under regulatory shifts and increased institutional uncertainty. Their aim was to compensate the research deficiencies on changing from one logic to another, the paradoxical interplay and dynamics of causation and effectuation over time. The study adopted longitudinal multiple-case study method and the analysis of data collected revealed that the firms use both effectuation and causation decision making logic simultaneously but more of effectuation during increased institutional uncertainty.

Another study by Eijdenberg et al. (2017) further investigated how effectuation and causation orientation of small business owners in an emerging country Burundi affect
Hypotheses were developed and tested to determine which of effectuation and causation orientation drives entrepreneurs more during uncertainty. The result from the analyses revealed that small business owners lean more towards effectuation than causation but neither affected small business growth later. The gap for future consideration is to explore other determinants of small business growth in uncertain context.

In addition, Eyana, et al. (2018) examined the effects of causation and effectuation behaviour of Ethiopian entrepreneurs on performance of their new small tourism firms. The study developed and tested two hypotheses on causation and the four dimensions of effectuation also controlled for certain variables to predict firm performance. While the result of hypothesis one showed that causation has more positive impact on employment size than effectuation, the results of the analysis of hypothesis two showed varying effects of the four dimensions of effectuation on firm financial performance with more of the dimensions confirming that effectuation positively affects firm performance more than causation. In contributing to knowledge, the study did not find strong evidence to support the claim that effectuation is superior to causation in a non-Western context.

Subsequently, Gregoire and Cherchem (2019) did a content analysis of 101 effectuation articles between 1998 and 2016 with the specific goal of identifying series of theoretical and methodological challenges of effectuation research. They observed through the literature that the difficulty in building on prior studies is because so many of the studies on effectuation used different conceptions, data, and methods of observation. Based on these findings, they proposed three ways of advancing effectuation research. The first is to adopt a conceptual articulation of the mode of action for effectuation. Second is to define a new means for observing effectuation and its manifestations. Third is giving more elaborate explanations on the reasons for the antecedents and consequences effectuation has.

At that same time, Frese et al. (2019) empirically investigated the determinants of effectuation and causal decision logics in online and high-tech start-up firms to address scholarly concerns about “effectuation research being insufficiently embedded in a nomological network of practically relevant antecedents”. To address the above concern, the study used qualitative method to identify four effectuation antecedents which are founder’s perceived uncertainty, investor influence, management experience, and entrepreneurial experience and validated this finding using quantitative method. The results from the qualitative analysis revealed that applying effective and causal logics look more complementary or partly independent than exclusive and also that management experience and investor influence are potential meaningful determinants of effectuation. The results from the quantitative analysis confirmed that both effectuation and causation are not opposing strategies but rather complementary.

Finally, Henninger, et al. (2020) investigated the use of effectuation in established firms. They observed a pattern in literature that showed that effectuation is often used more in start-ups and causation in established firms. This forms the focus of their study. They collected data through semi-structured face-to-face interviews because the instrument is flexible and allows detailed information to be collected as well as follow-up. The data were analysed using qualitative content analysis approach. The result showed that decision making in established firms used more of causation approach because of their size.
Within the Nigerian context, the author is not aware of any studies conducted in the retail business sector of the economy using quantitative primary data to examine how entrepreneurs deal with uncertainty using both effectual and causal strategies. This study will employ this method. Furthermore, Eyana, et al (2018) also observed that literature has not been explicit on which of the causation and effectuation decision models yields better effects (performance) but tacitly, the choice of effectuation seems superior in literature tone. Effects according to Henninger et al., (2020) are goals or impacts a decision-maker is pursuing. In this study, effect will be measured as competitiveness because it is the overall motivation for entrepreneurs (Henninger et al., 2020) and without being competitive, it will be difficult to survive and operate in highly uncertain context.

In addition, scholars have called for a shift in focus in the advancement of effectuation theory (having evolved from nascent to intermediate stage) by rigorously testing their relationships with other constructs (Frese et al., 2019). This study identifies this gap and intends to use competitiveness as the other construct since it is not aware of any existing work in this area within the Nigerian context. This way the study will also be contributing to knowledge in the advancement of effectuation.

The gap in literature also finds support in McKelvie, et al. (2013) who opined that the impacts effectuation and causation have on firm’s performance may be predicated on differing grounds. Hence, this study intends to fill this gap by examining if effectuation and causation strategies are relevant to the competitiveness of Nigerian retail business entrepreneurs during uncertainties. The choice of entrepreneurs for this study is supported by Read and Sarasvathy (2005) who posited that analysing effectuation depends largely on the person being analysed and also based on expertise of entrepreneurs. Entrepreneurs in this context refer to the owners of business (Eijdenberg et al., 2017) that are actively involved in the running of the business. They become a variable of interest for this study because they are in the best position to give the most appropriate response to items in the research instrument (Frese et al., 2019).

2.3. Conceptual Framework

Here the researcher presented a model (as shown in figure 1) that depicts the relationship between the exogenous variables (causation and effectuation) and the endogenous variable (competitiveness) in this study.

3. Methodology

The study employed cross sectional survey design while the population of the study consists of Retail businesses limited to supermarkets, boutiques and mini-markets that have a staff strength below 50. The choice of retail businesses stems from the fact that it ranked first among the five major economic sectors in Nigeria with 42.3% and closely followed by the agricultural sector with 20.9% (MSMEs, 2017 national survey). The study was limited to Lagos State because it is the commercial hub of the country and has the highest number of enterprises across all sectors of the Nigerian economy (MSMEs, 2017 national survey). Furthermore, many micro and small businesses are in retail forms and according to the MSMEs 2017 report, MSMEs in Nigeria are the bedrock of the economy and contributed 49.78% to the GDP in 2017.
A multi-stage sampling technique was employed with purposive sampling technique adopted initially to select the respondents while the convenient sampling technique was then used to administer the questionnaire. The consent of the respondents was sought and anonymity guaranteed. The response rate was 72% which could be due to the researcher’s constant touch during the four weeks’ period (September 15, 2020 to October 6, 2020) within which the copies of the questionnaire were administered and filled for return. The response rate fell within recommended threshold of Hair et al. (2010) who recommended 20:1 sample-to-variable ratio for robust factor analysis. This study measured six variables and with 215 respondents. The ratio of 36:1 obtained exceeded the recommended threshold.

The questionnaire survey instrument was divided into sections A, B and C. Section A was used to gather socio-demographic data like gender, age, marital status, educational level, etc. Section B was used to gather data for the independent variables, causation logic and effectuation logic, which were measured by adapting Chandler et al. (2011) five point Likert measuring scales that ranges from strongly disagree (1) to strongly agree (5). Causation logic was measured as a unidimensional construct with seven items while effectuation logic was measured as a multi-dimensional construct with thirteen items. The first, experimentation, was measured with four items. The second, affordable loss, has three items. The third, flexibility, used four items. And the last, pre-commitment, was assessed with two items. Section C was used to gather data for the dependent variable,
competitiveness which was assessed by adapting competitor orientation with a 4-item scale developed by Narver and Slater (1990). The items used a 7 point Likert scale ranging from strongly disagree (1) to strongly agree (7).

Lastly, extraneous variables such as age, educational level, entrepreneurial experience and firm’s size that have been confirmed to affect the relationship between the predictor and outcome variables of this study will be controlled for (Eyana et al., 2018).

3.1. Reliability Test

The reliability of the study variables was carried out using Statistical Package for Social Sciences (SPSS) version 23 and the following Cronbach’s Alpha standardised values: 0.76, 0.75, 0.71, 0.73, 0.71, and 0.72 were respectively obtained for causation orientation, experimentation, affordable loss, flexibility, pre-commitment, and competitiveness. These values were above the threshold of 0.7 recommended by Nunnally and Bernstein (1994).

4. STATISTICAL ANALYSIS/RESULTS

All the analyses were carried out using SPSS version 23.

4.1. Factor Analysis

A bivariate correlation analysis was carried out to determine whether any relationship existed among the study variables as reported in Table 1. The analyses revealed that significant positive relationship existed between causation orientation and competitiveness ($r = .482; p < 0.01$); experimentation and competitiveness ($r = .456; p < 0.01$); affordable loss and competitiveness ($r = .250; p < 0.01$); and flexibility and competitiveness ($r = .432; p < 0.01$). However, the analysis did not find any significant relationship between pre-commitment and competitiveness ($r = .012; p < 0.01$).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<td>.456</td>
<td>.495</td>
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<td>.800</td>
<td>.250</td>
<td>.412</td>
<td>.466</td>
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<tr>
<td>FLE (5)</td>
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<td>.432</td>
<td>.564</td>
<td>.505</td>
<td>.352</td>
<td>1</td>
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<td>PREc (6)</td>
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<td>1.033</td>
<td>.012</td>
<td>.152</td>
<td>.010</td>
<td>.129</td>
<td>.051</td>
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</tr>
</tbody>
</table>

**p < 0.01 level (2-tailed); *p < 0.05 level (2-tailed); SD: Standard Deviation**

COM: Competitiveness; CAU: Causation; EXP: Experimentation; AFF: Affordable Loss; FLE: Flexibility; PREc: Pre-commitment.

Source: Author’s computation (2021)

4.3. Hierarchical Regression

To test the hypotheses developed for this study, hierarchical regression analysis was conducted. The analysis began with a preliminary test for multicollinearity, normality, linearity, and homoscedasticity to ensure that the assumptions of regression analysis were
Effectuation and Causation Decision Making Logics of Managing Uncertainty and Competitiveness...

not violated. The result of the variance inflation factors (VIF) for the multicollinearity test showed that causation orientation, experimentation, affordable loss, flexibility, and pre-commitment respectively had 1.033, 1.045, 1.028, 1.063 and 1.003. Since these values fell within recommended range of between 0.10 and 10, it implies that there was no problem of multicollinearity (Hair, Black, Babin, Anderson & Tatham, 2006). Also, the Normal P-P plot Regression Standardised Residual and the scatter plot were carried out and their results revealed that the assumptions of normality, linearity and homoscedasticity were met for this study.

Table 2 Hierarchical Regression Analysis Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
<th>R</th>
<th>R^2</th>
<th>F</th>
<th>P</th>
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<td>.319</td>
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<td>.000</td>
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</table>

Outcome variable: Competitiveness

EDUc: Education; EntreExp: Entrepreneurial Experience; CAUor: Causation orientation; EXP: Experimentation; AFF: Affordable Loss; FLE: Flexibility; PRec: Pre-commitment.

Source: Author's computation (2021)

Then, the study proceeded to the hierarchical regression analysis as shown in Table 2. The table had two models. Model one revealed that the control variables: age, education, entrepreneurial experience, and size significantly affected the outcome variable, competitiveness (F= 1.407; p < 0.05) as shown in the analysis of variance (ANOVA). The value of correlation coefficient (R) is 0.162 while the value of the coefficient of determination (R^2) is 0.026. This suggested that the control variable accounted for 2.6% of variation in competitiveness in the first model, implying that there are other variables that accounted for the remaining 97.4% not considered in this study.

Model two showed that the value of the correlation coefficient (R) is 0.565 while that of the coefficient of determination (R^2) is 0.319. This suggested that the predictor variables: causation orientation, experimentation, affordable loss, flexibility, and pre-commitment together with the control variables jointly accounted for a variation of 31.9% in competitiveness in the second model, implying that there are other variables that accounted for the remaining 68.4% not considered in this study. The ANOVA showed a significant relationship (F=10.626, p < 0.05), implying that the model is suitable for forecasting.

Finally, the analysis also showed how each component of the predictor variables contributed to competitiveness. Causation orientation (beta= .286; t = 3.772; p < 0.005) made the most unique statistical contribution to the outcome variable and closely
followed by experimentation (beta = .249; t = 3.348; p < 0.005), and flexibility (beta = .147; t = 2.256; p < 0.005). However, affordable loss and pre-commitment did not make any unique significant statistical data.

5. DISCUSSION AND CONCLUSION

This study principally focused on how Nigerian retail business entrepreneurs deal with uncertainty in the business environment to remain competitive. Therefore, two main hypotheses were proposed in this study.

The results from the correlation analysis revealed that Nigerian retail business entrepreneurs exhibited both causal and effectual behaviour when dealing with uncertainty in the business environment. This finding agrees with studies that suggested that effectuation and causation showed can be seen as complementing rather than exclusive strategies of uncertainty management (Frese et al., 2019; Laine & Galkina, 2016). A further analysis revealed that Nigerian retail business entrepreneurs score higher on causation ($m = 3.812$) than on effectuation which gave an aggregate mean score of 3.69 ($m = 3.69$). This revelation contradicts Eyana, et al (2018) who found that Ethiopian entrepreneurs lean more towards effectuation than causation.

The results from the hierarchical regression analysis of hypothesis one were mixed. Two dimensions of effectuation, experimentation and flexibility, had significant impact on competitiveness of Nigerian retail business entrepreneurs while the remaining two, affordable loss and pre-commitment, did not have any significant impact. This finding is in line with Eyana, et al (2018) who also revealed varying effects of the four dimensions of effectuation on the outcome variable of their study. Laine and Galkina (2016) also discovered that the varying degree is a function of the changing perception of uncertainty. These imply that the adoption of effectuation logic to management of uncertainty requires a comprehensive assessment of the business environment to ascertain which dimensions are appropriate at that point in time. The hierarchical regression result of the analysis of hypothesis two revealed that causation logic had the most unique significant impact on the competitiveness of Nigerian retail business entrepreneurs during period of uncertainty. This further lends support to the above correlation report. However, it did not align with Eijdenberg et al. (2017) who reported that small businesses lean more towards effectuation than causation.

The study concludes that both effectuation and causation are relevant to the competitiveness of Nigerian retail business entrepreneurs who seem to tend more towards causation orientation than effectuation.

6. CONTRIBUTION TO KNOWLEDGE

The findings from this study revealed that Nigerian retail business entrepreneurs applied more of causation logics than effectuation logics when dealing with uncertainties. This finding contradict previous studies that found that entrepreneurs are more effectuation oriented. Hence, this study contributes to knowledge by empirically showing that entrepreneurs will not always be more effectual oriented in all cases. In other words, effectuation is not superior to causation in the Nigerian context. Rather, the study confirmed that causation and effectuation should be seen as complementary and not exclusive strategies.
7. LIMITATION AND DIRECTION FOR FUTURE RESEARCH

This study was restricted to Nigerian retail business entrepreneurs in Lagos state, Nigeria. Data collected was based on their perception which could be subjective and might affect the generalisation of findings. Therefore, future research may consider more states as well as a larger sample size.

REFERENCES


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LOGIKA EFEKTUACIJE I KAUZACIJE PRI DONOŠENJU ODLUKA ZA UPRAVLJANJE NESIGURNOŠĆU I KONKURENTNOŠĆU OD STRANE NIGERIJSKIH MALOPRODAJNIH PREDUZETNIKA

Nesigurnost je jedna od najvećih dimenzija poslovanja koja menja biznis planove i pravce delovanja. Stoga, ovaj rad se pre svega bavi time kako se preduzetnici nose sa nesigurnošću koristeći i efektivnu i kauzalnu logiku. Istraživanje je rađeno studijom preseka dok je za prikupljanje primarnih podataka korišćena višestepena tehnika uzorkovanja. Ovi podaci su analizirani korišćenjem tehnika bivarijante korelacije i hijerarhijske regresije SPSS verzije 23. Rezultati korelacione analize pokazali su da su kauzacija (uzročnost) i tri od četiri poddimenzije efekuacije imale značajnog uticaja na konkurentnost dok pred-obaveze nisu. Analiza je dalje pokazala da su nigerijski maloprodajni preduzetnici više naginjali kauzaciji i efekuaciji. Rezultati hijerarhijske regresije pokazali su da je najveći uticaj na konkurentnost ostvarila uzročnost, a potom eksperimentisanje i fleksibilnost, međutim, pristupačan gubitak i preduzimanje obaveze nisu. Ova studija je doprinela znanju empirijski pokazavši da preduzetnici neće uvek u svim slučajevima biti orijentisani ka efekuaciji, takođe je potvrdila da kauzacija i efekuacija treba da se posmatraju kao komplementarne, a ne kao međusobno isključujuće strategije.

Ključne reči: efekuacija, kauzacija, konkurentnost, maloprodaja, nigerijski preduzetnici, nesigurnost.