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BUSINESS STRATEGIES FOR IMPROVING SMALL-SCALE RICE PROCESSORS' PERFORMANCE: CASE STUDY OF KOGI STATE

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ABSTRACT

This study aimed at investigating the imperatives of business strategies for small-scale rice processors' improved performance in Kogi State, Nigeria. The study used Cronbach coefficient alpha for reliability test, multistage sampling technique, and descriptive statistics, Principal Component Analysis (PCA), Logit regression and Multiple Regression Models, for data analysis. It was found that lack of sufficient resources has a negative relationship with the low cost strategy adoption, growth strategy adoption, value-chain strategy adoption and differentiation strategy adoption. Findings further show the significant effects of these strategies on the profitability of small-scale rice processors (SRP) in Kogi State. The study was restricted to Kogi State, considering small-scale rice processors. Large scale rice processors may not benefit from the study. Its sample size was limited based on its scope. The study is useful to SRPs in terms of the adoption of single, multiple or combination of business strategies. Findings of the present study will stimulate adoption of effective agri-business strategies that can improve profitability of SRPs. The research is new, novel and enhances SRP business practice.

JEL Classification: O13, M10, M31

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1. INTRODUCTION

Economic recession has been observed as a driver of aggressive agri-business competition in Kogi State, Nigeria. An aggressive competition also exists in the global business environment, having no regard for local large, medium, small or micro rice processing in Nigeria. Rice (Oryza Sativa) appears to be the most consumed food in the world today. Based on the 930000 tons upward adjustment, the Food and Agricultural Organization (FAO) (2017) has projected a 7% expansion of global rice trading. China, Myanmar, Thailand, India and the United States among others are expected to dominate the rice market across the globe. Hence, strategy adoption as well as its management is an important activity that rice processors must undertake to achieve superior success regardless of their agri-business size. In view of this, essential knowledge, skill and ability (KSA) are needed by small-scale rice processors (SRP) in Kogi State to enable them to formulate and implement strategies successfully and also to survive in the aggressive competition locally and globally.

An effective business strategy provides direction for rice processing enterprises. One of the keys to effective competition is adoption of a business strategy for ensuring enterprise position in the rice market. Business strategies are numerous; selecting a specific strategy is influenced by the nature of the business competitive situation and SRP capabilities. Porter (1980) suggested cost leadership business strategy, differentiation business strategy and focus business strategy as adoptable strategies. Cost leadership focuses on how best a SRP can take over the rice market through low prices in Kogi State. Sheng et al. (2008) expressed that consumers are sensitive to price. The differentiation strategy reflects a distinguished rice product by way of quality assurance. Islami, Mustafa, and Topuzovska Latkovikj (2020) noted that SRPs focus strategy entails focusing exclusively on cost in a specific market segment or attempting to differentiate rice products within the target market.

SRPs, however, may have failed in achieving superior business performance. Uchegbulam, Akinyele and lbidunni (2015) relate issues concerning business strategy planning, design, execution

and evaluation to product (rice) quality. The study by Saliu, Ibrahim, and Eniojukan (2016) has proven that rice processors have engaged in investment and technology adoption strategies. Importantly, the condition of rice in Kogi State is almost unacceptable. Johnson and Masias (2016) argued that 70% of low quality rice is produced by SRPs. This implies total misplacement of differentiation strategy by rice processors. Annor-Frempong, Shamaki, Sam-Amoah, and Mensah (2010) noted that poor quality of rice processing has resulted in low customer patronage of locally produced rice. Nwachukwu, Ukwuaba, and Umeh (2020) opined that lack of improved quality was because of little or no new knowledge, lack of new technology, lack of skilled labor and dearth of useful marketing information.

Enhancing rice processors' performance thus necessitates growth and value addition strategies. These strategies are connected to the probability that SRP will achieve increased profitability via strategy adoption. Al-Dmour et al. (2015) expressed confidence that successful organizations are those with high performance relative to effective business strategy execution. This study intended to bridge the existing research gap by investigating the imperatives of business strategies for improved SRP performance in Kogi State. Other parts of the research are conceptual framework, theoretical review, methodology, analysis and results, discussion, conclusion and recommendations. The conceptual framework is necessary to create a pictorial view of theoretical relationship between Rice Business Strategy and SRP performance. Theories were reviewed to support and explain the nexus between variables.

2. CONCEPTUAL FRAMEWORK

Porter emphasized the choice of strategies, and that double choice of strategies may be detrimental (in this case to small scale rice processing). What really matters as a prerequisite for strategy adoption is analyzing the VUCA environment. Baran and Woznyj (2020) posited that VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) has subsequently become a catch-all acronym for turbulence in business environments. SRPs can make sense of the VUCA analyses to be proactive in combating business environment

turbulence. Jinil Persis et al. (2021) added that the VUCA environment has called into question how SRPs operate in competitive markets.

It is essential to clarify the concept of strategy. Various authors and scholars have attempted to provide a generally acceptable working definition for the concept of business strategy. Table 1 presents some of these definitions.

TABLE 1
Meaning of the Concept "Strategy"

S/N	Author	Definition of Strategy
1	Ylvijo and Osomani (2013)	Competitive strategy is the capability of the firm to do its activity in a way or distinct ways other competitors cannot realize.
2	Chalchissa and Bertrand (2017)	Strategy focuses on resource allocation and development of organizational processes necessary to achieve a firm competitive advantage.
3	Tynchenko, Fedorova, Kukartsev, Boyko, Stupina, and Danilchenko (2019)	Strategy is a plan of action consisting of a series of interrelated managerial decisions that ensures achievement of long-term goals.
4	Brenes, Ciravegna and Acuña (2020)	Strategies add and capture higher value from SRPs' business operations.

Source: Authors

Adopting an appropriate flexible business strategy is necessary to handle the complex VUCA environment. Business strategy may fail when the SRPs cannot handle the challenging VUCA environment. Ineffective business strategy may fail to achieve desirable performance.

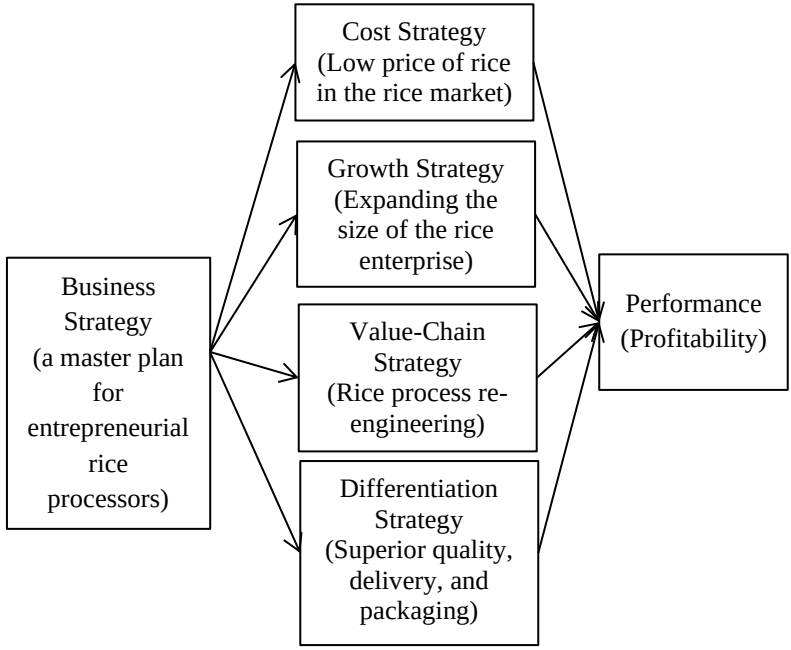
Business strategy focuses on long-term goals. It is used as a proactive or reactive approach, in alignment with the SRP mission, vision, strength and direction. Effective business strategy positions an SRP for improved performance ahead of rivals. Business strategy adoption knowledge is highly imperative in the rice industry. Tzu (2002) opined that SRP reaction to competitive scenario starts with establishing knowledge regarding their strength and the weaknesses of rivals.

Next, business strategy entails knowing where SRP are and where they intend to be. Strategic thinking reflects the SRP ability to

sense "where they want to be" and direct themselves regardless of side distractions (external challenges).

Figure 1 shows the framework for business strategies and performance. Cost strategy involves outperforming other competitors with respect to long-run stability in production, cost reduction and increased efficiency. Cost strategy can help SRPs to offer competitive prices. An effective cost strategy is useful in a competitive price war. Growth strategy of SRPs is an action plan to win larger market share. It entails boosting the enterprise exceptional value in the marketplace and enhancing credibility. Suttle (2019) posited that growth strategies involve "product expansion and acquisition." Durmaz and İlhan (2015, 211) also stated that "intensive growth strategy is a reasonable strategy for businesses which have not been able to use the opportunities in the market with their available products."

FIGURE 1
Framework for the Study



Source: Authors

Value chain reflects constant process re-engineering to build competitive advantage. The value-chain strategy serves as a tool to ensure that all activities attached to quality rice processing meet required standards. Ability of SRPs to ensure that these activities are properly knitted may generate better performance. This strategy may be very important for SRPs with market niche (where buyers have large preference for value addition). As shown in Figure 1, differentiation strategy is not limited to quality of rice produced. It reflects quality of rice, packaging/milling standard and prompt delivery. McGee (2014) noted that investment in differentiation strategy is costly because of the needed resources (time, finance and technology among others). It is important to know that consumers are likely to patronize differentiated rice product (even at a moderately high price). Differentiated product can also be achieved if SRPs are able to locate cheap resources with affordable technologies for rice production. Differentiation strategy may offer SRPs opportunity to distinguish their products among competitors in the marketplace.

Improved rice quality is associated with a background in milling. According to Tinsley (2012) cited in Nwachukwu et al. (2020, 119), rice milling is "done by the use of single stage mill which is not as effective as they end up wasting the grains and providing cheap low quality rice." Fiamohe, Diagne, and Flifli (2014) expressed that other rice processors are preoccupied with finding the best way to improve local rice quality. SRPs must enhance high quality in rice production for increased profitability. Value chain is crucial for positioning SRP through stabilized market condition. Value chain enhancement is targeted at process re-engineering and de-stoning of rice so that it aligns with quality standard. Porter restated the importance of cost strategy for the best competitive price. Fukuyama and Tan (2021) stated that profitability is performance measurement. Adopting effective strategies relating to improved quality, cost, value chain and growth may influence SRP profitability in Kogi State. This led to the following hypothesis:

H_1: Business strategies (low-cost strategy, growth strategy, value-chain strategy and differentiation strategy) have no significant effects on SRP profitability in Kogi State.

SRPs need to validate the critical factors affecting business strategy adoption. Numerous factors can affect business strategy adoption, but few (such as lack of resources, lack of distinctive

capabilities, lack of distinct strategy orientation, lack of adequate knowledge about business strategy and lack of adequate skill in business strategy) are considered critical in this study. SRPs may focus on the combinations of factors according to strategic area. Brenes, Ciravegna, and Acuña (2020) argue that sufficient resources are critical to achieving differentiation strategy in agribusiness. Martin, Javalgi, and Ciravegna (2020) also assert that marketing capabilities are crucial in competitive strategy. Strategy orientation (Zhao et al., 2016) plays a cardinal role in business strategy adoption. More emphasis is on the need for adequate knowledge and skill in applying business strategy (Bondarouk, Parry, & Furtmueller, 2016). Substantial accumulation of knowledge and skills relative to business strategy influences its effective adoption; SRPs with a collection of adequate knowledge and skills can adopt business strategies effectively. This brings about the hypothesis that:

H_2: Significant factors affect business strategies adopted.

2.1 THEORETICAL REVIEW

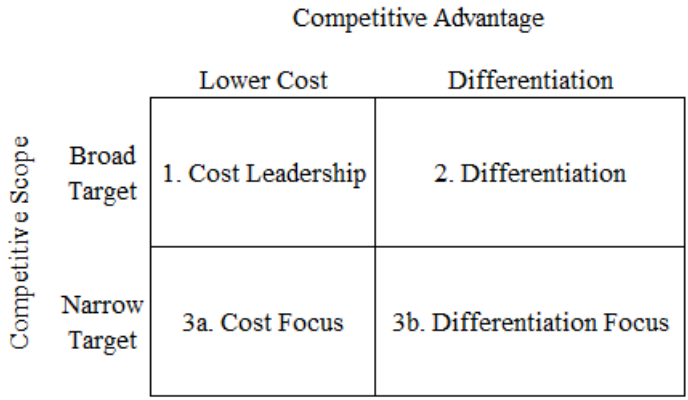
Two theories considered for explaining the subject matter are Generic Strategy Theory (GST) and Game Theory. Porter propounded the GST in 1985. He was aware that no firm operates in isolation. Thus, there is a need to adopt effective business strategy.

Strategy was explained by Sun Tzu in a war situation, but later adopted in competitive situations by military warlords who later found themselves in business. The adoption of business strategy in competitive scenario drew the attention of game experts. Neumann and Morgenstern were known for developing game theory in 1944. Game Theory signifies that rational competitors exist in the marketplace, and they are individually adopting the best approach to take advantage of the market at all cost. The individuals are actors who are conversant that the achievement of objectives may be truncated particularly when they fail to draw-up a master plan. In the market, rice processors battle over price, quality and growth in Kogi State. They employ a game plan targeted at achieving leading price, high quality and increased growth. The game plan involves adopting a strategy suitable for reaching the desired goal. Having understood the

interplay of elements in a competitive situation, Porter suggested that firms consider adopting strategies reflecting on cost, differentiation or focus. Figure 2 shows the model of generic strategies as developed by Porter.

The GST assumes that cost leadership strategy may be adopted by SRPs to utilize the benefits accruable to broader market and low cost. Cheaper cost of producing average rice may be achieved by adopting the cost leadership strategy. Low cost may result if the strategy considers economies of scale, proprietary technology adoption and preferential access to low cost rice seedlings among others. Today, competition poses tough challenges to managers with respect to production cost. Figure 2 also shows that adopting differentiation strategy has the potential outcome of rice product differentiation and broad market or customers' target. The strategy may enhance broad market or customers' target through market aggressiveness, high technology adoption and quality-centrism. Porter (1985) argued that a firm is seeking to be unique in its industry when it pursues certain dimensions that buyers appreciate widely. Such firms often have a very high success rate.

FIGURE 2
Model of Generic Strategies



Source: Porter (1985)

Focus strategy is divided into cost focus and differentiation focus. The focus strategy opens up two ways (variants) of outwitting other competitors in a narrow target segment. Figure 2 shows that cost focus may incline to a narrow market or customers' target and low

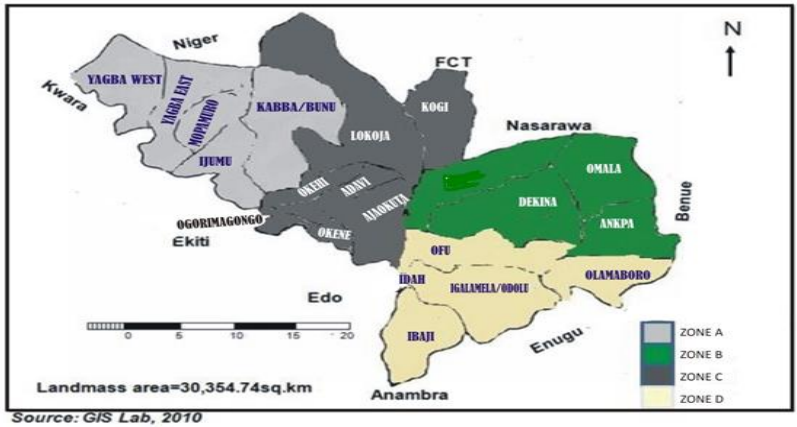
cost. Cost focus strategy may be suitable in a competitive situation where the SRPs desire to take advantage of low cost in a market niche or narrow market. The focus strategy enables an SRP to differentiate its product in a specific market (Islami et al., 2020). Both variants of the focus strategy rely on the cleavage between an SRP's targeted segment and other segments. The targeted segment should possess uncommon buyers' needs or a delivery system that better suits the targeted segment distinct from that of others. Porter argues that inability to select one of the aforementioned generic strategies within the strategy space of possible competitive strategies will lead to poor performance.

Adopting the right strategy is crucial for desired business outcomes. Rathwatta and Samudrage (2019) posited that adopting the right generic strategy must be underlined by an awareness of collection of rules and practices. The rules involve engaging in business war without physical weapons and making rational decisions. The practices entail making flexible generic strategy and knowing how to adopt it. Omri et al. (2020) established that strategy adoption must be based on awareness of necessary information. Game theory assumes that an SRP has opponents who are often adopting and adjusting either of the generic strategies. This implies that virtually all rice processors are doing the same thing in Kogi State (adopting and adjusting either of the generic strategies) to achieve superior performance.

3. METHODOLOGY

This study was carried out using research survey design. This was facilitated by using a questionnaire administered to SRP in six cells of the Kogi State Agricultural Development Programme (KADP). Saliu et al. (2016) identified four (4) zones of KADP (Zone A, Zone B, Zone C and Zone D). The KADP zones include six (6) blocks (each zone having 48 cells). About 25 registered rice processors exist in each cell (Saliu et al., 2016). The study considered Zone 'B' and 'D' for effective management of the research. The population of the study was 1200 (about 50% of the grand total population). Figure 3 shows the cells in Zone 'B' and Zone 'D'.

FIGURE 3
Map of KADP Zones in Kogi State



The sample frame for this study shows rice processors in the selected zones of KADP (see Table 2). For easy research management, 'B&D' were surveyed as a result of their higher engagement in rice production. Thus, SRPs were focused using multistage sampling. A total of 291 SRPs were selected from the two zones.

TABLE 2
Sample Frame of the Study

KADP	Blocks	Cells	No. of SRPs	Total No. of SRPs	Sample Size
Zone B-(Anyigba)	3	24	25	600	145
Zone D-(Aloma)	3	24	25	600	146

Source: Field Survey (2019)

The sample size was derived using the formula of Sallant and Dillman (1997):

$$N_s = \frac{N_p(p)(1-p)}{(N_p-1)(\frac{B}{C})^2+(p)(1-p).} \quad (1)$$

Where:
N_s: The required sample size
N_p: Sampled population

p: The proportion of expected SRPs' response (the much more appropriate is 50% or 0.5)
B: Tolerable error level (0.05 = ±5%)
C: Z-statistic connected with confidence interval (1.960=95% confidence level)

$$N_s = \frac{1200\ (0.5)(1-0.5)}{(1200-1)\left(\frac{0.05}{1.96}\right)^2 + (0.5)(1-0.5)}$$

Where:
N_s = 291.1841192 (Approx. 291)
N_p = 1200
p = 50% or 0.5
B = 0.05 or ±5%
C= 1.960 0r 95%

Cronbach coefficient alpha (α) was applied for instrument reliability. A coefficient above 0.70 was argued by Zikmund et al. (2010) to have good reliability. The results of the reliability test are presented in the following Table 3a and 3b. Table 3a shows the reliability results for low cost strategy (α = 0.945), growth strategy (α = 0.811), value chain strategy (α = 0.701) and differentiation strategy (α = 0.720). Table 3b shows the reliability results for performance (α = 0.802). Based on the critical point as identified by Zikmund et al. (2010), the results show that the variables are reliable.

TABLE 3A
Reliability Test for Adopted Strategy

S/N	List of Constructs	Alpha (α)	No. of Items
1	Low-cost strategy	0.945	2
2	Growth strategy	0.811	2
3	Value chain strategy	0.701	2
4	Differentiation strategy	0.720	2

Source: Survey, 2019

TABLE 3B
Reliability Test for Performance's Construct

S/N	List of Constructs	Cronbach's Alpha	No. of Items
1	Profitability	0.802	2

Source: Survey, 2019

The researchers administered 291 copies of questionnaires, but only 275 copies (94.50%) were returned. The researchers therefore worked with only the returned copies. Analyses were done using descriptive statistics, Principal Component Analysis (PCA), Logit regression and Multiple Regression Model. In this study, business strategies were decomposed into low-cost, growth, value-chain, and differentiation strategy (the independent variables) and the dependent variable (performance) was proxied with profitability rate. The models are specified as follows:

For the Logit Regression, the model's simplex form is:

(2) $$Y^* = x^1\beta + \varepsilon_1$$

Where:
Y^* = the precise but unobserved predicted variable
x = the vector of the predictor variables and
β = the vector of the regression coefficients.

(3) $$Y = (x_1 + x_2 + x_3 + x_4 + x_5) + \varepsilon$$

Where:
Y = Strategy Development Process
x_1 = Lack of Sufficient Resources
x_2 = Lack of Capabilities
x_3 = Lack of Distinct Strategy Orientation
x_4 = lack of Knowledge
x_5 = Lack of Adequate Skills
ε = Error term

(4) $$PFM = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:
PFM = Dependent variable (Profitability)
a = Constant

X_1, X_2, X_3, X_4 are the predictor variables (low-cost strategy, growth strategy, value-chain strategy and differentiation strategy).
X_1 = Low-cost Strategy Adopted
X_2 = Growth Strategy Adopted
X_3 = Value-Chain Strategy Adopted
X_4 = Differentiation Strategy Adopted
β_1, β_2, β_3, β_4 are regression coefficients
ε = residual or stochastic term.

4. RESULTS AND DISCUSSION

Table 4 gives the descriptive statistics for factors affecting business strategy adopted. Table 4 indicates that sufficient resources ($\bar{x}$ =1.2909; σ = 0.45501), business strategy development backdrop ($\bar{x}$ =1.4545; σ = 0.49884), business strategy orientation ($\bar{x}$ =1.5745; σ = 0.49531), adequate knowledge about business strategy ($\bar{x}$ =1.4873; σ = 0.50075) and adequate skill in business strategy ($\bar{x}$ = 1.5273; σ = 0.50017) are factors affecting adoption. The results show SRPs in the study area have business strategy orientation. Meanwhile, the business strategy orientation appears to be the strongest factor affecting business strategy adoption by the majority of SRPs. This provides clarity on the study by Alvi et al. (2020) that noted how orientation reactors could not steadily use strategies.

TABLE 4
Descriptive Statistics of Factors Affecting Business Strategy Adopted

Factors	N	Mean	Std. Deviation
Sufficient resources	275	1.2909	0.45501
Business strategy development backdrop	275	1.4545	0.49884
Business strategy orientation	275	1.5745	0.49531
Adequate knowledge about business strategy adoption	275	1.4873	0.50075
Adequate skill in business strategy adoption	275	1.5273	0.50017

Source: Survey (2019)

Table 5 shows the coefficient of determination (LR) of 391.667 and the adjusted (Pr) 0.000 (which denotes that 100% of the changes witnessed in the business strategy development of SRPs were predicted by the variables presented in the model). Table 5 shows the Logit Regression coefficient of factors (lack of sufficient resources, lack of distinctive capabilities, lack of distinctive strategy orientation, lack of adequate knowledge about business strategy adoption and lack of adequate skill in business strategy adoption) affected the business strategy development of SRPs in Kogi State. Table 5 shows that lack of sufficient resources (β = -0.861; $p < 0.05$), lack of distinctive capabilities (β = -0.292; $p < 0.05$), lack of distinctive strategy orientation (β = -0.245; $p > 0.05$) and lack of adequate skill in business strategy adoption (β= -0.763; $p < 0.05$) relate negatively with the business strategy development of SRPs in Kogi State. The results show logically that lack of these factors affect the business strategy development of SRPs in Kogi State (negatively and significantly). Lack of distinctive strategy orientation, as a factor, however, does not significantly affect the business strategy development of SRPs. Lack of adequate knowledge about business strategy significantly affects the business strategy development of SRPs. This may be an indication that SRPs in the study area use 'trial and error approach' in developing their business strategies. Sosna, Trevinyo-Rodríguez, and Velamuri (2010) demonstrate the importance of trial-and-error approach in business situations.

TABLE 5
Logit Regression of Strategic Factors and Business Strategy Development

Variables	Coefficients	Standard Error	$p>\|z\|$
X_1 Lack of sufficient resources	-0.861	0.463	0.043*
X_2 Lack of distinctive capabilities	-0.292	0.618	0.037*
X_3 Lack of distinct strategy orientation	-0.245	0.667	0.063
X_4 Lack of adequate knowledge about business strategy adoption	0.327	1.098	0.046*
X_5 Lack of adequate skill in business strategy adoption	-0.763	1.195	0.023*

Source: Survey (2019)

No. of Obs	=	275
LR chi^2	=	391.667
Prob > chi^2	=	0.000
Pseudo R^2	=	0.795

The marginal effect of Logit table shows how factors affect adoption of individual strategy. As shown in Table 6, lack of sufficient resources would negatively affect the adoption of strategy 1-4, indicating that the more rice processors lack sufficient resources the less their adoption of strategy 1-4. Interestingly, lack of distinctive capabilities positively affects adoption of strategy 1-4. It is evident that the effects of lack of distinctive capabilities on the adoption of the strategies are almost unnoticed; the results, however, appear contrary to expected outcome. Table 6 also shows that lack of distinct strategy orientation affects adoption of strategies 1, 3 and 4 negatively. Lack of distinct strategy orientation appears to have about 20% effect on strategy 2. This may mean that rice processors do not need strategy orientation to achieve the growth objective. This appears anomalous. Table 6 shows that lack of adequate knowledge about business strategy has negative effects on adoption of strategy 1-4. This indicates that adequate knowledge is required by rice processors to adopt strategies 1-4. Finally, lack of adequate skill is observed to have positive effects on the adoption of strategy 1-4. This may mean that SRPs in the study areas have no consideration for specific skills in adopting strategies 1-4.

TABLE 6
Marginal Effects of Factors on 1-4 Business Strategies Adopted

Variables	Adoption of Strategies			
	ADS_1	ADS_2	ADS_3	ADS_4
Lack of sufficient resources	-0.5388520	-0.6119739	-0.6443440	-0.6868055
Lack of distinctive capabilities	0.1210672	0.1547814	0.0972984	0.1061935

TABLE 6 *(continued)*

Variables	Adoption of Strategies			
	ADS_1	ADS_2	ADS_3	ADS_4
Lack of adequate knowledge about business strategy	-0.1117544	-0.1428932	-0.0897813	-0.0980419
Lack of adequate skill in business strategy	0.4216584	0.5342368	0.8863241	0.9070032

Source: Field Survey (2019)

Note: ADS_1= Adoption of low cost business strategy; ADS_2= Adoption of growth business strategy; ADS_3= Adoption of value chain business strategy; ADS_4= Adoption of differentiation business strategy

Findings show that lack of sufficient resources has a negative relationship with the adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy. Lack of distinctive capabilities affect strategy development negatively, and the adoption of these strategies positively. The simple implication of this is that distinctive capabilities have less to do with adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy by SRPs in Kogi State. Based on the results in Table 6, it is evident that lack of distinctive capabilities affects the adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy of SRPs in Kogi State, but the effects are weak. Nevertheless, this still calls for further investigation by future researchers. Distinct strategy orientation is needed to adopt low cost, value chain and differentiation business strategies. This is in line with Aremu and Lawai (2012) that strategies rely on the strategic orientation of firm owners. Also, this finding aligns with that of Ogunkoya and Shodiya (2013) who found strategic orientation affecting performance significantly.

Distinct strategy orientation is seen to have a positive marginal effect on adoption of growth business strategy, although, this effect appears to be very weak. It is found that lack of adequate knowledge about business strategy affects the adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy of SRPs in Kogi State. Interestingly, it was found that lack of

adequate skills positively affects the adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy of SRPs in Kogi State. This may mean that SRPs in Kogi State pay little or no attention on acquiring skills that can facilitate sharpened strategic thinking and adoption of necessary business strategies.

TABLE 7
Multiple Regression of Business Strategies and Profitability

Covariates	Coefficients (β)	Error Standard (β)	Value of *t*-Statistic	R^2 Value	Value of *F*-statistic
Low-cost strategy	-0.655	0.110	35.602*		
Growth strategy	-0.332	0.111	8.969*	0.884	200.957*
Value chain strategy	-0.064	0.051	1.613		
Differentiation strategy	0.070	0.032	4.777*		

Note: With à- 0.01, Durbin- Watson critical value= 2.276; * denotes significant level= 0.01

Table 7 shows that 88.4% of the variation in profitability is predicted by low-cost strategy, growth strategy, value-chain strategy and differentiation strategy. The existence of 11.6% unpredicted variation may mean that other business strategies (not captured in the model) can account for variations in SRP profitability in Kogi State. *F*-statistic of 200.957 (with respect to the *p*-value of 0.01) shows that the model is appropriate.

Low-cost strategy (β = -0.655, *p-value* = 0.01); value-chain strategy (β = -0.064, *p-value* > 0.05); growth strategy (β = -0.332, *p-value* = 0.01) and differentiation strategy (β = 0.070, *p-value* = 0.01) show both negative and positive relationship with profitability of SRP in Kogi State. Table 6 shows that low-cost strategy and growth strategy have negative but significant relationship with SRP profitability in Kogi State. This may mean that low cost strategy and growth strategy attract more financial resources compared to other business strategies. The simple implication of the results is that the

more efforts are put into adopting low cost business strategy and growth business strategy the lesser the profit. Only differentiation strategy shows a significant positive relationship with SRP profitability in Kogi State. This may indicate that differentiation business strategy correlates with SRP profitability in Kogi State. Interestingly, differentiation strategy contributes about 1% positive change in the profitability of SRPs in Kogi State. Meanwhile, value-chain strategy does not relate significantly with SRP profitability in Kogi State.

This study found that the effects of business strategies on SRP profitability in Kogi State are significant. This study supports the finding of Omsa et al. (2017) that strategic management practices influence SME profitability. Furthermore, this present study found that adopting low-cost strategy, growth strategy and differentiation strategy relate significantly and negatively with SRP profitability in Kogi State. This may mean that adopting these strategies cost the SRP more in Kogi State. Kahan (2012) was also able to identify that strategy adoption is expensive for small firms, and suggested that cost-benefit evaluation of resources and using more sophisticated technologies for rice production are essential for profitability. McGee (2014) asserted that differentiation strategy demands investment of time, capital cost and higher variable costs.

5. CONCLUSION

SRPs can utilize effective business strategies for improved performance in Kogi State. Indisputably, many business strategies may be adopted to achieve desired performance in the aggressive Kogi State competitive situation. Empirical analysis suggests that low-cost strategy, growth strategy and differentiation strategy have significant negative relationship with SRP profitability in Kogi State. This implies that more resources are expended on implementing those business strategies. More investment of time, capital cost, higher variable costs and expenditure on other resources related to the business strategies will continue to reduce the SRP profitability in Kogi State.

Level of business strategy adoption appears to be affected by some factors (lack of sufficient resources, lack of distinctive capabilities and strategy orientation, lack of adequate knowledge about business strategy adoption and lack of adequate skill in business strategy adoption). Based on the findings of the study, insufficient resources, lack of distinctive capabilities and inadequate skills have

significant negative effects on the business strategy adoption of SRPs in Kogi State. Meanwhile, insufficient resources have negative effect on adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy; lack of distinct strategy orientation negatively affects adoption of low-cost strategy, value-chain strategy and differentiation strategy; lack of adequate knowledge has negative effects on the adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy.

Based on the findings of the study, we recommend the following:

a. SRPs should focus on sufficient resources, distinctive capabilities and adequate skills to facilitate business strategy adoption in Kogi State. To enhance adoption of low-cost strategy, growth strategy, value-chain strategy and differentiation strategy, sufficient resources must be employed and adequate knowledge about strategy must be acquired. To facilitate adoption of low-cost strategy, value-chain strategy and differentiation strategy, distinctive strategy orientation must be pursued.
b. SRPs should concentrate more on adopting differentiation strategy to achieve increased profitability in Kogi State. Less resources or commitment should be given to low-cost strategy, growth strategy and value-chain strategy as they do not have direct bearing on SRP profitability in Kogi State. The reason behind the inverse effects of the strategies on profitability is that more costly resources need to be expended on them.
c. SRPs in other states or regions should take advantage of the results of this study and be informed that achieving desired outcomes in rice processing business requires understanding the business game and adopting the right business strategy.

Several limitations existed in this study. The study was restricted to SRPs in Kogi State. Large scale rice processors may not benefit from the study. Its sample size was also limited based on its scope. It is suggested that future study should concentrate on small, medium and large-scale rice processors. The empirical finding that lack of distinctive capabilities positively affects adoption of business strategies remains unexplainable. Future study needs to be conducted

to investigate the link between distinctive capabilities and business strategy adoption in Kogi State.

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