Examining Sustainable Survival Tactics for Small-Scale Bakeries: A Case Study in Lagos State

Segun Kehinde

1 Covenant University

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Abstract

This study delves into the survival strategies employed by small-scale bakeries within Lagos State. In a competitive market, small-scale bakers face various challenges, and this research aims to shed light on the tactics they utilise to thrive and succeed. Through in-depth investigation and analysis, the study reveals key insights into the innovative methods, resource management, and market adaptation strategies that enable these bakeries to not only survive but also flourish in their local environment. Understanding these survival strategies can offer valuable insights for similar businesses and policymakers looking to support and promote small-scale enterprises in the baking industry.

Keywords: Business survival, SMEs, Market strategies.

Introduction

There exist many business ventures that are engaged by individuals, groups of people or associations, firms, industries,
and governments with the main aim of maximizing profits. They range from small-scale to medium and large-scale. In the Nigerian economy, small-scale enterprises are the most common form of business. The aim of any economy (either industrialized or non-industrialized) depends largely on how well organized the small industries are. For instance, if we look at the standard of practice of small-scale industries in economically developed countries, the small-scale enterprise in Nigeria seems too stagnant, less adventurous than in developed countries. Meanwhile, in economically developed countries, small-scale businesses are better organized and coordinated than in developing countries because the governments appreciate their significance to the national economy. Small business firms (SBFs) form the bedrock of economic growth in every nation. No country achieves viable economic growth and development without the establishment of small-scale business firms. They have always been at the forefront of development strategies. Nigeria’s quest for development must be hinged on industrialization. This is because of the great role industries play in terms of production activities, employment generation, and the overall improvement in the quality of life. Small business firms are seen as veritable instruments for the industrial development of a nation. Industrial development involves the development of a technical arrangement that moves an economy from the traditional method of production to a more complex system of mass manufacture of a variety of goods and services involving technology and management techniques (Kasimu, 1998).

Industrialization propels growth and quickens the achievement of structural transformation and diversification of economies. It enables a country to utilize fully its factor endowments and depend less on the external sector for its growth and sustenance. The establishment of large firms involves a heavy outlay and is essentially capital-intensive, which does very little in solving unemployment problems. It also requires that manufacturing industries be designed and set up by foreign producers who also supply most of the raw materials and machinery spare parts needed for uninterrupted production of industrial output. Consequently, foreign exchange requirements by local producers become critical, and the inability to procure such foreign exchange can lead to severe disruption in production activities. The bakery industry in Nigeria has been a victim of externally imposed constraints. Hitherto, bakers depended on local millers who produced their vital raw material, flour, from imported wheat. The government banned the importation of wheat and wheat products in 1986, thereby sending shock waves through this very well-established and expanding industry. The ubiquitous bread on the breakfast table has vanished, and the frequent sight of people snacking on bread in the afternoon has also disappeared. The primary demand for bread products in this country has certainly contracted since then.

Statement of the Research Problem

Most baking houses are small-scale businesses that face the task of devising survival strategies to deal with major changes in government policy that threaten their very existence. Our focus is on suitable survival strategies for the baking industry given their operating circumstances since 1986. We are interested in finding out how those who are still in business dealt with the new conditions in which they found themselves. In particular, we will be looking at the organisational changes, financial management strategies, and other operating techniques that they had to adopt in order to survive. As for the baking houses that closed down, we shall explore whether there were forces other than the ban on imported wheat that engendered their demise.
Objectives of the Study

The broad objective of this study is to examine the survival strategies for small-scale bakeries (a study of small-scale bakeries in Lagos State). Other objectives are to:

1. Examine the extent to which the sources of raw materials for bakeries have a significant impact on the profitability of bakeries.
2. Examine the extent to which the ban on wheat importation causes any significant changes in the methods of operation of bakeries.
3. Examine the extent to which the activities of NAFDAC and other government regulatory bodies affect the source of raw materials for bakeries.

Literature Review

Various definitions of Small Scale Industries (SSI) exist. Experts agree that a universally best definition may not be possible because definitions are relative to the environment and functions intended. The United Nations Economic Commission for Asia and the Far East defined a Small Scale Industry as one operated mainly with manual labour, usually not exceeding 50 workers if no motive power is used, or 20 workers if motive power is used. In Indonesia, an industry is considered small if it employs fewer than 10 full-time workers and does not use motive power. The Indonesian definition does not exclude household and cottage industries. The Centre for Management Sciences in Delft University, the Netherlands, for instance, classifies handicrafts and cottage industries as establishments employing fewer than 10 persons. To them, small-scale industries are firms employing 10-99 persons in which the manager personally performs all the management functions without taking part in actual production.

In Nigeria, many definitions exist for small-scale industries. The Industrial Research Unit of Obafemi Awolowo University, Ife, defines a small-scale industry as one whose total assets in capital, equipment, plant, and working capital are less than N250,000 and employing fewer than 50 full-time workers. In Lagos State, the Ministry of Finance and Economic Development defines small-scale industries as industries employing not more than 10 persons. The Federal Ministry of Industries amended its 1970 definition of SSI as industries with capitalisation of N150,000 or less. The Central Bank of Nigeria recognises small-scale industries as ventures with an annual sales turnover of not more than N500,000. For the purpose of this work, the CBN definition shall be adopted because of its lack of complexity.

Threats and Opportunities in the Bakery Industry in Nigeria

The bakery industry, like any other industry, exists in a changing environment. In recent years, the industry has been threatened by various adverse environmental conditions. Before 1984, millers imported all their raw material needs, such as wheat and wheat flour, on open licences. In 1984, Customs Tariff Import Prohibition No. 2 Order banned the importation of wheat flour under licence. Again, in 1986, the Customs and Excise Decree No. 3 of 1986 placed a blanket
ban on the importation of wheat and wheat products. As Nkpoloukwu observed, a lot of foreign exchange was being wasted to sustain the importation of wheat. The introduction of the Structural Adjustment Programme (SAP) has resulted in higher production costs (Gbodo Nosi); prices of bread had to increase and, given falling real income, effective demand for bread products started to decline. Higher costs meant larger working capital, and the financial institutions were reluctant to grant credit given the tight fiscal policy consequent on SAP. The flour mills in Nigeria are suffering losses because of under-utilisation of capacity due to a shortage of raw materials. A report by Dantata showed that at the Northern Nigerian Flour Mills Limited, turnover fell from N48.5 million to N18.4 million by the year ended March 19. This represents a 62% fall. Another threat to the industry is the low demand for flour made from wheat grown locally. Ogedengbe stated that the contention is not quality, but the wheat variety, among which are hard red winter, hard red spring, Iduram, and white. Only white wheat is grown in Nigeria, and white wheat is only suitable for the production of pastries, crackers, noodles, but not bread. The unavailability of a skilled labour force is also a serious threat to the industry. According to Ugboaja, small-scale industries experience high labour turnover as a result of the industry’s inability to attract and retain a skilled labour force and inadequate technical training in our education system.

Presentation of Data, Analysis and Interpretations

In this section, we present the data collected in this study and attempt to analyse them so that appropriate inferences can be drawn from them.

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSLC</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>WASC</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>OND</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>HND</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>First degree</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2022

Another significant finding is that the bakery industry in Lagos is owned and managed by reasonably educated people. All of them had at least a First School Leaving Certificate. Nearly half of them are educated beyond secondary school level.
### Types of operation

<table>
<thead>
<tr>
<th>Types of operation</th>
<th>No. of bakeries maintaining pre</th>
<th>% of Total</th>
<th>No. of bakeries forced to make changes</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shifts per day</td>
<td>2</td>
<td>6%</td>
<td>32</td>
<td>94%</td>
</tr>
<tr>
<td>Production method</td>
<td>30</td>
<td>88%</td>
<td>4</td>
<td>12%</td>
</tr>
<tr>
<td>Production Volume</td>
<td>8</td>
<td>24%</td>
<td>26</td>
<td>76%</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2022

Significant changes occurred in the production volume because of rising costs. Only 8 of the bakeries, or 24%, have been able to maintain their pre-1986 volume of production.

### Hypothesis Testing

Bakers were asked if they had made some changes in their methods of operation because of the ban on wheat.

### Changes in Operations Strategies

These responses indicate that substantial changes have taken place between 1985 and 1989 in the operational methods of bakeries. 32 of them (74%) have ceased to operate shift duties; 4 (12%) had changed from a fully automated process to manual operations. 26 (76%) had made major changes in their distribution methods. These observations are reinforced by the hypothesis testing shown below.

### Hypothesis Restated

- $H_01$: The ban on wheat importation did not cause any significant changes in the methods of operation of bakeries.
- $H_02$: The sources of raw materials for bakeries have a significant impact on the profitability of bakeries.
- $H_03$: The activities of NAFDAC and other government regulatory bodies do not affect the source of raw materials for bakeries.

1. The application formula is the chi-squared test formula:

\[
\chi^2 = \sum \frac{(O-e)^2}{e}
\]

where

- $O$ = observed frequencies
- $e$ = expected frequencies

2. From the observed frequencies, the expected frequencies were computed using the formula:

\[
e = \frac{(\text{row total})(\text{column total})}{(\text{overall total})}
\]

The computed values are shown below.
3. Chosen level of significance = 0.05
4. Degree of freedom for 2 and 3
   Contingency table given as \((K - 1) (r - 1)\)
   where
   • \(K\) = number of columns
   • \(r\) = number of rows
   \((2-1) (3-1) = 2\)
5. Critical value for 2 degrees of freedom at 0.05 level of significance.
   \(X^2_{0.05} = 5.991\)

Test Statistics:

\[
X^2 = \frac{\sum (0 - e)^2}{e} = \frac{(2 - 13)^2}{2} \times \frac{(32 - 21)^2}{21} \times \frac{(30 - 13)^2}{12} \times \frac{(4 - 21)^2}{21} \times \frac{(8 - 13)^2}{13}
\]
\[
= \frac{(26 - 21)^2}{21} = \frac{9.3 \times 5.8 \times 22 \times 13.8 \times 1.9 \times 1.19}{21} = 53.99
\]

Decision: Calculated \(X^2\) is greater than the critical value. We therefore reject the null hypothesis and accept the alternative that the ban on wheat importation caused major changes in methods of operation of bakeries.

**Marketing Strategies**

The presentation of the marketing strategies adopted by bakers in order to survive the ban on wheat importation. Three main areas of marketing strategies were examined: distribution, diversification, and adjustment of selling prices.
The findings are that significant changes in the marketing of baking products occurred as follows:

a. Before the ban on imported wheat, bakers appointed distributors to whom they delivered their products and combined this with direct sales to consumers from vans and from factory sites.

b. After the ban, and given rising costs, declining production volume, and other difficulties, most of the bakeries were unable to maintain delivery vans and hence compelled their distributors to collect from the factories.
Only 14 of the bakeries, or 14%, have been able to maintain their pre-wheat-ban distribution methods. Before the ban, the majority of bakers concentrated on bread alone. The ban caused 29, or 85%, of them to diversify their product range. The greatest noticeable change caused by the ban is on prices. All 34 bakers, or 100%, agreed that they were forced by rising costs to increase their prices.

Hypothesis Testing on Marketing Strategies

Respondents were asked questions regarding their reactions to the new challenges posed by the ban on wheat importation. The replies were collected and presented. The proportion of bakers who changed distribution methods was 20/34 = 0.59, and all the respondents changed their selling price.

Hypothesis 2 Restated

1. The applicable formula is the Chi-Square test formula given by
   \[ \chi^2 = \sum \frac{(O_e - e)^2}{e} \]
   where
   - \( O_e \) = observed frequency
   - \( e \) = expected frequency

2. From the observed frequencies, the expected frequencies were computed using the formula:
   \[ e = \frac{(\text{row total })(\text{column total })}{(\text{Overall total })} \]

<table>
<thead>
<tr>
<th>New Challenges Facing Bakery</th>
<th>Distribution</th>
<th>Product</th>
<th>Selling</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No change</td>
<td>14 (6)</td>
<td>5 (6)</td>
<td>0 (6)</td>
<td>19</td>
</tr>
<tr>
<td>Change</td>
<td>20 (28)</td>
<td>29 (28)</td>
<td>34 (28)</td>
<td>83</td>
</tr>
<tr>
<td>Total</td>
<td>34 (34)</td>
<td>34 (34)</td>
<td>34 (34)</td>
<td>102</td>
</tr>
</tbody>
</table>

3. Chosen level of significance = 0.05

4. Degree of Freedom for a 3 x 2 contingency table is given as \((K – 1)(r – 1)\)
5. Critical value of 2 degrees of freedom at 0.05 level of significance

\[ X^2_{0.05} = 5.991 \]

Test statistics:

\[
X^2 = \sum \frac{(0 - e)^2}{e} \\
\begin{align*}
(14 - 6)^2 &= 10.7 \\
(5 - 6)^2 &= 0.17 \\
(0 - 6)^2 &= 6 \\
(20 - 28)^2 &= 2.3 \\
(29 - 28)^2 &= 0.4 \\
(34 - 28)^2 &= 1.3
\end{align*}
\]

\[
\times \quad 10.7 \times \quad 0.17 \times \quad 6 \times \quad 2.3 \times \quad 0.4 \times \quad 1.3 = 20.28
\]

Decision: Calculated \( X^2 \) is greater than the critical value (20.87 > 5.991). Therefore, we reject the null hypothesis and accept the alternative that the ban on wheat importation has resulted in new challenges among bakers.

### Financial Strategies

We present the financial adjustments made by bakers in the face of the ban on wheat importation. Two main areas of financial adjustments were examined. These adjustments are in terms of funds invested and sources of finance. Significant changes were made in the financial arrangements by bakers as follows:

7 or 20% of the bakers did not make any changes in funds invested. 22 or 65% of the bakers made changes in sources of finance.

<table>
<thead>
<tr>
<th>Financial Adjustment Among Bakeries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial adjustment</strong></td>
</tr>
<tr>
<td>Invested Funds</td>
</tr>
<tr>
<td>Sources of finances</td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2022*

### Hypothesis Testing on Financial Strategies

Respondents' replies to the question on whether the ban on wheat importation resulted in any new financial arrangements were collected and presented. The proportion of change in invested funds was \( 27/34 = 79\% \) and sources of funds \( 22/34 = 65\% \).

### Hypothesis Restated
H₀₃: The activities of NAFDAC and other government regulatory bodies do not affect the source of raw materials for bakeries.

1. The applicable formula is the Chi-Square test formula:

\[
\chi^2 = \sum \frac{(O-e)^2}{e}
\]

where

- o = observed frequency
- e = expected frequency

2. From the observed frequencies, the expected frequencies were calculated using the formula

\[
e = \frac{(\text{row total}) \times (\text{column total})}{(\text{overall total})}
\]
Finance | No change | Change | Total
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NAFDAC activities</td>
<td>7 (10)</td>
<td>27 (24)</td>
<td>34</td>
</tr>
<tr>
<td>Other regulatory bodies</td>
<td>12 (10)</td>
<td>22 (24)</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>19 (20)</td>
<td>49 (48)</td>
<td>68</td>
</tr>
</tbody>
</table>

3. Chosen level of significance = 0.05

4. Degree of freedom for a 2 x 2 contingency table is given as (K - 1) (r - 1)

Where

- K = number of columns
- r = number of rows

(2-1) (2-1) = 1

5. Critical value for 1 degree of freedom at the 0.05 level of significance.

\[X^2_{0.05} = 3.841\]

Test Statistics:

\[X^2 = \frac{\sum(0 - e)^2}{e} = \frac{(7 - 10)^2}{10} \times \frac{(27 - 24)^2}{24} \times \frac{(12 - 10)^2}{10} \times \frac{(22 - 24)^2}{24}\]

\[= 0.9 \times 0.375 \times 0.4 \times 0.16\]

\[= 1.835\]

Decision: Calculated \(X^2\) is less than the critical value (1.842 < 3.841); therefore, we accept the null hypothesis that the activities of NAFDAC and other government regulatory bodies do not affect the source of raw materials for bakeries.

Summary of Findings, Conclusion, and Recommendations

The operations in the bakery industry were classified into three: production shift, method, and volume. The study showed that 94% of respondents changed the number of shifts they operated before the ban. Only 12% changed their production methods in terms of mechanisation, while 76% changed their production volume. The test statistic showed that there were significant changes in operations between 19 and 19 (section 2 of the production pages 43 – 50). The study revealed that bakers devised many marketing strategies to survive the ban. They are in the form of new distribution strategies, product diversification, and new selling prices. Table 4.3.1 showed that 59% of bakers made changes in distribution channels, 85% in product range, and 100% of respondents adjusted their selling prices. The test statistic showed that the ban on wheat importation resulted in significant new marketing strategies (section 3 pages 47 – 52). Section 4 shows that the bakers made new financial arrangements following the ban on wheat importation. 79% made changes in the amount of funds invested, and 65% made changes in the source of funds. The calculated average percentage change was 72%.
However, when the findings were subjected to the statistical test, it showed a “no change” situation. The analysis showed that the source of raw materials changed by 94%, while 71% of bakers changed the composition of the raw materials used in baking (section 5 pages 57 – 61). The reasons for the demise of bakeries were classified into those related and those not related to the ban. The analysis of data showed that 60% of the bakeries forced out of business attributed their demise to the ban on wheat importation, while 40% were for reasons not connected to the ban. In section 6, a statistical test of significance showed that a good number of bakeries folded because of the ban on wheat importation.

Conclusion

In light of the findings above, the researcher was able to deduce the following conclusions about the study.

1. The findings that significant changes were made in operational methods led us to conclude that these changes were survival strategies adopted by the bakers to survive the ban on wheat importation. Bakers cut the number of shifts and reduced production volume following the scarcity of wheat flour and other raw materials.
2. The bakers who continued to operate after the ban on wheat importation in 1986, as the analysis showed, adopted new marketing strategies such as product diversification, reducing distribution outlets, and increasing product prices.
3. The data analysis showed that significant changes were not made in financial arrangements. Bakers’ sources of funds remained predominantly from personal and family sources, as banks did not play a significant role as financiers. Most of the bakers did not change the amount invested. The strategy they adopted was to scale down production.
4. The bakers adopted some survival strategies to survive the difficulties of sourcing raw materials. There was a significant change in the source of supply of raw materials and in the composition of the raw materials; many bakers now buy their wheat flour from the black market instead of from millers. Many also use composite flour to bake.
5. The bakers who folded up in the face of the ban on wheat importation were those who could not adopt the survival strategies. Many of them could not get the basic raw material – wheat flour.

Recommendations

In view of the findings and their conclusions, we make the following recommendations as survival strategies for small-scale bakeries.

1. Bakers adopted the strategy of cutting the number of shifts and reducing production volume in order to survive the ban on wheat importation. These are short-term survival strategies, which have the negative effect of worsening the unemployment problem of the nation. For this reason, a more constructive survival strategy would be to increase production volume by making increased use of composite flour developed by our research institutes.
2. The new strategies to diversify their product range by bakers are a national answer to declining volume. There is a need for product standardisation among bakers nationwide to reduce the confusion among the consuming public. The National Association of Master Bakers and Confectioners should select those products from the range that can be standardised and mount an enlightenment campaign. The aim of the campaign will be to educate and assure the
consumers of the products’ value and safety. Small firms cannot go into advertising on their own; therefore, the association, by this recommendation, should do it for all the members.

3. Among small firms generally, finance has been and continues to be a source of problem. Perhaps, with the establishment of the proposed National Small Scale Industries Corporation (NSSIC) and the National Economic Reconstruction Fund (NERFUND), the financing of this sector would have been taken care of. This shall include small-scale bakers.

4. Small businesses must not always continue to look up to the government to do everything for them. The association of Master Bakers and Confectioners should liaise with the researchers at the Federal Institute of Industrial Research, Oshodi (FIIRO), and other such bodies to organise workshops for the bakers on the use of composite flour. In this way, we can evolve some bakery products that are unique to, and consumed in, Nigeria.

5. The average baker should be more adaptive and innovative. They should avail themselves of the opportunities to learn more about new bakery technology by attending conferences and seminars on bakery. These are potent survival strategies in the face of harsh economic conditions.

References


