The Effect of Product and Service Innovations on Business Survival with Mediating Role of Operational Improvement

Assed Lussak, Edi Abdurachman, Idris Gautama So, Rini Setiowati

Abstract: This study aims to analyze the survival of small businesses in the food and beverage sector in today's competitive market, especially in Bandung. This city represents one of the most populous cities in Indonesia. This certainly has an impact on how the small business must be able to adapt to the tastes that continue to move dynamically, the use of technology and the generational preferences of the millennials. This research uses an explanatory research method, while the analysis technique uses partial least square and moderated linear regression analysis. The sample technique uses purposive sampling with a total sample of 50 respondents. The results of this study indicate product and service innovations, mediated by operational improvement, directly and indirectly have a significant effect on business survival.

Keywords: product and service innovations, business survival, operational improvement

I. INTRODUCTION

Recent research shows the survival rate of small businesses in Indonesia is only 10% of the total number that emerge every year [1]. The Ministry of Cooperatives and Small and Medium Enterprises (KUKM) itself stipulates that for a person to be considered as an entrepreneur in Indonesia, the managed business must have a minimum life span of at least three and a half years. It is interesting to note, besides operating at a survival rate of 10%, the longevity of Indonesian entrepreneurs is still below the international standard of less than five years.

In general, small businesses in Indonesia, as part of micro and small enterprises (MSEs), can contribute 60.34% of national GDP in 2018 [2]. The chairman of the Indonesian Micro and Small Business Association (Akumindo), stated that the projected contribution of the SME sector to GDP in 2019 could reach 65%, equivalent to Rp2,394.5 trillion. Economists from the Institute for Development of Economics and Finance (Indef) said that this projection is quite realistic because it is in line with estimates of Indonesia's economic growth, ranging from 5% to 5.2% [3]. Small businesses themselves account for 31% of all MSEs [4].

As for the many small businesses that are developing, the food and beverage sector is currently experiencing the most rapid development, including in Indonesia [5]. Therefore, it is essential to produce new findings into what factors can drive the achievement or creation of this survival rate, especially in the field of food and beverage supply.

National Development Planning Agency (Bappenas) reported in its 2016 survey studied micro and small business development (MSE) models. The results of this study stated that there are still procedures and high licensing fees, unfavorable loan interest rates, and the lack of both information and the ability of small enterprise to access the market that are limiting factors for small entrepreneurs in Indonesia.

This seems ironic, where small entrepreneurs who are always innovative in the services and products they produce and are highly motivated to move forward must sometimes concede to a less friendly external environment. For example, profits generated must be collected only to pay financial leverage obligations with high capital expenses.

Every small entrepreneur has different financial performance capabilities, which can have a direct impact on his ability to maintain business continuity. Operational improvement and product and service innovations are found to be two main determinants that can mediate the effects of financial performance [6] [7] [8] [9].

Regarding survival factors, previous studies have shown that good company performance, especially on the financial side, is indeed a pre-requisite [10]. In addition, entrepreneur’s motivation can give a person the courage to set up a business and generate the interest and desire to work as an entrepreneur, as well as offering him opportunities in business development and to control the sustainability of his business [11]. Those circumstances lead to problem formulation in this study on whether product and service innovations, mediated by operational improvement, have a significant effect on business survival.

II. LITERATURE REVIEW

A. Business Survival

Business survival generally refers to the sustainability of the existence of a company, while failure refers to the dissolution of a company. Financial performance is one of the most viewed topics as the main prerequisite for business success or failure [12].
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Financial performance presents benefits and availability for future investments for the company. Conversely, poor financial performance reflects a decline in business and becomes unattractive to investors or partners, i.e. in the worst-case scenario, leading to business closure [13].

B. Product and Service Innovations

Innovation is the most important aspect of contemporary business. Rapid changes in consumer preferences and expectations have significantly affected the restaurant industry.

In the context of the culinary industry, innovation is considered as an idea, practice, process or product of practice that is born from ideas to solve problems and is considered new by group of consumers [14]. Innovation is also defined as all new things introduced by restaurant owners regardless of whether they are new, reproduced and/or adapted from competitors.

C. Operational Improvement

The methodology for improving operational performance is based on make-to-stock companies, even though it can be universally implemented. [15] recognized the difference between make-to-stock companies and make-to-order companies and used Schonberger's world-class manufacturing principles to develop performance improvement methods for make-to-order SMEs from England, or well-known as the SHEN model. Ultimately, flexibility is seen as an implicit corporate strategy rather than part of an improvement model.

III. RESEARCH METHOD

This research is explanatory research in the form of association and causality research. The analysis technique used is partial least square analysis with the help of statistical software for Windows Smart PLS version 3.2.6 and moderated linear regression analysis with the help of statistical software for Windows SPSS version 25.

The sampling technique used was purposive sampling, and proportionate cluster random sampling was carried out in accordance with micro and small business data in the Bandung area. The selection of the city of Bandung is based on the list of leading culinary tourism cities from the Ministry of Tourism [16].

The total population of food and beverage supply businesses in the area of Bandung is 5,929, consisting of 2,099 in Bandung Regency, 787 in West Bandung Regency and 3,043 in Bandung City. The sample used was 50 respondents consisting of 17 respondents from Bandung Regency, 8 respondents from West Bandung Regency and 25 respondents from Bandung City.

IV. RESULTS

A. Respondent Demographics

The respondent’s demographics are can based on several classifications, as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Classification</th>
<th>F</th>
<th>%</th>
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<tbody>
<tr>
<td>a. Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Male</td>
<td>11</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>2. Female</td>
<td>39</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
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</tr>
<tr>
<td>b. Age of the Business</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1. &lt; 3.5 y.o</td>
<td>4</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>2. ≥ 3.5 y.o and ≤ 6 y.o</td>
<td>43</td>
<td>86%</td>
<td></td>
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<tr>
<td>3. &gt; 6 y.o</td>
<td>3</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>c. Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Bandung City</td>
<td>25</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>2. Bandung Regency</td>
<td>17</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>3. Bandung Barat Regency</td>
<td>8</td>
<td>16%</td>
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The classification of respondents based on gender are as follows: male, as many as 11 respondents (22%) and women, as many as 39 respondents (78%). Classification of respondents based on business age are as follows: age of business of less than 3.5 years, as many as 4 businesses (8%); age of business with a range of ≥ 3.5 years and 6 years, as many as 43 businesses (86%); and age of business of more than 6 years, as many as 3 businesses (6%).

B. Partial Least Square Analysis Test Results

Outer loadings of product and service innovations, operational improvement, and business survival have a value greater than 0.5. This can be interpreted that all construct variables or manifests on each latent variable can reflect the variables, or it can be said that the manifest variables on each latent variable are valid.

C. Goodness of Fit

Composite reliability is used to test the reliability of research data. The variables in this study have a composite reliability value of ≥ 0.7. This can be interpreted that all latent variables in this study are reliable and can be used for hypothesis testing at a later stage of analysis.

Cronbach’s alpha is used to test the level of consistency of respondents' answers in a latent variable. The variables in this study each have Cronbach's alpha ≥ 0.6. This can be interpreted to mean that each variable has a reliable level of consistency in terms of the answers of respondents.
R Square (R2) is used to analyse to what extent the ability of exogenous variables can explain their effects on endogenous variables. A value of 0.665 or 66.50% can be interpreted that the variables of product and service innovations can explain the effect on operational improvement of 66.50%, while the remaining 33.50% is explained by other variables and errors.

A value of 0.608 or 60.80% can be interpreted that the variables, product and service innovations and operational improvement can explain their effects on the business survival variable of 60.80%, while the remaining 39.20% is explained by other variables and errors.

D. Path Coefficient

The product and service innovations variable towards operational improvement has a t statistics value of 28.521 ≥ t table at a significance level of α 5% of 1.96. This can be interpreted that product and service innovations variable has significant influence on operational improvement. The beta value of 0.726 can be interpreted that if the product and service innovations variable increases by one unit, the operational improvement variable will increase by 0.726 times, and this applies vice versa.

![Figure 3. Path Coefficient](image)

The product and service innovations variable on business survival has a t statistics value of 8.979 ≥ t table at a significance level of α 5% of 1.96. This can be interpreted that product and service innovations variable has significant effect on business survival. The beta value of 0.542 can be interpreted that if the product and service innovations variable increases by one unit, then business survival will increase by 0.542 times, and this applies vice versa.

The operational improvement variable on business survival has a t statistics value of 2.052 ≥ t table at a significance level of α 5% of 1.96. This can be interpreted that the operational improvement variable has a significant effect on business survival. The beta value of -0.162 can be interpreted that if the operational improvement variable decreases by one unit, then business survival will increase by 0.162 times, and this applies vice versa.

V. CONCLUSION

Product and service innovations on business survival, mediated by operational improvement, have shown significant results, directly and indirectly. This can be interpreted that small businesses in the Bandung area have good innovation capabilities in producing their products. This means that demand from consumers for something unique and interesting from product engineering makes businesses compete to create product and service innovations to match market demand.

Operational improvement has been empirically proven to strengthen the effect of product and service innovations on business survival. This can be interpreted as the willingness and awareness of businesses to continuously create innovations in their services and products, and this, coupled with good operational improvement, can directly affect the sustainability of their businesses. Continually creating innovations in services and products has become an important basis for small businesses, considering the characteristics of the millennial consumers served today, such as [17]: highly value the opinions from those on their social networking sites, or be more attracted to brands that encourage cognitive response.

Answering the demands of millennial consumers, small businesses must also be able to create added value in their services and products through continuous innovation; attention to operational improvement at every stage of the production process can maintain the expected quality of products and services, so that they are in line with the expectations of millennial consumers. Businesses operators who can meet the desires and needs of millennial customers can directly affect the survival of their businesses.

REFERENCES

11. T. Nottingham and N.E. User, Inventory Performance Related to Financial Performance: A Case
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Study in Manufacturing Sector, University of Nottingham, 2011.


AUTHORS PROFILE

Assed Lussak has considerable experience in driving public behaviour and once involved in media analysis to formulate recommendations for Commission V and XI of the Indonesian House of Representatives. Being part of Ogilvy PR for more than six years, Assed handled Voyage to Indonesia and 2018 Spring Meetings of IMF-WBG Washington account, retainer activities of Bank Indonesia, AICE, HSBC, Actavis, and Unilever. He also worked on Merck Indonesia, Enesis, IPC, Prudential Indonesia, and Pertamax Digital Campaign. Besides, he involved in Indonesia Logistic Community Service and Indonesian Cabinet Secretariat. Currently as Hereleads Indonesia’s head of account management, Assed is leading clients’ strategic account planning processes, also develop performance objectives, sales targets, and critical milestones. He is now a doctoral candidate in innovation management and has interest in politics, macro economics, and environmental issues.

Prof. Edi Abdurachman is well-known as an expert on statistics. He is Bina Nusantara University’s full professor since 2008 and currently serves as the Director the Graduate Program. Prof. Edi has published more than 40 articles in Scopus-indexed journals and numerous books, domestic and internationally. Graduated from Iowa State University, one of his latest breakthrough and exciting research was a proposed surveillance model in an Intelligent Transportation System (ITS). His oration on the usage of statistics in business and industrial sectors, both showed its close-relations to win competition: e.g. supplier relations, production process, and marketing in business sector; and size, precision, and volume in industrial sector.

Idris Gautama So, Ph.D is an associate professor in management of Bina Nusantara University. As a graduate of Universiti Sains Malaysia, Idris has dozens of international publications, with a joint research of improving information security performance as his latest publication. He is currently also the director for its Bekasi Campus and Vice Rector of Global Employability & Entrepreneurship prior. Once developed a computer software to identify creativity skill development among undergraduate art and design students, Idris is also a technical expert on ISO9000 for higher education. He was one of the finalists of National Best Head of Study Program in 2013, awarded by Indonesia’s Ministry of Education and Culture.

Dr. Rini Setiowati is the Dean of Master Program, Bina Nusantara Business School. One of her renowned research analyzed the effects of ICT adoption on marketing capabilities and business performance of Indonesian SMEs in the fashion industry. Pursuing her graduate degree of business administration at Winthrop University and doctorate in management at IPB University, Rini has various experiences as a facilitator at Binus CREATE in Middle Management Development Program focused on communication skills, service excellence, and customer relationship management. She is also actively teaching marketing management, strategic marketing, consumer behavior, international marketing, international management, and introduction to business in Bina Nusantara University.