

THE EFFECT OF PRODUCT PACKAGING INNOVATION, BRANDING, AND TECHNOLOGICAL CAPABILITY ON MSME PERFORMANCE: A CASE STUDY OF FRESH NOODLE PRODUCERS IN THE MADIUN RESIDENCY

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Background: The COVID-19 pandemic has significantly impacted the Indonesian economy, highlighting the crucial role of Micro, Small, and Medium Enterprises (MSMEs) in economic recovery. While previous studies have explored general MSME performance, there is a lack of focused research on how innovative strategies in product packaging and branding can directly impact the operational success of fresh noodle producers.

Purpose: This study aims to fill existing research gaps by addressing the limited empirical data on the specific factors influencing the performance of MSMEs in the food production sector, particularly in the context of fresh noodles.

Design/Methodology/Approach: An explanatory quantitative approach was used to explore the relationships between these variables. A sample of 40 respondents was selected using purposive sampling, with the criteria that respondents must be fresh noodle producers, located in the Madiun residency area, and have been in business for at least 2 years. Data analysis was performed using multiple regression analysis with SPSS 25 software to examine the cause-and-effect relationships between product packaging innovation, branding, technological capability, and MSME performance.

Findings/Result: The results indicate that product packaging innovation, branding, and technological capability have a significant positive impact on the performance of fresh noodle MSMEs. Simultaneously, all three variables significantly contribute to the overall performance of MSMEs in the Madiun Residency.

Conclusion: This study offers practical guidance for entrepreneurs and stakeholders in designing strategies to support MSME sector growth. It provides actionable insights into how fresh noodle producers can improve their market presence and overall performance.

Originality/Value (State of the Art): By concentrating on innovative strategies in product packaging and branding specifically for fresh noodle producers, this study provides a unique contribution to the broader understanding of MSME dynamics in Indonesia, particularly within the food production sector.

Keywords: product packing innovation, branding, technological capability, MSME performance, multiple regression

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INTRODUCTION

Over the past almost 2 years, the outbreak of the Covid-19 pandemic has hit many countries around the world, including Indonesia. The impact generated by this pandemic is multidimensional, not only impacting the health sector but also having implications for the nation's economy. The national economic sector experienced a significant decline, marked by plummeting economic growth. Not only that, various companies were also forced to go out of business and carry out mass layoffs of their employees. In this context, the Micro, Small, and Medium Enterprises (MSMEs) sector is the main support for the hope of economic recovery in the country which is currently stagnating and even declining. The MSME sector in Indonesia plays a pivotal role in the country's economy. As of recent data, MSMEs account for approximately 99% of all businesses in Indonesia, contributing around 56% to the national Gross Domestic Product (GDP) and employing over 97% of the workforce. This sector is vital for job creation and economic stability, particularly in rural areas where many MSMEs operate. However, despite their significance, MSMEs face numerous challenges, including limited access to financing, low levels of technological adoption, and inadequate managerial skills. These challenges are compounded by external factors such as market competition, regulatory hurdles, and the impacts of the COVID-19 pandemic, which have further strained their operations and profitability.

Fresh noodle producers were specifically chosen for this study due to their unique position within the MSME landscape. This sector is characterized by high competition and rapidly changing consumer preferences, particularly regarding health and convenience. Fresh noodle producers often operate in a niche market where product differentiation through packaging and branding can significantly influence consumer choice. Their challenges may differ from other MSMEs in that they must navigate strict food safety regulations, manage perishable inventory, and respond quickly to market trends, which require a different set of strategies compared to more stable or less regulated industries. The role of MSMEs has proven to be very vital in making a positive contribution to the national economy, which is reflected in three main aspects recognized by (Bank Indonesia, 2015). First, the MSME sector has a fairly wide industrial diversity, permeating various business sectors. Second, the

potential of MSMEs to absorb labor is very large, so they can have a positive impact on the unemployment rate. Third, the contribution of MSMEs in the formation of the country's Gross Domestic Product (GDP) is very significant, considering that in 2010, the MSME sector had contributed around 56% of the total GDP.

Sinaga, Anggraeni & Slamet (2021) stated that although the MSME sector has a strategic role in supporting the national economy and creating community welfare, in reality, efforts to improve the performance of MSMEs are not easy. One of the main challenges faced by MSMEs in Indonesia is low competitiveness and productivity (Alimudin et al., 2019). Efforts to improve the productivity and performance of MSME entrepreneurs can be made by improving managerial capabilities in the field of marketing such as developing strong branding, product and packaging innovation, increasing workforce skills, and better use of technology (Ilarrahmah and Susanti, 2021). The implementation of these measures has the potential to create a positive trend in increasing profits, which in turn will have an impact on increasing sustainable competitiveness for these MSMEs.

One of the sectors included in the MSME category is fresh noodle producers operating in the Madiun Residency area. To improve sustainable performance and competitiveness, fresh noodle MSMEs in Madiun Residency need to adopt a number of innovative strategies. Among them are innovation in product packaging, product brand improvement, and optimization of the use of various available technologies. One of the pillars that is very important in achieving the success of company performance is the ability to innovate in product packaging. Innovation capability refers to a company's capacity to create new ideas, both in process and product, that can advance a company's success and create differentiation from its competitors. According to Wang and Daas, positing that innovation capabilities allow companies to implement changes, especially in terms of technology, necessary to develop new products and meet customer needs (Anggraeni and Sanaji, 2021). It is also a vital strategy to survive in fierce competition.

In line with previous research, Saunila (2020) conducted a systematic review that demonstrates a positive relationship between innovation capability and the performance of SMEs. Another study by Saunila & Ukko (2014) also affirmed that innovation provides

opportunities for SMEs to overcome barriers and create added value. The enhancement of innovation capability has also been shown to positively impact company performance, as stated by Sulisty & Siyamtinah (2016) and Rajapathirana & Hui (2018). Furthermore, Obunike & Udu (2018) and Faisal, Aliami & Anas (2022) argued that product and process-oriented innovation can contribute to SMEs' sales, job creation, and market share. Wahyuni & Sara (2020) emphasized the importance of SME entrepreneurs improving their capacities in market orientation, learning orientation, and entrepreneurial orientation, as all of these capacities significantly influence company performance through knowledge and innovation competencies.

According to Kotler & Armstrong (2014), packaging is a process that includes design and production to protect products. Packaging always requires design so that product messages can be effectively conveyed to consumers. In addition to functioning as a product protector, packaging now also acts as a very efficient marketing tool. To create effective packaging, many companies leverage resources that are easy to cultivate, powerful, and have visual appeal (Ferryanto and Indriati, 2020). However, it should be noted that the packaging industry also contributes to environmental problems by generating a lot of plastic waste that pollutes the ecosystem. Therefore, in designing packaging innovations, companies must ensure not only good packaging quality for their products but also pay attention to environmentally friendly aspects. Eco-friendly packaging is an approach to designing packaging with the aim of reducing, reusing, and recycling the materials used for packaging manufacturing. This is important in facing today's environmental challenges, as well as a form of corporate social responsibility to protect and preserve nature.

Improving the performance of MSMEs can also be achieved through the right branding strategy. According to Kotler & Keller (2009), branding refers to the names, terms, signs, and symbols used to identify a product, service, or group of sellers with the aim of distinguishing it from products and services offered by competitors. Thus, branding is a series of marketing communication activities carried out by companies to build and enlarge their brand image. It is important to remember that brands have a significant role in consumer decision-making when shopping. Many consumers judge a product by the quality of its well-known and reputable brand. A brand's success in

creating memorable experiences for consumers has a long-lasting impact. In Indonesia, consumer sensitivity to brands is very high because brand perception can influence purchasing decisions. As the study explains Irwanto & Hariyadi (2018), consumers tend to prefer products that are already known and used by many people over products that are still unfamiliar. Therefore, companies need to make continuous efforts to build brand awareness and familiarity among the public. The more effective the branding of a product, the more positive the influence on consumer decisions in buying the product. The impact can also be felt positively in improving the performance of MSMEs. Findings from the study Anggraeni & Sanaji (2021) also concluded that branding capabilities have a positive and significant influence on the performance of MSMEs.

In addition to packaging and branding, another factor that has the potential to improve the performance of MSMEs is Technological Capability. Technology capability refers to the ability of business actors to access and apply technology in their business development. In today's millennial era, technology has seeped into various aspects of human life. A better level of technological capability can strengthen the ability of business actors to apply technology in their business operations. Therefore, entrepreneurs who are unable to develop technological skills will face the risk of elimination in an increasingly fierce labor competition. Entrepreneurs' lack of understanding of the use of technology can bring resistance to its use in various activities, and the impact will reduce their performance.

Technological intelligence is the ability of entrepreneurs to interact with technological developments (Blount, 2018). The better entrepreneurs master technology, the better their performance will be. Technology intelligence drives work efficiency and responsiveness in seizing opportunities. Research Ilarrahmah & Susanti (2021), those focusing on MSMEs in Lamongan found that technological capabilities positively affect the performance of entrepreneurs, but this lack of ability can reduce their performance. This research has significant novelty because it seeks to fill the lack of knowledge in the understanding of MSME producers Mie Segar Sekaresidenan Madiun regarding branding, innovation in product packaging, and technical capabilities (technological capability) in the context of increasing their business competitiveness. This is important because early observations show that understanding of

these aspects is still minimal among MSME producers, which can hinder their business growth potential.

For instance, the 2022 report from the Indonesian Central Statistics Agency (BPS) indicates that the MSME sector has shown significant recovery post-COVID-19, yet many still struggle with innovation and technology adoption. Furthermore, a 2023 study by the Indonesian Ministry of Cooperatives and SMEs highlights the need for tailored innovation strategies to enhance competitiveness in the food sector. By integrating these studies into a cohesive theoretical framework, this research aims to fill the identified gap by exploring how product packaging innovation, branding, and technological capability collectively influence the performance of MSMEs in the fresh noodle sector. With a better understanding of how these variables affect the performance of MSMEs, it is expected that this research will make a valuable contribution to stakeholders, especially MSME players in this sector, in understanding the importance of innovation in product packaging, brand development, and mastery of technology to improve their competitiveness. The contribution of researchers through this research is to provide deeper insights and concrete recommendations to help MSMEs overcome the obstacles faced in developing their businesses. Thus, the main purpose of this study is to identify the influence of each variable, namely product packing innovation, branding, and technology capability, on the performance of fresh noodle MSMEs in Madiun Residency.

METHODS

The research method used in this study is quantitative research with a focus on MSMEs Fresh Noodle Producers in Madiun Residency. The research was conducted for approximately 6 months from January 2023 to July 2023. The study population included all fresh noodle producers in the region, although the actual population number could not be determined. For sampling, the method of nonprobability sampling, particularly purposive sampling, was used. The sample criteria set were that respondents must be fresh noodle producers, located in the Madiun residency area, and have been in business for at least 2 years. Sampling refers to Roscoe's research in Sugiyono (2011) where respondents as many as 40 people are equivalent to 10 times the number of variables to be studied.

Primary data were collected using questionnaires filled out by the respondents, namely MSME actors (fresh noodle producers) in Madiun Residency. The type of questionnaire used was a closed questionnaire, with which the respondents were asked to choose an answer from the provided choices. Each question in the questionnaire used a 5-point Likert scale, which went from very negative to very positive, as detailed in Table 1.

Table 1. Likert Scale Format

Criterion	Score
Totally Agree	Score 5
Agree	Score 4
Neutral	Score 3
Disagree	Score 2
Strongly Disagree	Score 1

Source: Santoso (2015)

The research variables consist of dependent variables and independent variables. The dependent variable used in this study is "MSME Performance," which refers to the level of achievement of results on the implementation of a particular task. The performance indicators used in this study refer to research by Alimudin et al. (2019) and are combined with performance indicators from the study by Hajar et al. (2012). These performance indicators include: There was an increase in sales (Y.1); Increased profit (Y.2); There was an increase in the number of assets (Y.3); An increase in the number of subscribers (Y.4).

The independent variables in this study consist of product packing innovation (X1), branding (X2), and technological capability (X3) can be explained as follows:

Product Packing Innovation (X1)

Product Packing Innovation refers to the company's ability to design packaging that is both marketing and environmentally friendly, with the aim of reducing, reusing, and recycling the materials used to make packaging. The indicators used in this study refer to the research by Ferryanto & Indriati (2020), which is based on Australia's Sustainable Packaging Alliance (SPA). The four packaging principles are described in 7 indicators as follows: Minimal waste packaging innovation (X_{1.1}); Practical packaging innovations (X_{1.2}); Functional packaging innovations (X_{1.3}); Low-cost packaging innovation (X_{1.4}); Reusable packaging

innovations ($X_{1.5}$); Recyclable packaging innovations ($X_{1.6}$); Packaging innovation can reduce environmental pollution ($X_{1.7}$)

Branding (X_2)

Branding refers to a series of marketing communication activities carried out by a company to build and enlarge its brand. The indicators used to measure this branding refer to research by Anggraeni & Sanaji (2021) which includes: Actively introducing the brand ($X_{2.1}$); Consistently introducing the brand ($X_{2.2}$); Actively attract customer brand choices ($X_{2.3}$); Motivating partners to promote the brand ($X_{2.4}$); Ability to explain the brand in detail to customers ($X_{2.5}$).

Technological Capability (X_3)

Technological Capability refers to the ability of business actors to access and use technology in their business development. The indicator used to measure technological capability refers to the research by Ilarrahmah & Susanti (2021) which includes: Has a technological engine ($X_{3.1}$); Able to operate technological machines ($X_{3.2}$); Have internet-related knowledge ($X_{3.3}$).

The analysis technique used in this study is multiple linear regression analysis with the help of SPSS software version 25. The researcher chose multiple linear regression analysis as the main method in their study because this method allows for understanding the cause-and-effect relationship between the independent variables (product packaging innovation, branding, and technological capability) and the dependent variable (MSME performance). Before conducting regression analysis, validity, and reliability tests are carried out first to ensure data quality.

Validity tests are used to ensure that the measuring instrument (question or indicator) actually measures the concept in question. The criteria for validity testing are as follows: If the calculated correlation coefficient (r) exceeds the tabulated critical value (r table) at a significance level of 0.05, the measurement is considered valid. Conversely, if the calculated correlation coefficient (r) falls below the tabulated critical value (r table) at a significance level of 0.05, it is deemed invalid. Reliability tests are used to assess the extent to which the instrument is consistent in measuring the same concept. The reliability test assessment criteria

are as follows: If the alpha coefficient result is equal to or greater than 0.6, the questionnaire is considered reliable. Conversely, if the alpha coefficient result is less than 0.6, it signifies that the questionnaire lacks reliability.

Multiple linear regression analysis is a statistical method used to understand the relationship between one or more independent variables and one dependent variable. In general, the multiple linear regression equation model can be formulated as follows:

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + e \dots (1)$$

Information: Y (MSME Performance); α (Constant); X_1 (Product Packing Innovation); X_2 (Branding); X_3 (Technology Capability); b_1, b_2, b_3 (Regression Coefficient); e (Standard error).

In multiple linear regression analysis, statistical significance is seen through statistical tests, such as the t-test and F-test. The t-test is used to evaluate the extent to which the influence of one independent variable individually explains the variation of the dependent variable. T-test analysis can be performed using the SPSS software, guided by specific assessment criteria. First, if the computed p-value, representing the probability of significance, is less than 0.05, the alternative hypothesis (H_a) is accepted. Conversely, if the p-value exceeds 0.05, the alternative hypothesis (H_a) is rejected.

The F-test plays a crucial role in assessing whether the collective set of independent variables included in the model exerts a significant influence on the dependent variable. When conducting the F test using the SPSS program, specific assessment criteria are followed. If the calculated p-value, which represents the probability of significance, is less than 0.05, the alternative hypothesis (H_a) is accepted. Conversely, if the p-value exceeds 0.05, the alternative hypothesis (H_a) is rejected. In addition, a determinant coefficient test (R^2) is carried out to measure how much variation in the dependent variable (MSME Performance) can be explained by the independent variable (Product Packing Innovation, Branding, and Technological Capability). The values of range from 0 to 1. The higher the value, the greater the variation in the dependent variable that can be explained by the independent variable in the regression model.

Attractive and functional packaging can enhance brand image, boost sales, and help SMEs compete more effectively in the market. Studies by Merrilees, Rundle-Thiele & Lye (2011); Moghaddam & Armat (2015); Tajvidi & Karami (2017); Karinda, Mananeke & Roring (2018); Lapian, Massie & Ogi (2016) consistently demonstrate that innovation in product packaging has a significant positive effect on the performance of SMEs. This research provides evidence that investing in product packaging innovation can assist SMEs in achieving better outcomes, such as increased sales, profits, asset growth, and customer base expansion. Furthermore, studies by Anggraeni & Sanaji (2021) and Adistia & Sanaji (2022) highlight that innovation capability is key to enhancing sales revenue and profits for SMEs. They emphasize that product innovation, including innovation in packaging, has a positive impact on company performance, especially in the SME sector. This underscores that innovation strategies, including packaging innovation, are not only relevant for strengthening SMEs' competitiveness but also essential for achieving long-term growth and sustainability. However, there is a gap in understanding how these innovations specifically impact the performance of MSMEs in niche markets, such as fresh noodle production in Madiun. By focusing on this sector, the research aims to provide empirical evidence that links packaging innovation directly to performance metrics, addressing the lack of sector-specific studies in the existing literature. Thus, the hypothesis proposed is as follows:

H1 : Product packaging innovation has a positive influence on the performance of MSMEs.

Branding is a crucial process in the business world, involving the development of a business's identity and image in the eyes of consumers. By having a strong brand identity, MSMEs can differentiate themselves from competitors, attract consumer attention, and build trust. Several studies conducted by researchers have revealed that branding plays a key role in determining the performance of MSMEs. Merrilees, Rundle-Thiele & Lye (2011) found that branding has a significant positive impact on the performance of MSMEs. They highlight that as branding capabilities increase, so does the performance of MSMEs. This finding is supported by research by Moghaddam & Armat (2015), and Tajvidi & Karami (2017) indicating that branding capabilities have a significant positive influence on the performance of MSMEs. They emphasize that the better the branding capabilities of an MSME, the

greater the chances of attracting consumer attention to the products or services offered. It is important to note that branding is not just about visual identity but also involves the ability to build strong relationships with consumers, business partners, and other stakeholders. Additionally, research by Anggraeni & Sanaji (2021) asserts that branding also encompasses the ability to build close relationships with consumers and other parties. Therefore, the hypothesis proposed is as follows:

H2 : Branding has a positive influence on the performance of MSMEs.

Technological capability plays a crucial role in improving operational efficiency, enhancing product or service quality, and creating new opportunities in marketing and distribution. By leveraging technology, MSMEs can achieve greater scale, enhance competitiveness in an increasingly global market, and access markets and resources previously inaccessible. Several studies have highlighted the importance of technological capability in enhancing the performance of MSMEs. According to Hsu (2014), technological capability has a significant positive impact on the performance of MSMEs. They found that the better the technological capabilities of MSMEs, the better their performance in addressing challenges and leveraging the potential offered by technology. This finding is reinforced by other studies, such as those conducted by Afolayan et al. (2015), who emphasized the important role of technological capability in improving the performance of MSMEs. Ali, Leifu & Ramiz-ur-Rehman (2016) also supported the positive relationship between technological capability and the performance of MSMEs. They highlighted the importance of MSMEs' ability to manage information technology as a strategic asset to enhance competitiveness in the global market. Choi & George (2016) asserted that technological capability plays a crucial role in improving the performance of MSMEs. Djatikusumo (2016) demonstrated that the use of information technology has a positive relationship with the performance of MSMEs. Sidiq & Astutik (2017) emphasized that the management of information technology is a critical asset that can enhance competitiveness and competitive advantage in the global market. Findings from the research of Suryantini & Sulindawati (2020) also supported the positive relationship between the use of information technology and the performance of MSMEs. They showed that information technology plays a crucial

role in improving the productivity and competitiveness of MSMEs. Ilarrahmah & Susanti (2021) highlighted the importance of using information technology in MSME operations. They emphasized that information technology enables MSMEs to improve efficiency and effectiveness in managing their businesses. Thus, the hypothesis proposed is as follows:

H3 : Technological Capability has a positive influence on the performance of MSMEs.

This study identifies three independent variables: product packaging innovation, branding, and technological capability, which are assumed to influence the dependent variable, namely MSME performance. In brief, the conceptual framework can be seen in Figure 1. From this conceptual framework, it can be assumed that the higher the level of innovation in product packaging, the stronger the branding, and the more advanced the technological capability, the higher the performance of MSMEs. By considering the interaction between these variables and conducting an in-depth analysis of empirical data, it is hoped that a better understanding can be obtained of how MSMEs can improve their performance through innovative strategies in product packaging innovation, branding, and technological utilization.

RESULTS

Respondent Profile

The profile of respondents in this study reflects the diverse characteristics of fresh noodle producers. Based on the Table, 2 respondents who met the criteria and were eligible to participate in this study amounted to 40 respondents. As many as 57.5% of them have been running their business for more than 5 years, indicating strong business sustainability and resilience in this industry. In contrast, 20% of respondents had 2 years of business experience, and 22.5% of them ranged from 3 to 5 years. In terms of working capital, the majority of respondents, around 77.5%, started their business with a capital of less than Rp 50 million. This illustrates that most fresh noodle producers started their businesses with limited resources, but still managed to survive and thrive.

Then in the production process, the majority of respondents (57.5%) still do production manually without the help of machines, while 42.5% of respondents have adopted machine technology in the production process. This shows variations in the production approach used by fresh noodle manufacturers. Related to the last level of education, the majority of respondents have a high school education background, which is 40%. However, there is also a small percentage who only graduated from elementary school (27.5%) or junior high school (32%), and some who have a higher level of education, such as Master's graduates (2.5%).

Technological capabilities were also highlighted in the study. The majority of respondents (80%) are capable of using computers or gadgets and another 20% do not have these capabilities. Furthermore, 92.5% of respondents have the ability to utilize the internet. This shows that they are able to adapt and keep up with technological developments that are very important in modern business. The purpose of using the internet also varies. The majority of respondents (60%) use the internet for various purposes such as browsing, social media, and online business. Others only use the internet for certain purposes, such as playing social media (22.5%), browsing (10%), or online business (7.5%).

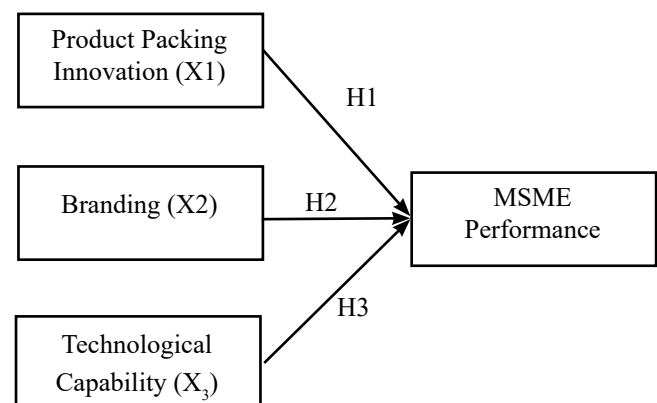


Figure 1. Research framework

Table 2. Characteristics of respondents

Respondent Profile		Frequency	Percentage (%)
Length of Business	2 years	8	20
	3 to 5 years	9	22.5
	More than 5 years	23	57.5
Business Capital	< 50 million rupiah	31	77.5
	> 50 million rupiah	9	22.5
Production Process	Production by machine	17	42.5
	Production manually	23	57.5
Education Level	SD	4	27.5
	SMP	13	32.5
	SMA	16	40.0
	Bachelor	6	15
	Master	1	2.5
Ability to utilize computers/gadgets	Not able to utilize computers/gadgets	8	20
	Able to utilize computers/gadgets	32	80
Ability to utilize the internet	Can take advantage of the internet	37	92.5
	Can't take advantage of the internet	3	7.5
Purpose of internet use	Online Marketing and Business	3	7.5
	Browsing	4	10
	Social Media	9	22.5
	Online business. social media. and browsing	24	60

Test Validity and Reliability of Questionnaire

To measure the validity of the questionnaire in this study, a data quality test was carried out consisting of a Validity Test and a Reliability Test. The Validity Test in this study used SPSS 25 software. The significance test is performed by comparing the calculated R-value with the table R-value, where the table R-value used is 0.312. If the calculated R-value is greater than the table R-value, then the data can be considered valid. Conversely, if the calculated R-value is smaller than the table R-value, then the data is considered invalid. In addition to validity tests, this study also conducted reliability tests. The decision-making criterion in reliability testing is to use Cronbach's Alpha value. If Cronbach's Alpha value is greater than 0.6, it can indicate that the instrument used is reliable. Conversely, if Cronbach's Alpha value is less than 0.6, then the instrument is considered unreliable. The results of these two tests can be seen in Table 3.

Table 3 displays the test results of the validity and reliability of respondents. The results showed that all variable statements were declared valid because the calculated R-value on each item was greater than the predetermined table R-value of 0.312. In addition, reliability tests also show that Cronbach's Alpha value

is greater than 0.6 for each statement, so it can be concluded that each item in the questionnaire can be considered reliable.

Results of the Coefficient of Determinant

The calculation results contained in Table 4 explain the contribution of independent variables, namely Product Packing Innovation (X1), Branding (X2), and Technology Capability (X3), to the dependent variable, namely Company Performance (Y). The adjusted R-squared value of 0.776, which is equivalent to 77.6%, indicates that Packing Product Innovation (X1), Branding (X2), and Technology Capability (X3) together have an influence of 77.6% on the performance of MSME companies. Our model explains about 77.6% of the variation in company performance, indicating a strong relationship. The rest, 22.4%, were influenced by other factors not included in the study. The success of achieving this high value of the coefficient of determination shows that this study can be considered good because the variables that have been determined have strong significance and low error rates. Furthermore, the F test results show a significance value of 0.000, which means it is smaller than the alpha value (0.05). Therefore, it can be concluded that multiple regression model testing

involving the variables of Product Packing Innovation, Branding, and Technology Capability on company performance has proven to be feasible and statistically effective.

Multiple Regression Analysis

Based on the results of multiple regression analysis in Table 5, it can be stated that the product packing innovation variable has a coefficient of 0.144 and a probability value of 0.033 (less than 0.05), then rejects

Ho which means that product packing innovation has a significant positive effect on company performance. Branding has a coefficient of 0.219 and a probability value of 0.012 (less than 0.05) so it rejects Ho which means that branding has a significant positive effect on company performance. Technology Capability has a coefficient of 0.312 and a probability value of 0.007 (less than 0.05) so it rejects Ho which means that technology capability has a significant positive effect on company performance.

Table 3. Validity test results and reliability test

Variable	Statement	R count	Status	Cronbach Alpha	Status
Product Packing Innovation (X1)	X1.1	0.455	Valid	0.602	Reliable
	X1.2	0.337	Valid		
	X1.3	0.490	Valid		
	X1.4	0.460	Valid		
	X1.5	0.346	Valid		
	X1.6	0.342	Valid		
	X1.7	0.418	Valid		
Branding (X2)	X2.1	0.511	Valid	0.852	Reliable
	X2.2	0.593	Valid		
	X2.3	0.635	Valid		
	X2.4	0.692	Valid		
	X2.5	0.677	Valid		
Technology Capability (X3)	X3.1	0.717	Valid	0.782	Reliable
	X3.2	0.588	Valid		
	X3.3	0.514	Valid		
	X3.4	0.582	Valid		
Company performance (Y)	Y.1	0.332	Valid	0.696	Reliable
	Y.2	0.547	Valid		
	Y.3	0.551	Valid		
	Y.4	0.396	Valid		

Table 4. Results of determinant coefficient analysis (R²)

Type	R	R-Square	Adjusted R Square	Std. Error of the Estimate	Mean Square	F	Sig.
1	0.881 ^a	0,776	0,757	0,892	33,108	41,601	0.000 ^a
					0,796		

Table 5. Multiple regression analysis results

Type	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	3.434	1.284		2.674	0.011
Product Packing Innovation	0.144	0.065	0.281	2.223	0.033
Branding	0.219	0.082	0.345	2.655	0.012
Technology Capability	0.312	0.109	0.350	2.865	0.007

The Effect of Product Packing Innovation on MSME Performance

Product Packing Innovation has a significant positive effect on MSME performance, having a coefficient value of 0.144 which means an increase of 1 unit in product packing innovation, MSME performance will also increase by 0.144 assuming other variables are constant. The findings are in line with the research by Merrilees, Rundle-Thiele, & Lye (2011); Moghaddam & Armat (2015); Tajvidi & Karami (2017); Karinda, Mananeke & Roring (2018); Lapian, Massie & Ogi (2016); Anggraeni & Sanaji (2021); Adistia & Sanaji (2022) which states that Product Packing Innovation has a significant positive effect on the performance of MSMEs. In other words, the better the innovation in product packaging, the better the performance of MSMEs. Anggraeni & Sanaji (2021) stated that innovation ability is the main key to increasing sales revenue and profits of MSMEs. In increasingly fierce business competition, the ability to present innovative ideas that are relevant to consumer needs, technological developments, and the business environment is becoming a crucial factor. Innovation in products, services, and operational methods can provide a much-needed competitive advantage for MSMEs (Prayogo and Nirawati, 2019). Without these attributes, MSMEs may not be able to disclose their innovation potential, which can adversely affect their company's performance. Meanwhile, findings from Adistia & Sanaji (2022) also revealed that product innovation, including innovation in the packaging aspect, has a positive impact on company performance, especially in the MSME sector. The focus on product innovation such as the introduction of new flavors and product quality improvement is particularly relevant in the culinary business, which is a concrete example of how product innovation can captivate consumers and increase the chances of repeat purchases. What's more, innovation in the packaging aspect of products also plays an important role in building consumer trust. Clear and transparent information inside product packaging, such as expiry dates, product safety, and halal certification, can provide consumers with confidence about product quality and safety. In addition, an attractive packaging design can differentiate products from competitors and help consumers recognize products more easily. Therefore, it is important for MSMEs to continue to encourage their innovation capabilities, both in product packaging and other aspects, in order to achieve better performance in a competitive market.

The Influence of Branding on MSME Performance

Branding has a significant positive effect on MSME performance, having a coefficient value of 0.219 which means an increase of 1 unit in branding, MSME performance will also increase by 0.219 assuming other variables are constant. The findings are in line with the research by Merrilees, Rundle-Thiele & Lye (2011); Moghaddam & Armat (2015); Tajvidi & Karami (2017); Anggraeni & Sanaji (2021) which states that branding capabilities have a significant positive effect on the performance of MSMEs. In other words, the better the branding, the better the performance of MSMEs. Anggraeni & Sanaji (2021) explained that branding is one of the important aspects of high-level marketing capabilities for MSMEs. Branding is not just a visual identity but also includes the ability to build relationships with consumers, partners, and other stakeholders. According to Tajvidi & Karami (2017), branding capabilities can be the main key to achieving good performance for MSME companies. The better the branding ability of an MSME, the greater the opportunity to attract consumer attention to the products or services offered (Moghaddam and Armat, 2015). In addition, the study also highlights two important factors that influence branding capabilities, namely interaction and orchestration. Interaction refers to the ability of MSMEs to communicate and interact with various related parties, including consumers and business partners. Meanwhile, orchestration relates to the company's ability to coordinate marketing communication activities to be well integrated (O'Cass and Ngo, 2011). The results showed that the majority of respondents had a good understanding of these aspects, which was reflected in the relatively high level of education among them. It is undeniable that effective branding has a significant impact on the performance of MSME companies. Good brand publicity can create a positive impression in the minds of consumers and build awareness of the brand among individuals who are not the initial target (O'Cass and Ngo, 2011). The more consumers who are interested and trust in the MSME brand, the higher the sales volume, new consumers, and profits generated. Therefore, the findings from this study confirm that MSMEs need to pay attention and develop their branding capabilities to achieve optimal company performance.

The Effect of Technological Capability on MSME Performance

Research findings show that Technological Capability has a significant positive influence on MSME performance, with a coefficient value of 0.312. This indicates that an increase of 1 unit in the Technological Capability aspect will result in an increase in MSME performance by 0.312, assuming other variables remain constant. This finding is in line with the results of previous studies conducted by various researchers such as Hsu (2014), Afolayan et al. (2015), Ali, Leifu & Ramiz-ur-Rehman (2016), Choi & George (2016), Djatikusumo (2016), Sidiq & Astutik (2017), Suryantini & Sulindawati (2020), and Ilarrahmah & Susanti (2021). They also emphasized that Technological Capability plays an important role in improving the performance of MSMEs with the ability of MSMEs to adopt and utilize information technology and production technology. In other words, the better the technological capabilities of MSMEs, the better their performance in facing challenges and utilizing the potential offered by technology. Sidiq & Astutik (2017) emphasized that the ability to manage information technology is an important asset that can increase the competitiveness and competitive advantage of companies in the current global market era. Technological Capability in this context includes the ability of companies to manage information, adapt to changes in the business environment, and maintain their competitive advantage. Therefore, investment in information technology can be a key factor in creating economic value and superior corporate performance. Moreover, Ilarrahmah & Susanti (2021) also highlighted the importance of using information technology in MSME operations. The use of information technology allows MSMEs, especially those operating in millennial businesses such as cafes, to increase efficiency and effectiveness in managing their business. Without information technology, they can be left behind in increasingly complex business competition. In this context, research also refers to other findings, such as Djatikusumo (2016) and Suryantini & Sulindawati (2020), which supports a positive relationship between the use of information technology and the performance of MSMEs. This confirms that information technology capabilities play a key role in increasing the productivity and competitiveness of MSMEs. Thus, it can be concluded that this study provides strong evidence about the positive and significant influence of Technological Capability on MSME performance. Therefore, the development of

information technology capabilities should be the main focus for MSMEs that want to face increasingly fierce business competition and ensure sustainable growth. Information technology is not only a tool, but also as an asset that can increase the competitiveness and sustainability of MSME businesses in this digital era.

Managerial Implications

The managerial implications of the influence of innovation in product packaging, branding, and technological capability on the performance of Micro, Small, and Medium Enterprises (MSMEs) can encompass various crucial aspects. Firstly, MSMEs need to realize that innovation in product packaging can help enhance the attractiveness and visibility of their products in the market. By adopting attractive and functional packaging designs, MSMEs can capture consumers' attention and differentiate their products from competitors. Furthermore, concerning branding, MSMEs should understand that a strong brand identity can help build consumer trust and expand market share. By employing smart and consistent branding strategies, MSMEs can strengthen their brand image and gain higher consumer loyalty.

Technological capability also plays a significant role in improving MSMEs' performance. By leveraging appropriate technologies such as e-commerce platforms, social media, or inventory management systems, MSMEs can enhance their operational efficiency, expand market reach, and improve customer experience. However, to implement innovation in product packaging, branding, and technology, MSMEs need to overcome several managerial challenges. They may need to invest resources in research and development to create innovative and competitive products.

The expected improvements in the performance of Micro, Small, and Medium Enterprises (MSMEs) are multifaceted and can significantly enhance their operational effectiveness and market presence. One of the primary areas of improvement is the potential for increased sales and revenue. By adopting innovative product packaging, MSMEs can attract more consumers, as visually appealing and well-designed packaging often leads to higher sales. Research has shown that attractive packaging can boost sales by as much as 20-30% for food products. This is particularly relevant for sectors like fresh noodles, where presentation plays a crucial role in consumer choice.

In addition to sales, enhanced branding capabilities are likely to foster greater brand recognition and customer loyalty. Effective branding can create a strong identity for MSMEs, leading to repeat purchases and a dedicated customer base. Studies indicate that businesses with strong branding can see customer retention rates improve by 15-25%. This loyalty is essential for sustained revenue growth, especially in competitive markets.

Moreover, the integration of technological capabilities can lead to operational efficiency and cost reductions. By leveraging modern technologies, MSMEs can streamline their production processes, minimize waste, and improve product quality. Research suggests that technology adoption can result in a 10-20% reduction in operational costs, which directly impacts profit margins and overall business viability.

However, achieving these improvements is not without its challenges. Many MSMEs operate with limited financial and human resources, which can restrict their ability to invest in necessary innovations. The initial costs associated with research and development, marketing, and technology adoption may be daunting for smaller enterprises. Additionally, there may be resistance to change among MSME owners and employees, stemming from a lack of understanding of the benefits or fear of the unknown. This resistance can significantly impede the implementation of new strategies.

The competitive landscape also poses a challenge. Even with improved packaging and branding, MSMEs may struggle to differentiate themselves in a crowded market, particularly against larger companies with more resources. Furthermore, compliance with food safety regulations can be a hurdle, as navigating these requirements often demands time and expertise that may not be readily available to all MSMEs.

Despite these challenges, the long-term impact of the research findings on the MSME sector and the broader economic context can be substantial. By enhancing their performance through innovation, MSMEs can achieve sustainable growth, which is vital for the overall health of the economy. This growth is particularly important as MSMEs play a crucial role in job creation and contribute significantly to the Gross Domestic Product (GDP).

As MSMEs expand and improve their operations, they are likely to create new job opportunities, which can help reduce unemployment rates and contribute to economic stability in local communities. Additionally, the increased competitiveness of MSMEs can lead to a more dynamic and resilient economy, as these enterprises become better equipped to respond to consumer demands and market trends.

The findings of this research can also inform policymakers about the importance of supporting MSMEs through targeted programs that facilitate access to resources, training, and technology. Such support can lead to more effective policies that promote MSME development and economic growth, ultimately contributing to a more diversified and resilient economy. In summary, while the path to improved MSME performance is fraught with challenges, the potential benefits for individual businesses and the broader economy are significant and far-reaching.

Additionally, MSMEs also need to enhance their managerial capabilities in marketing, brand management, and the adoption of new technologies. Collaboration between MSMEs and relevant stakeholders such as educational institutions, government agencies, and business partners can also help improve MSMEs' access to resources and knowledge needed to implement innovation in product packaging, branding, and technology. Consequently, MSMEs can enhance their performance, expand their market presence, and make a greater contribution to local and national economic growth.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The research findings conclude that product packaging innovation, branding, and technological capability have a positive and significant impact on the performance of MSMEs producing fresh noodles in the Madiun Residency. All three variables collectively enhance the competitiveness of MSMEs in facing market competition. Product packaging innovation is crucial for attracting consumers, as it enhances the appeal and functionality of products, making them more noticeable and desirable in a competitive market. Effective packaging not only protects the product but also communicates its value and differentiates it from

competitors. Strong branding, on the other hand, fosters customer loyalty by building a recognizable and trusted identity that resonates with consumers. A compelling brand creates an emotional connection and encourages repeat purchases. Additionally, technological capability is essential for improving operational efficiency and adapting quickly to market changes. By leveraging advanced technologies, MSMEs can streamline their processes, respond to consumer trends more effectively, and maintain a competitive edge.

Recommendations

Therefore, this research has important implications in the context of MSME development in the fresh noodle sector and can be a strategic foundation for stakeholders to improve the innovation, branding, and technological capability of MSMEs in the region. The suggestion for future research is to involve more variables that can deepen understanding of other factors that might affect MSME performance. In addition, further studies can consider the impact of external factors such as government regulations, markets, and consumer trends on the performance of MSMEs in this sector. Similarly, efforts to empower MSMEs through training and access to technological resources must be increased to further optimize the business potential of MSMEs in the future.

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REFERENCES

- Adistia M, Sanaji S. 2022. Influence Of Social Media Marketing, E-Commerce, and Product Innovation on Marketing Performance. *Journal of Business and Management Review* 3(7): 453–469. <https://doi.org/10.47153/jbmr37.4272022>.
- Afolayan A *et al.* 2015. Information Technology Usage in SMEs in a Developing Economy. *Strategic Change* 24(5): 483–498. <https://doi.org/10.1002/jsc.2023>.
- Ali R, Leifu G, Ramiz-ur-Rehman. 2016. The Impact of Technology Orientation and Customer Orientation on Firm Performance: Evidence Form Chinese Firms. *International Journal of Management and Marketing Research* 9(1): 1–11. <http://www.theibfr2.com/RePEc/ibf/ijmmre/ijmmr-v9n1-2016/IJMMR-V9N1-2016-1.pdf>.
- Alimudin A *et al.* 2019. Analysis of the Effect of Balanced Scorecard Perspective Implementation on Improving MSME Performance. *Ekonika : Jurnal Ekonomi Universitas Kadiri* 4(1): 1–17. <https://doi.org/http://dx.doi.org/10.30737/ekonika.v4i1.337>.
- Anggraeni M, Sanaji S. 2021. Pengaruh Penggunaan Media Sosial terhadap Kinerja Pemasaran selama Pandemi Covid-19 dengan Mediasi Kemampuan Inovasi dan Kemampuan Branding (Studi pada Pelaku UMKM yang Menggunakan Media Sosial). *Jurnal Ilmu Manajemen* 9(2): 752–767. <https://doi.org/10.26740/jim.v9n2.p752-767>.
- Bank Indonesia (BI). 2015. *Profil Bisnis Usaha Mikro, Kecil Dan Menengah (UMKM)*. Bank Indonesia dan LPPI. Jakarta. https://www.bi.go.id/id/umkm/penelitian/Documents/Profil_Bisnis_UMKM.pdf.
- Blount J. 2018. *Sales EQ Bagaimana Ultra-High Performers Memanfaatkan Intelegensi Emosional Untuk Memenangkan Penjualan*. New Jersey: PT. Alex Media Komputindo.
- Choi I, George JF. 2016. Mixed findings on IT capability and firm performance and their implications. *AMCIS 2016: Surfing the IT Innovation Wave - 22nd Americas Conference on Information Systems*. 1–10.
- Djatikusumo KN. 2016. Pengaruh penggunaan teknologi informasi dan komputer terhadap kinerja organisasi (Studi kasus di UMKM Kota Malang). *Industri Research Workshop and National Seminar: IRONIS 7*: 66–71. <https://doi.org/https://doi.org/10.35313/irwns.v7i0.220>.
- Faisol, Aliami S, Anas M. 2022. Pathway of Building SMEs Performance in Cluster through Innovation Capability. *Economics Development Analysis Journal* 11(2): 140–152. <https://doi.org/10.15294/edaj.v11i2.46442>.
- Ferryanto, Indriati L. 2020. Inovasi Dalam Desain Sustainable Packaging “ Seed Phytonutrients Dari L’ Oreal ”. *Seminar Nasional Envisi 2020 : Industri Kreatif* 82–89.
- Hajar I *et al.* 2012. Pengaruh Kemampuan Manajerial dan Lingkungan Industri terhadap Kemampuan Organisasi, Strategi Bersaing, dan Kinerja Perusahaan (Studi pada Industri Kecil Meubel Kayu di Sulawesi Tenggara). *Jurnal Aplikasi*

- Manajemen* 10(2): 291–302. <https://jurnaljam.ub.ac.id/index.php/jam/article/view/420>.
- Hsu S-H. 2014. Effects of Organization Culture, Organizational Learning and IT Strategy on Knowledge Management and Performance. *The Journal of International Management Studies* 9(1): 50–58.
- Ilarramah MD, Susanti. 2021. Pengaruh Kemampuan Menyusun Laporan Keuangan, Literasi Keuangan Dan Penggunaan Teknologi Informasi Terhadap Kinerja UMKM. *JPEK (Jurnal Pendidikan Ekonomi dan Kewirausahaan)* 5(1): 51–64. <https://doi.org/10.29408/jpek.v5i1.3327>.
- Irwanto T, Hariyadi W. 2018. Hubungan Iklan Dan Citra Merek Dengan Keputusan Pembelian Shampo Clear Pada Swalayan Fadillah Kota Bengkulu. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis* 6(2): 188–199. <https://doi.org/10.37676/ekombis.v6i2.612>.
- Karinda MVA, Mananeke L, Roring F. 2018. Pengaruh Strategi Pemasaran Dan Inovasi Produk Terhadap Kinerja Pemasaran Produk Indihome PT.Telkom Area Tomohon. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi* 6(3): 1568–1577. <https://doi.org/https://doi.org/10.35794/emba.v6i3.20265>.
- Kotler, Keller. 2009. *Manajemen Pemasaran*. Jilid I. Edisi ke 13. Jakarta: Erlangga.
- Kotler P, Armstrong G. 2014. *Principle Of Marketing*. 15th edition. New Jersey: Pearson Pretice Hall.
- Lapian AA, Massie J, Ogi I. 2016. Pengaruh orientasi pasar dan inovasi produk terhadap kinerja pemasaran pada PT. BPR Prisma Dana Amurang. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi* 4(1): 1330–1339. <https://doi.org/https://doi.org/10.35794/emba.4.1.2016.12343>.
- Merrilees B, Rundle-Thiele S, Lye A. 2011. Marketing capabilities: Antecedents and implications for B2B SME performance. *Industrial Marketing Management* 40(3): 368–375. <https://doi.org/10.1016/j.indmarman.2010.08.005>.
- Moghaddam BA, Armat P. 2015. A study on effect of innovation and branding on performance of small and medium enterprises. *Management Science Letters* 5(3): 245–250. <https://doi.org/10.5267/j.msl.2015.1.015>.
- O’Cass A, Ngo LV. 2011. Achieving customer satisfaction in services firms via branding capability and customer empowerment. *Journal of Services Marketing* 25(7): 489–496. <https://doi.org/10.1108/08876041111173615>.
- Obunike CF, Udu AA. 2018. Technological innovativeness and growth: a study of small scale manufacturing firms in Lagos State. *Economics of Development* 17(4): 39–53. [https://doi.org/10.21511/ed.17\(4\).2018.05](https://doi.org/10.21511/ed.17(4).2018.05).
- Prayogo RR, Nirawati L. 2019. Knowledge Sharing, Innovation Capability, Responsive Capability, and Marketing Performance: an Empirical Study at UPN “Veteran” Jawa Timur. *Indonesian Journal of Business and Entrepreneurship* 5(2): 181–191. <https://doi.org/10.17358/ijbe.5.2.181>.
- Rajapathirana RPJ, Hui Y. 2018. Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation and Knowledge* 3(1): 44–55. <https://doi.org/10.1016/j.jik.2017.06.002>.
- Santoso S. 2015. *SPSS20 Pengolahan Data Statistik di Era Informasi*. Jakarta: PT. Alex Media Komputindo.
- Saunila M. 2020. Innovation capability in SMEs: A systematic review of the literature. *Journal of Innovation and Knowledge* 5(4): 260–265. <https://doi.org/10.1016/j.jik.2019.11.002>.
- Saunila M, Ukko J. 2014. Intangible aspects of innovation capability in SMEs: Impacts of size and industry. *Journal of Engineering and Technology Management - JET-M* 33: 32–46. <https://doi.org/10.1016/j.jengtecman.2014.02.002>.
- Sidiq A, Astutik EP. 2017. Analisis Kapabilitas Teknologi Informasi Terhadap Kinerja Bisnis UKM dengan Orientasi Pelanggan Sebagai Variabel Intervening (Studi pada UKM Sektor Manufaktur di Wilayah Solo Raya). *Media Ekonomi dan Manajemen* 32(1): 9–27.
- Sinaga J, Anggraeni E, Slamet AS. 2021. The Effect Of Supply Chain Management Practices And Information And Communication Technology On Competitive Advantage And Firm Performance (Case Study: Smes Of Processed Food In Jakarta). *Indonesian Journal of Business and Entrepreneurship* 7(1): 91–101. <https://doi.org/10.17358/ijbe.7.1.91>.
- Sugiyono. 2011. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- Sulistyo H, Siyamtinah. 2016. Innovation capability of SMEs through entrepreneurship, marketing capability, relational capital and empowerment. *Asia Pacific Management Review* 21(4): 196–203. <https://doi.org/10.1016/j.apmr.2016.02.002>.
- Suryantini LP, Sulindawati NLGE. 2020. Pengaruh

Kualitas Sumber Daya Manusia, Penggunaan Informasi Akuntansi, Pemanfaatan Teknologi Informasi dan Ekuitas Pinjaman terhadap Kinerja UMKM di Kecamatan Buleleng. *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Undhiksa* 11(2): 125–135. <https://doi.org/https://doi.org/10.23887/jimat.v11i2.25899>.

Tajvidi R, Karami A. 2017. The effect of social media on firm performance. *Computers in Human Behavior* 1–10. <https://doi.org/https://doi.org/10.1016/j.chb.2017.09.026>.

Wahyuni NM, Sara IM. 2020. The effect of entrepreneurial orientation variables on business performance in the SME industry context. *Journal of Workplace Learning* 32(1): 35–62. <https://doi.org/10.1108/JWL-03-2019-0033>.