THE IMPACT OF THE 4P MARKETING MIX ON THE BUSINESS DEVELOPMENT OF THE PEARL SHELL CRAFT INDUSTRY IN BEKASI: THE MEDIATING EFFECTS OF PRODUCT AND PERSONAL SELLING

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Abstract

The 2030 Sustainable Development Agenda emphasizes responsible consumption and production (SDG 12) as a cornerstone of global sustainability transformation. This study investigates the impact of the marketing mix, which consists of product, price, distribution channels, and personal selling, on the development of the pearl shell handicraft industry in Bekasi, Indonesia. Micro, Small, and Medium Enterprises (MSMEs) in this sector, while having great sustainability potential by converting marine waste into valuable products, face persistent challenges such as ineffective marketing strategies, limited product innovation, and inadequate market reach. A quantitative method was applied through a survey of 70 respondents, including MSME actors, marketing professionals, and knowledgeable members of the public. Data analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM) reveals that product innovation and personal selling significantly influence business development, while price and distribution channels do not exert a direct effect. However, price affects product development indirectly, and distribution influences business growth through personal selling. The findings underscore the critical role of strong customer interaction and effective communication in MSME sustainability. This study offers practical insights for improving marketing strategies and strengthening MSME competitiveness in environmentally responsible industries.

Keywords: Product, Price, Distribution channels, Personal selling, Business development.

Introduction

Micro, small, and medium-sized enterprises (MSMEs) are key contributors to national economic development, job creation, and innovation. In Indonesia, MSMEs account for over 97% of national employment and form the backbone of the country's informal economy. One unique example is the pearl shell craft industry in Bekasi, which recycles marine waste into handicrafts such as souvenirs, home decor, and accessories. This aligns directly with the principles of sustainable production as outlined in SDG 12 (United Nations, 2015), integrating economic activity with environmental responsibility (Wijaya et al., 2023)

Despite this potential, MSMEs in this sector face serious constraints. Limited marketing knowledge, low market penetration, inadequate distribution, and weak promotional strategies are common. Many artisans rely heavily on word-of-mouth or local exhibitions, without a structured marketing strategy or digital presence. As a result, even innovative and sustainable products struggle to reach wider markets (Baporikar et al., 2016; Irjayanti & Azis, 2012; Jati et al., 2024).

The marketing mix, introduced by McCarthy (1960), offers a structured framework to address these issues. Comprising product, price, place (distribution), and promotion, the 4P framework is widely used to assess marketing effectiveness, especially in resource-limited settings like MSMEs (Kotler & Keller, 2012). For this study, particular attention is given to personal selling as a major promotional tool in MSME contexts, where direct interaction with customers often replaces mass marketing (Tjiptono & Chandra, 2012).

Several empirical studies also support the importance of marketing mix strategies in MSME growth. Lestari et al. (2019) demonstrated that a well-implemented marketing mix improves MSME performance. Bakhtiari (2014) found that marketing mix elements contribute to the success of small enterprises. Meanwhile, Barrett & Weinstein (2015) emphasized that corporate entrepreneurship, with marketing as a core element, significantly affects business outcomes.

This research addresses two key questions:

1. Which elements of the marketing mix significantly influence the business development of MSMEs in the pearl shell craft industry?
2. Do product and personal selling serve as mediating variables between the marketing mix elements and busi-ness development?

By answering these questions, the study aims to offer insights into how MSMEs in traditional, sustainable industries can grow through strategic marketing, even with limited resources.

Methods

Research Design and Participants. This study adopts a quantitative research design using a survey method to gather primary data from individuals familiar with the pearl shell craft industry in Bekasi. The target population includes business owners, artisans, marketing professionals, and informed consumers. A total of 70 respondents participated in the study.

The sampling technique used is purposive sampling, focusing on those who understand marketing dynamics and are either directly involved in the business or part of the broader ecosystem supporting pearl shell craft MSMEs. Demographic data show that the sample includes 21% producers, 36% MSME entrepreneurs, 36% marketing professionals, and 7% educated consumers or students.

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Instrument Development. The survey instrument used in this study was a structured questionnaire designed with a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement items were adapted from previously validated instruments found in prior research by Kalil & Aenurohman (2020) and Thabit & Raewf (2018). These items were organized under five latent constructs to ensure clarity and conceptual alignment.

The first construct, Product, included items related to product variety, innovation, appeal, and quality. The second construct, Price, captured perceptions of value for money, price flexibility, and fairness. The third construct, Place (Distribution), encompassed aspects such as accessibility, distribution efficiency, and market reach. The fourth construct, Personal Selling, focused on direct customer engagement and relationship-building efforts. Lastly, the construct Business Development measured indicators such as income growth, sales performance, and market expansion.

This instrument was developed to comprehensively assess the influence of the marketing mix on MSME business development, particularly within the context of the pearl shell craft industry in Bekasi.

Data Analysis Techniques. Data analysis in this study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using Smart PLS 3.0. This analytical approach is widely recognized as suitable for exploratory research involving complex models and small to medium sample sizes (Chin, 1998; Henseler & Sarstedt, 2013). The analysis process was conducted in two primary stages. First, the measurement model was evaluated to determine the reliability and validity of each construct. Second, the structural model was examined to test the hypothesized relationships among the latent variables included in the conceptual framework.

To establish discriminant validity, cross-loading assessments were conducted, confirming that each indicator loaded more strongly on its associated construct than on any other. Furthermore, AVE values for each construct were greater than the squared correlations between constructs, meeting the Fornell–Larcker criterion. Reliability was assessed using Cronbach's Alpha and Composite Reliability (CR). Both indicators exceeded the threshold value of 0.70, indicating high internal consistency among the items (Hair et al., 2010). These results collectively demonstrate that the constructs in the model are both statistically robust and conceptually sound for further structural analysis.

Results and Discussion

This section presents the findings from the SEM analysis, including measurement model results, structural path relationships, and mediation effects.

Measurement Model Evaluation. The assessment of the measurement model confirmed that all constructs used in the study met the required criteria for reliability and validity. Specifically, factor loadings for all items exceeded the threshold of 0.60, indicating strong item reliability. The Average Variance Extracted (AVE) for the constructs ranged from 0.502 to 0.598, which demonstrates acceptable levels of convergent validity, as suggested by Fornell & Larcker (1981).

In terms of internal consistency, the constructs exhibited Composite Reliability (CR) values between 0.831 and 0.881, while Cronbach's Alpha scores ranged from 0.726 to 0.843. These values satisfy the recommended minimum of 0.70, indicating a high degree of reliability (Hair et al., 2010). Furthermore,

discriminant validity was confirmed by applying the Fornell–Larcker criterion and examining cross-loadings, which showed that each construct was empirically distinct from the others.

These findings collectively affirm that the measurement model is both statistically robust and conceptually reliable, thus providing a solid foundation for subsequent structural model analysis and hypothesis testing.
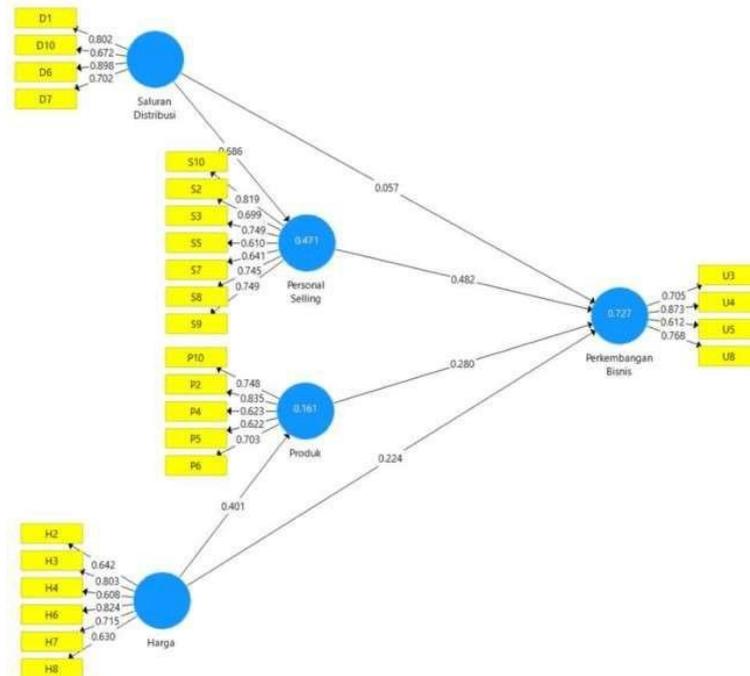

Figure 1. Structural Model of Pearl Shell Craft MSME Development

Note: Variable names such as *produk* (product), *harga* (price), *saluran distribusi* (distribution), and *perkembangan bisnis* (business development) are retained as originally labeled for consistency with the instrument and outputs.

Structural Model Analysis. The structural model analysis yielded several key findings regarding the hypothesized relationships among the variables. The results indicate that product has a significant and positive effect on business development (H1 supported), with a path coefficient of $\beta = 0.280$ and a significance level of $p < 0.01$. In contrast, the direct effect of price on business development was not statistically significant (H2 not supported), as evidenced by a coefficient of $\beta = 0.224$ and $p > 0.05$.

The relationship between price and product was found to be significant (H3 supported), with a path coefficient of $\beta = 0.401$ and $p < 0.01$, suggesting that pricing strategies play an important role in influencing product-related decisions. Furthermore, personal selling demonstrated a strong and significant influence on business development (H4 supported), with $\beta = 0.482$ and $p < 0.01$, highlighting the importance of interpersonal communication in small business growth.

On the other hand, the direct effect of distribution on business development was not supported (H5), as indicated by a low path coefficient ($\beta = 0.057$, $p > 0.05$). However, distribution showed a significant impact on personal selling (H6 supported), with a strong coefficient of $\beta = 0.686$ and $p < 0.01$, suggesting that distribution channels may indirectly support business development through their role in facilitating customer engagement. The R^2 value for the business development construct was 0.727, indicating that approximately 73% of the variance in business development is explained by the model, demonstrating strong predictive accuracy. The Q^2 value of 0.370 confirms that the model also possesses substantial predictive relevance. Furthermore, the GOF value of 0.493 suggests that the model has a strong overall goodness-of-fit, validating its adequacy in explaining the growth of MSMEs in the pearl shell craft industry (Henseler & Sarstedt, 2013). The f^2 values indicate that personal selling and product have the strongest effects on business development (0.382).

Mediation Analysis. Using bootstrapping procedures with 500 subsamples and bias-corrected confidence intervals, the analysis confirmed two significant mediation effects. The effect of Price on Business Development was mediated by Product (indirect effect $= 0.112$, $p = 0.015$), while the effect of Distribution on Business Development was mediated by Personal Selling (indirect effect $= 0.330$, $p = 0.000$).

The study aimed to evaluate the effects of the 4P marketing mix on business development in the context of MSMEs engaged in the pearl shell craft industry, with product and personal selling examined as mediating variables. The findings provide several important insights, both theoretical and practical.

The Role of Product Innovation. The study confirms that product significantly affects business development (H1 supported). This aligns with previous research emphasizing that in MSMEs, particularly those in creative industries, product differentiation and innovation are crucial for gaining competitive advantage (Chong et al., 2019; Herman & Nohong, 2022). Consumers of handmade or environmentally conscious products are often attracted to design uniqueness, quality, and cultural relevance. This suggests that craft-based MSMEs must prioritize continuous product development to remain relevant in a competitive market.

Price as an Indirect Contributor. The price variable was found not to have a significant direct effect on business development (H2 not supported), but it significantly influenced product (H3 supported), which in turn affected business outcomes. This indicates that pricing strategies in MSMEs do not independently drive growth unless they are aligned with value creation through product quality. Similar findings by Hogarth-Scott et al. (1996) and Sumarwan et al. (2009) argue that in resource-constrained businesses, price decisions often reflect product investment priorities.

The Power of Personal Selling. Personal selling demonstrated the strongest direct effect on business development (H4 supported). This finding reinforces the centrality of direct customer relationships in MSME marketing. As noted by Ingram (1992, 2015) and Kotler & Keller (2012), personal interaction fosters trust, enhances customer satisfaction, and strengthens long-term loyalty, especially important for MSMEs that depend on repeat business and community support. Personal selling is not only a communication tool but also a strategic element to convey the company's values and offerings directly to consumers (Puspasari, 2022). This supports Sifwah et al. (2024), who highlight the role of effective promotion, especially personal selling, in driving MSME business development.

Distribution's Indirect Effect. While distribution did not directly affect business development (H5 not supported), it significantly influenced personal selling (H6 supported), which in turn impacted business outcomes. This confirms the mediating role of personal selling. Effective distribution, such as partnerships with local stores, participation in craft markets, or community-based delivery networks, enhances sellers' ability to engage customers directly, thereby supporting growth (Brush et al., 2009).

Theoretical Contributions. This study contributes to MSME marketing literature by demonstrating that the indirect effects, via product and personal selling, are more influential than direct paths in many cases. It supports the idea that MSMEs thrive not merely by adjusting price or expanding distribution, but by enhancing value delivery through better product innovation and customer connection strategies.

Conclusion and Implications

Conclusion. This study examined how the 4P marketing mix, product, price, distribution, and personal selling, affects the business development of MSMEs in the pearl shell craft industry in Bekasi, Indonesia. The results provide robust evidence that product innovation and personal selling are the most influential factors in driving MSME growth. Conversely, price and distribution channels did not show direct effects on business development, but they significantly influenced the mediating variables of product and personal selling, respectively.

The findings confirm that marketing success for craft-based MSMEs depends less on pricing competitiveness and more on product uniqueness, design innovation, and trust-based selling strategies. The indirect paths from price and distribution through product and personal selling, respectively, highlight how value is best delivered through relational and quality-focused approaches rather than transactional strategies.

This underscores the importance of aligning marketing strategy with the nature of the product and the characteristics of the target market. For sectors tied to cultural and sustainable production, like the pearl shell craft industry, consumers are drawn to meaning, authenticity, and personal connection, areas where MSMEs have natural strengths.

Practical Implications. The findings of this study offer several important recommendations for Micro, Small and Medium Enterprises (MSMEs) and policymakers. Firstly, MSMEs are encouraged to consistently focus on product development. Innovations should reflect cultural values, craftsmanship, and current market trends to effectively compete and meet consumer needs.

Secondly, investing in personal selling is a crucial strategy. Direct engagement between trained sales personnel or the business owner and customers help build trust and loyalty. Therefore, this approach should be prioritized over passive promotional methods that lack interaction.

Regarding pricing strategy, MSMEs are advised to adopt value-based pricing. This means setting product prices according to the perceived value and uniqueness of the product, rather than competing solely on low prices. This approach helps MSMEs highlight product differentiation and sustain their business.

Finally, distribution should be viewed as more than just a logistical function. It should be leveraged as a tool to enhance personal selling. For example, placing products in community markets not only makes them more accessible but also facilitates deeper interactions between sellers and buyers. Thus, distribution becomes an effective means of fostering stronger customer relationships.

Moreover, aligning support with sustainability goals is essential. Encouraging and assisting businesses that contribute to Sustainable Development Goal 12 responsible consumption and production not only promotes environmental stewardship but also fosters inclusive economic development. This dual focus ensures that economic progress goes hand in hand with environmental responsibility.

References

Bakhtiari, K. (2014). Identification And Priority Marketing Mix Factors Affecting The Success Of Small And Medium Enterprises (SMEs) (Case Study: Food & Beberage Enterprises In Boroujerd City). *Indian Journal of Fundamental and Applied Life Sciences*, *4*(S1), 1301–1316.

Baporikar, N., Nambira, G., & Gomxos, G. (2016). Exploring factors hindering SMEs' growth: evidence from Nambia. *Journal of Science and Technology Policy Management*, *7*(2), 190–211. https://doi.org/10.1108/JSTPM-11-2015-0036

Barrett, H., & Weinstein, A. (2015). Corporate Entrepreneurship, The Marketing Mix, and Business Performance. *Developments in Marketing Science: Proceedings of the Academy of Marketing Science*, 144–150. https://doi.org/10.1007/978-3-319-13141-2_61

Brush, C. G., Ceru, D. J., & Blackburn, R. (2009). Pathways to entrepreneurial growth: The influence of management, marketing, and money. *Business Horizons*, *52*(5), 481–491. https://doi.org/10.1016/j.bushor.2009.05.003

Chin, W. W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research*. Lawrence Erlbaum Associates.

Chong, P. L., Onga, T. S., Abdullah, A., & Choo, W. C. (2019). Internationalisation and innovation on balanced scorecard (BSC) among Malaysian small and medium enterprises (SMEs). *Management Science Letters*, *9*(10), 1617–1632. https://doi.org/10.5267/j.msl.2019.5.025

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50.

Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.).

Pearson Prentice Hall.Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit for partial least squares path modeling. *Computational Statistics*, *28*(2), 565–580. https://doi.org/10.1007/s00180-012-0317-1

Herman, B., & Nohong, M. (2022). Pengaruh Jaringan Usaha, Inovasi Produk, dan Persaingan Usaha Terhadap Perkembangan Usaha Mikro Kecil dan Menengah (UMKM). *JBMI (Jurnal Bisnis, Manajemen, Dan Informatika)*, *19*(1), 1–19. https://doi.org/10.26487/jbmi.v19i1.18575

Hogarth-Scott, S., Watson, K., & Wilson, N. (1996). Do small businesses have to practise marketing to survive and grow? *Marketing Intelligence & Planning*, *14*(1), 6–18. https://doi.org/10.1108/02634509610106197

Ingram, T. N. (1992). The Role of Personal Selling in Direct Sales Organizations. *Journal of Marketing Channels*, *2*(2), 57–70.

Ingram, T. N. (2015). The Role of Personal Selling in Direct Sales Organizations. *Journal of Marketing Channels*, *2*(2), 57–70. https://doi.org/10.1300/J049v02n02_05

Irjayanti, M., & Azis, A. M. (2012). Barrier Factors and Potential Solutions for Indonesian SMEs.

Procedia Economics and Finance, *4*, 3–12. https://doi.org/10.1016/s2212-5671(12)00315-2 Jati, L. J., Kurniawati, E. Y., Wardhana, H., & Khairi, W. (2024). Edukasi Bisnis Untuk Mengatasi Hambatan Bisnis Umkm Tea Break Dalam Melakukan Perluasan Bisnis. *JUAN (Jurnal Pengabdian Nusantara)*, *1*(1), 16–19.

Kalil, & Aenurohman, E. A. (2020). Dampak Kreativitas Dan Inovasi Produk Terhadap Kinerja Ukm Di Kota Semarang. *Jurnal Penelitian Humaniora*, *21*(1), 69–77. https://doi.org/10.23917/humaniora.v21i1.8581

Kotler, P., & Keller, K. L. (2012). *Marketing Management* (14th ed.). Prentice Hall.

Lestari, W., Musyahidah, S., & Istiqamah, R. (2019). Strategi Marketing Mix Dalam Meningkatkan Usaha Percetakan Pada CV. Tinta Kaili dalam Perspektif Ekonomi Islam. *Jurnal Ilmu Ekonomi Dan Bisnis Islam, 1*(1), 63-84. https://doi.org/10.24239/jiebi.v1i1.5.63-84

McCarthy, E. J. (1960). *Basic Marketing: A Managerial Approach*. McGraw-Hill.

Puspasari, R. D. (2022). Analisis Strategi Promotion Mix (Advertising, sales promotion, personal selling, Public Relation) Pada Usaha Kecil Menengah (UKM) "Batagor Sarasa Bandung." *Sintesa*. https://ejournal.unsap.ac.id/index.php/sintesa/article/view/219

Sifwah, M. A., Nikhal, Z. Z., Dewi, A. P., Nurcahyani, N., & Latifah, R. N. (2024). Penerapan Digital Marketing Sebagai Strategi Pemasaran Untuk Meningkatkan Daya Saing UMKM. *MANTAP: Journal of Management Accounting, Tax and Production*, *2*(1), 109–118. https://doi.org/10.57235/mantap.v2i1.1592

Sumarwan, U., Djunaidi, A., Aviliani, Singgih, H. C. R., Sayino, J. A., Budidarmo, R. R., & Rambe, S. (2009). *Pemasaran Strategik : Strategis untuk Pertumbuhan Perusahaan dalam Penciptaan Nilai bagi Pemegang Saham*. Inti Prima.

Thabit, T. H., & Raewf, M. B. (2018). The Evaluation of Marketing Mix Elements: A Case Study. *International Journal of Social Sciences & Educational Studies*, *4*(4). https://doi.org/10.23918/ijsses.v4i4p100

Tjiptono, F., & Chandra, G. (2012). *Pemasaran Strategik* (2nd ed.). Andi.

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. https://sdgs.un.org/2030agenda

Wijaya, R. S., Rahmaita, Murniati, Nini, & Mariyanti, E. (2023). Digitalisasi Akuntansi Bagi Pelaku UMKM di Lubuk Minturun. *Journal Pengabdian Masyarakat Dharma Andalas*, *2*(1)