

THE INFLUENCE OF MODERNIZATION AND PRODUCT INNOVATION ON SALES OF WOVEN FOLDING MAT INDUSTRY (CASE STUDY OF UD. ANUGRAH FOLDING MAT IN DAMPIT HAMLET, GEMPOLTUKMLOKO VILLAGE, SARIREJO DISTRICT, LAMONGAN REGENCY)

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Article Info	ABSTRACT
<p>Keyword: Modernization, Product Innovation, Sales, Folding Mats UD. Anugrah.</p>	<p>This study aims to analyze the effect of modernization and product innovation on the sales of folding mats at UD. Anugrah. In an increasingly competitive business environment, companies are required to continuously adapt by implementing modern technology and innovating their products to maintain and increase sales. This research uses a quantitative approach through survey methods by distributing questionnaires to 45 respondents consisting of consumers and business partners of UD Anugrah. The independent variables in this study are modernization (X1) and product innovation (X2), while the dependent variable is sales (Y). Data analysis was conducted using validity and reliability tests, classical assumption tests, multiple linear regression, t-test, F-test, and the coefficient of determination (R^2) with the help of SPSS software. The results show that both modernization and product innovation have a significant partial and simultaneous effect on the sales of folding mats. Therefore, implementing more efficient technology and improving product design and quality have proven to be effective in boosting sales performance at UD. Anugrah.</p>

INTRODUCTION

The folding mat industry is one of the rapidly growing craft sectors, especially in East Java. The increasing demand for this product is driven by various factors such as the growth of the tourism sector, the need for practical household items, and rising public awareness of environmentally friendly products. In addition to meeting market demand, this industry also plays a significant role in empowering the local economy, particularly among women, through the involvement of traditional artisans. This not only creates employment opportunities but also helps preserve local cultural heritage and craftsmanship.

However, amid the wave of globalization and rapid technological advancement, traditional products like woven folding mats face major challenges in maintaining their market presence. Consumers today tend to prefer more practical and modern products, such as mats made from synthetic or plastic materials that are easier to clean and maintain. Therefore, woven mat producers must adapt and remain competitive by implementing modernization and product innovation strategies. This aligns with findings by Noviani (2020), who emphasized the importance of these two aspects in enhancing competitiveness and product sales.

Modernization in the handicraft industry is not limited to the use of technology in production processes but also includes marketing strategy transformation, especially through digitalization. The integration of modern weaving machines allows artisans to improve efficiency and ensure consistent product quality. Moreover, the application of digital marketing strategies via e-commerce platforms and social media has proven effective in expanding market reach. A study by Zamroni et al. (2022) on woven textile SMEs in Lamongan revealed that digitalization increased monthly sales volume from an average of 850 units to 1,200 units, demonstrating the tangible impact of digital modernization on sales performance.

On the other hand, product innovation serves as a key pillar in maintaining the relevance of traditional products amid changing consumer preferences. Innovation can take the form of improved aesthetic designs, added functional features such as compact folding, and the development of patterns and colors that align with market trends (Tidd & Bessant, 2021). Innovation also enables market expansion through customization strategies, allowing consumers to choose designs, sizes, and features according to their preferences. Such innovations not only increase the added value of products but also drive customer loyalty and strengthen brand positioning in a competitive market (Umar et al., 2023; Agustia et al., 2022).

Therefore, modernization and product innovation are not merely strategies to enhance profitability but are also foundational elements in ensuring the sustainability of the folding mat craft industry in the modern era. These two approaches are essential to maintain the relevance, competitiveness, and positive economic contribution of traditional products. This study aims to examine the extent to which modernization and product innovation influence the sales performance of folding mats, with a particular focus on UD Anugrah as a case study in this sector.

RESEARCH METHODS

This study uses a quantitative approach with an associative research type. Quantitative This study uses a quantitative approach. Quantitative research aims to test the relationship between variables objectively based on numerical data analyzed using statistical methods (Sugiyono, 2022). In this context, this study examines the effect of Modernization (X_1), Product Innovation (X_2) on sales (Y) of the UD. Anugrah Tikar Lipat industry.

The population in this study were all Agents/Distributor Partners supplied by UD. Anugrah Tikar Lipat. In this study, the sampling technique used was non-probability sampling with the technique taken, namely saturated sampling, where the number of samples was obtained from the total population. According to (Sugiyono, 2022), "a saturated sample is a sample that has reached its maximum value, because any addition cannot change the representativeness of the population". The sample in this study was all respondents in the population totaling 45 respondents.

The type of data used is primary data collected directly from respondents using a closed questionnaire. The questionnaire is compiled based on variable indicators with a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The modernization variable is measured through the following indicators: (1) product technology, (2) Product feature updates, (3) product design, (4) product quality. The product innovation variable is measured through the following indicators: (1) Customer satisfaction (2) Interface strategy, (3) Interest, (4) Application usability, (5)

Ease of purchasing goods (Omar et al., 2021). Meanwhile, Sales include indicators: 1. Achieving sales targets 2. Getting profit 3. Supporting Company Growth Miarso and Irwadi (2023:1125).

The validity of the instrument was tested using the Pearson Product Moment correlation test with the provision that the statement item is declared valid if the calculated r value is $> r$ table at a significance level of 5% (0.05). Meanwhile, the reliability test uses the Cronbach's Alpha technique, with reliable criteria if the alpha value is > 0.60 (Ghozali, 2016).

In addition to the questionnaire, data collection involved direct observation of the production processes at the research site, providing contextual reinforcement to the survey results. Moreover, several informal interviews were held with selected respondents to gain deeper insights into the motivations behind their purchasing choices.

Data analysis was carried out using SPSS version 25. The process began with testing classical assumptions, which included assessments of normality, multicollinearity, and heteroscedasticity. Once the data met these assumptions, a multiple linear regression analysis was conducted. The F-test was applied to assess the simultaneous influence of modernization and product innovation on sales, while the t-test evaluated the individual contribution of each independent variable. Additionally, the coefficient of determination (R^2) was utilized to determine the extent to which the independent variables could explain the variance in the dependent variable.

This research is expected to provide a valid empirical picture of the influence of product modernization and innovation on increasing sales of folding mats, as well as being a basis for formulating sustainable and adaptive marketing strategies to changes in consumer needs.

RESULTS AND DISCUSSION

The results of this study were obtained from the process of collecting and processing data through distributing questionnaires to 45 respondents. The analysis process was carried out thoroughly starting from validity tests, reliability, classical assumption tests, and multiple linear regression analysis to determine the effect of modernization and product innovation variables on sales.

All items in the questionnaire have undergone validity testing using the Pearson Product Moment correlation technique, and are declared valid because the correlation value obtained exceeds the r -table value and is significant at a 5% confidence level. The reliability test conducted using the Cronbach's Alpha method shows that all variables have values above 0.60, indicating that this research instrument is consistent and reliable. In addition, the results of the classical assumption test indicate that the data used meets the requirements for multiple linear regression analysis, because the data is normally distributed, no multicollinearity problems are found, and there are no symptoms of heteroscedasticity.

Table 1 . Results Test Reliability

Variables	Alpha	Status
<i>modernization (X 1)</i>	0.798	Reliable
<i>product innovation (X 2)</i>	0.840	Reliable
<i>sales (Y)</i>	0.751	Reliable

Source: Data processed (2025)

The normality test was conducted to test whether the research regression model has a normal distribution or not. The statistical test used was Shapiro-Wilk, which is known to be effective for small to medium samples with the help of Statistical Product and Service Solutions (SPSS) Software. With the provision that if the sig. value > 0.05 (5%) then H_0 is accepted, the data is declared normally distributed.

Table 2 . Results Analysis normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Modernisasi	.117	45	.144	.964	45	.167
Inovasi_produk	.100	45	.200*	.951	45	.054
Penjualan	.105	45	.200*	.961	45	.134

a. Lilliefors Significance Correction

Source: Data processed (2025)

Based on the results of the normality test using the Shapiro-Wilk method, all variables used in this study showed a p-value/sig value greater than 0.05. This indicates that the data on each variable is normally distributed. Thus, the basic assumptions for using parametric statistical analysis, especially linear regression, have been met. Based on the results of multiple linear regression analysis, the following regression equation was obtained $Y = 24.760 + 0.464X_1 + 0.552X_2$, where Y is sales, X1 is modernization, and X2 is product innovation. The regression coefficient of each variable shows that both modernization and product innovation have a positive influence on sales of folding mats at UD Anugrah. This means that the higher the level of modernization implementation and the higher the product innovation carried out, the greater the increase in sales that can be achieved. Product innovation has a greater influence than modernization, which can be seen from the higher coefficient value, namely 0.552. This shows that the development of product design, features, and quality has a more dominant role in driving consumer decisions to buy, compared to simply using modern technology or systems in the production and marketing process.

Table 3 . Results Analysis Multiple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig.
		B	Std. Error			
1	(Constant)	24.760	4.186		5.915	.000
	Modernisasi	.464	.118	.720	3.941	.000
	Inovasi_produk	.552	.100	1.008	5.522	.000

a. Dependent Variable: total_Y

Source: Data processed (2025)

Partially, both independent variables are proven to have a significant influence on sales. Based on the results of the t-test, it can be seen that the significance value of the modernization variable (X1) is $0.000 < 0.05$, which indicates a significance value of less than 0.05 so that this variable has a significant effect on variable Y. In addition, the calculated t value of 3.941 is greater than the t table of 2.015 ($3.941 > 2.015$) thus, X1 has a significant effect on Y.

Meanwhile, the Influence of Product Innovation on Sales Based on the results of statistical tests, the calculated t value of 5.522 was obtained, which was greater than the t table of 2.015 ($5.522 > 2.015$) with a significant value of 0.000, less than 0.05, X2 has a significant effect on Y. Which means that product innovation has a partial influence on sales. This result is also supported by previous research by Tanjung (2020), and Kusumawardhani (2024) that product innovation is one of the key strategies in facing market competition and increasing the sales performance of a business. Supported by these empirical findings, it can be emphasized that product innovation plays an important role in increasing sales performance, not only functioning as a business development tool, but also as a strategic response to changing consumer needs and tastes.

Table 4 . Results Test F statistic

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	206.037	2	103.019	15.345	.000 ^b
	Residual	281.963	42	6.713		
	Total	488.000	44			
a. Dependent Variable: Penjualan						
b. Predictors: (Constant), Inovasi_produk, Modernisasi						

Source: Data processed (2025)

Simultaneously, both independent variables are proven to have a significant effect on sales, indicated by the F test results of $15,345 > F_{table}$ of 3.22 with a significance level of $0.000 < 0.05$. This shows that both variations of modernization and product innovation are able to explain sales variations together. The coefficient of determination (R^2) value is 0.422 or 42.2% . Sales variations can be explained by these two variables, while the rest is influenced by other factors such as marketing strategy, price, promotion, consumer buying interest, and service quality that have not been analyzed in this study.

Overall, the results of this study emphasize the importance of implementing product modernization and innovation in increasing sales of consumer products, especially folding mats. Modernization efforts alone will not be enough if they are not accompanied by relevant innovations that are able to answer consumer needs and preferences. Therefore, business actors need to integrate technology strategies, product design development, and the right marketing approach in order to build customer loyalty that is not only based on product function, but also on aesthetic value, comfort, and sustainability.

CONCLUSION

Based on the results of the study, it can be concluded that modernization and product innovation simultaneously have a significant effect on the sales of folding mats at UD Anugrah. However, partially, the modernization variable shows a lower positive influence compared to product innovation, although both are statistically significant. This finding indicates that improvements in product innovation contribute more significantly to increasing sales than modernization alone.

This result is important to note, as it suggests that although the company has implemented modernization in its production and distribution processes, these efforts may not yet be fully optimized to directly impact sales. This could be due to modernization initiatives not targeting the most impactful areas for consumers, such as user experience, broader digital market access, or pricing efficiency. In this context, modernization must be strategically directed toward processes that tangibly increase product value.

On the other hand, product innovation has been proven to significantly and dominantly influence sales growth. Efforts such as developing more attractive designs, using more comfortable and durable materials, and offering a variety of motifs and sizes have become key factors in driving consumer interest. Today's consumers are more responsive to products that are not only functional but also aesthetically pleasing and flexible in use. Such innovations not only create product differentiation but also strengthen the product's image as a relevant and desirable item in the modern market.

Simultaneously, both variables contribute to sales performance, with a coefficient of determination (R^2) of 42.2%, meaning that the variation in folding mat sales at UD Anugrah can be explained by modernization and product innovation. The remaining 57.8% is influenced by other factors not examined in this study, such as pricing, promotion, customer service quality, and consumer preferences.

The implications of this study are quite significant, especially for small and medium- sized business actors. Technological improvements or modern systems must be accompanied by a deep understanding of consumer needs. Inappropriate or misaligned modernization efforts will not generate a significant increase in sales. Therefore, it is essential for businesses to combine modernization with

an innovative approach based on market research.

From the innovation perspective, industry players need to continually foster creativity and adapt to consumer trends without neglecting the core functionality of the product. Continuous innovation—whether in form, function, or added value—will be the key to sustaining and enhancing competitiveness in today’s dynamic market.

Thus, although modernization contributes to sales, product innovation has a stronger impact in attracting consumer interest. Marketing and product development strategies that focus on relevant and adaptive innovation are crucial for achieving sustainable sales growth in the current competitive business environment.

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