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# Green Marketing Mix Based on Digitisation: A Strategy for Revitalising Micro, Small, and Medium Enterprises (MSMEs) in Medan City After the 2024 Elections

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***Abstract:***

*This study aims to analyse the impact of the digitalisation-based Green Marketing Mix on the revitalisation strategy of Micro, Small, and Medium Enterprises (MSMEs) in Medan City after the 2024 elections. The research approach uses a quantitative method with a survey of 120 MSME actors, as well as qualitative depth through semi-structured interviews to obtain in-depth perspectives on the implementation of green digital strategies. The results show that the components of the Green Marketing Mix, including environmentally friendly products, pricing, digital promotion, and digital-based distribution, have a significant effect on MSME revitalisation, particularly in terms of increasing competitiveness, operational efficiency, and consumer engagement. Qualitative analysis reveals that marketing digitalisation enables MSMEs to penetrate broader markets, reduce costs, and strengthen their sustainable business image. These findings emphasise the importance of integrating green strategies and digitalisation as a solution for revitalising MSMEs after major political events, and provide practical implications for the development of government policies and business actors to improve local economic sustainability.*

*Keywords: Green Marketing Mix, Digitalisation, SMEs, Revitalisation, Medan City*

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## 1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) represent the largest economic entity in Indonesia, contributing more than 60% to the national GDP (Ariescy, Sholihatin, & Mawardi, 2022). Strengthening the capacity of MSMEs through internet access, digital tools, and e-commerce platforms can significantly accelerate Indonesia's digital economy growth (Costa Melo et al., 2023; Imam, 2019). However, data from the Ministry of Communication and Information Technology show that only around eight million MSMEs have adopted digitalisation. The shift in consumer behaviour—such as reduced physical interactions and increased online activities—

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offers great opportunities for MSMEs to sustain or even expand in the digital market. Nevertheless, these opportunities remain underutilised by MSME actors (Ismail & Bahgia, 2021; Ismail, Amani, & Changalima, 2023). Currently, only 13% of Indonesia's 64 million MSMEs are connected to the digital ecosystem. According to digital marketing experts, MSMEs need to quickly adapt to online consumer behaviour by utilising various social media platforms and implementing digital marketing strategies to maintain competitiveness (Dwiningwarni & Jayanti, 2019; Ramdani, Raja, & Kayumova, 2022).

The 2024 general election period has brought several challenges to MSMEs. These include economic uncertainty resulting from rising raw material prices, operational disruptions due to traffic congestion, and a decline in product sales (Tambunan, 2022; Nurhadi, 2023). Revitalising MSMEs is therefore seen as a strategic effort by the Indonesian government to stimulate economic recovery after the 2024 election (Sairun, Amril, & Misnanto, 2023; Zuriani Ritonga et al., 2022). Data indicate that 63.9% of MSMEs experienced a turnover decline of more than 30%, while only 3.8% reported an increase. This situation emphasises the need for effective marketing strategies to sustain business operations. One promising approach is green marketing, which seeks to minimise the environmental impact of business activities through eco-friendly products, pricing, distribution, and promotion (Prieto-Sandoval, Torres-Guevara, & García-Díaz, 2022; Borah et al., 2023). Green marketing not only promotes environmentally friendly products but also aims to satisfy growing consumer demand for sustainable consumption (Kazemi & Soltani, 2024; Cardona Arbelaez, 2018).

Understanding the difference between green marketing and sustainable marketing is crucial. While green marketing focuses on promoting eco-friendly products, sustainable marketing adopts a broader scope that encompasses community engagement, social objectives, and environmental preservation efforts (Apaza-Panca, Flores Quevedo, & Reyes, 2024; Kazemi & Soltani, 2024). The revitalisation of MSMEs aligns with the government's National Economic Recovery (PEN) policy, which aims to restore and strengthen the national economy following political and economic disruptions (Yuwana, 2020; Samrat Ray, Roy, & Varma, 2023; Syahputra & Siregar, 2022). The government supports MSMEs through grants, financial assistance via the Revolving Fund Management Institution, and low-interest loans (Ariescy et al., 2022; Sairun et al., 2023; Zuriani Ritonga et al., 2022).

Given this context, this study focuses on exploring the application of a digital-based green marketing mix in MSMEs in Medan City following the 2024 election. Specifically, it aims to answer the following research questions: (1) How is the digital-based green marketing mix implemented among MSMEs in Medan City post-2024 election? (2) To what extent do green product, green price, green place, and green promotion influence MSME revitalisation strategies? (3) How does digitalisation enhance the effectiveness of the green marketing mix in supporting MSME resilience and growth? and (4) What role does the green marketing mix play in addressing post-election business challenges related to the economic climate and regulatory changes? The urgency of this research is grounded in the government's commitment to MSME revitalisation as a foundation for sustainable economic recovery and global competitiveness (Sairun et al., 2023; Yuwana, 2020).

## 2. Theoretical Background

**The Role and Challenges of MSMEs in Indonesia**

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of Indonesia's economy, contributing more than 60% to the national Gross Domestic Product (GDP) and absorbing a significant portion of the workforce (Ariescy, Sholihatin, & Mawardi, 2022; Tambunan, 2022). Despite their economic importance, MSMEs continue to face structural challenges, including limited access to finance, lack of technological adaptation, and low competitiveness in the global market (Ismail & Bahgia, 2021). These challenges became more apparent during political and economic fluctuations such as the 2024 election period, when many MSMEs experienced operational disruptions, declining sales, and rising production costs (Nurhadi, 2023). To address these issues, revitalisation strategies driven by innovation, digitalisation, and sustainable marketing approaches are crucial for strengthening MSME resilience and long-term growth (Yuwana, 2020; Sairun, Amril, & Misnanto, 2023).

**Digitalisation and Innovation in MSME Development**

Digital transformation plays a vital role in revitalising MSMEs, particularly after periods of economic instability. The integration of digital platforms can enhance efficiency, reduce transaction costs, and expand market reach (Costa Melo et al., 2023; Ramdani, Raja, & Kayumova, 2022). Studies have shown that digital innovation enables small firms to remain competitive in a rapidly changing environment by fostering adaptability and improving customer engagement (Imam, 2019; Ismail & Bahgia, 2021). Moreover, enhancing digital and financial literacy through targeted training and mentoring programs has proven effective in empowering MSME actors (Zuriani Ritonga et al., 2022; Djournals.com, 2024). Such efforts support sustainable digital transformation and ensure that MSMEs can harness online ecosystems to achieve long-term performance improvements (Costa Melo et al., 2023; Nafisah & Shiratina, 2024).

Marketing innovation has also been recognised as a key recovery strategy during crises such as the COVID-19 pandemic, enabling MSMEs to maintain business continuity through creative product promotion and adaptive pricing (Ariescy et al., 2022; Samrat Ray, Roy, & Varma, 2023). In this regard, the adoption of digital marketing tools combined with innovative business models contributes to the competitiveness and growth of MSMEs in both local and international markets (Nurhayati, 2024; Yuwana, 2020).

**Green Marketing Concept and Its Strategic Importance**

Green marketing refers to marketing activities that aim to reduce the negative environmental impact of products and services throughout their life cycle (Prieto-Sandoval, Torres-Guevara, & García-Díaz, 2022). It involves incorporating environmental considerations into the four elements of the marketing mix—product, price, place, and promotion—to create value for environmentally conscious consumers (Borah et al., 2023). The concept of green marketing has evolved from being a niche practice to a mainstream business strategy that enhances competitiveness and brand loyalty (Kazemi & Soltani, 2024; Cardona Arbelaez, 2018).

Furthermore, research emphasises that green marketing should not only focus on eco-friendly products but also align with sustainable development principles that integrate environmental, social, and economic dimensions (Apaza-Panca, Flores Quevedo, & Reyes, 2024). Sustainable green marketing practices enable organisations to strengthen their brand image, increase consumer trust, and contribute to long-term business sustainability (Sagala & Simanjorang, 2024). In addition, competitive intelligence and innovation in green marketing help firms respond effectively to market and regulatory changes, particularly in industries facing high environmental scrutiny (Kazemi & Soltani, 2024; Adam, Suardi, & Lahay, 2023).

**The Green Marketing Mix and MSME Revitalisation**

The *green marketing mix* includes the adaptation of traditional marketing components—product, price, place, and promotion—toward environmentally responsible strategies (Prieto-Sandoval et al., 2022). Green products emphasise the use of sustainable materials and production processes, while green pricing reflects the value consumers place on sustainability (Adam et al., 2023). Green place involves environmentally friendly distribution channels, and green promotion focuses on transparent communication about eco-friendly practices (Borah et al., 2023; Sairun et al., 2023).

Previous studies show that a well-implemented green marketing mix can enhance MSME competitiveness by attracting environmentally conscious consumers and building stronger brand images (Sairun et al., 2023; Sagala & Simanjorang, 2024). The synergy between digitalisation and green marketing further strengthens this effect, as online platforms provide broader reach and facilitate consumer education on sustainability issues (Ismail, Amani, & Changalima, 2023; Nafisah & Shiratina, 2024). As noted by Cardona Arbelaez (2018), integrating green and digital marketing strategies fosters innovation and contributes to corporate social responsibility goals.

**MSME Revitalisation, Policy Support, and Future Directions**

The revitalisation of MSMEs is aligned with Indonesia's National Economic Recovery (PEN) program, which provides government assistance through financial grants, revolving funds, and low-interest loans (Syahputra & Siregar, 2022; Zuriani Ritonga et al., 2022). Such initiatives aim to restore business operations, improve productivity, and promote sustainable economic growth. Moreover, adopting technology-based management systems and data-driven decision support mechanisms contributes to better internal control and strategic decision-making (Ramadiani et al., 2021; Manurung & Harya, 2021).

Quantitative approaches such as Partial Least Squares Structural Equation Modelling (PLS-SEM) have been widely applied to examine complex relationships between digitalisation, innovation, and marketing performance (Prana Ugiana Gio et al., 2022; Sugiyono, 2018). These analytical methods help validate the role of mediating and moderating variables in understanding how the green marketing mix influences MSME revitalisation. Consequently, integrating digital transformation with sustainable marketing practices emerges as a strategic pathway for post-election economic recovery and long-term competitiveness of Indonesian MSMEs (Yuwana, 2020; Ariescy et al., 2022).

## 3. Methodology

This study employs a mixed-method research approach, combining both quantitative and qualitative methods to gain a more comprehensive understanding of the research problem. A mixed-method design is a process of collecting, analysing, and integrating quantitative and qualitative data within a single study to provide a more complete perspective on the research questions (23). This approach enables researchers to complement statistical findings with qualitative insights that enrich the interpretation of the results. According to Sugiyono (23), mixed methods are conducted concurrently to obtain valid, reliable, and objective data that capture the multifaceted nature of a social phenomenon. The design used in this research is an explanatory sequential design, in which the quantitative phase is carried out first, followed by qualitative analysis to further explain the quantitative findings.

The respondents in this study consist of Micro, Small, and Medium Enterprises (MSMEs) in Medan City, while the informants include key sources from the Cooperative and SME Department who have in-depth knowledge about MSME development and policies. The sampling technique used is purposive sampling, which selects participants based on specific criteria relevant to the research objectives. The selected MSMEs are those that have been operating for at least two years, maintain financial records (formal or simple), and are female-owned enterprises, reflecting the growing participation of women entrepreneurs in the MSME sector (8; 28).

Data collection was conducted using surveys for the quantitative phase and in-depth interviews for the qualitative phase. The quantitative data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM), which is suitable for small to medium sample sizes and exploratory research models (24). SEM is widely used in social sciences due to its ability to estimate complex causal relationships between latent variables simultaneously. The PLS approach, as explained by Gio et al. (24), provides a variance-based estimation technique that emphasises prediction and theory development rather than strict confirmatory testing. This analysis includes two main components: the outer model(measurement model), which assesses the validity and reliability of the indicators, and the inner model (structural model), which evaluates the relationships between latent variables.

For the qualitative phase, data analysis was performed using an interactive model consisting of three main steps: data reduction, data display, and conclusion drawing or verification. These steps were conducted continuously and iteratively until data saturation was reached, ensuring that the findings reflect the participants' authentic experiences. Qualitative insights were used to validate and enrich the quantitative results, allowing for triangulation and enhancing the overall credibility of the study.

## 4. Empirical Findings/Results

### Outer Model Test

### Convergent Validity

According to (1), predictors or items are considered valid if the factor loading value is > 0.7. From the analysis results using the calculate-PLS algorithm, it was found that several indicators had a factor loading value < 0.7, so they were eliminated (see Figure 1). Having an Outer Loadings value < 0.7 means that the convergent validity requirement has not been met, so cleaning must be carried out by removing the indicator. After deleting the indicators with a loading factor < 0.7, retesting was carried out. After testing until all indicator Outer Loadings values were > 0.7 according to the SmartPLS 4.0 standardisation, the test results can be seen in Figure 1. The outer model test began with parameter estimation or prediction by calculating the PLS algorithm with the following results.

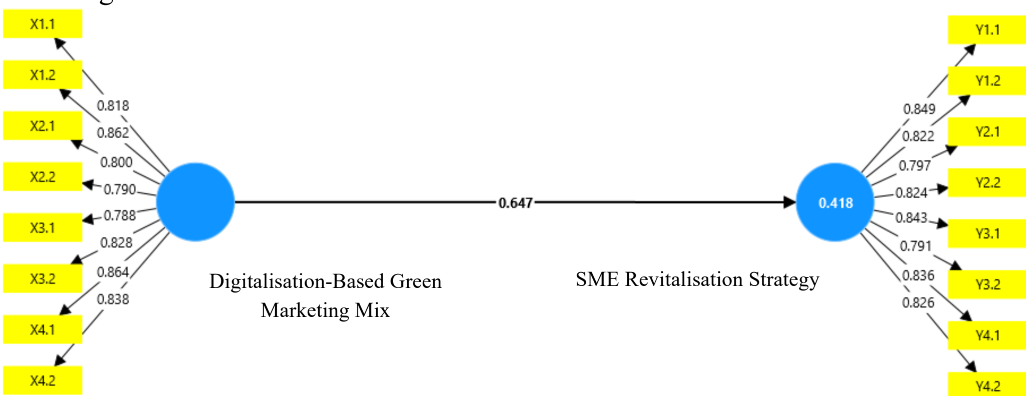


**Figure 1. Factor Loading Test**

### Average Variance Extracted (AVE)

A construct can be considered valid if it has an AVE value > 0.5.

**Table 2. Composite Reliability**

| | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average Variance Extracted (AVE) |
|---|---|---|---|---|
| Digitalisation-Based Green Marketing Mix | 0.932 | 0.936 | 0.944 | 0.679 |
| SME Revitalisation Strategy | 0.932 | 0.936 | 0.944 | 0.678 |

Cronbach Alpha, Average Variance Extracted (AVE) Based on Table 1 above, it can be seen that all constructs have an AVE value > 0.5, which means that each indicator has a valid construct.

**Discriminant Validity**

Discriminant validity is a stage conducted to determine whether the variables or indicators in the study have unique values and are only related to their own variables or indicators, and not to variables or indicators outside of those expected.

A study is said to have good discriminant validity if the Fornell-Larcker criterion value, which is the root of the AVE in the construct, is higher than the correlation of the construct with other latent variables.

**Table 3. Fornell-Larcker Criterion Values**

| | Digitalisation-Based Green Marketing Mix | SME Revitalisation Strategy |
|---|---|---|
| Digitalisation-Based Green Marketing Mix | 0.824 | |
| SME Revitalisation Strategy | 0.647 | 0.823 |

From Table 3, it can be seen that the AVE root for all variables is greater than its correlation with other variables. Therefore, it can be concluded that this study has good discriminant validity.

**Composite Reliability**

Composite Reliability is used to test the reliability of each indicator in the study. A variable can be said to be reliable if it has a composite reliability value > 0.7. Table 1 shows that all indicators in this study have good reliability because the Composite Reliability value is > 0.7.

**Cronbach's Alpha**

In addition to Composite Reliability, another way to determine the reliability of research indicators is to look at the Cronbach Alpha value. An instrument or questionnaire is considered reliable if the Cronbach's Alpha value is > 0.6. Table 1 shows that each construct has good reliability because the Cronbach's Alpha value is > 0.6.

**Inner Model Test**

**R-Square**

The R-Square value is used to see how much the independent variable can explain the dependent variable. Based on Table 3, it can be seen that the R-Square value of the MSME Revitalisation Strategy is 0.418 or 41.8%. From this figure, it can be categorised that the dependent variable can be explained by the independent variable on a moderate scale.

**Table 4. R-Square**

| | R-square | Adjusted R-square |
|---|---|---|
| MSME Revitalisation Strategy | 0.418 | 0.412 |

**F-Square**

The F-Square value indicates the strength of the influence of exogenous latent variables on endogenous latent variables, where an F-Square value < 0.02 indicates no influence, a value between 0.02 and 0.15 indicates a small influence, a value between 0.15 and 0.35 indicates a medium influence, and a value > 0.35 indicates a large influence.

**Table 5. F-Square**

| | **f-square** |
|---|---|
| Digitalisation-Based Green Marketing Mix → SME Revitalisation Strategy | 0.719 |

The F-Square value:

The Green Marketing Mix Based on Digitalisation variable on the Revitalisation Strategy for MSMEs is 0.719, indicating a significant effect.

**Hypothesis Testing**

Hypothesis testing was conducted by examining the path coefficients and p-values obtained through the bootstrapping process with an alpha of 0.05 (see Table 6).

**Table 6.** Path Coefficient

| | **Original sample (O)** | **Sample mean (M)** | **Standard deviation (STDEV)** | **T-statistic (\|O/STDEV\|)** | **P-values** |
|---|---|---|---|---|---|
| Digitalisation-Based Green Marketing Mix - SME Revitalisation Strategy | 0.647 | 0.649 | 0.067 | 9.630 | 0.000 |

From Table 6, it can be seen that the Digitalisation-Based Green Marketing Mix variable has a p-value of 0.000 < 0.05, so Ho is rejected, meaning that the Digitalisation-Based Green Marketing Mix variable has an effect on the MSME Revitalisation Strategy.

## 5. Discussion

The results of this study reinforce the finding that the application of a digitalisation-based green marketing mix is an effective strategy in promoting the revitalisation of MSMEs in Medan City after the 2024 elections. The post-2024 election political context, characterised by increased business competition and changes in consumer preferences, requires MSMEs to adapt through product innovation, digital marketing, and the application of sustainability values. The concept of a green marketing mix, which includes the dimensions of green product, green price, green promotion, and green place, has been proven to have a positive impact on brand image and consumer loyalty (Adam, Suardi, & Lahay, 2023). The integration of these elements with digital technology creates strategic added value, as it expands market access while strengthening the brand positioning of MSMEs amid increasing consumer awareness of environmentally friendly products. A study by Nafisah and Shiratina (2024) confirms that the combination of green marketing and digital marketing not only improves brand image but also significantly increases the competitiveness of SMEs, with brand image as a key mediating variable.

On the other hand, this study also shows that digitalisation acts as a catalyst in accelerating the adaptation of MSMEs to market demands. Nurhayati (2024) highlights that the majority of MSME players in Medan still have a relatively low level of digital literacy, so that digital-based training and mentoring programmes are important factors in the success of revitalisation strategies. These findings are in line with the results of community service by Djournals.com (2024), which showed a significant increase in digital literacy (from 30% to 85%) and financial literacy (from 25% to 75%) after intensive training interventions. These results emphasise the importance of capacity-based interventions to strengthen MSMEs' ability to adapt to digital transformation. In addition, pricing and product distribution strategies that are in line with sustainability values also influence consumer purchasing decisions regarding green products, as revealed by Adam et al. (2023). The integration of green pricing practices and environmentally friendly distribution channels increases customer satisfaction and provides a competitive advantage for MSMEs.

The involvement of the Medan local government in creating an inclusive digital ecosystem is also an important factor in the success of this revitalisation strategy. Policy support that facilitates the digitalisation of MSMEs, such as the provision of local e-commerce platforms, access to digital infrastructure, and incentives for green product innovation, enables MSMEs to make optimal use of technology (Sagala & Simanjorang, 2024). Furthermore, after the 2024 elections, political-economic dynamics encouraged SMEs to adopt more aggressive adaptive strategies to face competition and strengthen business resilience. This is in line with the Resource-Based View (RBV) concept, which emphasises that product innovation, digital competence, and sustainability orientation are strategic resources that support long-term competitive advantage.

Thus, this discussion emphasises that the revitalisation of MSMEs in Medan City after the 2024 elections cannot be separated from the integration of the green marketing mix and digitalisation. This strategy not only strengthens the position of MSMEs in the market but also builds a sustainable entrepreneurial ecosystem that is relevant to the national economic development vision. This study implies the need for a holistic approach in empowering MSMEs, which includes digital literacy interventions, green product development, branding strengthening, and public policy support. In addition to emphasising the importance of green innovation and digital transformation, the results of this study also contribute theoretically to the literature on green marketing in the digital era, particularly in the context of large cities in developing countries, and provide practical recommendations for accelerating the sustainable growth of MSMEs amid the post-election economic and political dynamics.

Interviews with MSME actors in Medan revealed that digital transformation and the application of green marketing have become key adaptive measures post-2024 elections, where economic and political dynamics have triggered market uncertainty and changes in consumption patterns. Most informants stated that the use of social media, e-commerce, and digital payments has expanded market access and increased product distribution efficiency. One culinary SME owner stated: “Since we started actively selling through marketplaces and prioritising environmentally friendly packaging, our customer base has grown, especially among the younger generation who are concerned about environmental issues." This finding reinforces research by Nafisah and Shiratina (2024), which emphasises that the synergy between green marketing and digital marketing can strengthen brand image and increase business competitiveness.

Informants also revealed that the implementation of green products is not limited to packaging innovation, but also includes sourcing local and environmentally friendly raw materials. However, challenges arise in financing and technical skills to optimise digital platforms. Several MSME players mentioned the need for intensive training: "We understand the importance of online marketing, but we are confused about algorithms and digital promotion strategies." This is in line with findings by Nurhayati (2024) that reveal that the level of digital literacy among MSME players in Medan is relatively low, making digital assistance and mentoring programmes crucial factors in driving successful business transformation.

Additionally, interviews indicate a shift in consumer behaviour post-2024 Election, with consumers becoming more selective about products and brands with sustainability commitments. Informants from the local fashion sector said: "Consumers are starting to ask about the materials and origin of products, so we try to be transparent with our brand story." This trend reinforces the view of Sagala and Simanjorang (2024) that consumer loyalty is now increasingly influenced by sustainability values, so that green marketing strategies can become a competitive advantage.

From a policy perspective, most informants acknowledged the city government's support in the form of entrepreneurship training, digital exhibition facilitation, and access to local shopping platforms. However, there is a need for more systematic policies to promote a green and digital ecosystem. These findings are consistent with the Resource-Based View (RBV) approach, which emphasises that competitive advantage can be achieved by leveraging unique resources such as environmentally friendly product innovation, digital skills, and ecosystem support. Thus, these interviews confirm that the revitalisation of MSMEs in Medan after the 2024 elections is greatly influenced by a combination of green marketing practices and digitalisation adoption, reinforced by digital literacy, product innovation, and policy support, thereby creating a more resilient, sustainable, and adaptive business model in response to market dynamics.

## 6. Conclusions

Based on the research results, the digitalisation-based Green Marketing Mix has been proven to have a significant effect on the revitalisation strategy of MSMEs in Medan after the 2024 elections. These findings indicate that the implementation of environmentally friendly products, strategic pricing, digital promotion, and digital-based distribution can improve the competitiveness, operational efficiency, and sustainability of MSMEs. Therefore, MSME actors are advised to continue integrating green marketing principles and utilising digital technology in all aspects of their business. Local governments and related agencies should provide training, assistance, and facilities that support digitalisation and environmentally friendly marketing. Further research is recommended to examine additional factors, such as product innovation, consumer digital literacy, or access to sustainable capital, using a mixed-methods approach to gain a deeper understanding of digital green marketing practices. Thus, the integration of green strategies and digitalisation can be an effective instrument to drive sustainable SME growth in the aftermath of major political events.

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