INFLUENCE OF MOBILE MARKETING ON CUSTOMER PURCHASE INTENTIONS IN EMERGING MARKET

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Abstract. This study aims to analyze the influence of mobile marketing on consumer purchase intent in emerging markets through a meta-analysis approach. As mobile technology penetrates and the use of the internet on mobile devices, mobile-based marketing strategies are becoming increasingly important, especially in developing countries. The study synthesizes 10 empirical research results published between 2022 and 2025 that meet inclusion criteria, such as topic relevance, completeness of statistical data, and focus on emerging market contexts. The analysis was conducted using a random effects model, which showed that mobile marketing had a significant positive influence on consumer purchase intent (Hedges' $g = 1.029$; $p < 0.001$), with a moderate effect size. The moderator's analysis showed that factors such as ad personalization, interactivity, and digital literacy levels were variables that strengthened the relationship. The results of this study provide evidence that contextually designed mobile marketing strategies can increase marketing effectiveness in emerging markets, as well as be an important contribution to the digital marketing literature in the digital economy era.

Keywords: mobile marketing; purchase intent; emerging markets; meta-analysis; digital marketing

I. INTRODUCTION

The rapid development of mobile technology in the last two decades has revolutionized the way individuals communicate, access information, and conduct economic transactions(Bart et al., 2017). The increasing adoption of smartphones and internet connections is becoming more widespread, even in developing countries, making mobile devices the main medium in daily life. These devices are not only used for communication, but also as a product search tool, transaction platform, and means of interaction with brands(Ho Nguyen et al., 2022). This phenomenon provides strategic opportunities for companies to establish closer and more personal relationships with consumers through various mobile-based marketing channels such as SMS marketing, applications, push notifications, and location-based advertising (Kumar et al., 2021; Varnali & Toker, 2010).

The consequence of this transformation is a shift in the pattern of interaction between companies and consumers, from one-way communication to a more interactive, contextual, and timely two-way relationship(Hashim & Zolkepli, n.d.). Consumers now have more control over the information they receive and the response to it, so companies are required to implement marketing strategies that are not only informative but also relevant and personalized(Osei-Frimpong et al., 2019). Mobile marketing allows companies

to reach consumers in a highly personalized context—at the most relevant time and place—which can significantly impact brand perception and consumer buying intent (Dwivedi et al., 2021). Thus, mobile devices are not only a means of communication, but also a strategic medium in shaping modern consumer behavior.

Mobile marketing has evolved to become one of the most effective marketing strategies in the digital age, particularly due to its ability to reach consumers directly and in a highly personalized context(Lavuri et al., 2023). With features such as geographic location, search history, and app behavior, companies can deliver marketing messages tailored to individual preferences in real-time(García-Salirrosas et al., 2022). This personalization not only increases the relevance of the message, but also increases the likelihood that consumers will respond positively to a call to purchase (Grewal et al., 2016). In addition, various mobile marketing formats such as push notifications, in-app advertising, SMS marketing, and location-based email allow for faster and more targeted interactions compared to traditional media (Do et al., 2019; Zeqiri et al., 2024).

The effectiveness of mobile marketing is also reflected in increased consumer engagement with brands and purchase decisions(Shankar & Balasubramanian, 2009). Studies show that mobile-based marketing strategies that are personalized and interactive can create a more immersive user experience,

increase loyalty, and drive higher purchase intent (Xu et al., 2020). In the context of an emerging market, where smartphone penetration is increasing and digital shopping behavior is growing rapidly, mobile marketing is a key channel to connect companies with consumers with high mobility and fast response times. Thus, this marketing approach becomes a strategic solution for companies to build more meaningful long-term relationships with their consumers (Maseeh et al., 2020; Har et al., 2012).

Emerging markets have experienced a significant surge in the adoption of mobile technology over the past decade, driven by the availability of affordable smartphones and the expansion of mobile internet networks (Gana & Koce, 2016). According to the GSMA report (2023), more than 70% of the population in developing countries now has access to mobile services, making mobile devices the main platform for digital activities, including information consumption, communication, and purchase transactions. This condition opens up great opportunities for companies to utilize mobile marketing as a strategy to reach consumers in a more efficient and relevant way. However, despite its great technological potential, mobile marketing strategies still face challenges in their effective implementation, especially related to the cultural context, digital literacy level, and local consumer preferences (Alam et al., 2015).

So far, studies on the effectiveness of mobile marketing in encouraging purchase intent in emerging markets are still limited and have produced mixed findings(Mohd Noor et al., 2013). Some studies have found that message personalization and ease of access through mobile devices can increase purchase intent (Srisawat & Kanchanasuwan, 2020), while other studies show that factors such as lack of consumer trust and perception of privacy are major barriers (Poushter et al., 2018). Differences in characteristics between developing countries, such as digital infrastructure, urbanization rates, and e-commerce adoption, also affect consumer responses to mobile campaigns. Therefore, a more in-depth and thorough study is needed to understand in aggregate how much influence mobile marketing strategies have on consumer purchase intent in emerging markets, as well as what factors moderate this relationship (Al-alak et al., 2010; Butt, 2017).

A number of empirical studies have been conducted to examine the influence of mobile marketing on consumer purchase intentions, but the results show significant variations. Several studies report that mobile marketing, especially through an interactive and personalized approach, is able to substantially increase purchase intent (Zhang & Mao, 2020; Srisawat & Kanchanasuwan, 2020). Strategies such as push notifications, mobile coupons, and location-based advertising have proven effective in shaping consumers' positive perceptions of brands and driving purchase actions. However, other studies report that the influence of mobile marketing on purchase intent is weak or even insignificant, especially in the context of users who have concerns about privacy, information overload, or lack of relevance of the messages received (Xu et al., 2020; Bart et al., 2005).

The inconsistency of these results can be caused by several factors, including differences in the geographical and demographic context in which the study was conducted. Diverse characteristics of consumers in developing countries in terms of digital culture, level of technological literacy, and access to internet services can influence responses to mobile marketing strategies(Chowdhury et al., 2005). In addition, the existence of moderator variables such as product type, mobile content form, and source credibility also affect the effectiveness of mobile marketing campaigns (Dwivedi et al., 2021). The methodological design used in previous research, such as quantitative versus qualitative approaches, sample sizes, and measurement instruments, are also factors that contribute to different results. Therefore, a systematic synthesis through meta-analysis methods is needed to obtain stronger conclusions and broader generalizations regarding the influence of mobile marketing on purchase intent in emerging markets (Abdullah et al., 2024); (Akroush et al., 2020).

Although the number of empirical studies on the influence of mobile marketing on consumer purchase intent continues to increase, there has been no comprehensive synthesis that combines these results to infer the strength of relationships in aggregate. Most studies are individual and contextual, resulting in findings that vary depending on geographic location, population characteristics, and methodological approaches used. In addition, there is a scarcity of meta-analytic studies that specifically highlight the context of *emerging markets*, which have unique dynamics in terms of technology adoption, digital consumer behavior, and infrastructure readiness(Rao & Dhar, 2019). In fact, understanding the influence of mobile marketing in this context is very important considering the rapid growth of smartphone users and economic digitalization in developing countries. Therefore, a meta-analysis study is needed that can integrate various empirical findings and provide a comprehensive picture of the effectiveness of mobile marketing strategies in influencing consumer buying intent in this region with high market potential.

II. RESEARCH METHODS

This study uses a meta-analysis approach as a method to synthesize empirical findings from previous studies that discuss the influence of mobile marketing on consumer purchase intent in emerging markets. Meta-analysis was chosen for its ability to combine quantitative data from various research sources that have a similar design, so as to provide more accurate effect estimates and broader generalizations (Borenstein et al., 2011). The data collection process is carried out through a systematic literature search on reputable scientific databases such as Scopus, Web of Science, ScienceDirect, and Google Scholar. Articles included in the analysis must meet the inclusion criteria, namely: (1) be a quantitative study that measures the relationship between mobile marketing and purchase intention, (2) be conducted in the context of developing countries, (3) present adequate statistical data such as correlation values, effect sizes, or recalculable data, and (4) be published in the period 2013–2024.

The collected data were analyzed using a random-effects meta-analysis model, which accommodates variation between studies and assumes that each study has different effects but still derives from the same effect distribution. Effect measures are calculated using Hedges' g to measure the strength of the aggregate relationship between mobile marketing and purchase intent. In addition, a heterogeneity test was conducted using Q and I^2 statistics to find out the extent to which differences between studies could be explained by sampling factors or moderator factors. Moderator analysis was also conducted to explore the influence of variables such as the form of mobile marketing (SMS, push notifications, application ads), product type (physical or digital), and geographical area. The entire analysis process was carried out with the help of the latest version of JASP software, which supports the visualization of effects in forest plots and plot funnels to test for possible publication bias. With this approach, the research is expected to be able to provide a strong and valid synthesis related to the effectiveness of mobile marketing in emerging markets

III. RESULT AND METHODS

Reading Comprehension Of Poetry Texts In Cycle I
Based Based on the results of data search through the database, 22 studies/articles met the inclusion criteria. The effect size and error standard can be seen in Table 2.

Table 1. Effect Size and Standard Error Every Research

Journal Code	Vz	Effect size (r)	SEz
AL 1	0.02431	0.89	0.29
AL 2	0.01491	1.56	0.33
AL 3	0.00274	0.59	0.29
AL 4	0.02383	0.65	0.20
AL 5	0.00087	1.36	0.30
AL 6	0.04615	0.94	0.37
AL 7	0.05013	1.26	0.30
AL 8	0.03105	0.89	0.28
AL 9	0.04804	1.34	0.30
AL 10	0.00467	1.16	0.31

Based on Table 2, the effect size value of the 10 studies ranged from 0.59 to 1.36 According to Borenstein et al., (2007) Of the 10 effect sizes, 2 studies ad medium criteria effect sizes and 8 studies had high criteria effect size values. Based on the results of the data test based on JASP outputs, the following results were obtained:

Heterogeneity Test
Furthermore, analyze the heterogeneity test of the ten analyzed studies which can be seen in Table 3.

Table 2. *Resiadual Heteroneity test*

Q_c	df	P
12.003	9	< 0.001

Based on Table 3. The results of the heterogeneity test analysis showed that 10 researchers had a heterogeneous

distribution (QC = 12.003; P < 0.001). With this, random effect size is effective to estimate the average effect size of the 10 studies analyzed. The results Mobile marketing has a significant positive influence on consumer purchase intentions.

Hypothesis Test
Next, calculate the p-value to test the hypothesis through the random effect model. The results of the summary effect model analysis with the random effect model can be seen in Table 4.

Tabel 4. *Pooled Effect Size Test*

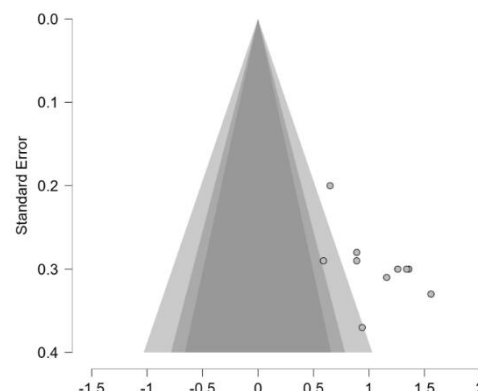| Estimate	Standard error	t	df	P
1.029	0.104	9.909	9	< 0.001

Table 4. The results of the analysis of the average value of effect size with the random effect model showed reveal a Mobile marketing has a significant positive influence on consumer purchase intentions. (t = 9.909 ; p< 0.001).

Publication Bias
Checking publication bias through funnel plot analysis and Rosenthal fail safe N (FSN) test (Tamur et al., 2020; Badawi et al., 2022; Ichsan et al., 2023b; Borenstein et al., 2007). The results of checking publication bias with funnel plot can be seen in Figure 1.


Figure 1. Funnel Plot

Based on Figure 1, the analysis of the funnel plot is not yet known whether it is symmetrical or asymmetrical, so it is necessary to conduct a Egger's test. The results of the Egger's test calculation can be seen in Table 5.

Tabel 5. Egger's Test

	z	p
Sei	1.044	0.162

Based on Table 5, the Z value is 1.044 and the p-value is 0.162more than the sig value. 0.05 means that there is no

publication bias in this study. Next, the forest plot analysis can be seen in figure 2.
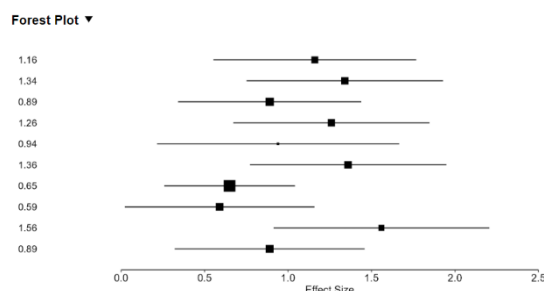
Figure 2. Forest Plot

Based on the forest plot analysis, it can be observed that the analyzed articles have values that vary between 0.59 to 1.36 with a summary effect size value of 0.915. The results of a meta-analysis of 10 empirical studies that met the inclusion criteria showed that Mobile marketing has a significant positive influence on consumer purchase intentions. The results of the meta-analysis show that mobile marketing has a positive and significant influence on consumer purchase intent in emerging markets. The aggregate effect measure obtained indicates that a mobile device-based marketing strategy is able to encourage consumers to be more considerate and make purchasing decisions(Zeqiri et al., 2024). These findings support a theory in digital consumer behavior, where speed, convenience, and personalization in marketing communications can increase consumers' emotional and cognitive engagement with a brand or product (Grewal et al., 2016). Thus, mobile marketing is an effective means of forming purchase intentions, especially in a market with rapid technological growth (Har et al., 2012; Mohd Noor et al., 2013).

Further analysis shows that the elements of personalization and interactivity in mobile marketing are the two dominant factors that influence consumer purchase intention. Consumers tend to be more responsive to messages that match their personal preferences and needs, especially when they are delivered in a timely and context-based manner, such as location or purchase history. Strategies such as location-based push notifications, relevant in-app ads, and special offers sent directly to mobile devices have been shown to increase the perception of value and urgency, which ultimately positively impacts purchase intent (Zhang & Mao, 2020). In developing countries, mobile marketing has enormous potential due to the high penetration of smartphones and limited access to conventional marketing media (Ho Nguyen et al., 2022). In this context, mobile devices are often the only digital communication tool owned by consumers, so marketing messages sent through mobile channels have a higher chance of being seen and considered. However, its effectiveness is still influenced by factors such as digital literacy, the affordability of data packages, and consumer trust in digital platforms (Dwivedi et al., 2021). Therefore, companies need to adjust their mobile marketing strategy to local socio-economic characteristics in order to reach consumers optimally (Fonseka & Tian, 2013).

The findings of this study have direct implications for marketing practitioners, especially in the retail, e-commerce, and digital services sectors in developing countries. Companies are advised to design a mobile marketing strategy that prioritizes personalization, relevance, and the right message delivery time. The use of technology such as *machine learning* and *location-based marketing* can help in crafting more targeted and effective campaigns. Additionally, it is important for marketers to pay attention to ethics in the use of personal data and build consumer trust in the digital communication channels used(Siraj et al., 2021). This study makes an important contribution to the digital marketing literature by providing a quantitative synthesis of the effectiveness of mobile marketing in emerging markets. The results of the meta-analysis strengthen the position of mobile marketing as an important strategy in influencing consumer purchase intent in the digital era, especially in regions with rapid economic growth and digitalization (Laksamana, 2016). However, more contextual follow-up research is still needed, such as *longitudinal* approaches to measure long-term impact as well as exploration of new platforms such as WhatsApp Business, TikTok Ads, and AI chatbots in the context of mobile marketing (Gana & Koce, 2016).

IV. CONCLUSIONS

Based on the results of the synthesis through a meta-analysis approach, this study concludes that mobile marketing has a positive and significant influence on consumer purchase intentions in emerging markets. The aggregate effect measures obtained showed that mobile device-based marketing strategies—such as personalized messaging, location-based promotions, and in-app advertising—were effective in encouraging consumers to consider and make a purchase. Elements of personalization, interactivity, and timeliness prove to be key factors that strengthen the relationship between mobile marketing and purchase intent. These findings confirm that mobile marketing is not only a promotional communication tool, but also a strategic instrument to shape consumer behavior directly in the context of developing countries that are experiencing accelerated adoption of digital technology. In addition to making theoretical contributions to the digital marketing literature, the results of this study also provide practical implications for companies and marketers. In order for mobile marketing to achieve optimal effectiveness, the strategy implemented must consider local characteristics such as digital literacy levels, consumer media preferences, and trust in digital platforms. Additionally, it's important to integrate analytics and artificial intelligence technologies in designing campaigns that are more personalized and adaptive to market needs. Going forward, further research is suggested to explore the effectiveness of mobile marketing in ever-evolving platforms such as WhatsApp Business, TikTok, and AI-based services in emerging markets, as well as measure its long-term impact on consumer loyalty and brand value.

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REFERENCES

[1] Abdullah, S. I. N. W., Teng, P. K., Heng, B. L. J., & Cokki, C. (2024). Navigating mobile marketing: Unveiling mobile game in-app purchase intentions of Gen-Ys. *Contemporary Trends in Innovative Marketing Strategies*, 278–303.

[2] Akroush, M. N., Mahadin, B., ElSamen, A. A., & Shoter, A. (2020). An empirical model of mobile shopping attitudes and intentions in an emerging market. *International Journal of Web Based Communities*, *16*(2), 150–179. https://doi.org/10.1504/IJWBC.2020.107156

[3] Al-alak, B. a M. B. a. M., Alnawas, I., & Ibrahim, A. (2010). Mobile Marketing : Examining the Impact of Trust , Privacy Concern and Consumers ' Attitudes on Intention to Purchase. *International Journal of Business and Management*, *5*(3), 28–41. NG/MB.PDF

[4] Alam, M., Faiz, M., & Aftab, M. (2015). Mobile Marketing: A Study of Buying Intention. *British Journal of Economics, Management & Trade*, *7*(3), 218–226.

[5] Badawi et al. (2023). Integration of Blended Learning and Project-Based Learning (BPjBL) on Achievement of Students' learning goals: A Meta-analysis study. *Pegem Journal of Education and Instruction*, *13*(4).

[6] Bart, Y., Stephen, A. T., & Sarvary, M. (2017). *Which+products+are+best+suited+to+mobile+advertising*. *LI*(June 2014), 270–285.

[7] Borenstein, M., Hedges, L., & Rothstein, H. (2007). *Introduction to Meta-Analysis*. www.Meta-Analysis.com

[8] Butt, A. (2017). Determinants of the Consumers Green Purchase Intention in Developing Countries. *Journal of Management Sciences*, *4*(2), 217–236.

[9] Chowdhury, H. K., Parvin, N., Weitenberner, C., & Becker, M. (2005). *Consumer Attitude Toward Mobile Advertising in an Emerging Market : an Empirical Study*.

[10] Do, T., Nguyen, T., & Nguyen, C. (2019). Online Shopping in an Emerging Market. *Journal of Economics and Management Sciences*, *2*(2), p1.

[11] Fonseka, M. M., & Tian, G. (2013). *The Journal of Applied Business Research – July/August 2013 Volume 29, Number 4*. *29*(6), 963–982.

[12] Gana, M. A., & Koce, H. D. (2016). Mobile Marketing: The Influence of Trust and Privacy Concerns on Consumers' Purchase Intention. *International Journal of Marketing Studies*, *8*(2), 121.

[13] García-Salirrosas, E. E., Acevedo-Duque, Á., Marin Chaves, V., Mejía Henao, P. A., & Olaya Molano, J. C. (2022). Purchase Intention and Satisfaction of Online Shop Users in Developing Countries during the COVID-19 Pandemic. *Sustainability (Switzerland)*, *14*(10), 1–14.

[14] Har, C., Har, W., Lee, S., Hooi, Y., Beng, L., Chua, H., Boon, B., Chai, H., Wei, G., Tan, H., Wong, C. H., Lee, H. S., Lim, Y. H., & Chua, B. H. (2012). Predicting the Consumers' Intention to Adopt Mobile Shopping: An Emerging Market Perspective. *International Journal of Network and Mobile Technologies*, *3*(3), 24–39. http://ur.aeu.edu.my/510/1/Predicting the Consumers%27 Intention to Adopt Mobile-2-17.pdf

[15] Hashim, N. H., & Zolkepli, I. A. (n.d.). *the Effect of Mobile Advertising Message*. 1–18.

[16] Ho Nguyen, H., Nguyen-Viet, B., Hoang Nguyen, Y. T., & Hoang Le, T. (2022). Understanding online purchase intention: the mediating role of attitude towards advertising. *Cogent Business and Management*, *9*(1).

[17] Ichsan, I., Suharyat, Y., Santosa, T. A., & Satria, E. (2023). Effectiveness of STEM-Based Learning in Teaching 21 st Century Skills in Generation Z Student in Science Learning: A Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, *9*(1), 150–166. https://doi.org/10.29303/jppipa.v9i1.2517

[18] Laksamana, P. (2016). The Role of Permission on Purchase Intention in Mobile Marketing in Banking. *Journal of Marketing Management (JMM)*, *4*(2), 49–56. https://doi.org/10.15640/jmm.v4n2a4

[19] Lavuri, R., Jindal, A., Akram, U., Naik, B. K. R., & Halibas, A. S. (2023). Exploring the antecedents of sustainable consumers' purchase intentions: Evidence from emerging countries. *Sustainable Development*, *31*(1), 280–291. https://doi.org/10.1002/sd.2389

[20] Maseeh, H., Ashraf, H., & Rehman, M. (2020). Examining the impact of digital mobile advertising on purchase intention. *Review of Integrative Business and Economics Research*, *9*(4), 84–95.

[21] Mohd Noor, M. N., Sreenivasan, J., & Ismail, H. (2013). Malaysian consumers attitude towards mobile advertising, the role of permission and its impact on purchase intention: A structural equation modeling approach. *Asian Social Science*, *9*(5), 135–153. https://doi.org/10.5539/ass.v9n5p135

[22] Osei-Frimpong, K., Donkor, G., & Owusu-Frimpong, N. (2019). The Impact of Celebrity Endorsement on Consumer Purchase Intention: An Emerging Market Perspective. *Journal of Marketing Theory and Practice*, *27*(1), 103–121. https://doi.org/10.1080/10696679.2018.1534070

[23] Rao, K. S. C., & Dhar, B. (2019). Book Review of " India ' s Recent Inward Foreign Direct Investment : An Book Review of " India ' s Recent Inward Foreign Direct Investment : An Assessment " Beena PL Reviewed Publication Details : *Emerging Markets Journal*, *7*(2), 2018–2020. https://doi.org/10.5195/emaj.2018.134

[24] Shankar, V., & Balasubramanian, S. (2009). Mobile Marketing: A Synthesis and Prognosis. *Journal of Interactive Marketing*, *23*(2), 118–129. https://doi.org/10.1016/j.intmar.2009.02.002

[25] Siraj, H., Syed, A. R., & Sultan, M. F. (2021). SMS Advertising & its Impact on Consumer Purchase Intention: A Comparative Study of Adults and Young Consumers in Pakistan. *Journal of Marketing Strategies*, *3*(2), 1–22. https://doi.org/10.52633/jms.v3i2.69

[26] Tamur, M., Juandi, D., & Kusumah, Y. S. (2020). The effectiveness of the application of mathematical software in indonesia; a meta-analysis study. *International Journal of Instruction*, *13*(4), 867–884. https://doi.org/10.29333/iji.2020.13453a

[27] Zeqiri, J., Koku, P. S., Dobre, C., Milovan, A. M., Hasani, V. V., & Paientko, T. (2024). The impact of social media marketing on brand awareness, brand engagement and purchase intention in emerging economies. *Marketing Intelligence and Planning*, *August*. https://doi.org/10.1108/MIP-06-2023-0248