Vol. 5 No. 1 (2026)
e-ISSN: 2963-7589
Economic and Business Journal | ECBIS
https://ecbis.net/index.php/go/index

THE EFFECT OF EXPORT READINESS, FIRM SIZE, REGIONAL BUSINESS ENVIRONMENT, MENTORING EFFECTIVENESS, AND DIGITAL CAPABILITY ON THE EXPORT MARKETING PERFORMANCE OF MSMES PARTICIPATING IN ECP

Zulkarnaini[1], Irfan Arif Husen[2]
[1.2] Indonesian College of Economics (STEI) Jakarta
E-mail: [1)] zul290668@gmail.com, [2)] irfanhusen@gmail.com

Submitted:	Revised:	Accepted:
31 July 2026	20 October 2026	15 November 2026

Abstract

This study examines the effect of export readiness, firm size, regional business environment, mentoring effectiveness, and digital capability on the export marketing performance of Micro, Small, and Medium Enterprises (MSMEs) participating in the Export Coaching Program (ECP) organized by the Export and Trade Services Human Resources Development Center (PPEJP), Ministry of Trade of the Republic of Indonesia, during 2023-2025. Using an explanatory quantitative approach, secondary data from 629 ECP participants selected through a saturated (census) sampling technique were analyzed using binary logistic regression. The results show that export readiness has a positive and significant effect on export marketing performance (Odds Ratio = 2.986; $p < 0.001$), as does digital capability (Odds Ratio = 1.710; $p = 0.004$), while firm size, regional business environment, and mentoring effectiveness show no significant effect. The estimated model is fit (Hosmer-Lemeshow $p = 0.353$), with a Nagelkerke R^2 of 10.7%. Export readiness is the most dominant predictor, followed by digital capability. These findings support the Resource-Based View, indicating that valuable and inimitable internal resources are the primary determinants of MSME export marketing performance.

Keywords: *digital capability; export coaching program; export marketing performance; export readiness; MSMEs*

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in the Indonesian economy, especially in encouraging economic growth, labor absorption, and income equity. Based on data from the Indonesian Chamber of Commerce and Industry (Kadin, 2023), the number of MSME actors in 2023 will reach around 66 million units or around 99% of the total national business units, with the contribution to the Gross Domestic Product (GDP) reaching 61% and labor absorption of around 97% of the total workforce (Coordinating Ministry for Economic Affairs, 2023).

Despite dominating the structure of national business units, the contribution of MSMEs to Indonesia's non-oil and gas exports only ranges from 14-16 percent, far behind Thailand (29%) and the Philippines (20%) (Government Investment Center, Ministry of Finance, 2024). This gap stems from internal constraints, such as human resources, production capacity, and managerial capabilities (Handoyo et al., 2024), as well as external limitations, including support for government programs (Heriqbaldi et al., 2023), networks

and technology (Calheiros-Lobo et al., 2023), regional business environment (Karagkouni & Dimitriou, 2025), mentoring roles (Mbokota & Myres, 2024), and digital capabilities (Moen, Madsen, & Aspelund, 2008).

In response to the low export participation of MSMEs, the Center for Export Human Resources and Trade Services (PPEJP), Ministry of Trade of the Republic of Indonesia, held the Export Coaching Program (ECP), which is an export-oriented MSME coaching program for 8-10 months every year, including stages of selection, training, market assistance, and business matching facilitation (PPEJP of the Ministry of Home Affairs, 2024). The scope of the region and the number of ECP participants change from year to year following applicable policies and budgets, from 12 regions in 2023 to only 5 regions in 2025, so that regional business environment factors are relevant to be studied.

Recent studies continue to affirm the relevance of these five factors. Studies in Indonesia show that the export expansion of MSMEs is consistently influenced by company characteristics such as age and number of workers, in addition to government support and non-governmental networks (Revindo, Gan, & Hambali, 2024). At the level of export readiness, cross-border research confirms that export readiness is a multidimensional construct that consistently predicts early-stage export performance (Gerschewski, Scott-Kennel, & Rose, 2020), while resource-based capabilities and entrepreneurship orientation have been proven to improve MSME export performance in various developing country contexts (Safari & Saleh, 2020; Nuryakin, 2024; Abubakar, Abdul Rahim, Raja Yusof, & Haji Yahya, 2024; Singh, Keshari, Singh, Singh, & Gautam, 2024). On the export promotion program side, Catanzaro and Teyssier (2021) found that such programs improve export capabilities as well as risk management of internationalized MSMEs, but the impact depends on the readiness stage of participants (Sadeghi, Aliasghar, & Bouguerra, 2023).

Most previous studies have focused on internal or external factors separately and have not integrated the two in a single comprehensive model (Calheiros-Lobo et al., 2023; Handoyo et al., 2024). Research on the role of coaches has generally examined learning at the individual level (Mbokota & Myres, 2024; Azizi, Hosseinloo, Maley, & Dabić, 2023) and has not significantly linked it directly to the export performance of companies at the organizational level, while studies on digital capabilities in the context of government export development programs, particularly through website ownership indicators, are still very limited. This study aims to fill the gap by analyzing the influence of export readiness, firm size, regional business environment, mentoring effectiveness, and digital capability on the export marketing performance of MSME participants in ECP in an integrated logistics regression model, by referring to the framework of Resource-Based View (Barney, 1991), Dynamic Capabilities (Teece, Pisano, & Shuen, 1997), and Institutional Theory (North, 1990).

The novelty of this research lies in three things. First, this study integrates five determinants (internal, external, program, and digital) at once in one binary logistics regression model tested on census data of 629 MSMEs participating in the government's export assistance program, a broader scope than small-scale survey-based studies in general (compare Gerschewski et al., 2020; Nuryakin, 2024). Second, this study operationalizes digital capability specifically through indicators of active business website ownership in the context of government export programs in developing countries, an operationalization that has not been empirically tested compared to digital capability studies in general that focus on large companies or e-commerce platforms (Huang, 2025). Third, this study uses program administrative data (not perception survey data) to minimize the subjectivity bias of respondents commonly found in questionnaire-based export performance research.

2. RESEARCH METHOD

This study uses a quantitative approach with explanatory research methods to test and explain the causal relationship between independent variables and dependent variables (Sekaran & Bougie, 2016). The data used are secondary data sourced from the official document of the Export Coaching Program (ECP) for the 2023-2025 period organized by PPEJP, Ministry of Trade of the Republic of Indonesia, including participant profiles, firm size, regional business environment, mentoring effectiveness, digital capability, and export achievements.

The research population is limited to all ECP participants in 2023-2025 which is held directly by PPEJP. The sampling technique used is census sampling, where all members of the population are used as samples (Sugiyono, 2019). Of the initial 820 observations, after a complete case analysis (listwise deletion) was carried out to handle incomplete data (Little & Rubin, 2019), 629 business units were obtained as the final sample of the study.

The dependent variable (Y) is export marketing performance, measured by binary dummies (1 = successful exports, 0 = unsuccessful exports). Independent variables consist of: Export Readiness (X1), measured by export experience dummies before participating in the program (1 = never exported, 0 = never); Firm Size (X2), measured by the number of permanent and non-permanent workers (ratio scale); Regional Business Environment (X3), measured by the dummy location of the program implementation area (1 = Java, 0 = Non-Java); Mentoring Effectiveness (X4), measured by the average score of facilitator/coach evaluation (scale 1-5); and Digital Capability (X5), measured by dummy ownership of active business websites (1 = have, 0 = not have).

Data analysis was conducted using SPSS software with binary logistic regression techniques, as the dependent variables are dichotomous (Hosmer & Lemeshow, 2000). The feasibility of the model was tested through the Omnibus Test (overall model fit), the Hosmer-Lemeshow Test (goodness of fit), and the Nagelkerke determination coefficient R^2, while

the multicollinearity test was conducted with the values of Variance Inflation Factor (VIF) and Tolerance (VIF criteria < 10 and Tolerance > 0.10) (Ghozali, 2021). The significance of each independent variable was partially tested using the Wald Test (Sig criterion < 0.05), while the dominant variable was identified from the largest Odds Ratio (Exp(B)) value.
The binary logistics regression model used is expressed as follows:

$$Ln(p/1-p) = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e(1)$$

with p is the probability of MSMEs succeeding in exporting (Y = 1); the coefficient is interpreted using the Odds Ratio value of Exp(B) [3].

3. RESULTS AND DISCUSSION

The final data of the study amounted to 629 MSMEs participating in ECP, consisting of participants in 2023 (46.6%), 2024 (35.3%), and 2025 (18.1%), with 67.1% coming from Java and 32.9% from non-Java. Table 1 presents descriptive statistics of research variables.

Table 1 Descriptive Statistics of Research Variables

Variabel	N	Min	Max	Mean	Std. Dev.
Export Marketing Performance	629	0.00	1.00	0.4483	0.49772
Export Readiness	629	0.00	1.00	0.5024	0.50039
Firm Size	629	0.00	500.00	18.8029	32.93454
Mentoring Effectiveness	629	4.55	4.92	4.7628	0.10097
Regional Business Environment	629	0.00	1.00	0.6709	0.47026
Digital Capability	629	0.00	1.00	0.6089	0.48838

Source: *Proceed Data, 2026*

The results of the Omnibus Test showed a Chi-square value of 52.206 with df = 5 and a significance of 0.000 (p < 0.05), which means that the model was simultaneously significant in explaining the performance of export marketing. The Hosmer-Lemeshow test yielded a Chi-square of 8.876 with a significance of 0.353 (p > 0.05), so that the model was declared suitable for use (goodness of fit was met). The Cox & Snell R^2 value of 0.080 and the Nagelkerke R^2 of 0.107 showed that the five independent variables together were able to explain about 10.7% variation in export marketing performance. The multicollinearity test showed that the entire VIF value was below 10 (the highest in the Regional Business Environment of 1.470), so that the model was free from multicollinearity problems.
Table 2 presents the complete results of binary logistic regression analysis (Variables in the Equation).

Table 2 Binary Logistic Regression Analysis Results

Variabel	B	Say.	Exp(B)	Remarks
Export Readiness (X1)	1.094	0.000	2.986	Signifikan
Firm Size (X2)	-0.002	0.579	0.998	Insignificant
Regional Business Env. (X3)	-0.325	0.138	0.723	Insignificant
Mentoring Effectiveness (X4)	0.383	0.684	1.467	Insignificant
Digital Capability (X5)	0.536	0.004	1.710	Signifikan
Konstanta	-2.683	-	-	-

Source: *Proceed Data, 2026*

Based on Table 2, the binary logistic regression equation model is written as follows:

$$Ln(p/1-p) = -2.683 + 1.094(X1) - 0.002(X2) - 0.325(X3) + 0.383(X4) + 0.536(X5) \quad (2)$$

Based on the Odds Ratio value, the order of the most dominant variables is: Export Readiness (OR = 2.986; p < 0.001), Digital Capability (OR = 1.710; p = 0.004), Mentoring Effectiveness (OR = 1.467; p = 0.684), Regional Business Environment (OR = 0.723; p = 0.138), and Firm Size (OR = 0.998; p = 0.579). Only Export Readiness and Digital Capability were shown to have a significant effect on export marketing performance, while Firm Size, Regional Business Environment, and Mentoring Effectiveness were not significant at the 95% confidence level.

3.1 Export Readiness and Digital Capability as Key Determinants

Export readiness is the most dominant predictor in the model. MSMEs that have had export experience before participating in the ECP have a 2.986 times greater chance of export success than MSMEs that have never exported. This is consistent with the nature of the ECP as an acceleration program, not a program that creates exporters from scratch: experienced participants bring tacit procedural knowledge (export documents, buyer negotiations, payment schemes, Incoterms) that allow them to absorb assistance more optimally (absorptive capacity). These findings are in line with Freixanet (2012) who shows that the effectiveness of export promotion programs is moderated by the company's export engagement stage, as well as consistent with the Resource-Based View (Barney, 1991) and Uppsala Model (Johanson & Vahlne, 1977) perspectives. These findings are also in line with Gerschewski, Scott-Kennel, and Rose (2020) who affirm a positive and strong relationship between export readiness and early-stage export performance, as well as with Sadeghi, Aliasghar, and Bouguerra (2023) who show that the benefits of external support to MSME

export performance are highly dependent on the capabilities that the company already has before receiving the support.

Digital capability, which is proxied through the ownership of an active business website, is the second significant determinant (OR = 1,710). Business websites act as a "credibility gate" that allows verification and due diligence by potential international buyers, reduces information asymmetry and transaction costs, and democratizes market access for MSMEs in remote areas. These findings are consistent with Huang (2025), Moen, Madsen, and Aspelund (2008), as well as the globally born framework (Knight & Cavusgil, 2004).
An illustration of the prediction probability (with other variables retained at the average value) shows that MSMEs without export experience and websites have a 24.7% chance of export success, increasing to 49.5% if they have export experience, 35.9% if they only have a website, and 62.6% if they have both simultaneously - confirming that the two factors are complementary (complementary).

3.2 Firm Size, Regional Business Environment, dan Mentoring Effectiveness

The insignificance of the firm size shows that the export success of ECP participants is not a function of the number of employees, but rather determined by dynamic capabilities (sensing, seizing, reconfiguring) as stated by Teece, Pisano, and Shuen (1997), as well as supported by the ECP selection process that uniformizes the basic capacity of participants. These findings differ from Revindo, Gan, and Hambali (2024) who found a significant influence of the number of workers on the expansion of Indonesian MSME exports in the general population; this difference is natural because the sample of this study is limited to participants who have passed the ECP selection, not the MSME population at large. The insignificance of the regional business environment indicates that the ECP functions as a "portable institution" that equalizes access to training, market information, and business matching between regions, in line with Institutional Theory (North, 1990), although this equity is short-term and applies throughout the program. This complements the findings of Yunitasari, Fauzan, and Prianto (2023) that regional economic disparities in Java-outside Java are structural and persistent at the macro level, so program interventions such as ECP play an important role as a counterbalance at the micro level of participants.

The insignificance of mentoring effectiveness is more due to the limitations of measurement, because mentoring effectiveness data is measured at the regional average level with very small variation (std = 0.101), not at the individual level of participants, so that this variable loses its statistical differentiation even though mentoring remains a core element of the program. This is consistent with Azizi, Hosseinloo, Maley, and Dabić (2023) who emphasize the importance of coaching measurement instruments that are validated at the individual level to capture meaningful variations in mentoring quality, as well as with Ramadhani, Hermawan, and Winarno (2026) who show that the benefits of mentoring on

MSME business capabilities are most evident in individual/company-level case studies compared to regional aggregates.

4. CONCLUSION

This study concluded that of the five variables tested, export readiness (OR = 2.986; $p < 0.001$) and digital capability (OR = 1.710; $p = 0.004$) had a positive and significant effect on the export marketing performance of MSMEs participating in ECP, while firm size, regional business environment, and mentoring effectiveness were not proven to have a significant effect. The estimated logistics regression model was declared feasible to use (Hosmer-Lemeshow $p = 0.353$) with Nagelkerke R^2 of 10.7%, and export readiness was the most dominant factor, followed by digital capability.

These findings imply that ECP organizers need to consider previous export experience and digital readiness as priority criteria in participant selection, design a differentiated curriculum between beginner and experienced participants, and make digital marketing modules and professional website creation mandatory components of assistance. For the government, these results confirm that ECP has succeeded in leveling export opportunities between regions in the short term, but still requires systemic strengthening of regional export ecosystems so that equitable distribution is sustainable.

This study has limitations, including the measurement of mentoring effectiveness at the regional level (not individual), the use of secondary data that cannot control other factors such as product characteristics and destination market conditions, and limited sample coverage in ECP participants organized directly by PPEJP. It is further recommended to measure the effectiveness of mentoring at the individual level, add mediation/moderation variables such as dynamic capabilities, and expand the scope of the population in other export assistance programs to improve the generalization of results.

REFERENCES

Abubakar, M. S., Abdul Rahim, N., Raja Yusof, R. N., & Haji Yahya, M. H. (2024). Strategic orientation influence on SMEs export performance in Nigeria: Measurement validation and preliminary analysis. Journal of International Studies, 20(2). https://doi.org/10.32890/jis2024.20.2.6

Azizi, M., Hosseinloo, H., Maley, J. F., & Dabić, M. (2023). Entrepreneurial coaching for innovation in SMEs: Development and validation of a measurement scale. European Journal of Innovation Management, 26(7), 696-714. https://doi.org/10.1108/EJIM-07-2023-0546

Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120. https://doi.org/10.1177/014920639101700108

Calheiros-Lobo, N., Ferreira, J. V., & Au-Yong-Oliveira, M. (2023). SME internationalization and export performance: A systematic review with bibliometric analysis. Sustainability, 15(11), 8473. https://doi.org/10.3390/su15118473

Catanzaro, A., & Teyssier, C. (2021). Export promotion programs, export capabilities, and risk management practices of internationalized SMEs. Small Business Economics, 57(3), 1479-1503. https://doi.org/10.1007/s11187-020-00355-2

Freixanet, J. (2012). Export promotion programs: Their impact on companies' internationalization performance and competitiveness. International Business Review, 21(6), 1065-1086. https://doi.org/10.1016/j.ibusrev.2011.12.003

Gerschewski, S., Scott-Kennel, J., & Rose, E. L. (2020). Ready to export? The role of export readiness for superior export performance of small and medium-sized enterprises. The World Economy, 43(5), 1253-1276. https://doi.org/10.1111/twec.12897

Ghozali, I. (2021). Application of multivariate analysis with the IBM SPSS program (Latest edition). Diponegoro University Publishing Board.

Handoyo, R. D., Ibrahim, K. H., Rahmawati, Y., Faadhillah, F., Ogawa, K., Kusumawardani, D., See, K. F., Kumaran, V. V., & Gulati, R. (2024). Determinants of exports performance: Evidence from Indonesian low-, medium-, and high-technology manufacturing industries. PLOS ONE, 19(1), e0296431. https://doi.org/10.1371/journal.pone.0296431

Heriqbaldi, U., Esquivias, M. A., Samudro, B. R., & Widodo, W. (2023). Do national export promotion programs in Indonesia support export competitiveness? Heliyon, 9(6), e16918. https://doi.org/10.1016/j.heliyon.2023.e16918

Hosmer, D. W., & Lemeshow, S. (2000). Applied logistic regression (2nd ed.). Wiley.

Huang, J. (2025). The influence of digital capabilities on the export performance of SMEs: Evidence from China. Asia Pacific Business Review. Advance online publication. https://doi.org/10.1080/13602381.2024.2448472

Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm-A model of knowledge development and increasing foreign market commitments. Journal of

International Business Studies, 8(1), 23-32. https://doi.org/10.1057/palgrave.jibs.8490676

Indonesian Chamber of Commerce. (2023). Annual report of Indonesian MSMEs 2023. Indonesian Chamber of Commerce and Industry.

Karagkouni, A., & Dimitriou, D. (2025). Barriers and initiatives to access international market for European cross-border regions. Economies, 13(6), 154. https://doi.org/10.3390/economies13060154

Coordinating Ministry for Economic Affairs of the Republic of Indonesia. (2023). The development of MSMEs and their contribution to national GDP. Coordinating Ministry for the Economy of the Republic of Indonesia.

Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. Journal of International Business Studies, 35(2), 124-141. https://doi.org/10.1057/palgrave.jibs.8400071

Little, R. J. A., & Rubin, D. B. (2019). Statistical analysis with missing data (3rd ed.). Wiley.

Mbokota, L., & Myres, K. (2024). Coaching competencies and their impact on individual learning and performance: A systematic review. SA Journal of Human Resource Management, 22, a2345.

Moen, Ø., Madsen, T. K., & Aspelund, A. (2008). The importance of the internet in international business-to-business markets. International Marketing Review, 25(5), 487-503. https://doi.org/10.1108/02651330810904044

North, D. C. (1990). Institutions, institutional change and economic performance. Cambridge University Press.

Nuryakin. (2024). Entrepreneurial orientation and SME export performance: Unveiling the mediating roles of innovation capability and international networking accessibility in the brass industry. Journal of Entrepreneurship, Management and Innovation, 20(1), 30-46. https://doi.org/10.7341/20242012

PPEJP of the Ministry of Home Affairs. (2024). Report on the achievements of the Export Coaching Program (ECP) in 2023-2025. Center for Export Human Resources Training and Trade Services, Ministry of Trade of the Republic of Indonesia.

Ramadhani, B., Hermawan, A., & Winarno, A. (2026). Transforming MSME business capabilities through multi-aspects of managerial mentoring: A case study of Moms Nastar Banyuwangi. Journal of Management: Small and Medium Enterprises (SMEs), 19(2), 1445-1453. https://doi.org/10.35508/jom.v19i2.26622

Revindo, M. D., Gan, C., & Hambali, S. (2024). SME's export intensity: Enhancers, inhibitors and firm characteristics. Journal of Small Business & Entrepreneurship, 37(2), 267-293. https://doi.org/10.1080/08276331.2024.2321433

Sadeghi, A., Aliasghar, O., & Bouguerra, A. (2023). Unpacking the relationship between post-entry speed of internationalization and export performance of SMEs: A

capability-building perspective. Journal of International Management, 29(1), 100982. https://doi.org/10.1016/j.intman.2022.100982

Safari, A., & Saleh, A. S. (2020). Key determinants of SMEs' export performance: A resource-based view and contingency theory approach using potential mediators. Journal of Business & Industrial Marketing, 35(4), 635-654. https://doi.org/10.1108/JBIM-11-2018-0324

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill-building approach (7th ed.). Wiley.

Singh, V. K., Keshari, A., Singh, D., Singh, P. C., & Gautam, A. (2024). Green export strategies and SMEs export performance: Mediating roles of innovation, readiness, and activities. Journal of Innovation and Entrepreneurship, 13, 1-33. https://doi.org/10.1186/s13731-024-00451-y

Sugiyono. (2019). Quantitative, qualitative, and R&D research methods.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509-533.

Yunitasari, D., Fauzan, A., & Prianto, F. W. (2023). Reducing regional disparity in Java: A spatial econometrics approach. Journal of Development Economics: A Study of Economic and Development Problems, 24(1), 129-140. https://doi.org/10.23917/jep.v24i1.18532