

## Uncertain Supply Chain Management

homepage: [www.GrowingScience.com/uscm](http://www.GrowingScience.com/uscm)**The influence of human capital, social capital, and digital technology on the export performance of SMEs****Dominicus Djoko Budi Susilo<sup>a\*</sup>**<sup>a</sup>Universitas Mahasarwati Denpasar, Kota Denpasar, Bali 80233, Indonesia**ABSTRACT***Article history:*

Received January 9, 2024

Received in revised format April 20, 2024

Accepted August 1 2024

Available online

October 1 2024

*Keywords:**Human Capital**Social Capital**Digital Technology**Export Performance*

The export development of small and medium enterprises (SMEs) in Indonesia is still very low, resulting in their contribution to national exports being very small as well. Government bodies and relevant stakeholders are actively pursuing initiatives to enhance the export performance of SMEs. These efforts include improving the quality of human and social capital and promoting the integration of digital technology into SME operations. This examination evaluates the impact of human capital (HC), social capital (SC), and the utilization of digital technology on the export performance of SMEs. The investigation adopted a survey approach on all export-oriented SMEs listed on the Bank Indonesia website. Data was obtained through the distribution of questionnaires to 614 SMEs. Data analysis was conducted using PLS SEM. The research findings indicate that human capital, social capital, and digital technology have a positive and significant influence on the export performance of SMEs in Indonesia.

© 2025 by the authors; licensee Growing Science, Canada.

**1. Introduction**

Regardless of various initiatives, export development of Indonesian micro, small and medium enterprises (MSMEs) remains quite low. Drawing from the current data, reported by The Central Statistics Agency (BPS) of Indonesia recorded in 2019, the number of MSME exports is only about 0.66% of the total MSMEs. Not only is the number very low, but their performance is also less than satisfactory. The Indonesian ministry overseeing cooperatives and SMEs announced that between 2015 and 2019, the export value of MSMEs consistently grew, reaching an impressive average of Rp274,468.24 billion annually. However, their contribution to national exports averages only 14.86%, with a decreasing trend year by year. Furthermore, the annual growth rate of their export value has shown a declining trend, averaging 17.01% per year, as detailed in Table 1.

**Table 1**

Export Development of MSMEs 2015 – 2019

Year	Number of MSMEs	Export Value of MSMEs (Non-Oil and Gas)			
		MSME Growth	Export Value (IDR Billion)	Percentage of National Exports	Annual Export Value Growth
2015	59,262,772		185,975.0	15.73%	
2016	61,651,177	4.03%	255,126.1	14.38%	37.18%
2017	62,922,617	2.06%	298,208.7	14.17%	16.89%
2018	64,194,057	2.02%	293,840.9	14.37%	-1.46%
2019	65,465,497	1.98%	339,190.5	15.65%	15.43%
Average	62,699,224	2.52%	274,468.2	14.86%	17.01%

Source: Ministry of Cooperatives and MSMEs RI (processed)

The Minister of Cooperatives and SMEs of Indonesia stated that compared to several other countries, the export performance of Indonesian SMEs is still below Singapore at 41%, Thailand at 29%, and China at 60%. Therefore, the government and other stakeholders continue to make efforts to enhance the export capabilities of SMEs, including enhancing human capital

\* Corresponding author

E-mail address [ddjokobudis@unmas.ac.id](mailto:ddjokobudis@unmas.ac.id) (D.D.B. Susilo)

ISSN 2291-6830 (Online) - ISSN 2291-6822 (Print)

© 2025 by the authors; licensee Growing Science, Canada.

doi: 10.5267/j.uscm.2024.8.009

(HC) and social capital (SC) and promoting the use of digital technology. HC advancement is pursued through guidance, training, and education for human resources, while the improvement of social capital is achieved through partnership relationships. As for the utilization of digital technology, it is primarily done by harnessing the power of the internet in operational activities, both for management and marketing activities, including finance.

Some of investigation reveals human capital as main determinant in regards of MSME performance (Daou et al., 2014; Muda & Rahman, 2016; Ojukuku & Sajuyigbe, 2015; Onkelinx et al., 2016b; Sardo et al., 2018). Similarly, social capital and digital technology (Cassetta et al., 2020; Dickson et al., 2006; Louw & Nieuwenhuizen, 2019; Pergelova et al., 2019; Pinho, 2016; Thrikawala, 2011; Watson, 2007) play crucial roles. However, efforts by the government and other stakeholders to enhance human and social capital, alongside the adoption of digital technology in MSMEs in Indonesia, have not been optimal. According to a survey by the Central Statistics Agency in 2019, only 4.09% of the 4.38 million MSMEs have received guidance/training/counseling, while those with partnership relations are only 8.28%, and those using digital technology (internet) are only 11.94%. Specifically, guidance, training, and counseling are mainly provided by the government and the MSMEs themselves, followed by private sector, foundations, or NGOs, aimed at managerial development, skills or production techniques, marketing, and environmental impact assessments. Meanwhile, existing partnership relations are mainly between MSMEs and Regional Governments or Cooperative Agencies, State-Owned and Regional Enterprises, private companies, banks, foundations and Community Empowerment Institutions, and others, aimed at marketing (44.11%), raw materials (44.08%), capital goods (19.62%), finance (7.33%), and others (4.48%). As for the use of digital technology (internet), it is aimed at marketing, product sales, purchasing raw materials, and information.

This investigation is focused on two key objectives. Initially, it seeks to outline export-oriented SMEs in Indonesia. This is crucial in order to provide explicit and comprehensive information for effective and valuable policy recommendations. Currently, export-oriented SMEs are scattered across various sectors and geographies, making it difficult to access information about them. Specifically, the mapping focuses on the characteristics of each SME. Secondly, it seeks to assess functions performed by human and social capital, and how digital technology usage influences their export performance. The outcomes of this research are anticipated to improve the literature on SMEs and provide policy recommendations for sustainable development of export-oriented SMEs.

## 2. Literature review

### 2.1 Human Capital (HC) and SME Export Performance

Human capital (HC) originates within the economic framework, initially advanced by Gary Becker in 1964. This concept denotes a collection of knowledge or proficiencies within human resources (Chahal & Bakshi, 2015; Onkelinx et al., 2016a). In economic growth theory, human capital was seen as a vital element, emphasizing knowledge serves as a substantial resource for enhancing output in the long-term perspective (Storper & Scott, 2009). Specifically, Goldin (2016) defines it as total set of human capabilities, involving behavioral routines, cognitive expertise, social attributes, and personality traits (including creative prowess) which are seen in task accomplishment, thus generating economic value. Human capital is essential in driving companies' creativity, innovation and productivity in pursuit of company goals as outlined by RBV theory, where human capital plays an integral part of competitive differentiation for any enterprise. It has been established through various studies that human capital was positively about company performance (Khalique et al., 2018; Rahim et al., 2017). Studies also demonstrate the role played by HC on company performance as one of its key determinants, surpassing any other performance-determining elements (Asiaei & Jusoh, 2015; Gupta et al., 2019; Inkinen, 2015). Human capital plays an essential part in supporting SME exporting operations, particularly by helping identify and take advantage of international market opportunities (Pickernell et al., 2016). Nevertheless, empirical findings on the correlation concerning human capital along with SME export performance varies. Research also reveals that managerial human capital is indispensable in enhancing export performance (Denicolai et al., 2015). These studies adopt the top echelon theory, which assumes that strategic options and the outcome of firms is shaped by the cognitive core values and qualities of upper management. Conversely, some studies suggest otherwise (Ganotakis & Love, 2012; Omri & Becuwe, 2014). In contrast to these studies, some emphasize that employee human capital strongly boosts export performance (Falk & Hagsten, 2015; Onkelinx et al., 2016b). Export activities necessitate employees with advanced skill levels. The complexities of international trade demand personnel who possess specialized knowledge in market research, negotiation, logistics management, and regulatory compliance. Skilled employees are crucial for navigating diverse cultural and economic landscapes, identifying lucrative market opportunities, establishing robust distribution channels, and effectively managing customer relationships abroad. Their proficiency ensures that export-oriented businesses can efficiently adapt to market changes, mitigate risks, and capitalize on competitive advantages to achieve sustained growth and success in global markets.

Specifically, Onkelinx et al. (2016a) discovered how human capital relates to SME export performance takes on a U-shaped form. This indicates the extent of human capital is expected to fluctuate alongside SME internationalization strategies which is vital in the interest of companies following an accelerated internationalization strategy. However, beyond that point, an increase in human capital will become less productive (Apdillah et al., 2022). Additionally, Mubarik et al. (2020) studied this

relationship in 586 manufacturing sector Pakistani SMEs, and determined that there exists a pronounced and meaningful association between the two factors, especially in companies with moderate to high export intensity. However, certain dimensions of human capital were omitted from consideration on their influence to export performance. Education and training were pinpointed as having the largest impact among all dimensions tested. Rodríguez & Orellana (2020) uncover a positive contribution for human capital and SME export performance in Spain. Specifically, broad-based human capital encompassing education and professional experience influences export intensity, while training does not really make a big difference. Comparable results were likewise observed by Onkelinx et al. (2016b) and Stucki (2016).

**H<sub>1</sub>:** *Human Capital can have a direct relationship with MSME export performance.*

## 2.2 Social Capital (SC) and Performance of Export MSMEs

Social capital (SC) has been translated into various dimensions. Easmon et al. (2019) classified social capital into three main components. These were structural, relational, and cognitive parts. Structural dimensions focused on patterns of relationship among actors such as quantity/variety of those engaged, hierarchy within networks or how stable connections may be between people (i.e. whether people have direct connections between each other) (Antoldi et al., 2011). The relational dimension is related to network behavioral aspects, such as trust, obligations, and expectations. In this case, entrepreneurs develop direct relationships established over a historical period for accessing information and resources. This viewpoint covers various aspects in a social setting, such as interactions and trust levels in relationships (Nahapiet & Ghoshal, 1998). Meanwhile, Lee (2009) connects the relational dimension with normative aspects, trust, obligations, and expectations. Cognitive aspects focus on creating effective communication contexts between actors to support sharing of knowledge, expertise and resources among them (Kang et al., 2007; Nahapiet & Ghoshal, 1998). Researchers in the SME sector have also identified social capital as an institutional connection (Abban, 2013; Peng & Luo, 2000; R. Pinho, 2011). This encompasses relationships with government export agents, participation in trade shows, business partnerships, and associations. Additionally, some scholars define social capital as government interventions and managerial bonds (Czinkota, 2002; Lu et al., 2010; Restyandito, 2016; Wilkinson & Brouthers, 2006). The managerial bonds in question involve connections involving buyers, suppliers, government bodies, and rivals.

Sandefur and Laumann (1998) provide another understanding of social capital, which consists of good relationships between management and family, friends, colleagues, and colleagues who provide various valuable resources, incorporating data, impact, and unity. Stam et al. (2014) and Acquaah (2007) support this statement, emphasizing that individual-level social capital integrated within entrepreneurial networks can sway company performance. Furthermore, institutional factors, including political and socio-cultural conditions, also become specific elements of social capital (Abban, 2013). Due to various interpretations of social capital, numerous empirical studies have explored its correlation with SMEs export outcomes. Thrikawala (2011) discovered that the involvement of SMEs in various networks (social capital) contributes positively to their performance. Corresponding outcomes were also identified by Watson (2007), where SMEs engaged in networks achieved higher performance and longer survival rates compared to those that were less or not involved in any networks. Similar findings were also made by Dickson et al. (2006) and Pinho (2016). Meanwhile, Rowley et al. (2000) found that networks were negatively correlated with SME performance. In cases where lesser-known businesses have to vie with established local or multinational competitors, partnership strategies take on central significance. Partnerships allow firms to get the resource they need more quickly than if it were produced internally (Lee et al., 2001).

Although our understandings of social capital vary considerably, most empirical findings (regardless of which dimension used) demonstrate how it increases export performance for SMEs. Based on these empirical discoveries we hypothesize:

**H<sub>2</sub>:** *Social capital has a positive correlation to SMEs' export performance.*

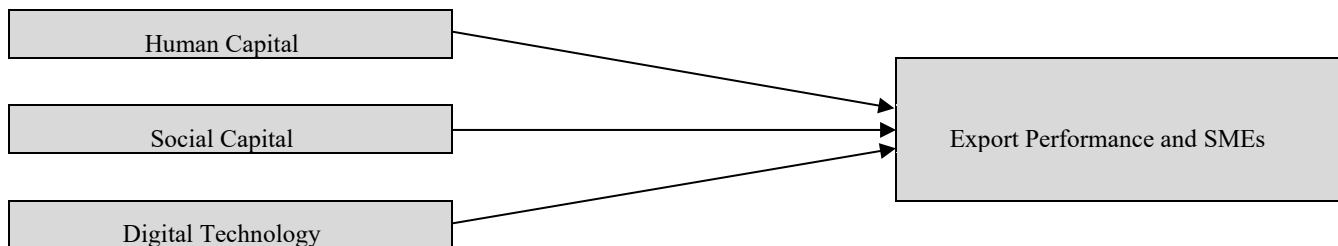
## 2.3 Digital Technology and the Performance of SME Exports

On the last decade, the advent of digital technology along with strong digital infrastructure has been transforming and continuously reshaping operational workflows, hierarchical formations, and cultural dynamics prevalent in enterprises by means of innovation, evolving marketing strategies, and novel product or service offerings (Tekic & Koroteev, 2019). Therefore, this technology has also become a strategic resource in the RBV concept, which can provide a competitive advantage for companies (Lee & Falahat, 2019). Thus, it can be said that digital technology has strategic value, rarity, is not easily imitated or replicated, and cannot be replaced. In the context of exporting SMEs, this technology can be seen as a facilitator to achieve international business goals, as it can influence strategies, including market development along with potential avenues (Dethine et al., 2020). How digitalization can facilitate SME export achievements also been explored (Costa et al., 2020; Jean & Kim, 2020)

Cassetta et al. (2020) delve into the function or contribution of digital technology boosting how well SMEs in Italy sell their products or services internationally. Their findings reveal that digital technology (e-business) contributes positively to export performance. Likewise, Louw & Nieuwenhuizen (2019) also demonstrate that digital technology utilization can enhance the ability of SMEs to engage in competition with larger organizations globally. Pergelova et al. (2019) further establish an affirmative association in regards to digital technology and the export performance of SMEs. Digital technology can empower entrepreneurship by making access available to global market knowledge and enhancing engagements with clients and collaborators. Elia et al. (2021) looked into the impacts of digital technology on export performance among an ensemble of 102 Italian SMEs, representing various sizes and sectors. They discovered that: (1) SMEs do not display a low inclination to participate in export activities, even though having resource limitations; (2) companies that leverage digital technology are more likely to enhance their exports; and (3) having digital skills is key, since companies with e-commerce managers tend to prefer selling products online more than those with traditional export managers. Other studies have reinforced that embracing digital technology positively impacts SMEs' export performance (Lecerf & Omrani, 2020). Therefore, we hypothesize that:

**H<sub>3</sub>:** *Digital technology is positively associated with SME export performance.*

As for the research model in this paper (Fig. 1) demonstrates below.



**Fig. 1.** The proposed study

### 3. Methodology

Data was obtained by distributing questionnaires to all export SMEs listed on the Bank Indonesia website, totaling 614 SMEs. The questionnaires were addressed to the company's management through email. The questionnaire consisted of 21 main questions, which were measured using several scales. The variables consisted of independent variables, namely human capital, social capital, digital technology, and dependent variables, namely SME export performance. Export performance was defined as the ratio of export sales relative to total annual sales, geographic coverage, growth rate, and contribution of export sales towards total profits (López-Rodríguez et al., 2018). Human capital was divided into two elements. First, it is pertaining to demographic profiles, characteristics present since birth, unchangeable, and not subject to investment or improvement, such as gender and age (López-Rodríguez et al., 2018). Second, it is related to education level, experience, tenure, individual participation in training, and the company's training expenditure ratio divided by the number of employees (Freeman & Styles, 2014; Javalgi & Todd, 2011; López Rodríguez & Serrano Orellana, 2020; Mozas-Moral et al., 2016). Social capital was measured by the presence or absence of relationships with foreign partners, relationships with government institutions, relationships with trade associations, interactions of other enterprises, also government officials (Abban, 2013; Peng & Luo, 2000; R. Pinho, 2011). Digital technology is measured by the presence or absence of digital technology usage for marketing activities, sales, purchasing raw materials, finance, and information. Control variables consist of company size, company age, industry sector, internal and external financial capital (López Rodríguez & Serrano Orellana, 2020).

In this research, variable measurements were completed with a 1-to-5 Likert scale. Partial Least Squares (PLS) data analysis software was utilized as the data collection technique of choice. Following data processing with PLS, the structural equation model was assessed. This evaluation involved two primary steps. First was an outer model evaluation to establish validity and reliability indicators measuring latent variables; and secondly an inner model evaluation to gauge model fitness. Before conducting model evaluation, it was verified that the questionnaire used as data collection instrument was both valid and reliable; notably all First Order loading factor values deemed significant through T-Statistic tests with results exceeding 1.96 were confirmed as such (Ghozali, 2016).

### 4. Results and discussion

#### 4.1 Results

The assessment of measurement models scrutinizes the accuracy and consistency of indicators used to measure constructs or latent variables. Within the scope of current investigation, the evaluation of the measurement model for the four variables, namely human resource capital (X1), social capital (X2), digital technology (X3), and export performance of SMEs (Y), which involves assessing the convergent and discriminant validity of indicators, along with examining composite reliability.

Examining the outer model to measure convergent, discriminant and composite reliability yielded some interesting findings:

Convergent validity measures indicators as measures of constructs as revealed through outer loadings output by SmartPLS; it employs coefficients on latent variables of indicators to achieve this assessment; valid indicators would have loadings scores exceeding 0.70 with t statistics greater than or equaling critical value (1996 or lower p-value = 0.05; however during development work loading scores between 0.50 to 0.60 are acceptable (Ghozali, 2016). Moreover, higher outer loading values indicate greater contribution from each indicator, identifying the most significant indicators within their latent variables.

In examining the discrimination of indicators for the HC variable (X1), all indicators have outer loading values exceeding 0.70 and p-values below 0.05 (5%), signifying their validity as measures of HC. The evaluation of the SC variable (X2) reveals similar results, with outer loading values above 0.70 and p-values below 0.05 (5%), indicating the validity of its indicators. Similarly, for the digital technology variable (X3), all indicators exhibit outer loading values greater than 0.70 and p-values below 0.05 (5%), confirming their validity as measures of digital technology.

Examining discriminant validity requires using Fornell-Larcker criteria, specifically by comparing square roots of AVE values extracted for latent variables against their correlations to other variables within a model. If the average square root exceeds correlation coefficients among other indicators of a latent variable, that indicates strong discriminant validity for its indicators (and ideal values exceed 0.50). Additionally, Fornell-Larcker Criterion values rank highest of all variables tested, showing strong predictability between latent variables and indicators, and predictability measured through indicators. Unbolded numbers denote integer variable correlations; hence these results confirm that our research model maintains sufficient discriminant validity, making it suitable for further analyses.

Discriminant validity can be demonstrated with high cross-loading values in constructs, where correlations with their respective measurement items are stronger than with items from other constructs; this indicates that constructs within their own block predict measurements more precisely. Composite Reliability assesses consistency between indicator blocks within constructs and is considered good when above 0.70 (Ghozali, 2016). Both composite reliability and Cronbach's alpha values for all five latent variables exceeded this threshold indicating reliable measurement; assessments of convergent validity, discriminant validity and composite reliability indicate this measurement is valid and reliable as measures for latent variables; an inner model analysis will assess goodness-of-fit in this research study.

### *Hypothesis Testing Results*

The following presents the effect of HC (X1), SC (X2), digital technology (X3) on export performance (Y). Table 2 summarizes the findings from testing the direct effects between variables.

**Table 2**  
Effect Test Results

Relationship between Variables	Path Coefficient (Bootstrapping)	T-Statistic	P Value	Description
Human Capital (X1) → Export Performance (Y)	2.132	2.714	0.004	Significant
Social Capital (X2) → Export Performance (Y)	6.256	3.106	0.000	Significant
Digital Technology (X3) → Export Performance (Y)	2.207	2.978	0.000	Significant

Source: Data processed

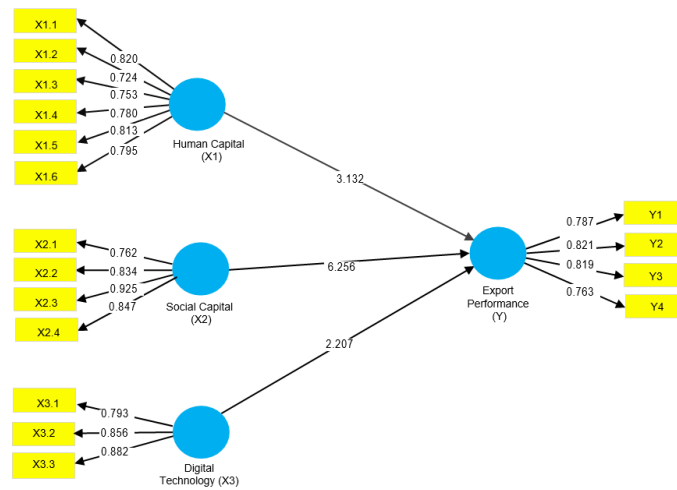
Table 2 displays the results of direct effects testing as described here:

Analysis demonstrates that human capital (X1) positively correlates to export performance (Y), as evidenced by its path coefficient being 2.132 and T-statistic value being greater than 1.96 as well as an extremely small p-value 0.05, thus verifying Hypothesis 1 of H1, which states there to be an impactful relationship between higher human capital levels and better SME export performance. This implies higher human capital levels can lead to improved export results for SMES.

SC (X2) had a statistically significant, positive effect on export performance (Y) with an impact of 6.256 path coefficient, a T-statistic of 3.106 ( $T > 1.96$ ), and an associated p value 0.000 ( $< 0.05$ ). Therefore, Hypothesis 2 (H2) which asserted a positive correlation between stronger social capital levels and greater export performance among SME firms was proven true, suggesting stronger relationships exist between stronger social capital assets and increased export performance for these enterprises.

Digital technology (X3) exerts a statistically significant positive effect on export performance (Y), as measured by path coefficient of 2.207 and T-statistic value of 2.978 ( $T > 1.96$ ); furthermore, its p-value was below 0.05; hence verifying Hypothesis 3's (H3) positive influence of digital tech on SME export performance - suggesting increased advancements of digital tech is linked with greater levels of exports by SMES.

The research model as analyzed through PLS is depicted in Fig. 2.



**Fig. 2.** PLS Path Coefficient Results

#### 4.2 Discussion

Data analysis indicates that HC plays a definite role in improving export performance of SMEs. This discovery implies that stronger human capital correlates with increased export performance among SMEs. Hence, hypothesis 1 (H1) is validated. The profound significance of human capital in Indonesian SMEs is paramount, as it drives the business forward. Without skilled and competent individuals, SMEs will not operate effectively, resulting in no improvement in their export performance. This research findings support previous studies conducted by Omri and Becuwe (2014), Ganotakis and Love (2012), Onkelinx et al. (2016b) and Falk and Hagsten (2015) human capital decisively contributes to and meaningfully improves the export performance of SMEs.

Further, data analysis reveals that social capital played a positive and substantial contribution in enhancing the export performance of SMEs. This evidence supports the notion that greater social capital will boost SME export performance. Hypothesis 2 (H2) can now be accepted, the presence of social capital within an enterprise is of critical importance for its continued operation and survival. Employees can collaborate with each other to generate business performance. Good relationships among employees can eliminate potential barriers. As a result, business continuity can be maintained and export performance can be improved. This research finding builds upon earlier works conducted by Stam et al. (2014), Acquah (2007), Abban (2013), and Watson (2007) which provide compelling evidence of how social capital (defined as networks of relationships and trust within business communities) plays an integral part in improving SME export performance. These social connections facilitate knowledge sharing, collaboration, and resource mobilization, which are critical for navigating international markets and overcoming barriers to entry. By fostering stronger ties with suppliers, customers, industry peers, and other stakeholders, SMEs can leverage social capital to access new market opportunities, gain competitive advantages, and sustain long-term growth.

Analysis revealed that digital technology had a positive and substantial influence on SMEs' export performance, specifically that its more advanced application enhanced it even further thereby validating hypothesis 3 (H3). Digital technology holds strategic value, is rare, not easily imitated or substituted, and irreplaceable. In the context of SME export, this technology can be seen as a facilitator to achieve international business goals, as it can influence strategies, including market development and opportunities. This research outcome validates previous investigations by Jean & Kim (2020) and Costa et al. (2020) in which digital technology has been shown to significantly augment the export capabilities of SMEs. By embracing digital tools and platforms, SMEs can streamline operations, optimize supply chain management, and enhance market reach. These advancements enable SMEs to engage more effectively with global markets, adapt to changing consumer demands, and capitalize on international trade opportunities. Moreover, digital technologies facilitate cost efficiencies, improve product customization, and foster innovation, thereby strengthening SMEs' competitive positioning in the global marketplace. The integration of digital technology not only expands market access but also empowers SMEs to achieve sustainable growth, drive economic impact, and contribute to overall industry resilience.

#### 4.3 Implications

This investigation highlights the pivotal contributions of HC, SC, and digital technology to SMEs' export outcome performance. Investing in workforce development is crucial, as skilled individuals directly contribute to better export outcomes. Strengthening relationships and networks within SMEs can also boost export performance. Embracing digital technology is essential, and policymakers can support SMEs in adopting and integrating digital tools to enhance competitiveness.

#### 4.4 Suggestions for further research

Future research could explore specific aspects of human capital, like education and training, to understand their impact better. Investigating contextual factors influencing social capital within SMEs can provide insights into its effects on export performance. Additionally, studying the dynamics of digital technology adoption among SMEs can present valuable perspectives for government officials and professionals eager to empower SMEs in regards to the worldwide market.

#### 5. Conclusion

Our research concludes that human capital, social capital, and digital technology significantly influence the export performance of SMEs. Human capital, represented by skilled and competent individuals, plays a pivotal role in driving SMEs' operational efficiency and ultimately enhancing their export performance in Indonesia. The presence of capable personnel is indispensable for overcoming operational challenges and achieving growth in international markets. Similarly, social capital, defined by strong internal and external relationships among employees, contributes significantly to SMEs' export performance. Effective collaboration and relationship management streamline operations, eliminate barriers, and ensure smooth business operations, thereby positively impacting export outcomes. Moreover, digital technology emerges as a crucial element in enhancing SME export performance. Advanced digital tools and technologies improve operational processes, expand market reach, and increase competitiveness in global markets. The strategic adoption of digital solutions facilitates SMEs' ability to achieve international business goals and capitalize on market opportunities effectively. In summary, our findings underscore the significance of HC, SC, and digital technology as major factors behind SME export performance in Indonesia. By leveraging these resources effectively, SMEs can strengthen their market position, enhance operational efficiency, and sustain growth in international trade.

#### References

- Abban, R., Omta (Onno), S. W. F., Aheto, J. B. k., & Scholten, V. E. (2013). Connecting the dots: A multiple case study of the network relationships of small and medium-sized enterprises (SMEs) in the non-traditional agricultural export (NTAE) sector of Ghana. *African Journal of Economic and Management Studies*, 4(1). <https://doi.org/10.1108/20400701311303168>
- Acquaah, M. (2007). Managerial social capital, strategic orientation, and organizational performance in an emerging economy. *Strategic Management Journal*, 28(12). <https://doi.org/10.1002/smj.632>
- Antoldi, F., Cerrato, D., & Depperu, D. (2011). Strategic Networks, Trust and the Competitive Advantage of SMEs. In *Export Consortia in Developing Countries*. [https://doi.org/10.1007/978-3-642-24879-5\\_2](https://doi.org/10.1007/978-3-642-24879-5_2)
- Apdillah, D., Panjaitan, K., Stefanny, N. T. P., & Surbakti, F. A. (2022). The Global Competition in The Digital Society 5.0 Era: The Challenges of The Younger Generation. *Journal of Humanities, Social Sciences and Business (JHSSB)*, 1(3), 75–80. <https://doi.org/https://doi.org/10.55047/jhssb.v1i3.151>
- Asiaei, K., & Jusoh, R. (2015). A multidimensional view of intellectual capital: The impact on organizational performance. *Management Decision*, 53(3). <https://doi.org/10.1108/MD-05-2014-0300>
- Cassetta, E., Monarca, U., Dileo, I., Di Berardino, C., & Pini, M. (2020). The relationship between digital technologies and internationalisation. Evidence from Italian SMEs. *Industry and Innovation*, 27(4), 311–339. <https://doi.org/10.1080/13662716.2019.1696182>
- Chahal, H., & Bakshi, P. (2015). Examining intellectual capital and competitive advantage relationship: Role of innovation and organizational learning. *International Journal of Bank Marketing*, 33(3). <https://doi.org/10.1108/IJBM-07-2013-0069>
- Costa, E., Soares, A. L., & de Sousa, J. P. (2020). Industrial business associations improving the internationalisation of SMEs with digital platforms: A design science research approach. *International Journal of Information Management*, 53. <https://doi.org/10.1016/j.ijinfomgt.2020.102070>
- Czinkota, M. R. (2002). Export promotion: A framework for finding opportunity in change. *Thunderbird International Business Review*, 44(3). <https://doi.org/10.1002/tie.10021>
- Daou, A., Karuranga, E., & Su, Z. (2014). Towards a better understanding of intellectual capital in Mexican SMEs. *Journal of Intellectual Capital*, 15(2). <https://doi.org/10.1108/JIC-08-2013-0092>
- Denicolai, S., Hagen, B., & Pisoni, A. (2015). Be international or be innovative? Be both? The role of the entrepreneurial profile. *Journal of International Entrepreneurship*, 13(4). <https://doi.org/10.1007/s10843-015-0143-y>
- Dethine, B., Enjolras, M., & Monticcolo, D. (2020). Digitalization and SMEs' export management: Impacts on resources and capabilities. *Technology Innovation Management Review*, 10(4). <https://doi.org/10.22215/TIMREVIEW/1344>
- Dickson, P. H., Weaver, K. M., & Hoy, F. (2006). Opportunism in the R&D alliances of SMES: The roles of the institutional environment and SME size. *Journal of Business Venturing*, 21(4). <https://doi.org/10.1016/j.jbusvent.2005.02.003>
- Easmon, R. B., Kastner, A. N. A., Blankson, C., & Mahmoud, M. A. (2019). Social capital and export performance of SMEs in Ghana: the role of firm capabilities. *African Journal of Economic and Management Studies*, 10(3). <https://doi.org/10.1108/AJEMS-11-2018-0361>
- Elia, S., Giuffrida, M., Mariani, M. M., & Bresciani, S. (2021). Resources and digital export: An RBV perspective on the role of digital technologies and capabilities in cross-border e-commerce. *Journal of Business Research*, 132.

- <https://doi.org/10.1016/j.jbusres.2021.04.010>
- Falk, M., & Hagsten, E. (2015). Export behaviour of micro firms in the Swedish computer and business service industries. *Economics*, 9. <https://doi.org/10.5018/economics-ejournal.ja.2015-32>
- Freeman, J., & Styles, C. (2014). Does location matter to export performance? *International Marketing Review*, 31(2). <https://doi.org/10.1108/IMR-02-2013-0039>
- Ganotakis, P., & Love, J. H. (2012). Export propensity, export intensity and firm performance: The role of the entrepreneurial founding team. *Journal of International Business Studies*, 43(8). <https://doi.org/10.1057/jibs.2012.16>
- Ghozali, I. (2016). Aplikasi Analisis Multivariate dengan Program IBM SPSS 23. Semarang: BPFE Universitas Diponegoro. *IOSR Journal of Economics and Finance*, 3(1).
- Goldin, C. (2016). Handbook of cliometrics: Human Capital. In *Handbook of Cliometrics*.
- Gupta, H. S., Hossain, F., Muthusamy, V., & Zunjare, R. U. (2019). Marker-Assisted Breeding for Enrichment of Provitamin A in Maize BT - Quality Breeding in Field Crops (A. M. I. Qureshi, Z. A. Dar, & S. H. Wani (eds.); pp. 139–157). Springer International Publishing. [https://doi.org/10.1007/978-3-030-04609-5\\_6](https://doi.org/10.1007/978-3-030-04609-5_6)
- Inkinen, H. (2015). Review of empirical research on intellectual capital and firm performance. *Journal of Intellectual Capital*, 16(3). <https://doi.org/10.1108/JIC-01-2015-0002>
- Javalgi, R. G., & Todd, P. R. (2011). Entrepreneurial orientation, management commitment, and human capital: The internationalization of SMEs in India. *Journal of Business Research*, 64(9). <https://doi.org/10.1016/j.jbusres.2010.11.024>
- Jean, R. J., & Kim, D. (2020). Internet and SMEs' internationalization: The role of platform and website. *Journal of International Management*, 26(1). <https://doi.org/10.1016/j.intman.2019.100690>
- Kang, S. C., Morris, S. S., & Snell, S. A. (2007). Relational archetypes, organizational learning, and value creation: Extending the human resource architecture. In *Academy of Management Review* (Vol. 32, Issue 1). <https://doi.org/10.5465/amr.2007.23464060>
- Khalique, M., Bontis, N., Bin Shaari, J. A. N., Yaacob, M. R., & Ngah, R. (2018). Intellectual capital and organisational performance in Malaysian knowledge-intensive SMEs. *International Journal of Learning and Intellectual Capital*, 15(1). <https://doi.org/10.1504/IJLIC.2018.088345>
- Lecerf, M., & Omrani, N. (2020). SME Internationalization: the Impact of Information Technology and Innovation. *Journal of the Knowledge Economy*, 11(2). <https://doi.org/10.1007/s13132-018-0576-3>
- Lee, C., Lee, K., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, 22(6–7). <https://doi.org/10.1002/smj.181>
- Lee, R. (2009). Social capital and business and management: Setting a research agenda. *International Journal of Management Reviews*, 11(3). <https://doi.org/10.1111/j.1468-2370.2008.00244.x>
- Lee, Y. Y., & Falahat, M. (2019). The impact of digitalization and resources on gaining competitive advantage in international markets: The mediating role of marketing, innovation and learning capabilities. In *Technology Innovation Management Review* (Vol. 9, Issue 11). <https://doi.org/10.22215/TIMREVIEW/1281>
- López-Rodríguez, J., Dopico, D. C., & Del Castillo Puente, A. M. (2018). Export performance in Spanish wineries: The role of human capital and quality management system. In *European Journal of International Management* (Vol. 12, Issue 3). <https://doi.org/10.1504/ejim.2018.091372>
- López Rodríguez, J., & Serrano Orellana, B. (2020). Human capital and export performance in the Spanish manufacturing firms. *Baltic Journal of Management*, 15(1). <https://doi.org/10.1108/BJM-04-2019-0143>
- Louw, C., & Nieuwenhuizen, C. (2019). *Online, community-driven e-commerce platforms and the rise of lifestyle commerce—a conceptual study*.
- Lu, Y., Zhou, L., Bruton, G., & Li, W. (2010). Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy. *Journal of International Business Studies*, 41(3). <https://doi.org/10.1057/jibs.2009.73>
- Mozas-Moral, A., Moral-Pajares, E., Medina-Viruel, M. J., & Bernal-Jurado, E. (2016). Manager's educational background and ICT use as antecedents of export decisions: A crisp set QCA analysis. *Journal of Business Research*, 69(4). <https://doi.org/10.1016/j.jbusres.2015.10.102>
- Mubarik, M. S., Devadason, E. S., & Govindaraju, C. (2020). Human capital and export performance of small and medium enterprises in Pakistan. *International Journal of Social Economics*, 47(5). <https://doi.org/10.1108/IJSE-03-2019-0198>
- Muda, S., & Rahman, M. R. C. A. (2016). Human Capital in SMEs Life Cycle Perspective. *Procedia Economics and Finance*, 35. [https://doi.org/10.1016/s2212-5671\(16\)00084-8](https://doi.org/10.1016/s2212-5671(16)00084-8)
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2). <https://doi.org/10.5465/AMR.1998.533225>
- Ojukuku, & Sajuyigbe. (2015). Effect of Human Capital Development on the Performance of Small and Medium Scale Enterprises in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 6(1).
- Omri, W., & Becuwe, A. (2014). Managerial characteristics and entrepreneurial internationalization: A study of Tunisian SMEs. *Journal of International Entrepreneurship*, 12(1). <https://doi.org/10.1007/s10843-013-0119-8>
- Onkelinx, J., Manolova, T. S., & Edelman, L. F. (2016a). Human capital and SME internationalization: Empirical evidence from Belgium. *International Small Business Journal: Researching Entrepreneurship*, 34(6). <https://doi.org/10.1177/0266242615591856>
- Onkelinx, J., Manolova, T. S., & Edelman, L. F. (2016b). The human factor: Investments in employee human capital, productivity, and SME internationalization. *Journal of International Management*, 22(4).



- <https://doi.org/10.1016/j.intman.2016.05.002>
- Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, 43(3). <https://doi.org/10.2307/1556406>
- Pergelova, A., Manolova, T., Simeonova-Ganeva, R., & Yordanova, D. (2019). Democratizing Entrepreneurship? Digital Technologies and the Internationalization of Female-Led SMEs. *Journal of Small Business Management*, 57(1). <https://doi.org/10.1111/jsbm.12494>
- Pickernell, D., Jones, P., Thompson, P., & Packham, G. (2016). Determinants of SME exporting: Insights and implications. *International Journal of Entrepreneurship and Innovation*, 17(1). <https://doi.org/10.5367/ije.2016.0208>
- Pinho, J. C. (2016). Social capital and export performance within exporter-intermediary relationships: The mediated effect of cooperation and commitment. *Management Research Review*, 39(4). <https://doi.org/10.1108/MRR-08-2014-0189>
- R. Pinho, J. (2011). Social capital and dynamic capabilities in international performance of SMEs. *Journal of Strategy and Management*, 4(4). <https://doi.org/10.1108/17554251111181034>
- Rahim, A., Atan, R., & Kamaluddin, A. (2017). Human Capital Efficiency and Firm Performance: An Empirical Study on Malaysian Technology Industry. *SHS Web of Conferences*, 36. <https://doi.org/10.1051/shsconf/20173600026>
- Restyandito, R. (2016). *Pemanfaatan Teknologi Untuk Meningkatkan Kualitas Hidup Orang Lanjut Usia di Indonesia* (Y. Lukito, L. K. Probo, & P. Christian (eds.); I). CV. ANDI OFFSET.
- Rowley, T., Behrens, D., & Krackhardt, D. (2000). Redundant governance structures: An analysis of structural and relational embeddedness in the steel and semiconductor industries. *Strategic Management Journal*, 21(3). [https://doi.org/10.1002/\(SICI\)1097-0266\(200003\)21:3<369::AID-SMJ93>3.0.CO;2-M](https://doi.org/10.1002/(SICI)1097-0266(200003)21:3<369::AID-SMJ93>3.0.CO;2-M)
- Sandefur, R. L., & Laumann, E. O. (1998). A paradigm for social capital. *Rationality and Society*, 10(4). <https://doi.org/10.1177/104346398010004005>
- Sardo, F., Serrasqueiro, Z., & Alves, H. (2018). On the relationship between intellectual capital and financial performance: A panel data analysis on SME hotels. *International Journal of Hospitality Management*, 75. <https://doi.org/10.1016/j.ijhm.2018.03.001>
- Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing*, 29(1). <https://doi.org/10.1016/j.jbusvent.2013.01.002>
- Storper, M., & Scott, A. J. (2009). Rethinking human capital, creativity and urban growth. *Journal of Economic Geography*, 9(2). <https://doi.org/10.1093/jeg/lbn052>
- Stucki, T. (2016). How the founders' general and specific human capital drives export activities of start-ups. *Research Policy*, 45(5). <https://doi.org/10.1016/j.respol.2016.02.010>
- Tekic, Z., & Koroteev, D. (2019). From disruptively digital to proudly analog: A holistic typology of digital transformation strategies. *Business Horizons*, 62(6). <https://doi.org/10.1016/j.bushor.2019.07.002>
- Thrikawala, S. S. (2011). The determinants of entrepreneurial intention among academics in Sri Lanka. *International Proceedings of Economics Development & Research*, 4(1).
- Watson, J. (2007). Modeling the relationship between networking and firm performance. *Journal of Business Venturing*, 22(6). <https://doi.org/10.1016/j.jbusvent.2006.08.001>
- Wilkinson, T., & Brouthers, L. E. (2006). Trade promotion and SME export performance. *International Business Review*, 15(3). <https://doi.org/10.1016/j.ibusrev.2006.03.001>



© 2025 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).