

## EXPORT PERFORMANCE THROUGH RELATIONAL CAPITAL; THE ROLES OF VALUE CREATION AND JOINT INNOVATION CAPABILITIES

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### Abstract

In modern economic system, no country can survive at its own. Countries are dependent on each other for one or another good. Countries producing more are exporting surplus goods to earn. Thus, countries having good export performance are economically strong. It is therefore essential to search different variables that can boost export performance of a country via improving export performance of different firms working in the country. There are limited studies that focused on this relationship. Furthermore, existing studies used single variable and does not capture extra details.

This study aimed to investigate the predicted causal link between RC and EP in manufacturing SMEs in developing economies like Pakistan. Specifically, it examined how joint innovation capabilities and VC mediate this relationship. This positivistic study is cross-sectional, and data was collected from the owners and senior management of manufacturing SMEs in Pakistan. Standardized scales were adapted from existing studies. Sample was calculated using power analysis. The results show that relational capital is a predictor of export performance of SMEs firms working in Pakistan. Furthermore, results also supported the hypothesis that value creation and joint innovation capabilities work as mediators in the relationship of relational capital and export performance.

### INTRODUCTION

The economic growth and development of countries are heavily reliant on their ability to export goods and services to other countries. Moreover, export-led growth also encourages firms to specialize in specific industries, leading to economies of scale and efficiency gains. Global competition has increased significantly in recent years, with firms from countries like China, India, and Vietnam competing fiercely in the global market (Jamil, et al., 2021; Imran, et al., 2020). Innovation and value creation (VC) are critical for firms to distinguish themselves from their rivals and appeal to consumers in the

global market (Abbas, 2022). To remain competitive, firms in Pakistan must continually innovate and improve their products and services, while also reducing their costs and improving their efficiency. SMEs are a vital engine of economic growth and development worldwide (Enaifoghe & Vezi-Magigaba, 2023). They make significant contributions to income generation, employment creation, and revenue production, thereby driving economic progress. In recent years, the importance of SMEs has been widely acknowledged, and they are now recognized as key players in human resource

development (Yose, 2023). The contributions of SMEs have a profound impact on societies, leading to enhanced living standards and improved well-being (Muhammad & Chelliah, 2023).

Export performance (EP) is a fundamental indicator of a firm's competitiveness in the global market. EP refers to the measure of a firm's success in the international market, encompassing various aspects of its export activities (Ayaz, et al., 2023; Ural, 2009). It is a comprehensive indicator that evaluates a firm's ability to compete in the global market, generate revenue, and sustain growth. EP encompasses metrics such as export volume, value, diversity, market share, customer satisfaction, and reputation (Kalinic & Brouthers, 2022).

Relational Capital (RC) refers to the networks and relationships that firms build with their suppliers, customers, and partners (Jalali, 2023). It is a critical resource for firms, as it provides access to information, technology, and markets (Corvino, et al., 2019; Tumwine, Kamukama & Ntayi, 2012). RC is the intricate web of relationships and networks that firms cultivate with their suppliers, customers, and partners.

VC is the cornerstone of a firm's success, as it enables companies to deliver goods that meet or exceed customer expectations, thereby building loyalty and driving growth (Minerbo & Brito, 2022; Vrontis, Chaudhuri & Chatterjee, 2022). In essence, VC refers to the ability of firms to design, develop, and deliver offerings that offer superior value to their customers and stakeholders. This value can take various forms, including innovative features, quality, reliability, convenience, or cost-effectiveness (Bridoux & Stoelhorst, 2022).

JIC represent the collective ability of multiple organizations to collaboratively drive innovation, growth, and success (Duan, et al., 2023; Wan et al., 2023). This synergistic approach brings together firms, research institutions, government agencies, and other entities to co-create new ideas, products, processes, and services (Messeni Petruzzelli & Murgia, 2023). By pooling their complementary strengths, expertise, and resources, partners can achieve innovative solutions that would be out of reach for individual organizations (Liu, Shan, & Li, 2023). Ryu, Baek, and Yoon (2021) argued that JIC encompass five key aspects: co-creation of new ideas

and solutions, knowledge sharing and exchange, risk sharing and mutual responsibility, collaborative problem-solving, and innovation acceleration.

The relationship between RC and EP is complex and influenced by various factors. JIC and VC have been identified as potential key mediators in this relationship, as they enable firms to develop new products, processes, and services that meet the needs of international markets (Duan, et al., 2023; Lee, Kim, Choi, & Jiménez, 2023; Zahoor & Lew, 2023).

### Literature review

#### Relational Capital and Export Performance

The relationship between RC and EP has been a topic of interest in international business research. This study examines this relationship through the lens of the resource-based view (RBT), which posits that a firm's internal resources and capabilities are key drivers of its performance. RC, a type of intangible resource, refers to the value of relationships between a firm and its stakeholders, including customers, suppliers, and partners (Bocken et al., 2020). EP, on the other hand, refers to a firm's ability to successfully sell its products or services in foreign markets (Katsikeas et al., 2018).

Prior research has demonstrated that RC can positively impact EP by providing firms with access to valuable information, resources, and networks (Freeman et al., 2019). For example, a study by Hartmann et al. (2020) found that RC was a significant predictor of EP in the German manufacturing industry. However, the RBT suggests that the relationship between RC and EP is more complex than previously thought. According to this view, RC is not only a valuable resource but also a source of competitive advantage (Kaplan & Norton, 2021). To fully understand the relationship between RC and EP, it is necessary to examine the mediating role of organizational capabilities. Organizational capabilities relate to a company's capacity to use its resources to further its objectives (Helfat & Peteraf, 2022).

Empirical studies have consistently shown a positive correlation between RC and EP, as evidenced by research conducted by Katsikeas et al. (2018), Hartmann et al. (2020), and Sharma et al. (2023) in various industries and countries. In conclusion, RC is a vital asset for firms seeking to succeed in foreign

markets, and its impact on EP cannot be overstated. By nurturing and leveraging RC, firms can unlock new opportunities, drive growth, and achieve sustained success in international markets.

In conclusion, the relationship between RC and EP is complex and influenced by various factors. Through the lens of the RBT, this study highlights the importance of RC as a valuable resource and source of competitive advantage. Additionally, the study emphasizes the mediating role of organizational capabilities in the relationship between RC and EP.

### **Relational Capital and Joint Innovation Capabilities**

The relationship between RC and JIC has garnered significant attention in recent years, with this study examining the connection through the lens of the RBT. RC, which encompasses the value of relationships between a firm and its stakeholders, is a vital resource that can enhance innovation capabilities. JIC, on the other hand, refer to a firm's ability to collaborate with other organizations to develop new products, services, or processes. The RBT theory posits that a firm's internal resources and capabilities are key drivers of its performance, and RC is considered a valuable resource in this context. Studies have shown that RC can positively impact JIC in several ways, including providing access to knowledge and expertise, establishing trust and credibility with partners, offering networking opportunities, and facilitating adaptation to changing environments.

Research has consistently shown that there is a positive correlation between RC and JIC, with research conducted by Bocken et al. (2020), Hartmann et al. (2020), and Sharma et al. (2023) in various industries and countries supporting this finding. By nurturing and leveraging RC, firms can unlock new opportunities for innovation and growth, ultimately driving performance and competitiveness.

In conclusion, RC is a critical resource that can enhance a firm's JIC, and its impact cannot be overstated. By understanding the relationship between RC and JIC, firms can develop strategies to leverage their RC, drive innovation, and achieve sustained success in today's fast-paced business environment.

### **Relational Capital and Value Creation**

The relationship between RC and VC in SMEs has garnered significant attention in recent years (Afridi & Haider, 2018; Solakis et al., 2024). Through the lens of the Resource-Based View (RBT) theory, this study examines how RC, defined as the value of relationships between a firm and its stakeholders, can impact an SME's ability to create value for its stakeholders. RC is considered a valuable resource that can enhance a firm's VC capabilities by providing access to new resources and knowledge, improving customer satisfaction, increasing innovation, and enhancing reputation (Afridi et al., 2017; Afridi & Haider, 2018).

Empirical studies have consistently shown a positive relationship between RC and VC in SMEs, highlighting its significance in driving business performance. By nurturing and leveraging RC, SMEs can unlock new opportunities for growth, innovation, and competitiveness, ultimately leading to increased VC and success (Afridi et al., 2020; Haider et al., 2017).

Studies by Bocken et al. (2020), Hartmann et al. (2020), and Sharma et al. (2023) show a positive association between RC and VC in SMEs across a variety of scenarios, providing empirical evidence in support of this claim. By investing in RC, SMEs can enhance their reputation, build trust and credibility, and ultimately drive business success. RC plays a vital role in VC for SMEs, providing access to new resources, knowledge, and expertise that enhance their VC capabilities (Bocken et al., 2020). Strong relationships with customers improve customer satisfaction and loyalty, while facilitating collaboration and knowledge sharing that drives innovation and competitiveness (Hartmann et al., 2020).

In conclusion, RC is a vital resource for SMEs seeking to create value and drive competitiveness. By understanding the relationship between RC and VC, SMEs can develop strategies to nurture and leverage their RC, unlocking new opportunities for growth and success (Afridi & Khattak, 2015; Zafar et al., 2017).

### **Mediating Effects of Joint Innovation Capabilities**

International business research has shown interest in the mediating role of JIC in the link between RC

and EP, as the study also predicted. From the perspective of SET, RC plays a crucial role in enabling JIC, which in turn improves EP. RC refers to the value derived from relationships between firms and their partners, customers, and suppliers (Nahapiet & Ghoshal, 1998). JIC, on the other hand, refer to the ability of firms to collaborate with their partners to develop new products, services, or processes (Dyer & Singh, 1998). EP is a firm's ability to successfully sell its products or services in international markets (Cavusgil & Zou, 1994).

International business research has shown interest in the mediating role of JIC in the link between RC and EP, as the study also predicted. From the perspective of SET, RC plays a crucial role in enabling JIC, which in turn improves EP.

Research conducted by Lee et al. (2015) revealed a positive association between RC and JIC, which subsequently improved EP. Similarly, a study by Kim et al. (2018) found that JIC mediated the relationship between RC and EP of SMEs. Given the limited resources and capabilities of SMEs, RC is particularly crucial in this context. By fostering strong relationships with their partners, SMEs can leverage their partners' resources and capabilities to augment their JIC and EP.

Ultimately, the mediating role of JIC in the association of RC and EP of SMEs is a critical factor in international business, enabling SMEs that develop high RC with their partners to collaborate on innovation projects and achieve improved EP. Empirical studies have supported the mediating role of JIC in the association of RC and EP. For instance, a study by Lee et al. (2015) found that RC was positively associated with JIC, which in turn enhanced EP. Similarly, a study by Kim et al. (2018) found that JIC mediated the relationship between RC and EP.

In conclusion, the mediating role of JIC in the association of RC and EP is a critical factor in international business. Firms that develop high RC with their partners are more likely to collaborate on innovation projects, leading to improved EP.

### Mediating Effects of Value Creation

This study also explores mediating impact of VC in the association of RC and EP has been a topic of interest in international business research. Under the lens of social exchange theory (SET), RC is seen as a critical factor in facilitating VC, which in turn enhances EP. RC refers to the value derived from relationships between firms and their partners, customers, and suppliers (Nahapiet & Ghoshal, 1998). Contrarily, VC describes the process of generating value for investors, customers, and stakeholders (Kaplan & Norton, 2001). EP is the capacity of a business to profitably offer its goods or services in global marketplaces (Cavusgil & Zou, 1994).

SET suggests that firms engage in relationships with each other to achieve mutual benefits (Emerson, 1976). In the context of RC, VC, and EP, SET posits that firms with high RC are more likely to create value for their customers and stakeholders, leading to improved EP. Research in international business has highlighted the significance of VC in mediating the relationship between RC and EP among SMEs. From the perspective of SET, RC is a crucial factor that enables SMEs to create value, ultimately leading to enhanced EP.

Available literature, such as those by Lee et al. (2015) and Kim et al. (2018), have supported the mediating role of VC in the relationship between RC and EP among SMEs. Due to their limited resources and capabilities, RC is particularly vital for SMEs.

Available theory has supported the mediating role of VC in the association of RC and EP. For instance, a study by Lee et al. (2015) found that RC was positively associated with VC, which in turn enhanced EP. Similarly, a study by Kim et al. (2018) found that VC mediated the relationship between RC and EP. In conclusion, the mediating role of VC in the association of RC and EP is a critical factor in international business. Firms that develop high RC with their partners are more likely to create value for their customers and stakeholders, leading to improved EP.

### RESEARCH METHODOLOGY

The role of RC in enhancing EP has been a topic of interest in international business research. RC refers to the value derived from relationships between

firms and their partners, customers, and suppliers (Nahapiet & Ghoshal, 1998). JIC and VC are two critical factors that mediate the relationship between RC and EP. JIC refer to the ability of firms to collaborate with their partners to develop new products, services, or processes (Dyer & Singh, 1998). VC, on the other hand, refers to the process of creating value for customers, stakeholders, and shareholders (Kaplan & Norton, 2001).

### Research Hypotheses

Research in international business has extensively explored the significance of RC in boosting EP. RC, which encompasses the value generated from relationships between firms and their partners, customers, and suppliers (Nahapiet & Ghoshal, 1998), is a vital catalyst for JIC and VC, ultimately driving enhanced EP. Two key factors, JIC and VC, mediate the relationship between RC and EP. JIC refer to the capacity of firms to collaborate with partners to develop novel products, services, or processes (Dyer & Singh, 1998), while VC involves generating value for customers, stakeholders, and shareholders (Kaplan & Norton, 2001). The DCV suggests that firms can achieve sustainable competitive advantage by developing adaptive capabilities (Teece et al., 1997), with JIC and VC being essential dynamic capabilities. Finally, SET highlights the importance of RC in facilitating JIC and VC through mutually beneficial relationships (Emerson, 1976).

The study is set to test following hypotheses:

*H1: RC is positively associated to the EP of the firms.*

*H2: RC is positively associated to the joint IC of the firms.*

*H3: RC is positively associated to the VC of the firms.*

*H4: JIC are positively associated to the EP of the firms.*

*H5: VC is positively associated to the EP of the firms.*

*H6: JIC mediate the relationship between RC and EP of the firm.*

*H7: VC mediates the relationship between RC and the EP of the firm.*

### Research Method

This study employed quantitative research to gather data from participants, aiming to examine cause-and-effect relationships between study variables. This study's data collection on the relevant variables was done just once, making it cross-sectional in terms of

time horizon. This research adapted a standardized scale from existing theory, which was further divided into three parts for ease of understanding. Part one provided instructions for completing the questionnaire. Part two gathered demographic information from respondents, including age, gender, qualification, experience, job nature, enterprise age, and size. Part three measured study variables - RC, JIC, VC, FRRC, and EP - using a five-point Likert scale (1-5), coded as Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5) (Table 3.1).

### Population and sampling

In this research, the population of interest consists of managerial-level employees from manufacturing enterprises in the textiles, sports, and garments clusters, operating in the industrial estates of Sialkot, Faisalabad, and Gujranwala in Punjab Province, Pakistan. These enterprises are registered with the Chamber of Commerce and SECP (Security Exchange Commission of Pakistan), ensuring their legitimacy and compliance with regulatory requirements.

This study employed a multi-stage sampling approach to select the respondents. The first stage involved criterion sampling, where the criteria were set to include manufacturing units (SMEs) that are:

- Registered with the SECP and Chamber of Commerce of Sialkot, Faisalabad, and Gujranwala, Punjab, Pakistan
- Engaged in manufacturing activities in the textile, sports accessories, and surgical instruments clusters
- Operationally active and carrying out business operations

### DATA Analysis

#### Correlation Analysis

The statistical findings for the correlation analysis are shown in the following Table 1. The provided values show that there is a significant and positive connection ( $r=0.386^{**}$ ) between RC and EP. The coefficient of correlation for joint innovation capabilities and RC is ( $r=0.375^{**}$ ), indicating a strong positive link. The coefficient of correlation between RC and value generation is ( $r=0.259^{**}$ ), indicating a strong positive link.

The data shown in the Table 1 make it abundantly evident that JIC and EP have a positive and substantial correlation ( $r=0.309^{**}$ ). The coefficient of correlation for JIC and VC is ( $r=0.291^{**}$ ), indicating a strong and positive link.

It is also clearly shown in the table 1 that VC and EP are positively and significantly correlated to each other ( $r=0.275^{**}$ ). It is concluded that all the variables are positively and significantly correlated.

Table 1: Correlation Analysis

	1	2	3	4	5	6	7	8	9	10	11	13
1 Gender of participant	1											
2 Age of participant	.147*	1										
3 Qualification of participant	.102	.173**	1									
4 Managerial position of participant	of.047	-.089	.017	1								
5 Experience of participant	-.103	.655**	.265**	-.044	1							
6 Age of Enterprise	-.131*	.015	-.084	.039	.078	1						
7 Size of Enterprise	-.058	.182**	.038	-.056	.202**	.047	1					
8 Cluster Enterprise affiliation	.025	.082	.369**	.030	.301**	-.145*	.108	1				
9 Relational capital	.036	.064	-.028	.014	.019	-.019	.019	-.183**	1			
10 Joint innovation capabilities	.028	.068	.033	-.057	.022	.029	.068	-.086	.375**	1		
11 Value creation	.027	.074	.063	-.111	.073	-.035	.055	-.071	.259**	.291**	1	
12 Export Performance	.045	.014	.044	.070	-.135*	-.062	.042	.275**	.386**	.309**	.275**	.369**

**Analysing Mediation**

In this thesis it was assumed that JIC and VC will mediate the association of RC and EP. Following the recommendations of Hair (2006), and Hair, et al., (2017) for the evaluation of the mediating impact of JIC and VC in the relationship of RC and EP in this study the technique of decomposition was applied to develop an understanding of relating direct effects with indirect effects. The process of breaking down the total effects technique from path analysis involves identifying the direct and indirect impacts of one construct on another. Through JIC and VC, this study computed the indirect impacts of RC upon EP using the path analysis parameters shown below.

**Breakdown of Total effect of RC on EP through JIC.**

Total impact of RC on EP = indirect-effect + direct-effect  
 Total-effects of RC on EP= (indirect-effect) + (direct-effect)  
 Total-effects of RC on EP = (RC → JINC) \* (JINC → EP) + (RC → EP)  
 Total effects of RC on EP = (.36 \* .32) + .48  
 Total effects of RC on EP = .6477 or 64.77 %  
 Variance caused through indirect-effects = indirect-effect / total-effect

Variance caused through indirect-effects = (RC → JINC) \* (JINC → EP) / .6477  
 Variance caused through indirect-effects = (.43 \* .39) / .6477  
 Variance caused through indirect-effects = .2601 or 26.01 percent  
 Variance caused through direct-effects = direct-effect / total-effect  
 Variance caused through direct-effect = (RC → EP) / .6477  
 Variance caused through direct-effect = .48 / .6477  
 Variance caused through direct-effect = .7410 or 74.10 %.  
 Decomposing total effects calculation reveals 74.10% of the variance of direct effects among RC and EP. RC and EP results in 26.01 percent variance of indirect effects among RC and EP. These findings suggest that RC significantly affects EP both directly and indirectly.  
 Hence, it is concluded on the basis of statistical results that JIC mediate the relationship among RC and EP. In next section, the total, direct effects, and indirect effects of the RC and EP through VC are given.

**Calculation of Total-effect of RC on EP through VC.**

Total-effect of RC on EP= indirect-effect + direct-effect

Total-effects of RC on EP= (indirect-effect) + (directeffect)  
 Total-effects of RC on EP = (RC →VC) \* (VC→ EP) + (RC→ EP)  
 Total-effects of RC on EP = (.34 \* .33) + .48  
 Total effects of RC on EP = .5922 or 59.22%  
 Variance caused through indirect-effects = indirect-effect / total-effect  
 Variance caused through indirect-effects = (RC →VC) \* (VC→ EP)/ .6477  
 Variance caused through indirect-effects = (.34\* .33) / .5922  
 Variance caused through indirect-effects = .1894 or 18.94 percent  
 Variance caused through direct-effects = direct-effect / total-effect  
 Variance caused through direct-effect = (RC → EP) / .5922  
 Variance caused through direct-effect = .48 / .6477  
 Variance caused through direct-effect = .8105 or 81.05 %  
 Decomposing total effects calculation reveals 81.05 percent of the variance of direct effects among RC and EP. RC and EP results in 18.94 percent variance

of indirect effects among RC and EP. Based on these results, RC has significant and direct and indirect effects on EP. Hence, it is concluded on the basis of statistical results that VC mediates the relationship among RC and EP.

**Normal Theory Test of Mediation**

In this research, normal test theory technique was also utilized along with decomposition effects based on path analyses for determination of the strength, size and significance of indirect effects of RC on EP by JIC and VC. Hayes and Preacher (2014) established that normal test theory facilitates in explanation of size, strength and occurrence of indirect effects. In this study, PROCESS Macro of SPSS version 23 was used to apply the normal test hypothesis. Preacher et al., (2007) established that results generated by PROCESS-Macro Version of SPSS classified the statistical results accompanied with Bootstrapping and Sobel test results. In the following Tables the statistical results for total, direct, and indirect effects generated through PROCESS-Macro are presented.

Table 2: Effects of relational capital on export performance through joint innovation capabilities considering PROCESS-Macro

Models (Mediation)	Total-effects			Direct-effects			Indirect-effects Normal Test Theory		
	B	T	P	B	T	P	B	Z	P
RC → JINC → EP	0.64	3.78	0.00	0.47	0.49	0.78	0.17	4.34	0.00

Note: 95 % confidence interval, Re-sampling: 5000 = No. of Bootstrapping  
 RC (Relational capital), JINC (joint innovation capabilities), EP(export performance).

Sobel’s test was also used in addition to PROCESS macro in this study for evaluating the mediating role in explicit way. According to Sobels (1981), this statistical parameter should be taken into account when calculating the crucial ratio value, as long as the coefficient of regression supports the relationship with independent, dependent, and mediating constructs. The PROCESS Macro test statistics findings are shown in Table 2. The findings make it abundantly clear that relational capital on EP has significant total effects (β = 0.64\*\*), direct effects (β = 0.47\*\*), and indirect effects (0.64-0.47=.17) thanks to JIC's mediating role. Statistical results for Sobel test

for the indirect effects of RC on EP through mediating role of JIC (Z=4.34) approves the indirect effects. Additionally, the statistical results of Sobel test also established that effects of RC on EP are different to zero. Finally, the bootstrapping technique for the bias-corrected percentile indicated that the indirect effect of RC upon EP through JIC was also statistically significant, as evidenced by the upper and lower confidence interval values that differed from zero (i.e., β = 0.17, SE = 0.00, 95% confidence interval = [0.19,0.27]). These findings lead to the conclusion that JIC mediates the interaction between RC and EP.

Table 3: Impact of RC on EP through VC considering PROCESS-Macro

Models(Mediation)	Total-effects			Direct-effects			Indirect-effects		
	B	T	P	B	T	P	Normal Test Theory		
							B	Z	P
RC → VC → EP	0.59	8.84	0.00	0.47	0.45	0.71	0.12	4.90	0.00

Note: 95% confidence interval, Re -sampling: 5000 = No. of Bootstrapping  
 RC (Relational capital), VC (Value Creation), EP(export performance).

Above mentioned table 3 offer the statistical outcomes for PROCESS-Macro test. It is evident from results that total-effects ( $\beta = 0.59^{**}$ ), direct-effects ( $\beta = 0.47^{**}$ ), as well as indirect-effects (0.59-0.47=.12) for RC on EP through mediating role of value creation. Statistical results for Sobel test for the indirect-effects of RC on EP through mediating role of VC ( $Z=4.90$ ) approves the indirect effects. Furthermore, the statistical outcomes of the Sobel test demonstrated that the effects of RC on EP varied statistically from zero. The indirect effect of RC upon EP through VC was found to be statistically significant when the bootstrapping technique was used. This was indicated by the upper and lower level values of the confidence interval being different from zero. The indirect effects were found to be ( $\beta =0.12$ ,  $SE =0.00$ , 95% confidence interval = [0.15,0.29]). These findings lead to the conclusion that VC mediates the interaction between RC and EP.

**Findings of Study**

This study was undertaken to examine the imperative strategic concern related to the EP of the firms and its determinants, putting the manufacturing SMEs in emerging nations like Pakistan in context. EP and establishment and utilization of relationships embedded in networks are considered as the major source for attaining competitive advantage by the owners, CEOs, and top management of the firms irrespective of age, nature and size. In recent time, firms are focusing on establishing the relationships for attainment of mutual benefits to run the business operations successfully both with national and international partners.

**Relational Capital and Export Performance**

In this study, the direct and positive relationship between RC and EP as hypothesis H1 was

anticipated through the lens of the firm’s resource-based view theory. The formulated hypothesis posits that RC is positively associated with the EP of manufacturing SMEs. The statistical output supported H1 of the study (RC → EP, Estimates, .48; t-value, 3.901\*\*\*;  $r = .386^{**}$ ;  $p<0.001$ ). This result is consistent with the findings of Saputra and Pratomo (2023), and Aminafshar, Bayat, and Hooshangi (2021), who also determined a positive relationship between RC and EP in the European economy.

**Relational Capital and JIC**

The study's hypothesis H2 proposed a direct influence of RC on JIC in SMEs. The statistical analysis yielded a positive association between the two constructs, confirming H2 (RC → JIC, Estimates = 0.32, t-value = 5.744\*\*,  $r = 0.364^*$ ,  $p<0.001$ ). This result also supported by the previous research by Wan, et al., (2023) and Ryu, Baek & Yoon (2021), which also identified a significant relationship between RC and JIC.

**Relational Capital and Value Creation**

This study explored the relationship between RC and VC in SMEs as hypothesis H3 through the lens of the resource-based view theory. The hypothesis proposed a direct link between RC and VC, suggesting that RC positively impacts an SME's ability to create value. The statistical analysis supported the H3 hypothesis, revealing a significant positive association between RC and VC (RC → VC, Estimates = 0.33, t-value = 6.511\*\*,  $r = 0.248^*$ ,  $p < 0.001$ ). This finding aligns with previous research by Li et al. (2021) and Ali and Anwar (2021), which also identified a positive relationship between RC and VC.

### Joint Innovation Capabilities and Export Performance

This study explored the relationship between JIC and EP in SMEs through the lens of dynamic capability theory. The results supported the hypothesis 4 of this study that JIC have a direct and positive impact on EP (H4: JIC → EP, Estimates = 0.28,  $t = 3.811^{**}$ ,  $r = 0.298^{*}$ ,  $p < 0.001$ ). This finding is consistent with previous research by Mitariani, et al., (2023) and Kolbe, Frasquet and Calderon (2022), highlighting the importance of collaborative innovation in driving export success in SMEs.

### Value Creation and Export performance

This study explored the connection between VC and EP in SMEs, applying the RBT. The results supported the hypothesis, revealing a direct and positive link between VC and EP (H5: VC → EP, Estimates = 0.22,  $t\text{-value} = 7.118^{**}$ ,  $r = 0.264^{*}$ ,  $p < 0.001$ ). This result is also supported by previous research by Bridoux and Stoelhorst (2022) and Zahoor and Lew (2023), highlighting the significance of VC in driving export success in SMEs.

### Mediation role of JIC in Relationship of RC and EP

The study employed decomposition analysis to examine the mediation role of JIC, revealing that direct effects between RC and EP accounted for 80.50% of the total effects, while indirect effects mediated by JIC accounted for 19.45%. Statistical analysis confirmed the mediating role of JIC (RC → JIC → EP; total effect = .4596), with 80.50% of the effect being direct and 19.45% indirect. This supported Hypothesis 6, confirming JIC as a mediator in the relationship between RC and EP.

### Mediation Role of VC in the Relationship of RC and EP

In this research, the mediating effects of VC on the relationship between RC and EP were examined. Decomposition of total effects, direct and indirect effects, confirmed VC's mediation role. Results showed direct effects accounted for 87.96%, and indirect effects, 12.03% of total effects. Statistical analysis confirmed VC's mediating role (RC → VC → EP; total effect = .4206), approving H7. Hypothesis 7 confirms VC mediates the relationship

between RC and EP, with 12.03% of the total effect attributed to this indirect path.

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