The Role of Knowledge Adoptive Capacity towards Exports Performance: An Evidence from Textile Sector

Ramaisa Aqdas[1]*, Nik Ab Halim Nik Abdullah[2]

[1,2] Universiti Utara Malaysia, Department of International Business, School of International Studies, Sintok 06010 Kedah, Malaysia
* Corresponding author: ramaisarana@gmail.com

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Abstract

Purpose- Knowledge absorptive capacity plays a significant role in export performance. It is a dynamic capability that firms apply to gain competitiveness in today's knowledge-based economies. The aim of the present research is to identify relationship among dimensions of KAC and export performance.

Design/Methodology- Nature of study was descriptive and quantitative. Data was collected through questionnaires from 291 large scale textile firms of Pakistan. Smart PLS was used in analyzing data by incorporating CFA and SEM techniques to test the hypotheses.

Findings- The results reveal that knowledge acquisition, transformation, and exploitation have significant positive relationship with export performance.

Introduction

Exporting is considered as an opportunity for organizations in launching new products into foreign markets but they lack capabilities and resources, therefore they utilize external knowledge for innovation and enhancing their performance. (Ferreras-Méndez, Fernández-Mesa, & Alegre, 2019). And in today's knowledge-based economy, knowledge is considered as a strategic tool to succeed in a competitive environment. The firm's performance foundation lies in its capacity to combine, create, recombine and exploit knowledge. Firm's knowledge is created either through external acquisition or internal creation (Xie, Zou, & Qi, 2018). Furthermore, to take benefit from external knowledge, organizations must possess absorptive capacity. The absorptive capacity of organization is essential for their innovative activities. Moreover, it also plays a significant part in range of knowledge flow and magnitude determination. Absorptive capacity has indirect or direct contribution towards organization's innovation and financial performance. Therefore, firm's knowledge absorptive capacity (KAC) is crucial for value creation (Ahimbisibwe, Nkundabanyanga, Nkurunziza, & Nyamuyonjo, 2016).

Indeed, knowledge is a source of innovation and competitiveness which is crucial for a firm's survival. In fact, firms need to incorporate innovativeness in their products due to continually changing the environment and customer demands (Dávila, Durst, & Varvakis, 2018). Previous literature suggests that in rapidly changing business environment, external channels allows organizations to improve their absorptive capacity and adapt knowledge base. Thus, by transforming, exploiting and exploring external knowledge collaboration, organizations are capable to pursue the consequences they aspire in international marketplaces (He & Wei, 2013; Saebi & Foss, 2015). Those firms who realize the significance of external knowledge, their performance also becomes better in exporting. Moreover, lack of knowledge is one of the most significant factors of emerging economies that result in exporting firm's marginal performance (Onyeiwu, 2015). The objective of this research paper is to explore association among KAC dimensions and export performance. The structure of this paper is as follows. First of all the theoretical bases and hypotheses are deduced. Then methodology, findings, discussion and conclusion followed by limitations and future directions.

Literature Review

Export Performance

Export performance is referred to as extent to achieve organization's objectives both strategically as well as economically. Exporting a product in overseas market is accomplished through export market strategy via planning and execution (Cavusgil & Zou, 1994). Chung, Yang, Won, and Journal (2019), suggests that exporting in foreign markets enhances strategic and financial performance of organizations that ultimately helps them in attaining competitive position. Exporting is the easiest way of entering foreign markets. It is an important path for organizations not only for exploration, learning and becoming stronger but also for enhancing economic growth of country (Aqdas, Ab Halim Nik Abdullah, & Sciences, 2019). Furthermore, doing businesses abroad increases organization's export activities and increases their financial impact. These activities act as a stimulus and source of competitiveness in developing competence, learning processes, accumulating technology and learning at firm level that enhances organizational innovativeness and productivity. Additionally, exporting activities at country level contributes towards prosperity, development of national industries, improvement in employability, productivity and economic growth (Ribau, Moreira, Raposo, & Business, 2017).

Knowledge Absorptive Capacity (KAC)

Knowledge is a crucial intangible resource for firm's competitive advantage. Organizations need dynamic capabilities to increase their performances and such dynamic capabilities are known as knowledge absorptive

capacity (KAC). W. M. Cohen and Levinthal (1990), defined "absorptive capacity as three-dimensional concept recognizing the value of external and new information, assimilating it and applying it to commercial ends". Since the introduction of this concept, it has been widely studied as business, individual, cluster and organization level (Keskin & Ayar, 2017). Zahra and George (2002), recognizes importance and role of knowledge acquisition, assimilation, transformation, and exploitation. Moreover, they re-conceptualize KAC as potential and realized absorptive capacity. Potential absorptive capacity (PAC) entails with knowledge acquisition and assimilation, on the contrary, realized absorptive capacity (RAC) is concerned with knowledge transformation and application. PAC acts as an interface among external environment and firm while, RAC acts within firm and liable for producing higher levels of organizational performance (Ferreira & Ferreira, 2020).

However, KAC plays a crucial role in the organization's long term survival and it complements, focuses and supports their core knowledge (García-Villaverde, Rodrigo-Alarcón, Ruiz-Ortega, & Parra-Requena, 2018).

Knowledge Acquisition

Knowledge acquisition is a firm capability in external knowledge identification and acquirement. In other words, it is the process in which firms acquire knowledge resources meanwhile interact with external and internal environment (Buckley, Glaister, Klijn, & Tan, 2009). It is preliminary phase of knowledge absorption. Moreover, firms can use external knowledge in making novel links and enhance their performance (Berchicci, 2013). However, one of major reason firms lack in exporting to international markets is lack of information (Siringoringo, Prihandoko, & Kowanda, 2009). According to Mogos Descotes and Walliser (2013), more knowledge firms have about international markets, more they can target their exports markets and can enhance their international performance. Based on literature, following hypothesis is derived

H1: Knowledge acquisition has a significant and positive relationship with export performance

Knowledge Assimilation

Knowledge assimilation is the firm's processes and routines that allow them to interpret, understand and analyze information which is obtained from external source (Zahra & George, 2002). Firms should assimilate external knowledge as it speeds up problem-solving rate and reduces new product development cycle. It also increases firm's competitive advantage and innovativeness (Hoarau, 2014). Moreover, assimilation updates firm's knowledge reserves and avoids repetition of work. Researchers have proved that positive association exists among knowledge assimilation and performance (Ahimbisibwe et al., 2016; Xie et al., 2018). Therefore, following hypothesis is deduced

H2: Knowledge assimilation has a significant and positive relationship with export performance

Knowledge Transformation

Zahra and George (2002), defined knowledge transformation as the capacity of a firm in developing and refining routines that encourage in merging recently and existing assimilated and acquired knowledge. It is a critical phase because it involves prior as well as newly assimilated knowledge. However, it can be a source of successful innovative outcome as prevailing and new knowledge leads towards novel ideas which improve organizational performance (Xie et al., 2018). On the contrary, when differences arise between new and existing knowledge, transformation becomes more essential as firms cannot instantaneously understand or copy external knowledge. Hence through knowledge transformation firms can reconstruct new perspective and also serves to integrate existing and new knowledge. Therefore, generating deeper and new insights (Dabić, Vlačić, Ramanathan, & Egri, 2019). Hence, following hypothesis is formulated

H3: Knowledge transformation has a significant and positive relationship with export performance

Knowledge Exploitation

Knowledge exploitation is related with firm's capabilities to utilize and integrate acquired, assimilated and transformed knowledge into routines and operations to solve problems and to translate knowledge into profits and allowing them in creating new competencies and operations (Camisón & Forés, 2010; Mitchell, 2006). According to Albort-Morant, Henseler, Cepeda-Carrión, and Leal-Rodríguez (2018), knowledge exploitation is applying new external knowledge into commercial ends. Knowledge exploitation has a positive association with export performance (Ahimbisibwe et al., 2016; Xie et al., 2018). Keeping in mind, above mentioned literature following hypothesis is proposed

H4: Knowledge exploitation has a significant and positive relationship with export performance

Theoretical Framework

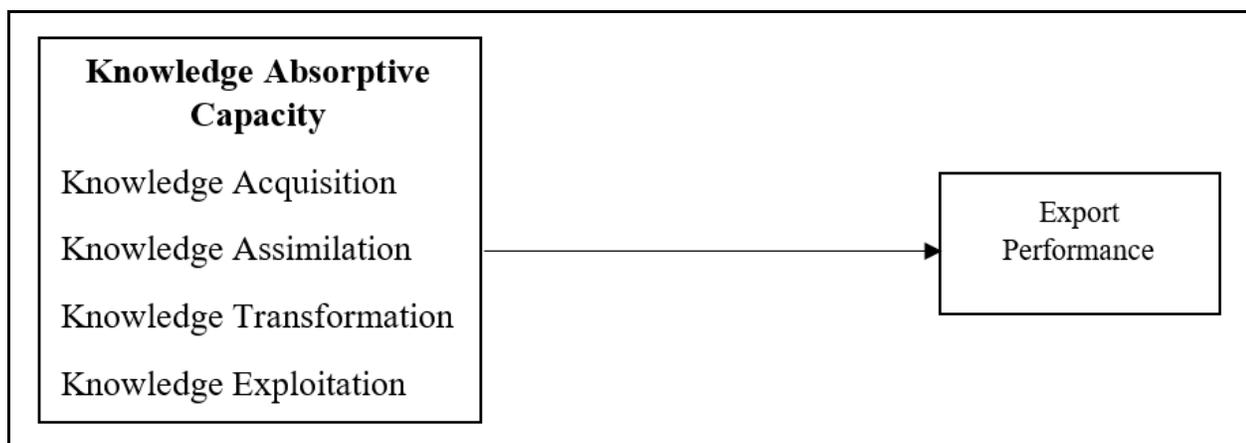Following the theoretical framework is proposed based on the above mentioned literature

Figure 1 - Theoretical Framework

Methodology

Method

This study analyzes the role of knowledge absorptive capacity on export performance in large scale textile sector of Pakistan. The nature of this study was quantitative and descriptive. Data was collected through cluster sampling and the target population was managers of large scale textile firms. Data was collected through postal and self-administered questionnaires. Total 484 questionnaires were sent while only 291 were received which shows 60.12% response rate. 5 point Likert scale was used to measure respondents opinion ranging from strongly disagree to strongly agree.

Dependent variable

Following the research of Cadogan, Cui, and Kwok Yeung Li (2003) and (Sapienza, Smith, & Gannon, 1988) export performance was measured by using twelve items.

Predictors

Knowledge absorptive capacity was measured by using thirteen items and four constructs by following the work of Flatten, Engelen, Zahra, and Brettel (2011) Noblet, Simon, and Parent (2015) and Zahra and George (2002).

Results

Table 1 - Confirmatory Factor Analysis

Constructs	Items	Loadings	CR	AVE
Export Performance	EP1	0.695	0.884	0.491
	EP2	0.629		
	EP5	0.604		
	EP6	0.684		
	EP7	0.791		
	EP8	0.749		
	EP10	0.795		
	EP12	0.629		
Knowledge Acquisition	KAC1	0.922	0.873	0.698
	KAC2	0.857		
	KAC3	0.713		
Knowledge Assimilation	KAS1	0.938	0.945	0.896
	KAS4	0.955		
Knowledge Exploitation	KE1	0.898	0.791	0.563
	KE2	0.661		
	KE3	0.667		
Knowledge Transformation	KT1	0.722	0.809	0.585
	KT2	0.816		
	KT3	0.755		

For convergent validity factor loadings and average variance extract (AVE) must be greater than 0.5 and composite reliability (CR) must be greater than 0.8 (Hair, Black, Babin, Anderson, & Tatham, 2010). And as shown in table 1 values of all constructs fall within threshold values. Therefore convergent validity is observed.

Table 2 - Heterotrait-Monotrait Ratio

	EP	KAC	KAS	KE	KT
EP					
KAC	0.790				
KAS	0.385	0.530			
KE	0.713	0.584	0.416		
KT	0.468	0.347	0.105	0.436	

Discriminant validity is observed through Heterotrait-Monotrait Ratio (HTMT) as shown in the above table. Threshold value to observe discriminant validity according to Kline (2015), is all values must be less than 0.85. As depicted in table 2 all values are greater than 0.85 and observed minimum criterion which ensures discriminant validity.
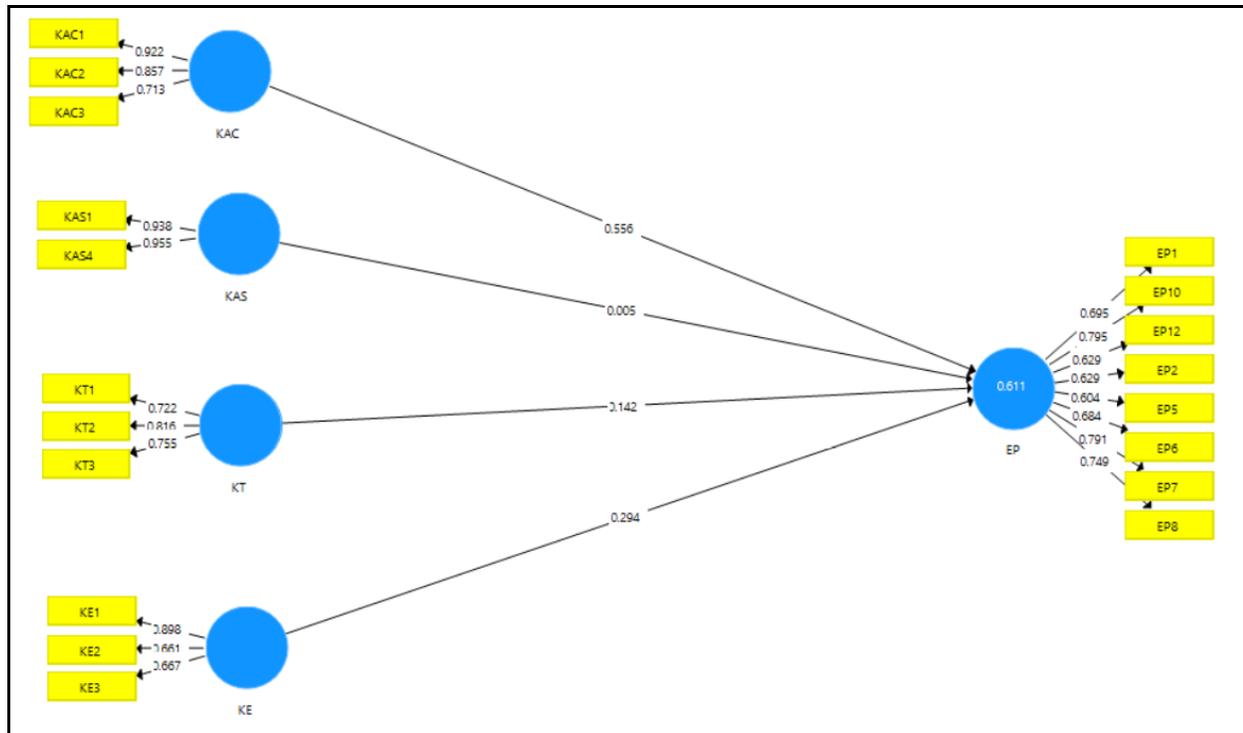

Figure 2 - Confirmatory Factor Analysis

Structure Equation Modeling

Table 3 - Path Analysis

H	Relationships	Std. Beta	Std. Error	T Value	P Values	Decision
H1	KAC -> EP	0.556	0.057	9.694	0	Supported
H2	KAS -> EP	0.005	0.043	0.112	0.455	Not Supported
H3	KE -> EP	0.294	0.06	4.910	0	Supported
H4	KT -> EP	0.142	0.04	3.579	0	Supported

PLS-SEM was conducted to analyze the relationship between constructs. The bootstrapping procedure was used in this study to access path coefficients significance. Findings reveal that knowledge acquisition has significant and positive relationship with export performance (β= 0.556, t= 9.694) so, H1 hypothesis was supported. However, knowledge assimilation has non-significant and positive relationship with export performance (β= 0.005, t= 0.112) therefore, H2 hypothesis was not supported. Moreover, knowledge transformation has significant and positive relationship with export performance (β= 0.294, t= 4.910) thus, H3 hypothesis was supported. Additionally, knowledge exploitation has significant and positive relationship with export performance (β= 0.142, t= 3.579) hence, H4 hypothesis was also supported.
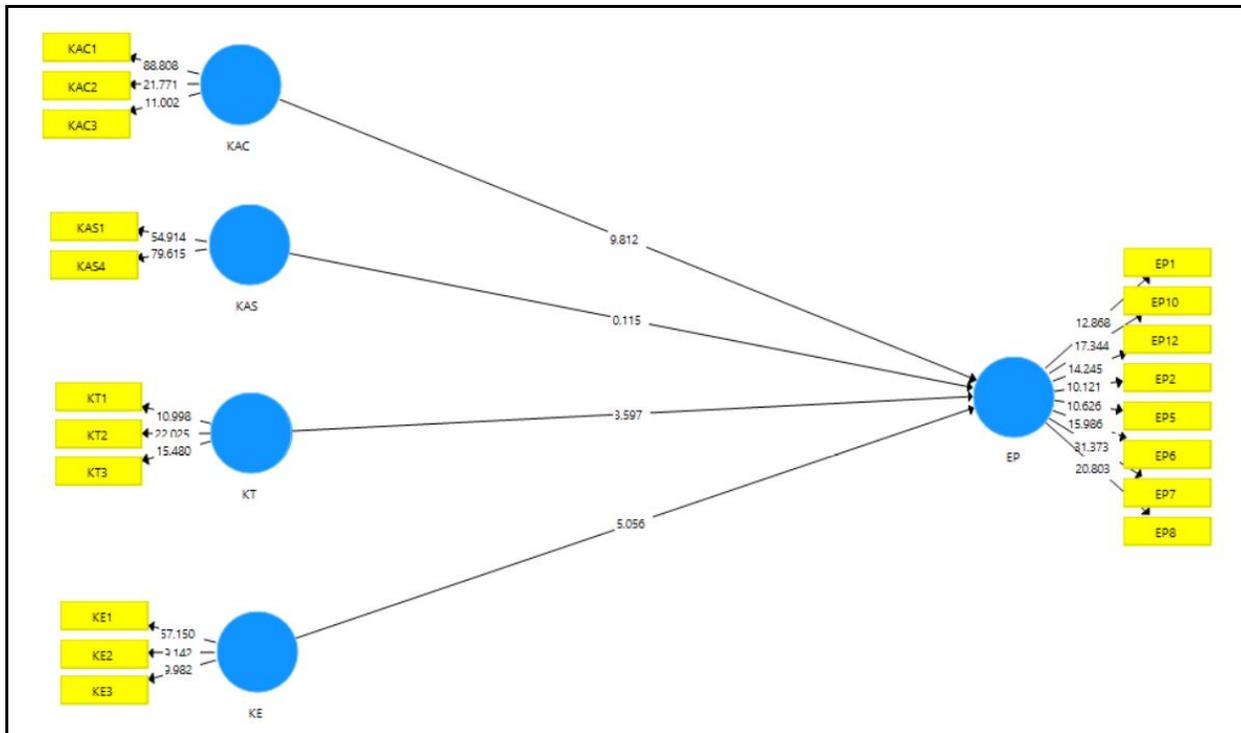
Figure 3 - Structure Equation Modeling

Table 4 - Values of f 2, VIF, q2and r2

	f²	VIF	q²	R²
KAC	0.559	1.419	0.260	0.611
KAS	0	1.293		
KE	0.173	1.284		
KT	0.46	1.112		

Effect size (f2), variance inflated factor (VIF), predictive relevance (q2) and coefficient of determination (r2) of all variables are depicted in Table 4. Effect size values are 0.02 small, 0.15 medium and 0.35 large (P. Cohen, West, & Aiken, 2014). In this study, KAC and KE 0.559, 0.173 have large effect size and KT 0.46 has medium effect size. As suggested by Hair et al. (2010), VIF is less than 5 so there is no issue of multicollinearity. Moreover, predictive accuracy was measured through blindfolding method (Stone, 1974). q2 was 0.260 that is greater than zero which illustrates sufficient predictive relevance. Additionally, R2 plays a crucial role in structural model assessment and as suggested by Hair Jr, Hult, Ringle, and Sarstedt (2016) value of R2 0.25 weak, 0.50 moderate and 0.70 strong. In this study, KAC explained 61% to export performance and called moderate contribution.

Discussion and Conclusion

The purpose of this study was to identify the relationship between knowledge absorptive capacity dimensions and export performance. And findings reveal that knowledge acquisition, transformation, and exploitation have significant positive relationship with export performance. The results are also aligned with previous researches (Ahimbisibwe et al., 2016; Xie et al., 2018). Therefore, firms should consider knowledge absorptive

capacity as core competencies to achieve a competitive advantage as they play the role of key drivers for country' export performance. Most of the studies examined KAC as a whole construct (García-Villaverde et al., 2018; Keskin & Ayar, 2017; Li, Cui, & Liu, 2017; Wang & Han, 2011) but this research identifies each dimension and explained their relationship with export performance which is lacking in previously. Hence, current study contributes to the literature.

Moreover, by observing the results of this study, firms can more focus on knowledge acquisition, transformation and exploitation to secure better export performance and align their efforts on these constructs. This study will also contribute to policymakers as they can get insights from results of this study to formulate suitable strategies to enhance country's export performance competencies that will be useful for foreign market success.

Limitations and Future Directions

The present study focused only on large scale textile firms of Pakistan leading towards limited target population. Future researchers can focus on different sector as well as other countries or comparative study to validate the results. This study is cross-sectional in nature, future researchers might benefit from longitudinal data. Moreover, potential mediators or moderators can be added in this framework to corroborate the results.

Conflicts of Interest: The authors declare no conflict of interest.

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