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**Determinant Factors and International Joint Ventures' Innovativeness Outcome of IJV  
Knowledge Acquisition: Facts from Algeria**

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**ABSTRACT**

Economic transition in previously closed economic imposes on their local firms to form IJVs to acquire their valuable knowledge and skills to meet the market's needs. To understand what are the potential factors that may affect the IJV's knowledge. This paper aims to examine transfer mechanisms and knowledge management practices as determinants to IJV's knowledge acquisition, which in turn leads to better IJV's innovativeness. With a sample of 122 oil and gas IJVs in Algeria and through analyzing the data via PLS-SEM 3.0, the results revealed that while transfer mechanisms have a significant relationship with IJV's knowledge acquisition. However, knowledge management practices have an insignificant relationship with IJV's knowledge acquisition. Besides, IJV's knowledge acquisition was positively linked to IJV's innovativeness.

**Keywords:** knowledge acquisition, knowledge management practices, transfer mechanisms, innovativeness, international joint venture, Algeria.

**INTRODUCTION**

In the face of uncertain business environments and intensified global competition, the notion of owning potential firm resources, such as knowledge and technology is strategically crucial to generate sustained competitive advantage (Lyles & Salk, 1996). The core objective of firms' acquisition of knowledge is to create new knowledge for innovation which can facilitate firms be to generate market performance. These strategies in turn can help a firm to gain an advantage of a strong position in the industry, thus sustaining its strength of competition.

As in their local context, there are impoverished means, limited infrastructure, and a weak system to generate knowledge and skills (Low & Robins, 2014). Transitional economic firms often form an international joint venture with foreign partners from more developed countries for learning new skills and developing new approaches as well as obtaining technological, managerial, and marketing capabilities to be able to meet customers' requirements and to compete in market-based economic conditions (Tsang, Nguyen, & Erramilli, 2004). However, while the effectiveness of technology and capital transfer by foreign partners within the context of IJVs is most readily observed, it is uncertain that IJVs are effective in accomplishing their learning objectives. Furthermore, previous researchers have unveiled that an average of two in five IJVs is perpetual strugglers or outright failures (Beamish & Delios, 1997), corresponding to this, we feel an innate obligation to answers for the question of what determines an IJV's knowledge acquisition from its foreign partner(s).

Researchers have absorbed that to achieve organisational learning local organisations need mechanisms to embed and internalise the knowledge depending on its contextual nature (Björkman, Barner-Rasmussen, & Li, 2004; Foss & Pedersen, 2002; Williams, 2007). Transfer mechanisms are recognised as the modes by which firms conduct knowledge transfer activities (Easterby-Smith et al., 2008; Mason & Leek, 2008). Transfer mechanisms are also described as the way that the recipient unit involves replicating or adapting the knowledge from the sending firms (Easterby-Smith, Lyles, & Tsang, 2008; Mason & Leek, 2008). The reason why firms replicate and adapt knowledge as clarified by Williams, (2007), is because knowledge is ambiguous and adaptive depending on its context.

Another key concept, knowledge management practices are often seen as one of the main assets of knowledge management (Lane & Lubatkin, 1998), and the use of knowledge management is important since firms need the ability to create, transfer and apply knowledge, thereby makes it valuable, thus providing an alternative explanation for their existence (Teece, 1998). Knowledge management practices refer to the set of management activities in IJVs to improve the effectiveness and efficiency of organisational knowledge resources (Schiuma, Andreeva, & Kianto, 2012).

Previous research studies on IJVs' knowledge acquisition from the foreign partner(s) mostly include absorptive capacity with social capital (C. P. T. T. Anh & Baughn, 2013; P. T. T. Anh, Baughn, Hang, & Neupert, 2006; Dhanaraj, Lyles, Steensma, & Tihanyi, 2004; Lane, Salk, & Lyles, 2001; Lyles & Barden, 2000; Lyles & Salk, 1996; THI THUC ANH, 2017). However, to date, researchers there is lack of studies examined transfer mechanisms and knowledge management practices as IJV knowledge acquisition facilitator which leaves a gap in the literature. Thus, it is imperative to have a fine-grained understanding of the underlying factors through which an IJV can leverage the benefits of knowledge transfer and conditions under what it may work. Without an adequate understanding of this, it is difficult for IJVs to truly take advantage of knowledge transferred from their foreign partner(s).

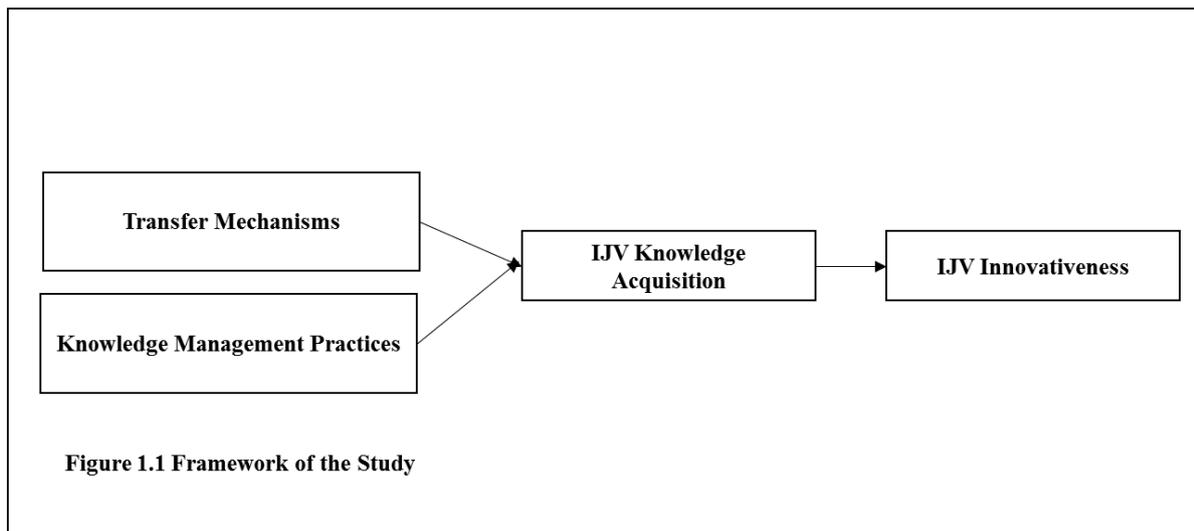
Knowledge acquisition is not the only challenge and motive for all IJVs, from the knowledge-based view (KBV) perspective, strategically oriented alliances often place strategic emphasis on IJVs as channels through which firms gain organisational knowledge embedded in their parent companies. Consequently, resulting in competitiveness and superior performance (Grant, 1996; Grant & Baden-Fuller, 1995). Despite these arguments, it is important to understand the effect of

IJVs' knowledge acquisition on IJVs' innovativeness. However, with very few exceptions, e.g (Idris & Seng Tey, 2011) there have been limited theoretical and empirical investigations on the understanding of whether the transferred resources and knowledge from foreign partners have contributed and enhanced the innovativeness of these IJVs.

Thus, this paper proposes a comprehensive two-fold framework to further enrich the existing body of knowledge in the field of IJVs' knowledge acquisition from the foreign partner(s) by presenting transfer mechanisms and knowledge management practices as the determinants of IJV's knowledge acquisition and IJV's innovativeness as its consequences. IJV's knowledge acquisition is defined as the new foreign partners' knowledge that is acquired, absorbed, and applied by IJV to create the same management techniques and manufacture activities, and got equally to the original economic organisations (Nguyen & Aoyama, 2015; Sazali & Raduan, 2011). Therefore, we posit the following research questions. 1) do each of the transfer mechanisms and knowledge management practices affect IJV's knowledge acquisition? Does IJV's knowledge acquisition in turn effect on IJV's innovativeness. This inline derives us to underline three hypotheses, H1: transfer mechanisms have a positive effect on IJV's knowledge acquisition, H2: knowledge management practices have a positive effect on IJV's knowledge acquisition, and H3: IJV's knowledge acquisition has a positive effect on IJV's innovativeness.

In this paper, the researchers have chosen Algeria as the context of the research, that is, Algeria is considered one of the recent economic in the transition stage. The policymaker of the country has launched a series of reforms in the economy, more particularly encouragement of inflow of foreign direct investment. Where the government of Algeria embarked upon liberalisation, deregulation, privatisation programmes, and tax incentive to attract inward FDI. Moreover, sustainable

development strategies are put high in place in the government's agenda to strike more FDI for technological knowledge spillover (National Agency for Investment Development, 2017). From the data revealed by UNCTAD FDI, (2017), inward foreign direct investment in Algeria has trebled in the past 10 years; it has dramatically increased from \$8 222 million in the year 2005 to \$ 27778 million in the year 2016. By the year 2006, the government of Algeria imposes an old-new rule to organise the inflow of FDI. Where every foreign investor has to lay down to the rule 51/49. This rule is for formation IJV includes a foreign investor with a local partner (can be more than one local firm in the IJV). In this rule, the local firm (s) must own the majority. The government of Algeria imposes this rule with a belief that the foreign partner will bring technology, equipment and machinery, cash, and materials. Which may lead the new entity to acquire it and learn how to generate it in the future.



## THE LITERATURE REVIEW AND HYPOTHESES

### IJV's Knowledge Acquisition

KBV theory describes knowledge is a crucial factor to strengthen firms' competitiveness and performance (Grant, 1996; Narteh, 2008; Nickerson & Zenger, 2004). Generally, the need for

basic learning and the importance of information and technology of knowledge acquisition can facilitate organisations' efficiency and effectiveness (Park, 2010). Consequently, researchers consider knowledge acquisition as the course through which new knowledge is acquired. Whereas, new knowledge is the one which is new to the organisation and not newly created (P. T. T. Anh et al., 2006; Huber, 1991). Hence to determine the degree of knowledge acquisition in an IJV, the comprehension of different skills, capabilities and consequences involved in the process of knowledge acquisition are necessary.

From the literature of IJV's knowledge acquisition from the foreign partner, since the pioneered study conducted by Lyles and Salk, (1996), most of the previous researches have focused on absorptive capacity e.g. (Lane et al., 2001; Lyles & Salk, 1996), social capital e.g. (Dhanaraj et al., 2004), or integrate both e.g. (THI THUC ANH, 2017; Thi Thuc Anh & Baughn, 2013). However, there is a lack of studies to examine other potential determinants that may affect IJV's knowledge acquisition. Therefore, deriving from different studies on knowledge transfer in various contexts such as multinational companies, alliances, inter-firm collaboration, and buyer-supplier relationships, we have suggested in this paper transfer mechanisms and knowledge management practices as determinants to IJV's knowledge acquisition. In addition to the determinants, many of previous tried to examine the consequences of IJV's knowledge acquisition e.g. (C. P. T. T. Anh & Baughn, 2013; Dhanaraj et al., 2004; Lane et al., 2001; Lyles & Barden, 2000; Lyles & Salk, 1996; Tsang, Nguyen, & Erramilli, 2004), However, most of these studies focus on IJV's performance. Therefore, with exception of very few studies e.g. (Idris & Seng Tey, 2011; Seng & Taha, 2017). Therefore, the current paper would investigate the effect of IJV's knowledge acquisition on IJV's innovativeness.

## Transfer Mechanisms

To facilitate knowledge transfer, an IJV must ascertain the nature of knowledge transfer practice to generate broad transfer mechanisms needed to embed foreign knowledge in a local setting. Transfer mechanisms dictate how firms will interact with transfer knowledge (Jasimuddin, 2007; Prévot & Spencer, 2006). More precisely, transfer mechanisms are utilised methods of an acquiring firm to replicate and adapt the given knowledge of a parent firm (Easterby-Smith et al., 2008; Mason & Leek, 2008).

In a study, Williams (2007) has developed an important model that illustrates the effects of replication and adaptation of knowledge transfer. The model has proclaimed that a firm's replication and adaptation are due to ambiguous and contextual knowledge respectively. The model has further proposed that firms are inclined toward replication when knowledge is discreet, whereas adaptation is preferred when exchanged knowledge is understood. Both replication and adaptation of knowledge lead to successful knowledge transfer thus prompt improved firm's performance. Given that, firms not only contribute towards the replication of accurate embodiment of knowledge but also emphasise the difficult and tedious embodied adaptation of knowledge. Hence, in accordance with the study of Williams (2007), both replication and adaptation have been deemed important to achieve successful knowledge transfer.

In an empirical study conducted by Williams, (2007), replication and adaptation can lead to successful knowledge transfer, which leads to improved performance of the recipient firm. By examining the replication of the knowledge transfer process between the JV of Hong Kong and

China, (Y. Wang & Nicholas, 2005) have found that Chinese managers' replication was measured by the changes in the local Hong Kong managers' knowledge contribution to the accumulation of JV knowledge. Concisely, the more knowledge the Chinese managers learned through imitation the more contribution they made to the JV level of knowledge. With regards to adaptation, (Pak, Ra, & Lee, 2015) have concluded that knowledge adaptation is a vital step in the knowledge management process and in maximising the fit of transferred knowledge to the new cultural and organisational context of the IJV. *HI: transfer mechanisms have an effect on IJV's knowledge acquisition*

### **Knowledge Management Practices**

Management practices are significant indicators of knowledge processes and firm performance (Inkinen & Inkinen, 2016). Knowledge management practices are comprised of organisational routines, control and coordination mechanisms, and systems for managing knowledge management practices outcomes (Gray, 2001). The purpose of management practices is to accelerate the efficiency and effectiveness of knowledge management to maximise the organisation's benefits (Schiuma et al., 2012).

Among all knowledge management practices, management commitment is considered as the most important (Earl, 2003) because management commitment is often exhibited through the behaviours and attitudes of a firm's leaders in support of learning behaviours and attitudes (Pham & Swierczek, 2006; Senge, 1990). Management commitment defines organisational learning consequences (Lei, Slocum Jr, & Pitts, 1997). The essence of management commitment is to develop a firm's learning objectives and strategies, and the firm should strive to attain these objectives, and the commitment to this will enable the firm to achieve its dream for its excellence

(Senge, 1990). The pledge to learning may facilitate the creation of clear learning schedules, and procedures and routines in order to accomplish them (Simonin, 2004). Whereas, these benefits can only be yielded when the firm's leaders are committed and encourage learning behaviours and attitudes in the firm (Lei, Slocum, & Pitts, 1997; Pham & Swierczek, 2006; Senge, 1990).

There are many studies which have proven the importance of knowledge management practices in organisations. Most studies have shown that leadership commitment is utterly important for efficient technology transfer (Nguyen & Aoyama, 2012), organisational learning, and performance (Thuy Pham & Swierczek, 2006). In the context of IJVs, a Vietnamese study has revealed that articulated goals enhance knowledge acquisition (Lyles & Salk, 1996). Another Vietnamese study on IJVs has suggested that management commitment can reduce conflict intensity which in turn can enhance learning (Tsang et al., 2004). Another important consideration is that the positive effect of management commitment varies for both explicit and tacit knowledge (Evangelista, 2009). Conclusively, findings from the above-discussed studies have suggested that management commitment enhances knowledge acquisition.

*H2: knowledge management practices have an effect on IJV's knowledge acquisition*

### **IJV's Innovativeness**

According to the KBV, knowledge is the most valuable strategic resource to gain competitive advantage and to achieve higher organisational performance (Grant, 1996; Kogut & Zander, 1992;

Nonaka & Takeuchi, 1995). Companies need to commensurate with the new development of products and technologies and continuously distribute knowledge within and across organisational units for employees are continually improving. (Hung, Lien, Yang, Wu, & Kuo, 2011; Jaguli, Malek, & Palil, 2014). Organisational innovativeness is defined as a firm's capacity to bring in new ideas, products or processes (Hult, Hurley, & Knight, 2004). Innovation is the distinctiveness between a new thing and its substitutes or existing equivalents, particularly distinctive qualities and characteristics. A new thing can be referred to as idea, attitude, approach, behaviour, technique, culture, technology, or capability (Damanpour, 1991).

In the context of organisational internal factors, product and process innovation are closely related to technological innovation (Jaguli et al., 2014). Internal factors are comprised of knowledge resources, physical resources, capabilities, values, norms, and management systems. Whereas, external factors include customers, competitors, market position, and technology for required knowledge acquisition (Hung et al., 2011).

Therefore, firms in emerging markets such as Algeria often choose to form joint ventures with firms from comparatively advanced countries to acquire necessary knowledge that is not available locally. Many researchers have explained the reasoning behind the establishment of IJVs through KBV. Researchers have suggested that collaborative arrangements (e.g. IJVs) are necessary to support market contracting as the knowledge from local markets is not (Grant & Baden-Fuller, 1995). Therefore, in light of knowledge acquisition from a foreign partner, IJVs can contract out similar support to meet mutual benefits (Grant & Baden-Fuller, 1995). Therefore, transferred

knowledge is the key to firm's competitive advantage, and the speed of knowledge transfer defines a firm's first-mover advantage in the firm's operating environment. As the value and speed of knowledge transfer increases, the likelihood of IJVs innovative performance also increases (Sáenz, Aramburu, & Rivera, 2009).

*H3: IJV's knowledge acquisition have an effect on IJV's innovativeness*

## **METHODOLOGY**

### **Data collection**

The questionnaire of the study has been delivered in two different languages, namely, English and French. The reason behind this is that the target population are IJVs in Algeria, where the French language is the common medium of work in the country, with taking into consideration that many of IJVs are using the English language at the workplace. Therefore, the questionnaire was initially developed in English, in which the researchers adopt or adapt the measurements from the previous studies. Later on, the questionnaire has been translated into the French language by a professional lecture who is capable of both languages and fits by experience purpose. After that, the researchers used back to back translation to avoid any mistake or problem in the translation (Brislin, 1970; Douglas & Craig, 2007; Ozolins, 2009). The survey was first administered to get at least 30 responses in Algiers (the capital city of the country) to undertake the pilot test to identify any ambiguities in it. Fortunately, the questionnaire was readable and understandable. The draft of the questionnaire includes the measurements of all factors namely, determinants (transfer mechanisms, knowledge management practices), outcome (IJV innovativeness), and the main focus (IJV knowledge acquisition). As well as some questions on the respondents and IJV information.

The researchers provided by the list of 702 oil and gas IJVs in the period of 2006 till 2016. Through drop-collect and online techniques, the survey was delivered on 326 oil and gas IJVs. Where most of the IJVs are located in Algiers, Hassi Masoud, and Ouarigla. To increase the responses, with high insistence and many reminding, the researchers made the calls and visit the respondents to the workplace. The data collection process lasted over six months. A total of 126 questionnaires were collected, out of them, four questionnaires were incomplete due to excessive missing data, resulting in a sample of 122 IJVs with a response rate of 37,42% (122 out of 326). An independent sample t-test shows no differences in the mean scores of all the study variables between these two groups (drop-collect and online questionnaires); Hence, the survey method does not have any effect on the results. Furthermore, we have assessed non-response bias, that is, through comparing the responses of early and late respondents (Armstrong & Overton, 1977; Lambert & Harrington, 1990). The t-tests performed on these two groups yielded no statistically significant differences, indicating that a non-response bias was not a concern. Furthermore, this study uses variance inflation factors (VIFs) to examine the effect of multicollinearity. The findings show multicollinearity that the values of tolerance range between 0.272 and 0.469 and the variance influence factor values range between 2.131 and 3.672. The effects of multicollinearity fall within acceptable limits, suggesting no need for concern with respect to multicollinearity (Hair, Black, Babin, Anderson, & Tatham, 2006).

Regarding the Informants who responded to the surveys, they were familiar with the knowledge absorption process. The numbers and percentage according to positions is presented as follows, CEO 21 (17.2%), director 35 (28.7%), manager 28 (23%), and engineer 38 (31.1%). The informant's tenure in IJV was conducted through three options, namely, 1-3 years, 4-6 years, and

7 and above. The frequencies were 1-3 years, 4-6 years, and 7 and above are 20 (16.4%), 60 (49.2%), and 42 (34.4%) respectively. Notably, most of the respondents are with a considerable number of years, mostly with 4 to 6 years of working experience in IJV. The participant IJVs were from various numbers of the staff, which is carried four options, 0-100 employees, 101-300 employees, 301-1000 employees, and 1001 employees and above. Out of 122, the frequencies for the four options are 10 (8.2%), 29 (23.8%), 59 (48.4), and 24 (19.7) respectively.

### **Measures**

*IJV Knowledge Acquisition* has been assessed through adopting the measurements from (Lin, 2007; Nguyen & Aoyama, 2015) studies, which include seven items which focus on staffs' capability of acquiring exclusive knowledge, local staffs' development in technical information and knowledge, the ability of local staffs' operating skills to produce quality products, staffs' intrinsic motivation to impart knowledge by study further, ability to improve product quality, tenure of trained and experienced staffs in IJV and finally the level of cooperation between local and foreign staffs.

*Transfer mechanisms* were measured using two subscales adaptation and replication. Adaptation stresses changing its operations to integrate it with the new context whereas, replication refers to changing the receiving unit's operations to be more like its partner's using Williams (2007) scale. The questionnaire had been previously validated by previous studies and they found good internal consistency. The adaptation was measured using four items, indicating the extent that firms usually implement the modified practices from the JV partner into their own firm ( $\alpha = 0.74$ ). For example "We usually combined ideas from our foreign partners with other ideas when we adopted them". Replication which is items the extent that firms try to manage their business exactly like their

partner using four items e.g “We spent substantial time making sure practices we adopted from our foreign partners worked just as they did there”. All items were measured using 7 point Likert-scale ranging from 1= strongly disagree to 7= strongly agree. Previous studies found the scale internally consistent ( $\alpha = 0.84$ ).

*Knowledge Management Practices* will be assessed through management commitment, we have adopted the measures from (Evangelista, 2009; Sinkula, Baker, & Noordewier, 1997) studies as presented in 6 Likert scale items. These items discuss the policy of the management towards knowledge transfer and IJV.

Finally, *IJV's Innovativeness* is assessed through 8 Likert scale items. This measurement is adopted from previous studies (C. L. Wang & Ahmed, 2004). The items of IJVs' innovativeness discuss the degree of agreement on IJVs' novelty of products and services, changes of products and services, cutting edge of technology, improvement of business process, management of problems solutions, updated technology and machinery, tolerance of individual work style differences, solving of problems with new methods, as well as adopting of new ways of doing things.

## **DATA ANALYSIS AND RESULTS**

To analyse the data, the researcher utilised a two-step process for evaluating and reporting Smart PLS SEM results (Henseler et al., 2009). Based on researchers suggestion, the goodness-of-fit (GoF) index is not suitable for model validation as the GoF could not separate the valid and invalid models (Joseph F Hair et al., 2012; Henseler & Sarstedt, 2013); this evidence was provided in a simulated study that was conducted by using PLS path models (Hair Jr, Hult, Ringle, & Sarstedt,

2016). Therefore, as recommended by researchers, the current study has adopted a two-step approach for the evaluation and reporting of the results of PLS-SEM path models (Henseler, Ringle, and Sinkovics, 2009).

### Measurement Model

In the measurement model examination, two main points have to be tested, namely, convergent validity and discriminant validity. According to Hair, Black, Babin, Anderson, and Tatham, (2006), convergent validity is the extent to which measurements (items) truthfully represent the intended latent variable and correlate with other measures of the same latent variable. They further explained that factor loadings, composite reliability (CR), and average variance extracted (AVE) were used to assess convergent validity. While discriminant validity is the extent to which a particular latent construct is different from other latent constructs (Duarte & Raposo, 2010). Researchers suggested that discriminant validity can be measured by the Fornell-Larcker criterion and the cross-loadings of the items (Hair et al., 2014).

Table 1 Convergent Validity

Items	Alpha	Loadings	CR	AVE
IJV Knowledge Acquisition (KWA)	0.910		0.929	0.653
KWA1		0.802		
KWA2		0.850		
KWA3		0.872		
KWA4		0.846		
KWA5		0.781		
KWA6		0.751		
KWA7		0.743		
Transfer Mechanisms (TM)	0.891		0.913	0.569
TM1		0.805		
TM2		0.823		
TM3		0.685		
TM4		0.684		
TM5		0.723		
TM6		0.830		
TM7		0.739		
TM8		0.729		
Knowledge Management Practices (KMP)	0.883		0.911	0.632

KMP1		0.746		
KMP2		0.831		
KMP3		0.836		
KMP4		0.769		
KMP5		0.825		
KMP6		0.758		
IJV Innovativeness (INNO)	0.852		0.890	0.575
INNO1		0.729		
INNO2		-		
INNO3		0.726		
INNO4		0.828		
INNO5		0.789		
INNO6		-		
INNO7		0.742		
INNO8		0.729		

Note: “-“ Item dropped as its loading did not exceed the cut-off requirement of 0.50 set by Hair et al. (2006).

From Table 1, All of the items loaded significantly onto their corresponding constructs with factor loadings larger than 0.6. Except two items from IJV innovativeness (INNO 2 and INNO6) were dropped due to severe cross-loading and it failed to meet the 0.50 minimum threshold value as recommended by Hair et al. (2006). The Cronbach's alpha of each construct ranged from 0.85 to 0.91, exceeding the recommended threshold of 0.70 (Hair et al., 2006). The CR of each construct ranged from 0.89 to 0.92, which all constructs exceeded the threshold value of 0.70 recommended by Hair et al., (2006) while the AVEs for each construct were over the recommended value of 0.50 as suggested by Fornell and Larcker (1981). In short, convergent validity was established.

Discriminant validity is also checked after the convergent validity clarified. According to this test, discriminant validity exists if the correlation between each pair of constructs is less than the square root of AVE for each construct. By comparison, we conclude that none of the correlations between each pair of constructs is higher than the square root of AVE of the focal construct (see Table 2), which confirms the discriminant validity of the constructs.

**Table 2. Discriminant validity**

	1	2	3	4
<b>(1) IJV's Innovativeness</b>	<b>0.758</b>			
<b>(2) Knowledge Management Practices</b>	0.618	<b>0.795</b>		
<b>(3) IJV's Knowledge Acquisition</b>	0.659	0.635	<b>0.808</b>	
<b>(4) Transfer Mechanisms</b>	0.686	0.736	0.688	<b>0.754</b>

Note: Diagonals represent the square root of the AVEs while the off-diagonal entries represent the correlations between constructs.

### Structural Model

As mentioned earlier, the structural model comprises the hypothesised relationship between independent and dependent variables in the model. Table 3 demonstrates the findings for the structural model. The explanatory power of the estimated model can be assessed by observing the  $R^2$  of the dependent constructs. In this paper, we have two results for  $R^2$  values. The first  $R^2$  value obtained from the analysis was 0.509, indicating that 50.9% of the variance in IJV knowledge acquisition can be explained by all the independent variables (transfer mechanisms and knowledge management practices) in the model. The second  $R^2$  value obtained from the analysis was 0.434, indicating that 43.40 % of the variance in IJV innovativeness can be explained by the dependent variable (IJV knowledge acquisition). Next to  $R^2$ , there is a need to calculate effect size ( $f^2$ ). According to Chin, (1998), the effect size is calculated as the increase in the R-squared value of the latent variable to which the path is connected; relative to the latent variable's proportion of unexplained variance. As shown in table 3, as recommended by Cohen (1988), the effect size for

each of knowledge management practices (0.074), and transfer mechanisms (0.216) were small and medium effect size respectively. Regarding the assessment of predictive relevance ( $Q^2$ ), it has been defined by (Chin, 2010), ‘the predictive relevance represents a measure of how well-observed values are reconstructed by the model and its parameter estimates’ Hence, by using a blindfolding procedure, the findings show that  $Q^2$  of each of knowledge acquisition and IJV’s innovativeness range from 0.228 to 0.30. These findings were higher than zero, which in turn is explained to have predictive relevance as recommended by Hair et al. (2016). Also, we have to calculate goodness of fit (GoF), goodness of fit (GoF) is used to evaluate the overall model. After the calculation with Wetzels, Odekeren-Schroderand, and Oppen’s (2009) guidelines. As shown in table 4, the result was found at 0.532. Therefore, this result is considered as large, which indicates a satisfactory level of PLS model validity.

**Table 3. the study  $f^2$ ,  $R^2$ , and  $Q^2$**

Constructs	$f^2$	$R^2$	$Q^2$
INNO		0.434	0.228
KWA		0.509	0.300
KMP	0.074		
TM	0.216		

**Table 4 Global Criterion of Goodness of Fit (GoF) for Structural Model**

Construct	R Square	AVE
IJV’s Knowledge Acquisition	0.50	0.653
Transfer Mechanisms		0.569
Knowledge Management Practices		0.632
IJV’s Innovativeness	0.434	0.575

$\sum x/n$	0,467	0,607
<b>GoF</b>		<b>0.532</b>

### Hypothesis Testing Results

To conclude whether the hypothesis is statistically significant or not, the current study has applied the bootstrapping technique entrenched with the Smart PLS 3.0. Moreover, to obtain the statistical t-value and the standard error, the bootstrapping was performed with 5000 samples and 122 cases. Subsequently, p-values with a 0.05 significance level were created (Hair et al., 2016; Henseler et al., 2009).

To start with, (Table 5), there is one significant hypothesis of two of knowledge acquisition determinants which is (H1) transfer mechanisms have a significant positive influence on IJV's knowledge acquisition. Where its result were found ( $B= 0.481$ ,  $T= 4.305$ ,  $P= 0.000$ ). However, the second hypothesis for the second determinant (H2) knowledge management practices has a significant positive influence on IJV's knowledge acquisition. This second hypothesis were found insignificant with a result ( $B= 0.281$ ,  $T= 1.851$ ,  $P= 0.064$ ). Regarding the study's third hypothesis (H3), IJV's knowledge acquisition has a significant positive influence on IJV's innovativeness. This is considered as the consequence of IJV's knowledge acquisition, the findings were found ( $B= 0.659$ ,  $T= 10.731$ ,  $P= 0.000$ ), therefore, this hypothesis is significant.

**Table 5. Results of the Structural Model**

Hypotheses	Relationship	Coefficient	T-value	Results
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<b>H1</b>	<b>KMP -&gt; KWA</b>	0.281	1.851	Not Supported
<b>H2</b>	<b>TM -&gt; KWA</b>	0.481	4.305	Supported
<b>H3</b>	<b>KWA -&gt; INNO</b>	0.659	110.731	Supported

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## DISCUSSION AND CONCLUSION

IJV are an essential mean for local firms in a transitional economic context to acquire abroad knowledge from more advanced economics' companies, which it turn lead to an improvement in the competitive advantages. This paper study was specifically designed to fill in the gaps in the literature where it has offered a two-fold conceptual model to examine the role of transfer mechanisms and knowledge management practices on IJV's knowledge acquisition, which in turn leads to improvement the IJV's innovativeness. In this investigation, this study has achieved its two main objectives related to the IJV's knowledge acquisition determinants (transfer mechanisms and knowledge management practices) and its consequences (IJV's innovativeness). The findings provide strong support for the arguments that transfer mechanisms facilitate IJV's knowledge acquisition. However, the results have shown a different result about knowledge management practices and its relationship with IJV's knowledge acquisition which was found insignificant. Furthermore, the results have proven that IJV's knowledge acquisition relates positively to IJV's innovativeness.

By addressing the study's framework, this paper has revealed a more complex and fine-grained picture of IJVs learning; thus answering the call for a systematic overview of the underlying mechanisms and outcomes of knowledge transfer (Van Wijik et al., 2008); Hence enriching our understanding on the IJVs learning process (Salk & Lyles, 2007) particularly in the stage of post-knowledge transfer. Through the results from the current research framework, it has provided empirical results for future researches on the relationship between the study's variables. By doing

this, the findings from this have offered important practical implications about knowledge acquisition of IJVs in the context of Algeria. The study findings would be important to the policymakers such as the authorities in the Algerian Ministry of Industry and Mines, the Algerian National Agency for Investment Development, Sonatrach (biggest oil company in Algeria), and finally to the managers of IJVs in the field of oil & gas industry, particularly in the designing of the policies and entrepreneurship programmes in the country. Such a study can contribute to the understanding of acquiring knowledge and the way to acquire effective transfer of knowledge through enhancing the learning capacity of IJVs; this study also may inspire practitioners such as managers to take necessary steps in organisational practices in terms of the IJVs commitment to learning. Furthermore, this study also offers valuable insights to IJVs knowledge management, especially in an uncertain business environment. And finally, the findings from the comprehensive assessment can help policymakers to formulate better policies for IJVs. Such understanding and awareness may weigh value for policymakers to make the right decisions to avoid IJVs failures.

#### **Future Research Directions.**

The study also has limitations. First, owing to its time and budget constraints, this study relied only on cross-sectional data. A longitudinal design is warranted to provide a more refined view of how the proposed relationships work overtime. A longitudinal setting in future research would overcome the limitation. Second, this study is addressed in Algeria which one of the recent transitional economics countries. The country is in distinct attributes in terms of market size, economic stages, political regimes, and privatisation levels, information, background, and culture which is different from other transitional economies countries, As a result, generalising the conclusions drawn from this study on Algeria to other countries should be cautious. Finally, despite that we have examined the effects of transfer mechanisms and knowledge management

practices on IJV's knowledge acquisition, this does not mean that we should not search and recommend more potential determinants for future studies, we strongly recommend to study environmental uncertainty effect on knowledge acquisition of IJVs, particularly at transitional economies, because these economies are unstable the characterized with uncertain economic, the surroundings of IJV where the exchange takes place affects the process of operations which in turn affects the readiness and capacity of achieving the scheduled activities IJV and its foreign partner. therefore, examining environmental uncertainty in future studies is very important, as stated by (Battistella, De Toni, & Pillon, 2016). Future research may extend the current work by moving forward toward this direction.

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