# **Role of Organizational Factors in Facilitating Innovation Performance: An Evidence from Indian International Joint Ventures**

### Vijita S. Aggarwal\* and Madhavi Kapoor\*\*

#### Abstract

2

This study develops an integrated framework by incorporating various elements of the multidimensional theory of dynamic capabilities. It aims to empirically test the proposed framework in Indian international joint ventures' context. The study adopted a quantitative survey approach to test the relationships proposed in the framework. This is a pan India study and respondents are senior business executives of Indian IJVs operating since 1992. SMARTPLS 3 software has been used for analysing data. The study has some contrasting results as compared to the literature. Out of the four organizational factors, only two (IT-based systems, and learning strategy) positively influence the innovation performance. While the other two factors (trust culture, and flexible structure and design) didn't confirm to the positive relationships established in literature. suggests that there is a need for more research on Indian IJVs for their better performance and a higher success rate. The contrasting results also imply that Indian managers cannot blindly follow the studies of foreign context during strategy formulation or problem solving.

Keywords : Dynamic Capabilities, International Joint Ventures, Innovation, Learning Strategy, ITbased Systems, Trust Culture.

- Professor, University School of Management Studies, Guru Gobind Singh Indraprastha University, Sector 160.
  Dwarka New Delhi 110078, vijitasaggarwal@gmail.com
- \*\* Research Scholar, University School of Management Studies Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka New Delhi – 110078, madhavi.kapoor@yahoo.in

# 1. INTRODUCTION

In the contemporary world, dynamic capabilities theory has captivated the attention of global scholars but still it is being criticised for having under-developed constructs and for lacking empirical evidence. The significance of this theory is divulged in the growing number of literature including theoretical and empirical studies which are either focussed on parts of this theory or integrating innumerable elements in a single framework . This study draws together knowledge from a variety of areas to highlight the importance of innovation performance as a dynamic capability achieved from dynamic organizational factors to obtain sustainable competitive advantage .

The base for this study and the dynamic capabilities theory is Schumpeter's theory of creative destruction . In 1911, Joseph Schumpeter came up with the view that innovation can replace the other sources of competition in the market which essentially was prices of goods and services at that point of time . He talked about dynamic competition based on lowering costs and improving the product quality via innovation . Thus he become one of the first economists to recognize the new side of economic life which is not static and thus termed as dynamic requiring a new cycle of innovation and development incessantly. Thus innovation has been kept as the central theme of this study. There are numerous factors contributing to the innovation performance of any firm like: individual factors, inter-personal factors, and organizational factors . But this study has only accentuated the four major organizational factors, this approach is adopted in order to fully develop some focussed constructs of this theory for which it is being currently criticized.

Internationalization is a process through which firms involve cross-border operations. Due to globalization, business firms are focussing more on attaining sustainable competitive advantage . Globalization has resulted in large scale formation of international organizational forms like international strategic alliances . Further

international strategic alliances can be classified into various categories like mergers & acquisitions, joint ventures, franchising and licensing, co-production agreements, etc. . These organizational forms require different levels of integration among the partners, and this study has chosen international joint ventures because in this type of organizational forms, various capabilities and resources of cross-border firms are integrated to the maximum level to achieve competitive advantage.

# 2. LITERATURE REVIEW

#### Dynamic Capabilities Theory 2.1.

The literature on international business has largely been dependent upon theories like resource-based view, knowledge-based view with resources as the central theme. International alliances involve much more co-ordination and co-operation among partners due to their different national and organizational cultures, thus the manner in which various organizational factors evolve among the partners to identify, enact, evaluate, and exploit opportunities in the global markets, play a crucial role in developing dynamic capabilities for sustainable development. David J. Teece developed the theory of dynamic capabilities in the year 1997. This was among the first a few theories focussing on the rapid technological and other advancements of the global markets thus contrasting the previous static theories. This theory, when introduced, loosely incorporated a lot of elements like organizational and managerial processes, positioning of technological assets, financial assets, complementary assets of the partner firms, structural assets, institutional, and market assets, paths followed by firms in order to assess the environment to grab opportunities . Many studies have tried to incorporate all these elements, but this study focusses only on organizational factors in order to attain better innovation performance to obtain competitive advantage, depicted (Figure 1) and explained below.



Figure 1 : Proposed Research Framework

#### 2.2. Organizational factors

Organizational factors can be defined as the virtues particular to any organization which can be held responsible for its success or failure. A high level of dynamism is required along with coordination and co-operation among the partners of international joint ventures which should be reflected in organizational factors. Thus this study has chosen only four of those organizational factors which needs to be dynamic and are directly related to innovation performance in the literature. These factors are elucidated in detail below.

#### 2.2.1. Learning Strategy

A strategy can be defined as a path to bridge the gap between the present and future condition of any firm. Strategy needs to be designed in sync with the overall goals and objectives of the firm, and needs to be dynamic in nature, i.e. updated and upgraded as per industry and market demands. Thus business needs competitive strategies, but this study has chosen only the learning strategy because of its direct literature support with the innovation performance of global firms. Learning strategy is the strategy designed in order to provide a cohesive environment to its employees to exchange knowledge and to learn within and outside the organization. Innovation requires regular creation, upgradation and application of novel knowledge which is not possible in the absence of an effective learning strategy. Thus it is identified as a crucial element of organizational factor directly impacting the innovation performance as per literature and thus proposing the following hypothesis:

H1: Learning strategy has a significant positive impact on innovation performance of IJVs in India.

#### 2.2.2. Trust Culture

Culture can be defined as the sum total of values, beliefs, norms, ideas, customs, and social behaviour found in a society or any group of people. International joint ventures involve integration of different cultures of business firms of diverse nationalities, thus exaggerating the challenge of cultural co-ordination . Culture has been widely studied topic across the globe, but this study wants to focus on the trust culture as an organizational virtue of international joint ventures . A sense of trust and belongingness is imperative among the employees of international joint venture for working innovatively to attain competitive advantage in the global market. Studies have shown that trust culture has a positive influence on innovation, thus this study proposes:

H2: Trust Culture has a significant positive influence on the innovation performance of IJVs in India.

#### 2.2.3. IT-based Systems

Technological has progressed at alarming rates in last a few decades, thus necessitating the incessant development of technological based systems in this dynamic world . Technology has been given a pivotal role in strategic business decisions and is thus considered as a strategic mechanism eventuating ameliorated co-operation, coordination, communication, information flow, knowledge exchange for improved performance . This study tries to focus on a particular type of technology which is essential and in direct relation with innovation, i.e. information-technology based systems . IT-based systems are considered as an effective tool especially for innovation as it will help in proper assimilation of creative knowledge for innovating in various areas of firm: product, process, technical, and service innovation, thus the following hypothesis is proposed:

H3: IT-based systems have a significant positive relationship with innovation performance of IJVs in India.

## 2.2.4. Flexible Structure and Design

Structure of any organization is considered important for effective working of the organization . Organizational structure is "the result of the combination of all the ways in which work can be divided into different tasks, the coordination of which must subsequently be ensured". No matter how knowledgeable or creative a firm's employees are, if they are not given proper autonomy and authority, the <sup>organization</sup> will not be performing its best. It has been argued by scholars across the globe that a decentralized structure encourages better <sup>communication</sup>, increases the satisfaction levels of employees and can infuse a spirit of creativity in them which is essential for better innovation, thus proposing:

H4: Organizational structure and design has a significant influence on innovation performance <sup>of IJVs</sup> in India.

# 2.3. Innovation Performance

Performance of an organization can be measured in various ways: financial, operational, market

size, innovation, etc. but this study has focused only on innovation performance as it seen as essential to build dynamic capabilities which are considered as a source of competitive advantage . Innovation plays a quintessential role in attaining sustainable competitive advantage as acknowledged by global researchers . Innovation can be defined as the application of discoveries, inventions, processes, and interventions for producing new commercially viable outcomes which can be in terms of products, services, systems, processes, etc. . Innovation depends upon various factors like culture, leadership, human and other resources, capital availability, structure and design of the organization, strategies, etc. . Most of these variables have been clubbed in the above mentioned organizational virtues to study their impact on innovation performance of IJVs in India.

#### 3. METHODOLOGY

#### 3.1. Approach and survey instrument

A primary survey, through personal interviews and online professional sites like LinkedIn, has been conducted. The study demanded the designing of an original questionnaire as no such study could be found in Indian context. After reviewing more than 300 research articles, books, reports, etc., a survey questionnaire was developed to operationalise the various constructs of the proposed research model. The questionnaire was made using the 7 point Likert scale as it provides more normality to the responses and data as compared to 5 point scale . The questionnaire underwent validation process through various academic and industry experts, who suggested some changes.

#### 3.2. Research Design

The explanatory research of survey method has been chosen for this study combined with semistructured interviews to collect data and crosssectional design for the research. Studies that establish casual relationships between variables may be termed as explanatory research. Hence, explanatory research design is appropriate for the present work.

### 3.3. Sampling and Data Collection

Purposive sampling is used to collect the data for the study. Top and middle level managers of the international joint ventures operating across India

formed the population for this study. The list of Indian IJVs (by SDC Platinum database of Thomson Reuters), as on 1" July 2018, comprised of around 400 IJVs operating in India since the year 1992. The population comprised of the IJVs formed between 1992 and 2016, these years were chosen due to specific reasons: LPG was introduced in India in 1991 and thus the Indian cconomy opened up for the FDI in 1992, and 2016 was chosen as the cut off year because at least 2-3 years are required to estimate the actual performance. The list comprised of companies of all major sectors and industries like financial sector, insurance sector, pharmaceutical industry, industrial goods industry, chemicals, automobiles, telecommunications, technology, etc.

Researchers across the globe found no significant difference between web questionnaire and a paper questionnaire when they compared them as different modes for data collection. Thus both modes were used. Around 1,000 executives were contacted through mails and online professional sites like LinkedIn. Since the study was pan-India, it was important to give sample national validity. The study has covered respondents from all major cities also through the online and offline data collection mode.

#### 3.4. Data Analysis Plan

According to Hair, et al., PLS-SEM should be used when the researcher wants to identify key driver constructs and CB-SEM should be used when the researcher wants to test the theory or to re-confirm it. Moreover it is a recommended software when the assumption of normality is not met. As the main objective of this study is to identify the organizational factors impacting IJV success in India and the collected data is not normal, PLS. SEM isbe preferred for data analysis.

To determine the adequate sample size the  $m_{0st}$ used criterion is the 10 times rule. The largest number of arrows pointing to any one of the constructs (innovation performance) is 10 in the present study. Thus the sample of 120 respondents used in the report is slightly higher than the minimum requirement. (10\*10=100 -minimum sample size for meaningful analysis).

#### 4. DATA ANALYSIS

#### 4.1. Data Coding and Assessment for Missing Values and Outliers

Before conducting the main analysis, the data needed to be coded and edited. The items for each construct were coded accordingly. The data collected from 120 respondents revealed 4 missing values for different respondents. The missing values are replaced by the mean value of that indicator which is an appropriate method suggested by Hair & Black. Outliers may inflate or deflate the original results . Outliers for respondents were identified and removed using SPSS options (box plots and stem-and-leaf plots).

#### 4.2. Distribution Diagnosis and Descriptive Statistics

The relationships between various variables might be affected if data is highly skewed or with high kurtosis. It is important to analysis the distribution characteristics and descriptive statistics to examine the skewness, and kurtosis to check the extent of normality or non-normality of data. Thus the following table shows the descriptive statistics for all the indicators of all variables in Table 1.

Indicator	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
LSI	0	5.742	6	1	7	1.503	1.529	-1.385
LS2	0	5.308	5	1	7	1.371	-0.003	-0.613
LS3	0	5.508	6	1	7	1.426	0.508	-0.951
LS4	0	5.258	6	1	7	1.508	0.298	-0.892
LS5	0	5.15	5	1	7	1.59	-0.344	-0.729

Table 1 : Indicators' Descriptive Statistics

LS6	0	5.317	6	1	7			
ITI	0	5.067	5	1	7	1.653	0.581	-1.101
IT2	0	5.242	5	2	7	1.493	0.295	-0.785
IT3	0	5.542	6		7	1.354	-0.608	-0.511
IT4	0	6.142	7	1	7	1.36	0.781	-0.955
IT5	0	5.183	5	1	7	1.171	3.161	-1.698
TCI	0	5.342		1	7	1.597	0.118	-0.864
TC2	0	4.967	6	1	7	1.345	0.81	-0.896
TC3	0		5	1	7	1.527	-0.102	-0.64
		5.383	6	1	7	1.561	0.363	-1.019
TC4	0	5.192	5	1	7	1.416	0.734	-0.88
TC5	0	5.058	5	1	7	1.529	0.361	-0.765
FS1	0	5.608	6	3	7	0.977	-0.472	-0.227
FS2	0	5.783	6	4	7	0.896	-0.805	-0.189
FS3	0	5.775	6	2	7	0.97	2.238	-0.974
FS4	0	5.858	6	2	7	0.977	1.091	-0.795
FS5	0	5.708	6	3	7	0.889	-0.303	-0.253
IV1	0	5.233	5	1	7	1.487	0.678	-0.917
IV2	0	5.4	6	1	7	1.519	0.517	-0.978
IV3	0	5.192	5	1	7	1.479	0.57	-0.899
IV4	0	5.367	6	1	7	1.549	0.477	-1.028
IV5	0	5.35	6	1	7	1.47	0.978	-1.088
IV6	0	5.25	6	1	7	1.603	0.443	-1.018
IV7	0	5.183	5	1	7	1.678	0.007	-0.84
IV8	0	5.25	6	1	7	1.624	-0.063	-0.873
IV9	0	5.433	6	1	7	1.548	0.206	-0.932
IV10	0	5.242	6	1	7	1.648	0.296	-0.971

As can be seen from the Table 1, most of the indicators have the skewness and kurtosis values within the acceptable range of +1 and -1. The data can be seen closer to normality, thus suitable for further analysis.

# 4.3. Results & Findings

PLS-SEM is a non-parametric software, different from CB-SEM, which can work well especially on small data sets . To check the overall research framework, measurement model and structural model are assessed. Measurement model is concerned with particular constructs, their indicators, reliability and validity, while structural model is concerned with the overall relationships

among various constructs of the framework . All the constructs used in the present study are of reflective nature as identified from literature, i.e. they cause variation in their respective indicators.

### 4.3.1. Analysis of Theoretical Model: PLS-SEM Output

Smart PLS-3 software is used for PLS-SEM path model analysis. Results of PLS algorithm calculation is shown in Figure 2. Independent variables & dependent variable along with their indicators are also exhibited in the Figure 2. Relationship between different constructs, path coefficients, and outer loading values for indicators of constructs are also shown in the Path model.



Figure 2 - PLS Path Model

### 4.3.2. Assessing results of Measurement models

Reliability and validity of all the variables are assessed in measurement model. Accuracy and precision of the measurement procedure is assessed through reliability and validity assesses the extent of accuracy of data collection method adhere with what was intended to measure. All these criterions are discussed below.

#### Cronbach's Alpha & Composite Reliability

To check how co-related the indicators of the san constructs are and how much of the over variance in scores is being captured by the internal consistency reliability is measured usi Cronbach's alpha. As seen in the Table 2, it can seen that all the variables have a high Cronbach alpha indicating the internal consistency.

Variable	Cronbach's Alpha
IJV Success	0.954
Learning Strategy	0.904
Trust Culture	0.858
Information Technology	0.813
Flexible Structure & Design	0.733

Table 2 : Cronbach's Alpha of Constructs

# Convergent Validity

Convergent raising The co-relation among the various measurement items of the same construct is measured by convergent validity, which can be evaluated by assessing the outer loadings of the indicators and their significance, and by comparing average

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variance extracted (AVE) values of the constructs with the suggested threshold value. The outer loadings of construct items of the measurement model are presented in Table 3 and also shown in Figure 2.

CONSTRUCT AND ITEM LEARNING STRATEGY	OUTER LOADINGS
LS1:	0.742
LS2:	0.797
LS3:	0.869
LS4:	0.856
L\$5:	0.826
LS6:	0.837
TRUST CULTURE	
TC1:	0.809
TC2:	0.763
TC3:	0.781
TC4:	0.789
TC5:	0.848
IT-BASED SYSTEMS	
IT1:	0.751
IT2:	0.739
IT3:	0.799
IT4:	0.627
IT5:	0.788
IT6:	0.582
FLEXIBLE STRUCTURE	
FS1:	0.604
FS2:	0.785
FS3:	0.533
FS4:	0.629
FS5:	0.770
FS6:	0.568
UV SUCCESS	
IVI:	0.829
IV10:	0.811
IV2:	0.885
IV3:	0.876
IV4:	0.870

45

Table 3 : Outer	· Loadings	(Item-wise)	for a	ll the	Constructs
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IV5:	0.821
IV6:	0.836
IV7:	0.805
IV8:	0.879
IV9:	0.863

An indicator is significant is its loading exceed 0.7 as this indicated that more than 50% of the variance is explained by the construct . In the scenario where researcher adds new items to the standardised scale, outer loadings within the range of 0.4 - 0.7 are retained in case the item is important for content validity of the construct. However outer loadings less than 0.4 must always be dropped but it is not a case in the present study, thus all the items are retained in the study.

Other criterion to establish convergent validity average variance explained (AVE). The AVE calculated as the mean of sum of squared loadin of the items of a construct divided by number indicators of that construct and thus, indica mean average variance extracted for the ite loadings on a construct. AVE was calculated for the constructs of the measurement model of study by taking minimum indicator loading as into consideration as shown in Table 4.

Table 4 : Average	Variance Expected of all the constru	ucts of the study
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Construct	Average Variance Extracted (AVE)
FS	0.429
IT	0.517
LS	0.676
Success	0.710
тс	0.638

#### **Discriminant Validity**

Another important measure of the measurement model is the discriminant validity measured with the help of well-known Fornell-Larcker criterion is stated below in Table 5. The diagonal values are the square roots of AVE and other cells contain squared correlation of the construct with other latent variables in the model. This criterion is important to ensure two different constructs a theoretically and empirically uncorrelated According to this criterion, the value of squa roots of AVE of the constructs lying at the diagon should be more than the square roots of AVE of the constructs lying in other cells. Discrimina validity is confirmed for the measurement mod of the study.

	FS	IT	LS	IP	TC
FS	0.655				
IT	0.531	0.811			
LS	0.436	0.787	0.822		
IP	0.505	0.733	0.785	0.842	
TC	0.574	0.685	0.724	0.687	0.799

Table 5 : Fornell-Lacker Criterion Analysis

The above analysis clarifies the issue of composite reliability, convergent validity, and discriminant validity for all the constructs in the measurement model. Thus it can be concluded that there is r issue of reliability or validity in the given data s of the present study.

# 4.3.3. Assessment of the Structural Model

After checking the various parameters of the measurement model, now various parameters of structural model need to be tested which includes the assessment of collinearity issues, significance of the relationships between constructs, checking the level of  $\mathbb{R}^2$ ,  $\mathbb{f}^2$ , and  $\mathbb{Q}^2$ .

#### Collinearity Statistics of Structural Model (Inner VIFs)

Collinearity can be a major issue in data analysis and can distort the analysis. Thus measuring collinearity is important. VIF values as shown in the following Table 6, VIF values for all the constructs are less than the acceptable limit of 5, thus it can be concluded that the present study has no issue of collinearity between any of the constructs.

Constructs	FS	Im			
FS	15	IT	LS	IP	TC
IT				1.599	
				3.034	
LS				3.21	
IP					
TC				2.603	_

Table : 6	Collinearity Statistics of Structural Model (inner Vifs)
	(1111)

## Assessment of the Significance of Relationships

SMARTPLS 3 is used to analyse the data collected from various international joint ventures operating in India. By running the PLS algorithm, the path coefficients representing the relationships among the constructs in the structural model are obtained. These coefficients are the indicator of the strength or degree of the relationships among them. The value of these coefficients lie between the range of -1 and +1 where +1 shows the positive strength of the relationship and -1 shows a negative relationship while values near to zero indicates weak or no relationship between constructs.

	Original Sample (O)	t Statistics* ( O/STDEV )	P Values
-> IP	0.473	4.431	0
-> IP	0.207	2.038	0.042
2 -> IP	0.140	1.716	0.086
-> IP	0.109	1.429	0.153

## Table 7: Relevance and Significance of Path Coefficient

\*5% Significance Level

# Coefficient of Determination (R<sup>2</sup> Value)

Structural model assessment is the final step in the data analysis of this study. R<sup>2</sup> is considered one of the most reliable measure of structural model irrespective of the choice of data analysis technique . It shows the predictive power of structural model and is the squared correlation between the actual and predicted values of a specific endogenous construct representing the amount of variance in the endogenous constructs explained by all the exogenous constructs associated within it in the path model and its value ranges between 0 and 1 with higher values indicating more predictive power.

In the present study, there is only one dependent variable, i.e. innovation performance of Indian IJVs and four independent variables: learning strategy, trust culture, trust culture, and IT-based systems. Thus, there is only one coefficient of determination ( $R^2$ ) as shown in table 8. Its value is 0.674 for the study which means the four independent variables can together explain 67.4%

variance in the dependent variable, i.e.  $I_{V}$  success. As per the thumb rule,  $R^2$  value of 67.4% indicated the moderate predictive accuracy.

Table 8 : Coefficient of Determination (R<sup>2</sup>)

	R Square	
Success	0.674	

#### Effect Size (f<sup>2</sup>)

Effect size  $(f^2)$ , another important parameter of true influence of exogenous constructs on endogenous constructs, is calculated as below:

# $f^{2} = \{ (R^{2} included - R^{2} excluded) / (1 - R^{2} included) \}$ where,

R<sup>2</sup> included and R<sup>2</sup> excluded are the values of the endogenous latent variable when a selected exogenous latent variable is included in or excluded from the model. The thumb rule for assessing these values is that 0.02, 0.15, and 0.35, respectively of the exogenous construct on the endogenous construct. Following table 9 shows the effect size values for the structural model of the study. It can be seen that IT based systems has a large effect on IJV success (0.043), learning strategy also has a moderating effect on IJV success with  $f^2$  value as 0.213. While the other two variables, i.e. flexible structure and trust culture has weak effect size on IJV success (0.023; 0.023).

#### Table 9 : Calculation of effect size (f<sup>2</sup>)

	FS	IT	LS	Success	тс
FS				0.023	
IT				0.043	
LS				0.213	
Success					
TC				0.123	

### Blindfolding and Predictive Relevance(q2)

Another important parameter of predictive relevance is  $Q^2$  which is introduced by Stone-Geisser's  $Q^2$  value. This parameter is calculated through the process of running blindfolding for a specified distance D. Value of  $Q^2$  above zero indicates the path model's predictive relevance for the construct. As shown in the Table 10, the  $Q^2$  value after running the blindfolding process for a distance of 7, is 0.437. As this value is above zero, the results provide support for exogenous constructs predictive relevance regarding the endogenous construct of IJV success in the path model.

Table 10 : Blindfolding Procedure Results- Q<sup>2</sup> Values (Construct Cross Validated Redundancy)

	Q <sup>2</sup> Values (=1-SSE/SSO)		
Success	0.437		

# Standardized Root Mean Square Residual (SRMR)

*SRMR* is defined as the 'root mean square discrepancy between observed correlations and the model-implied correlations'. It is also considered as an important measure of model fit.

The acceptable value of SRMR is less than 0.08 indicating a good fit. The study has an SRMR value (table 11) of 0.075 which is less than 0.08, thus indicating a good fit.

Table 11 : Standardized R	oot Mean Square Residual (SRMR)
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	Saturated Model	Estimated Model		
SRMR	0.075	0.075		

# 4.4. Hypothesis Testing

The study proposes four hypothesis to check the impact of organizational factors on the IJV innovation performance in case of Indian ventures. There are four independent or exogenous variables: learning strategy, trust culture, IT-based systems, and flexible structure and design and one dependent variable: IJV success. In SMARTPLS 3, bootstrapping process is run in order to obtain the path coefficients and p values associated with these coefficients. The cut off value for p is 0.05 as 5% significance level is taken. The learning strategy of IJVs have the maximum influence on IJV success with the path coefficient of 0.473, followed by IT based systems having moderate influence with path coefficient of 0.207. The flexible structure and design and trust culture do not bring a significance impact on IJV success with path coefficients of 0.109 and 0.140 as shown in Table 7.11.

Thus hypothesis 2 and 3 are statistically significant while H1 and H4 are not statistically significant.

Hypotheses	Path Coefficients	p Values	Supported
H1: Flexible structure and design of IJV has a significant positive influence on IJV success	0.109	0.153	No
H2: IT based systems have a significant positive impact on IJV success	0.207	0.033	Yes
H3: Learning Strategy has a significant positive influence on IJV success	0.473	0.000	Yes
H4: Trust Culture has a significant positive influence on IJV success	0.140	0.142	No

Table 12 : Hypotheses Testing Results for H1-H4

<sup>\*al 5%</sup> significance level

# 5. DISCUSSION

The study includes four important organizational traits influencing the success. As shown in Table 7.8, the R<sup>2</sup> for the study is quite high, i.e. 0.674 implying that 67.4% of the variance in IJV success traits. But by going deeper into the data analysis, it is found that only two of these four organizational traits have a significant positive impact on IJV success. The results of hypotheses testing in Table 7.11 show that among the four traits: learning strategy, and IT-based systems, have a direct significant positive influence on IJV success while the other variables, i.e. trust culture and flexible structure and design do not have a direct significant impact on IJV success. The possible explanation of these results are given below.

### IT-based Systems and IJV Innovation

In the present world of globalization, many companies invest heavily in information technology in order to enhance their performance. This is due to the fact that in the modern world, the management of information and knowledge has become an enormous task and globalization has led to the management of big data which requires proper systems for managing information and knowledge, essential for innovation. The study has found the evidence from the collected data supporting the relationship between innovation and IT-based systems. The path coefficient of ITbased systems with IJV success is 0.207 (p Value-0.033), thus the data supports the hypothesis that IT-based systems have a direct significant impact on IJV innovation.

#### Learning Strategy and IJV success

Learning Strategy of any organization plays a very important role in its success . Learning strategy focusses on the organizational strategy to enhance the information flow, and learning processes among the employees in order to perform better . Thus various studies have been done on establishing the relationship between learning strategy and IJV success especially in terms of innovation capability which helps a firm in attaining sustainable competitive advantage in the globalized world . As shown in Table 7.11 the path coefficient for their relationship for the present study is 0.473 (p Value-0.00), thus supporting the direct positive impact of learning strategy on IJV success.

#### Trust Culture and IJV success

Cordial organizational culture plays a crucial role in performing better. It is suggested by various researchers that elements of trust culture: openness of communication channels, social network, support from top management, appreciating employees' contribution, creating an environment of trust and mutual faith are important for better performance of any organization. Thus it was also expected that this study will find some similar support for the direct relationship between trust culture and IJV success but in contrast to the previous researches this relationship is not supported by the data. The path coefficient for them was 0.140 (p Value- 0.142), thus the hypothesis that trust culture has a direct significant relationship with IJV success cannot be accepted. This contrasting result can be explained by the point of view that business executives in Indian IJVs might feel culture is not directly related to innovation performance.

#### Flexible Structure and Design

Flexible Structure and Design is defined as the employees participation, ease of flow of information, level of flatness in the organizational structure, formation of more and more crossfunctional and process teams, regular delegation of tasks from seniors to juniors . Incorporating these items in the scale of flexible structure and design, the collected data from Indian IJVs doesn't support this relationship as the path coefficient value as 0.109 (p Value- 0.139), thus rejecting the hypothesis for the direct positive relationship between flexible structure and design and IJV success. Structure may also be indirectly related to the innovation performance and structural dimensions might not be considered as crucial as other factors in Indian IJVs.

#### 6. LIMITATION

The study has tried to incorporate various elements of the most recent theory of strategic efficiency, i.e. dynamic capabilities approach in order to overcome both the criticisms of this theory, i.e. having under specified constructs and lacking empirical evidence . In the best interest of establishing the validity of this study, steps were taken to mitigate potential threats. Utmost care was taken to ensure that procedures for the distribution and collection of questionnaires were standardized. The researcher has personally met many of the respondents of the data; therefore, any mistreatment of reliability implementation is minimal. However, this study is not without limitations.

First, this study focuses only on the organizational traits of International Joint Ventures as a key to success. Although this has been done by keeping in mind the crucial principle of research: the 'principle of parsimony'. Still this is one of the initation as many other factors like external environment can be incorporated in the study to environment of organizational success. Another limitation of the study is that it is spread over the industries. Thus an industry specific results are missing. The context also remains the major limitation of any research study as this study is conducted only in International Joint Ventures of Indian sub-continent. If the study needs to be taken over to other organizational forms, or place, or time, it might need some modifications before generalising.

## 7. FUTURE DIRECTION

The aforementioned limitations and findings for this study provide foundations for future research directions. As this study is one of the very few empirical studies on dynamic capabilities theory in the Indian context. Thus it lays down directions for future researchers. The model tries to integrate various elements of the theory but still couldn't include a lot of elements, thus a more holistic framework can be developed and empirically tested in future. One future direction is to improve the generalization of the integrative model. As this study has been done in the Indian context, the same model can be tested in different organizational forms, places, and times to check it generalization power and to validate its findings. This can be done by applying the integrative model in different contexts, providing the opportunity to test the robustness of the model across cultural boundaries and against different backgrounds.

## 8. THEORETICAL AND MANAGERIAL CONTRIBUTIONS

The findings from this study reveals many theoretical and managerial implications, recommendations and implications as discussed

The study has major theoretical contributions, first, this study develops and tests an updated <sup>model</sup> in a new context. The results of the study show the impact of different businesses and cultural contexts. The results show that it is very important to consider organizational traits for better new to consider organizational traits for better performance. As this study has some major <sup>contradictions</sup> as compared to previous studies,

this can be concluded that studies with different context cannot be blindly followed and review of the literature should be conducted with due consideration to contextual influence.

This study opens up the new avenues of research as very few studies have been done on dynamic capabilities theory in the context of international joint ventures especially in Indian context. Thus Results of this study can be of great importance to IJV managers as they should be aware that all the practical problems cannot be handled with the help of studies of with different context as this study has shown that factors which have positive influence on innovation performance in the previous studies are not applicable to Indian context as per the data. It has been proved that IT-based systems are crucial of organizational success, thus managers must focus on developing IT-based systems for effective management of the organization in order to attain sustainable competitive advantage. Learning strategy has also shown the direct positive relationship with organizational success, thus it must be carefully framed. Trust culture is not evident to have a direct relationship with innovation performance, this needs deeper future research. Flexible structure and design has not shown the direct significant relationship with organizational success in context of Indian IJVs. This might be because an IJV is formed between a foreign and a local partner. An IJV between a local and foreign company may adopt a mixture of the structures of both the partners which might lead to some confusion among employees for the exact shape of organizational success. This can be a reason why managers couldn't directly relate the flexible structure and design with organizational success.

#### 9. CONCLUSION

In conclusion, this study has developed and empirically a research model on the dynamic capability theory in Indian context. The research objectives obtained after reviewing literature and identifying the research gaps led to the hypotheses development. These research objectives claimed that all the four organizational traits have a direct significant impact on organizational success. But the data from International Joint Venture managers all over the country showed that only two of these variables have a direct significant relationship with organizational success, i.e. learning strategy and IT-based systems. While the other two didn't have that much clear cut influence. In summary, the results justify the direct significant relationship between learning strategy and IJV success and ITbased systems and IJV success.

As discussed above, this study has various important managerial and theoretical implications. More such studies should be conducted in the Indian context to help Indian managers in effective management of organizations in order to remain competitive in the global market. This study has shown that all the researchers conducted in other nations or in other contexts can be blindly applied to the corporations in India. The studies needs to be updated with time and empirically tested to check its generalization.

#### **10. REFERENCES**

Aggarwal, V. & Kapoor, M. (2018) 'Innovation growth from knowledge transfer in international strategic alliances', *Journal of Strategy and Management*, 11(4), pp. 483–96.

Aghion, P. et al. (2001) 'Competition, imitation and growth with step-by-step innovation', *Review* of Economic Studies, 68(3), pp. 467–492. doi: 10.1111/1467-937X.00177.

Alaarj, S. et al. (2016) 'Mediating Role of Trust on the Effects of Knowledge Management Capabilities on Organizational Performance', *Procedia - Social and Behavioral Sciences*. The Author(s), 235(October), pp. 729–738. doi: 10.1016/j.sbspro.2016.11.074.

Argote, L. & Guo, J. M. (2016) 'Routines and transactive memory systems/ : Creating, coordinating, retaining, and transferring knowledge in organizations', *Research in Organizational Behavior*. Elsevier Ltd, 36, pp. 65-84. Available at: http://dx.doi.org/ 10.1016/j.riob.2016.10.002.

Augier, M. & Teece, D. J. (2007) 'Dynamic capabilities and multinational enterprise: Penrosean insights and omissions', *Management International Review*, 47(2), pp. 175–192. doi: 10.1007/s11575-007-0010-8.

Baker, W. E. & Sinkula, J. M. (1999) 'The synergistic effect of market orientation and learning orientation on organizational performance', Academy of Marketing Science, Journal, 27(4), pp. 411-427.

Barclay, D., Higgins, C., & Thompson, R. (1995) The partial least squares (PLS) approach to casualmodeling: personal computer adoption ans use  $a_s$ an Illustration.

Barney, J. (1991) 'Firm Resources and Sustained Competitive Advantage', *Journal of Management*, 17(1), pp. 99–120.

Braunerhjelm, P., Ding, D. & Thulin, P. (2018) 'The knowledge spillover theory of intrapreneurship', *Small business economics*. Small Business Economics, 51(1), pp. 1-30. doi: 10.1007/s11187-017-9928-9.

Burisch, R. & Wohlgemuth, V. (2016) 'Blind spots of dynamic capabilities: A systems theoretic perspective', *Journal of Innovation & Knowledge*. Journal of Innovation & Knowledge, 1(2), pp. 109–116.

Cepeda-carrion, G. et al. (2018) 'Tips to use partial least squares structural equation modelling (PLS-SEM) in knowledge management', Journal of Knowledge Management. doi: 10.1108/JKM-05-2018-0322.

Chang-feng, W. & Peng, Z. (2009) 'An empirical study on the relationship between properties of knowledge, network topology and corporation innovation performance', in *International Conference on Management Science and Engineering - 16th Annual Conference Proceedings, ICMSE 2009*, pp. 1230–1237.

Chatterjee, S. et al. (2015) 'Strategic Relevance of Organizational Virtues Enabled by Information Technology in Organizational Innovation', Journal of Management Information Systems, 32(3), pp. 158-196. doi: 10.1080/ 07421222.2015.1099180.

Chen, Y.-S., Lin, M.-J. J. & Chang, C.-H. (2009) 'The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets', *Industrial Marketing Management*, 38(2), pp. 152–158.

Claver-Cortés, E., Zaragoza-Sáez, P. & Pertusa-Ortega, E. (2007) 'Organizational structure features supporting knowledge management processes', Journal of Knowledge Management,

11(4), pp. 45-57. doi: 10.1108/ 13673270710762701.

Dawes, J. (2008) 'Do Data Characteristics Change According to the Number of Scale Points Used? An Experiment Using 5-Point, 7-Point and 10-Point Scales', International Journal of Market Research, 50(1), pp. 61-104. doi: 10.1177/147078530805000106.

Denford, J. S. (2013) 'Building knowledge/ : developing a knowledge-based dynamic capabilities typology', Journal of Knowledge Management, 17(2), pp. 175-194.

Dossani, R. & Kenney, M. (2007) 'The Next Wave of Globalization: Relocating Service Provision to India', World Development, 35(5), pp. 772-791. doi: 10.1016/j.worlddev.2006.09.014.

Duan, Y., Nie, W. & Coakes, E. (2010a) 'Identifying key factors affecting transnational knowledge transfer', Information & Management, 47(7-8), pp. 356-363. doi: 10.1016/ i.im.2010.08.003.

Duan, Y., Nie, W. & Coakes, E. (2010b) 'Identifying key factors affecting transnational knowledge transfer', Information & Management. Elsevier B.V., 47(7-8), pp. 356-363. doi: 10.1016/j.im.2010.08.003.

Enis, P. & Geisser, S. (1974) 'Institute of Mathematical Statistics is collaborating with JSTOR to digitize, preserve, and extend access to The Annals of Statistics', The Annals of Statistics, <sup>2(6)</sup>, pp. 1152-1174.

Fainshmidt, S., Pezeshkan, A. & Frazier, M. L. (2016) 'Dynamic Capabilities and Organizational Performance/ : A Meta-Analytic Evaluation and Extension', Journal of Management Studies, <sup>53(8)</sup>, pp. 1348-1380.

Fang, E. (Er) & Zou, S. (2009) 'Antecedents and consequences of marketing dynamic capabilities in international joint ventures', Journal of International joint ventures, John Japanese Juliernational Business Studies, 40(5), pp.

Field, A. (2013) Discovering Statistics Using IBM SpSS, Discovering Statistics Using SPSS. doi: 10.1234/12345678. Field, A. (2017) Discovering Statistics Using IBM

García-Sánchez, E., García-Morales, V. J. & Martin-Rojas, R. (2018) 'Influence of technological assets on organizational performance through absorptive capacity, organizational innovation and internal labour flexibility', Sustainability, 10(3).

Geisser, S. (1974) 'Biometrika Trust A Predictive Approach to the Random Effect Model', Biometrika, 61(1), pp. 101-107.

Gloet, M. & Terziovski, M. (2004) 'Exploring the relationship between knowledge management practices and innovation performance', Journal of Manufacturing Technology Management, 15(5), pp. 402-409.

Goh, S. C. (2002) 'Managing effective knowledge transfer/ : an integrative framework and some practice implications'. doi: 10.1108/ 13673270210417664.

Grant, R. M. (1996) 'Toward A Knowledge-Based Theory of The Firm', Strategic Management Journal, 17(S2), pp. 109-122.

Gremme, K.-M. & Wohlgemuth, V. (2017) 'Dynamic capabilities/ : a systematic literature review of theory and practice', European Journal of Management Issues, 25(1), pp. 30-35.

Hair, J.F., Hult, G.T.M., Ringle, C.M. & Sarstedt, M. (2016) A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)., Sage, Thousand Oaks. doi: 10.1108/EBR-10-2013-0128.

Hair, Joe F. et al. (2012) 'An assessment of the use of partial least squares structural equation modeling in marketing research', Journal of the Academy of Marketing Science, 40(3), pp. 414-433. doi: 10.1007/s11747-011-0261-6.

Hair, J. F. et al. (2012) 'The Use of Partial Least Squares Structural Equation Modeling in Strategic Management Research: A Review of Past Practices and Recommendations for Future Applications', Long Range Planning. Elsevier Ltd, 45(5-6), pp. 320-340. doi: 10.1016/j.lrp.2012.09.008.

Hair, J. F. et al. (2014) Multivariate data analysis, Pearson custom library. doi: 10.1038/259433b0.

Hair, J. F., Ringle, C. M. & Sarstedt, M. (2011) 'PLS-SEM: Indeed a Silver Bullet', Journal of Marketing Theory and Practice, 19(2), pp. 139–152. doi: 10.2753/mtp1069-6679190202.

Hair J.F., Black W.C., Babin B.J., A. R. E. (2010) 'Multivariate Data Analysis'.

Hamel, G., Doz, Y. L. & Prahalad, C. K. (1989) 'Collaborate with your competitors and win', *Harvard Business Review*, 67(1), pp. 133–139.

Helfat, C. E. & Raubitschek, R. S. (2018) 'Dynamic and integrative capabilities for profiting from innovation in digital platform-based ecosystems', *Research Policy*. Elsevier, 47(8), pp. 1–9. doi: 10.1016/j.respol.2018.01.019.

Hofstede, G. (2011) 'Dimensionalizing Cultures: The Hofstede Model in Context', *Online Readings in Psychology and Culture*, 2(1), pp. 1–26. doi: 10.9707/2307-0919.1014.

Hurley, F. B. & Hult, G. T. M. (1998) 'Innovation, market orientation and organizational learning: an integration and empirical examination', *Journal of Marketing*, 62(3), pp. 42–54.

Inkinen, H. (2016) 'Review of empirical research on knowledge management practices and firm performance', *Journal of Knowledge Management*, 20(2), pp. 230-257. doi: 10.1108/JKM-09-2015-0336.

Inkpen, A. C. (2000) 'Learning Through Joint Ventures: A Framework Of Knowledge Acquisition', *Journal of Management Studies*, 37(7), pp. 1019–1044.

Karidou, E. (2008) Knowledge Management Enabler Factors and Firm Performance.

Kim, C., Zhan, W. & Krishna Erramilli, M. (2011) 'Resources and performance of international joint ventures: the moderating role of absorptive capacity', *Journal of Asia Business Studies*, 5(2), pp. 145–160.

Kogut, B. & Zander, U. (1996) 'What Firms Do? Coordination, Identity, and Learning', Organization Science, 7(5).

Lane, P. J., Salk, J. E. & Lyles, M. A. (2001) 'Absorptive capacity, learning, and performance in international joint ventures', *Strategic Management Journal*, 22(12), pp. 1139–1161.

Lawson, B. & Samson, D. (2001) 'Developing Innovation Capability in Organisations: a Dynamic Capabilities Approach', International Journal of Innovation Management, 05(03), pp. 377-400. doi: 10.1142/S1363919601000427.

Lee, H. & Choi, B. (2003) 'Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination', Journal of Management Information Systems, 20(1), pp. 179-228.

Lin, T. C., Wu, S. & Lu, C. T. (2012) 'Exploring the affect factors of knowledge sharing behavior: The relations model theory perspective', *Expen* Systems with Applications. Elsevier Ltd, 39(1), pp. 751-764.

López-Duarte, C. et al. (2016) 'International strategic alliances and national culture: Mapping the field and developing a research agenda', Journal of World Business, 51(4), pp. 511-524.

Marttila, N. et al. (2017) 'Illuminating the Relationship Between Absorptive Capacity and Firm Performance: A Meta-Analysis.', in Academy of Management Annual Meeting Proceedings, p. 10687. Available at: http://10.0.21.89/AMBPP.2017.10687abstract%0 A h t t p : / / e S с. web.lib.cbs.dk/login?url=http://search.ebscohost. com/login.aspx?direct=true&db=bth&AN=1245 39958&site=ehost-live&scope=site.

Mayer, R. C., Davis, J. H. & Schoorman, F. D. (1995) 'An integrative model of organizational trust', *Academy of Management Review*, 20(3), pp. 709-734. doi: 10.5465/AMR.1995.9508080335.

McEvily, B., Perrone, V. & Zaheer, A. (2003) 'Trust as an Organizing Principle', Organization Science, 14(1), pp. 91–103.

Nikolaos, T. & Maditinos, D. (2009) 'Knowledge Management Enabler Factors and Firm Performance: An empirical research of the Greek medium and large firms', *European Research* Studies Journal, p. 8.

Perelman, M. (1995) 'Retrospectives: Schumpeter, David Wells, and Creative Destruction.', Journal of Economic Perspectives, 9(3), pp. 189–197.

Petter, S., Rai, A. & Straub, D. W. (2012) 'The critical importance of construct measurement specification: A response to Aguirre-Urreta and Marakas.', MIS Quarterly, 36(1), pp. 147–155.

phene, A. & Almeida, P. (2008) 'Innovation in multinational subsidiaries: The role of knowledge assimilation and subsidiary capabilities', Journal of International Business Studies, 39(5), pp. 901-919.

Rhodes, J. et al. (2008) 'Factors influencing organizational knowledge transfer: implication for corporate performance', Journal of Knowledge Management, 12(3), pp. 84-100.

Sachneider, S. & Spieth, P. (2013) 'Business Model Innovation: Towards an Integrated Future Research Agenda', International Journal of Innovation Management, 17(01), p. 1340001.

Salvato, C. & Vassolo, R. (2018) 'The sources of dynamism in dynamic capabilities', Strategic Management Journal, 39(6), pp. 1728-1752.

Scherer, F. M. (1986) Innovation and growth: Schumpeterian perspectives. MIT Press Books.

Schilke, O., Hu, S. & Helfat, C. E. (2018) 'Quo Vadis, Dynamic Capabilities? A Content-Analytic Review of the Current State of Knowledge and Recommendations for Future Research', Academy of Management Annals, 12(1), pp. 390–439.

Schumpeter, J. A. (1934) The theory of economic development, Harvard University Press.

Sinkula, J. M., Baker, W. E. & Noordewier, T. (1997) 'A Framework for Market-Based Organizational Learning: Linking Values, Knowledge, and Behavior', Journal of the Academy of Marketing Science, 25(4), pp.

Stone, M. (1974) 'Cross-Validatory Choice and Assessment of Statistical Predictions', Journal of the Royal Statistical Society, 34(2), pp. 187–220.

Teece, D. J. (1992) 'Competition, cooperation, and innovation. Organizational arrangements for tegimes of rapid technological progress', Journal of Economic Behavior and Organization, 18(1),

<sup>Teece</sup>, D. J. (2010a) 'Business models, business <sup>Barrace</sup> Planning. strategy and innovation', Long Range Planning. Elsevier Ltd, 43(2–3), pp. 172–194. Teece, D. J. (2010b) 'Forward Integration and

Innovation: Transaction Costs and Beyond', Journal of Retailing, 86(3), pp. 277-283.

Teece, D. J. (2010c) Technological innovation and the theory of the firm: The role of enterprise-level knowledge, complementarities, and (dynamic) capabilities, Handbook of the Economics of Innovation. Elsevier B.V.

Teece, D. J. (2017) 'A capability theory of the firm: an economics and (Strategic) management perspective', New Zealand Economic Papers. Taylor & Francis, 51, pp. 1–43.

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

Tidd, J. & Izumimoto, Y. (2002) 'Knowledge exchange and learning through international joint ventures: An Anglo-Japanese experience', Technovation, 22(3), pp. 137-145. doi: 10.1016/S0166-4972(01)00006-2.

Tippins, M. J. et al. (2003) 'It Competency and Firm Performance/ : Is Organizational Learning a Missing Link/ ?', Strategic Management Journal, 24(8), pp. 745–761.

Tsai, W. & Ghoshal, S. (1998) 'Social Capital and Value Creation/: The Role of Intrafirm Networks', The Academy of Management Journal, 41(4), pp. 464-476.

Tummapudi, N. (2017) 'Linking knowledge management and innovation culture for business performance improvement', International Journal of Knowledge Management and Practices, 4(2), pp. 9–22,

Utterback, J. M. & Abernathy, W. J. (1975) 'A Dynamic Model of Process and Product Innovation', Omega, 3(6), pp. 639-656.

Vaidya, S. (2009) 'International joint ventures: an integrated framework', Competitiveness Review, 19(1), pp. 8–16.

Welch, L. S. & Luostarinen, R. (1988) 'Internationalization: Evolution of a Concept', Journal of General Management, 14(2), pp. 34–55. doi: 10.1177/030630708801400203.

Wernerfelt, B. (1995) 'The Resource-Based View

of the Firm/ : Ten Years After', Strategic Management Journal, 16(3), pp. 171-174.

Winter, S. G. (2003) 'Understanding dynamic capabilities', *Strategic Management Journal*, 24(10), pp. 991–995.

Yeh, Y.-J., Lai, S.-Q. & Ho, C.-T. (2006) 'Knowledge management enablers: A case study', *Industrial Management and Data Systems*, 106(6), pp. 793-810.

Zack, M. H. (1999) 'Developing a Knowledge Strategy', *California Management Review*, 41(3), pp. 125–145.

Zaheer, A., McEvily, B. & Perrone, V. (1998) 'Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance', Organization Science, 9(2), pp. 141-159.

Zammuto, R. F. et al. (2007) 'Information Technology and the Changing Fabric of Organization', Organization Science, 18(5), pp. 749-762. doi: 10.1287/orsc.1070.0307.

Zhan, W. & Luo, Y. (2008) 'Performance Implications of Capability Exploitation and Upgrading in International Joint Ventures', management international review, 48(August 2006), pp. 227-253.

Zheng, W., Yang, B. & McLean, G. N. (2010) 'Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management', *Journal of Business Research*. Elsevier Inc., 63(7), pp. 763-771.

56