

**"THE IMPACT OF COMMUNICATION AND FLEXIBILITY ON
PERCEIVED ENVIRONMENTAL UNCERTAINTY IN B2B
RELATIONSHIPS DURING COVID-19"**

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ABSTRACT

This study aims to examine the effect of relational variables mainly; communication and flexibility on both operational performance as well as perceived environmental uncertainty during the actual crisis of Covid-19, this research also evaluates the level of flexibility and communication provided by the tourism governmental organizations for tourism stakeholders operated in Egypt. Online questionnaires have been sent to various tourism enterprises in the most important tourist destinations in Egypt, the data sample provided by the managers of hotels, travel agencies, cruises, restaurants. We used SPSS.16 to analyze statistically the collected data. The hypotheses have been examined by conducting correlation and regression analysis. The findings showed that only communication has a positive effect on operational performance, on the other hand perceived environmental uncertainty only affected by operational performance.

KEYWORDS: Flexibility, Communication, Operational Performance, Perceived Environmental Uncertainty, Business- To-Business Relationships.

INTRODUCTION

After Covid-19 the Egyptian tourism industry suffered a lot specially in reducing the number of international tourism, moreover many stakeholders have been affected negatively from this recent crisis, this study focuses on B2B relationship specially between the governmental tourism organizations and tourism stakeholders as hotels and travel agencies, during this research we try to explore the importance of flexibility and communication during the pandemic, in addition to their influence on stakeholder's operational performance that may reduce the negative effect of perceived environmental uncertainty. We aim to examine travel agents and hotels and other enterprises perspective as the most important drivers in tourism industry, helping them to improve their situation may have a

great effect on the industry in general during the pandemic, moreover the efficiency of reducing the perceived uncertainty is a positive sign that means decreasing the perceived risk. The implication of this study may have a great influence during various situations especially in a turbulent environment, in other words the actions that made by the government would play a critical role for saving the state's economy.

Based on relational exchange theory and resource based theory the proposed theoretical framework presents communication as well as flexibility having positive relationships with stakeholder's operational performance which is related negatively to environmental uncertainty.

PROBLEMS AND QUESTIONS OF THE STUDY

To cope with any crisis affected the tourism industry specially the stakeholders, the governmental entities could play a vital role by providing critical mechanisms in order to improve stakeholders performance and reduce the perceived environmental uncertainty; communication, flexibility and adaptation provided by the governmental entities have an impact on tourism stakeholder's performance as well as their perception of the environment stability. This study will highlight the degree of flexibility, adaptation and communication from the perspective of hotels and travel agencies managers. We shed the light on three important variables because of their critical role in b2b context during crisis and disasters.

The following questions present the research problem.

- 1- What is the influence of flexibility and communication on stakeholders' operational performance during the pandemic of covid-19?
- 2- What is the influence of flexibility and communication on stakeholders perceived environmental uncertainty during the pandemic?
- 3- Is there any influence of performance on perceived environmental uncertainty?

THE IMPORTANCE OF THE STUDY

- 1- Call the attention to focus on the relational factors such as flexibility, and communication which considered a key role in increasing stakeholder performance and reducing the perceived risk during disasters.

- 2- Academically: There are less studies especially in tourism industry have evaluated relational variables in b2b relationship in order to improve stakeholders operational performance during the pandemic of covid-19.
- 3- Practically: by identifying flexibility and communication, we can understand which one of them effects more on stakeholders' performance and determined the shortcomings of these factors. Additionally the study contributes some recommendation related to developing and improving efficiently the mentioned relational variables in order to achieve a high performance.

LITERATURE REVIEW

SOCIAL EXCHANGE THEORY AND RESOURCE BASED THEORY

Social exchange theory (SET) has been mentioned widely in literature to explain and describe the degree of relational interactions between dyadic contacts as indicators for the achievable outcome (Lambe et al., 2001).

SET is based mainly on two way communication, which facilitates partners to be informed about each other's operations (Graca, Barry, & Doney, 2015). Respectively the role of communication in relational exchange has been tested empirically in many studies(Anderson & Narus, 1990; Morgan & Hunt, 1994) .

In a more specific context, the recent study has been conducted by Mora & Johnston (2020) focused on recovering the corona virus crisis based on social exchange theory suggesting that the theory involves attitudinal and behavioral factors that can be changed in order to adapt to such a crisis which resulted in economic and social outcomes.

On the other hand the resource based theory(RBT) shed the light on tangible and intangible resources as well as knowledge skills that are rare, valuable, can't be imitated even substitute which contribute to achieve competitive advantage (Barney, 1991). RBT contribute critical importance to public organizations in order to overcome challenges related to turbulent environment, Szymaniec-mlicka (2014) suggested that organization's flexibility regarded as strategic resources.

PERCEIVED ENVIRONMENTAL UNCERTAINTY

In order to have a clear vision about the perceived environmental uncertainty its critical to understand that organizational environment is a combination of internal and external aspects , the internal environment is related to organization's personal, functional and staff units as well as

organization' goals, on the other hand the external environment is related to customers, suppliers, competitors, socio-political and technological aspects(Duncan, 1972). In the same research the author defined the perceived uncertainty as a lack of information related to the environment, unknowing the results of such making any decision in addition to in ability to be confident in predicting the effect of the environmental factors on the failure or success of the decision unit in performing its function. The environmental uncertainty has been associated to the complexity and inconstancy of the environment (Damanpour,1996 ;Dess and beard,1984). The researchers also mentioned the environmental uncertainty in relation with organization resources such as the inefficiency of obtaining economic resource (Miles and Snow, 1978), innovation (Freel, 2005). It can be interpreted that perceived environmental uncertainty influences on future decisions. In a similar way environmental uncertainty has a direct as well as indirect effect on commitment(Harrison & Kelly, 2010; Sahadev, 2008). From other perspective Wood(2008) argued that perceived environmental uncertainty impacts on buyer's perception of existing alternatives.

Moreover providing effective open communication that entails critical information about the industry has been mentioned as a successful element which helps to better understanding the actual situation.

In the same vein Mair, Ritchie, & Walters(2016) , provided evidences from literature that emphasis the importance of communication during disasters and crises in tourism market, the author highlighted that communication between stakeholders considered as an obstacle if it wasn't updated and on time.

Y. Jiang & Ritchie (2017) pointed out that stakeholder's collaboration during or after disasters is a critical key element rather than developing crisis strategies, additionally this collaboration has to be built on developing resources and relationships to reach the effective outcome.

Mora & Johnston(2020) shed the light on implementing strategic flexibility and adaptation and the crucial role in inter organizational relationships which reduce the impact of risks and disasters.

In the same vein many studies highlighted the important role of flexibility in uncertain environment. Yi (2011) provided four different flexibility strategies as reactive or proactive in order to cope with uncertainty in supply chain, the most effective is the agile strategy which provides a high degree of flexibility in a high uncertain environment, the conservative provides a low level of flexibility in a low uncertain environment, the aggressive one shows a high degree of flexibility in a low supply chain

uncertainty and the useless one is the laggard which presents low degree of flexibility during high uncertainty.

Economic (2013) suggested that functional, structural and manufacturer flexibility in addition to flexibility in marketing provided to reduce the effect of uncertainty related to small and medium enterprises specially in developing countries.

It has been viewed in literature that during crisis the environment presented to be more complex and the best way to overcome this difficult situation is to implement adaptation strategy. with regard to economic and crisis, Martin-rios & Pasamar(2018) stated that adopting strategic adaptation actions for long term attempt to maximize the operating profits and sales growth.

OPERATIONAL PERFORMANCE

The business performance has been defined in literature as an instrumental variable which involves types and rates, additionally it is the most concrete out come from relational exchange according to Rajamma, Zolfagharian, & Pelton(2011) which illustrated that evaluating performance as an outcome is based on functional actions rather than opinions.

Neely (1995) defined performance measurement system as a set of metrics used to quantify both efficiency and effectiveness of actions. In the same vein operational performance has been mentioned to describe the efficiency of doing operations rather than financial aspects (B. Jiang, Frazier, & Prater, 2006) they mentioned three aspects of performance e.g cost efficiency ,productivity and profitability. in a distant way Huang (2006) analyzed performance belonging to strategic alliances in b2b context which involved three distant dimensions consisted of strengthen mutual trust, continuing cooperation wills and realized expected goals. In exportation industry Hasaballah, Genc, Bin Mohamad, & Ahmed, (2019) highlighted financial aspects, strategic aspects and satisfaction in order to have a clear vision about the holistic performance. The author Franco-santos et al.(2005) claim that there is not any definition in literature has general characteristics to identify performance, moreover the author grouped the definitions into three groups related to function, operations and features. Based on this suggestion we can observe performance from the organizational perspective associated with operations and processes aspects.

HYPOTHESES OF THE STUDY

H1- There is a significant positive impact of flexibility on operational performance.

H2- There is a significant positive impact of communication on operational performance.

H3- There is a significant negative impact of operational performance on perceived environmental uncertainty.

H4- There is a significant negative relationship between flexibility and perceived environmental uncertainty.

H5- There is a significant negative relationship between communication and perceived environmental uncertainty.

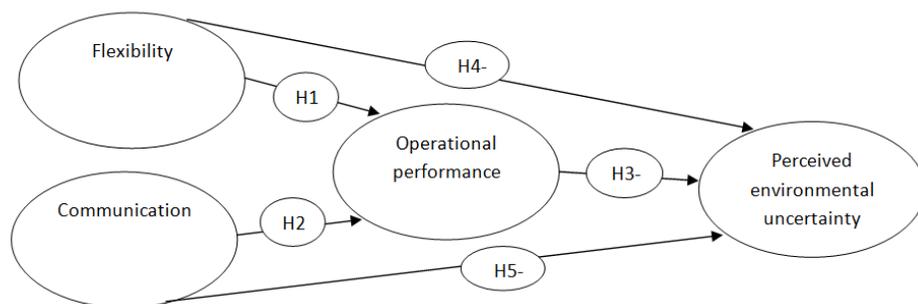


Figure 1: The research model

Based on the previous literature we conducted conceptual model evaluate the impact of flexibility and communication on operational performance as relational variables and examine the relationship between flexibility, operational performance , communication on the perceived environmental uncertainty of stakeholders during crisis.

RESEARCH METHODOLOGY

METHODS

We conduct quantitative research represented in an online questionnaire in order to measure the effect of flexibility and communication provided by the governmental organization during the pandemic on the operational performance of tourism stakeholders, the questionnaire divided into 2 parts, the first part was related to type of the firm and the location of the

firm, the second part was related to 4 variables flexibility, communication, operational performance and perceived environmental uncertainty.

STUDY MEASUREMENTS

Flexibility dimensions for this study have been developed according to the actual situation of the pandemic, by measuring the actions that have been taken by the ministry of tourism as a governmental organization in order decrease the negative effect of the recent crisis.

1. Direct financial support for tourism enterprises to not dispense the actual employees.
2. Scheduling the debt repayment of tourism enterprises that related to services as taxes and electricity etc..
3. The ability of tourism organization to cope with changes (Slack, 1987), the answers employed 3 point scale to have accurate responses.

Communication has been measured by four items adapted from Palmatier (2007) and one item from Zineldin and Jonsson (2000) employed 5 Point Likert Scale reaching from strongly disagree to strongly agree, related to visit frequency, keeping each other informed, adequacy of time, complete information, communication channel.

The measurements of operational performance have been developed from Huang (2006) related to sells growth, productivity and profitability, also 5 point Likert scale has been used. The perceived environmental uncertainty (PEU) dimensions have been focused only to express aspects related to customers and suppliers adapted from Miles and Snow (1978), the offered answers measured by 3 point scale.

THE STUDY SAMPLE

Based on the last edition of hotels as well as travel agencies guide books that published by the tourism ministry of Egypt, the questionnaire was sent to hotels, travel agencies, restaurants, cruises located in Cairo, Giza, Alexandria, North coast, Sharm El-Sheikh, red sea, Luxor and Aswan, which include the greatest number of tourist as well as tourism enterprises. The questionnaire completed by 70 managers of different tourism enterprises; it has been ignored enterprise name to obtain accurate information within keeping business privacy for every enterprise.

DATA ANALYSIS AND DISCUSSION

According to the demographic data 27.1% of participants were from Sharm El Sheikh, followed by 24.3% from Cairo and 20% from Red sea Table 1. 67.1% of responders work in hotels and 21.4% work in travel agencies see Table 2.

Table(1)Frequency of Tourist destination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cairo	17	24.3	24.3	24.3
	Giza	4	5.7	5.7	30.0
	Alexandria	2	2.9	2.9	32.9
	North coast	3	4.3	4.3	37.1
	Red sea	14	20.0	20.0	57.1
	Sharm El Sheikh	19	27.1	27.1	84.3
	Luxor	2	2.9	2.9	87.1
	Aswan	9	12.9	12.9	100.0
	Total	70	100.0	100.0	

Table (2) Frequency of Enterprise type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hotel	47	67.1	67.1	67.1
	Travel agency	15	21.4	21.4	88.6
	Cruise	4	5.7	5.7	94.3
	Restaurant	4	5.7	5.7	100.0
	Total	70	100.0	100.0	

VALIDITY AND RELIABILITY

Data were analyzed by using SPSS.16 program, factor analysis was conducted in order to test the construct validity, factor analysis as well as factor loads are presented in Table 3 which present high factor loads, additionally KMO test approved that the sample population is acceptable for conducting factor analysis which reached (0 .776).

In order to test the reliability of the constructs we conducted Cronbach's Alpha reliability test Table 4 and all items reached greater than 0.6 which show a significant reliability for all the constructs.

Table (3) Rotated Component Matrixa

	Component			
	1	2	3	4
Com5: communication channel	.875			
Com2:keeping each other informed	.861			
com 1:visit frequency	.854			
Com4:complete information	.841			
Com3:adequacy of time	.768			
OP 3: Profitability		.907		
OP 2: Productivity		.886		
OP 1: sells growth		.880		
Flex 1:financial support for tourism enterprises			.879	
Flex 2:Scheduling the debt repayment of tourism enterprises			.842	
Flex 3:The ability of tourism organization to cope with changes			.733	
UN2				.848
UN1				.839

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table (4) Cronbach's Alpha

Construct	Number of indicators	Cronbach's Alpha
Communication	5	.920
Flexibility	3	.782
Operational performance	3	.910
Perceived environmental uncertainty	2	.626

Table 5 shows the statistical mean of all structure items, with regard to communication the greatest responses were for complete information with Mean (3.99) and Std. Deviation (.752), concerning to flexibility indicators Scheduling the debt repayment of tourism enterprises present the most important indicator with Mean (2.19) and Std. Deviation (.46), with respect to operational performance productivity achieved the greatest importance with Mean (3.29) followed by profitability with Mean (2.77), for perceived environmental uncertainty the responses on perceived uncertainty related to suppliers with mean (2.07) and customers with (2.00) and Std. Deviation (.614)

Table (5) Descriptive Statistics

	N	Mean		Std. Deviation	Variance
	Statistic	Statistic	Std. Error	Statistic	Statistic
com 1:visit frequency	70	3.84	.088	.735	.540
Com2:keeping each other informed	70	3.83	.095	.798	.637
Com3:adequacy of time	70	3.63	.079	.663	.440
Com4:complete information	70	3.99	.090	.752	.565
Com5: communication channel	70	3.76	.082	.690	.476

OP 1: sells growth	70	2.69	.101	.843	.711
OP 2: Productivity	70	3.29	.135	1.131	1.280
OP 3: Profitability	70	2.77	.102	.854	.730
Flex 1:financial support for tourism enterprises	70	2.09	.053	.442	.195
Flex 2:Scheduling the debt repayment of tourism enterprises	70	2.19	.055	.460	.211
Flex 3:The ability of tourism organization to cope with changes	70	2.06	.053	.447	.200
UN1	70	2.07	.074	.621	.386
UN2	70	2.00	.073	.614	.377
Valid N (listwise)	70				

To test the hypotheses we conducted correlation analysis, the results in Table 6 show the relationship between flexibility and operational performance is (.178) which is insignificant, so hypothesis 1 is unsupported as well as hypotheses 4 and 5 are unsupported which reveal that neither flexibility nor communications have relationship with perceived environmental uncertainty. For the next step we have conducted liner regression analysis to test hypotheses 2 and 3. The regression result in Table 7 shows the relationship between communication and operational performance is significant with Std.coefficient (.464) which support hypothesis 2 as well as hypothesis 3 the results also show a significant relationship between operational performance and perceived environmental uncertainty which sig<0.05, with Std.coefficient (-.239) supported hypothesis 3 which presented the negative relationship Table 8, all results presented in Table 9.

Table (6) Correlations

	1	2	3	4
OP	1		*	
COMM	.474**	1		

PEU	-.239*	-.074-	1	
FLEX	.178	.309**	.037	1
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

Table (7) Coefficients a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.323	.591		.547	.586
	COMM	.723	.163	.474	4.442	.000

a. Dependent Variable: PER

Table (8) Coefficients a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.454	.215		11.402	.000
	Operational performance	-.144-	.071	-.239-	-2.030-	.046

a. Dependent Variable: perceived environmental uncertainty

Table (9) Results

No	The correlation	Result
H1	There is significant relationship between Flexibility and operational performance	Unsupported
H2	There is a significant positive relationship between communication and operational performance	supported

H3	Operational performance has a negative effect on perceived environmental uncertainty	supported
H4	There is a significant negative relationship between flexibility and perceived environmental uncertainty	Unsupported
H5	There is a significant negative relationship between communication and perceived environmental uncertainty.	Unsupported

DISCUSSION AND CONCLUSION

It has been discussed extensively that during crisis or a high turbulent environment the relational factors are very important especially in B2B context which explained by relational exchange theory. The actual crisis of covid-19 is totally different from any other crisis; it needs extensive efforts to overcome the actual situation. In our research we have focused on two relational variables because of their critical affect; Communication viewed as a critical element to understand each other and to transmit the real situation. the results demonstrated significant positive relationship between communication and operational performance, this calls governmental organizations to keep constant communication with business stakeholders which provides updated information of the most important issues and problems that faces the industry ,therefore it helps in increasing stakeholder's operational performance , in other words to improve the operational performance; business stakeholders have a need to interact frequently with governmental organizations of the industry , on the other hand operational performance observed to have a negative relationship with perceived uncertainty during the pandemic , this finding pay more attention to the critical role of operational performance, it seems so obvious that increasing profits, sells and productivity provide less degree of perceived uncertainty.

Our study also tested critical actions made by the tourism governmental organizations represented in the ministry of tourism in Egypt as items of flexibility during the current crisis of the pandemic, in contrary to our predictions the findings showed that relationship between these actions and stakeholders operational performance is not significant, it can be interpreted that the conducted actions don't have high level of the required flexibility specially during this specific crisis to have a significant effect

on operational performance. It can be understood that there is a need for providing more flexibility to have an effect on the operational performance represented in productivity, profitability and sales growth.

FUTURE RESEARCH AND LIMITATION

- It can be observed that hotels and travel agencies still don't feel high level of flexibility according to the findings which presented the majority of respondents, thus we suggest for future research to do qualitative investigation mainly on hotels and travel agents in order to understand what are the aspects that still need a high degree of flexibility which would be provided by governmental organizations during this specific crisis of the pandemic that is different from any crises had effected tourism industry.
- The sample size was little bit small around 70 managers; as we were targeting only sales, marketing or general managers of tourist enterprises in Egypt, in addition to the limited time to receive the responses of the questionnaires which was only one month.

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