

Factors Influencing the Process of Decision Making in Telecommunication Sector

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Abstract

Decision Making is the most important element for every organization. It can raise a firm to the market leader or can fall a market leader to disappear. Therefore it is important to know, what factors have strong influence over decision making. This paper finds out the factors which have a great impact over the suitability of decision making. These are individual experience, intelligence, information availability and organizational capabilities. The research is based on questionnaire survey from telecommunication organization in Pakistan. The data was analyzed through SPSS tools for getting results. Broad recommendations are made decision making. The research is equally applicable to all type of organizations irrespective of their type and products.

Keywords: Intelligence (I), Individual Experience (IE), Availability of Information (AOI), Organizational Capabilities, Decision Making (DM) and Strategically Suitable Decision making (SSDM).

1. Introduction

Decision making is perhaps the most influential and critical factor of all which have a strong impact over all of the operations of an organization. All of the activities of a firm are strongly correlated with this function. Correct and timely decisions can make a firm more productive and profitable while wrong; and inappropriate decision can ends even the existence of a firm and ultimately leads to the organizational disappear from the market. It will be not wrong to say that every thing the organization produced and offer and every activity organization do, depend upon the quality and maturity of its management decisions.

Due to the above importance and severity of decision making, there are many factors which constantly affect the process of DM. Among them political, economical, geographical and social forces are the most important and critical. Therefore there is a strong need to address the factors which are problematic in DM and those which are necessary for making good and strategically suitable decisions.

Organizational decisions are often group decisions and such decisions are made through a group of people. Each individual has his/her own personal characteristics and personality type but the common thing among them is the problem, its solution and reaching to a collective decision [1].

Each member of the group has different opinions and different values for each choice. Thus reaching to a common and specific point is a difficult and the most significant matter. Usually members reach to a common point through the process of consensus over different alternatives [2]. There are many researchers who proposed mathematical methods for collective judgments and decisions. Some important among them are simple averaging, [3], geometric mean [4], "The analytical hierarchy process [5] and the fuzzy set theory [6]. Other type of approach was also developed which was based on consensus-based information for supporting the process of consensus building [7].

All of the above methods and models has there own limitations and benefits. But the main problem is there are no details of the factors that are necessary for suitable and correct decisions. This research tries to find out various factors which have strong influence on DMP. In this research, the author will develop such a structural model, by the use of which almost all types of decisions will be made easily and accurately.

2. Literature Review

2.1 Individual Experience

Skills and knowledge obtained by an individual through participation in that work etc is known as experience [8]. Normally it refers to the procedural knowledge of something. It can be also gained through on-the-job training.

Experience may also refer to something which is strongly related to mental abilities or something occurred physically i.e. human continuously gains knowledge while growing and when a worker does work, he/she gets experience [9]. There are many types of experiences. Among them some important types are given below:

1. Physical
2. Mental

3. Social
4. Subjective

Environment changes continuously; give an opportunity to human of getting experience from its observations. In term of an organization or firm, knowledge and skills which come to the mind of employee from the environment of the organization is physical experience [10]. Experience that involves improvement in the mental power etc in the area of thoughts, memory, perception etc is mental experience [11]. Experience comes from the social interaction of some one with the society is called social experience. As employees can not work in isolation from the rest of organization employees he/she became aware from different types of life styles, norms, social responsibilities etc. this type of experience he/she obtain is social experience [12].

The term experience used in this research is work experience. Experience plays an important role in work group. Employees having experience are more productive and skilled than those having no work experience [13]. There are many researchers which agree upon the fact that experience changed the world from pre-modern to modern to post modern [14].

When an employee enters an organization, he/she begins to interact with supervisors, managers, environment, customer etc. These elements have a strong influence on his/her life and work, and what he/she receives through this interface is known as employee experience. Way of working and behavior of the worker comes from this experience [15].

It is very necessary to manage the employee experience for the betterment of organization. And it is this experience which leads to firm's internal strategy and external strategy regarding its internal customer and external customer [16].

Experience is very necessary for making good decisions and planning good strategy. With out enough experience it is very difficult for management to plan effective strategy for their organization and make valuable decisions. The author has assumed the below hypotheses for the research

H (2.4.1): Individual's Experience has positive impact on Decision Making.

Ho (2.4.1): IE has no impact on DM

2.2 Intelligence

Intelligence is defined as the capability of reasoning, planning, thinking, solving complex problems and power of learning in an individual [17]. The definition clarifies those elements which have apparent and hidden positive relationship with decision making. This research also claims that intelligence has positive impact over strategically suitable decision making which will be checked and validated through hypothesis.

Human beings are not similar but differ in every aspect of life from one another. Some individual may understand complex issues more quickly than others. The abilities of thinking, reasoning and reaching to a solution of a person differ from other persons. This makes the actual definition of intelligence more complex and wide. Every researcher defines it in his/her own way [18].

Intelligence is sum of competencies which are helpful and necessary for objective acting, rational thinking and for effectively dealing with surrounding. In other words it is the ability of an individual to respond objectively and logically to his/her external environment [19].

Some researchers have define and consider intelligence "a process of getting, accumulating, arranging and reusing of existing knowledge in solving complex problems and in creating new knowledge [20].

Human intelligence is very important for problem solving. It is the collection of those competencies which enables an individual to respond and resolve different types of issues and problems appropriately and effectively. The solution must be for the betterment of individual and organization. Through intelligence market required products can be developed and strategically suitable new knowledge can be created [21].

Intelligence is power of individual to modify the present operations and functioning and to adopt organizationally and environmentally acceptable executions to fulfill the changing and market required demands of life [22].

This research tries to find out the relationship of human intelligence and strategically suitable decision making. The following hypothesis was drawn from the literature survey.

H (2.4.2): Individual's Intelligence has positive influence over DM.

Ho (2.4.2): Intelligence has no influence over DM.

2.3 Organizational Capabilities:

Capability means ability, ways etc of doing something. In the context of organizational capabilities it means the ways of dealing with daily and long term problems of an organization [23]. Different organizations have different problems and issues, which is based on their objectives and goals. Even they differ from one another if they belong to the same category and offer same services and goods. Capabilities of the firms are those specific ways which are continuously developed in the firms. Therefore, it is defined as "A particular way of dealing with firm's problems and issues [24].

Capabilities of a firm are strongly related with the knowledge present in the firm. Firms which have rich environment of know-how of doing and dealing with a specific problems seem to be deal accurately and effectively [24]. Capabilities development is a quite slow but continuous process and requires a very long time for its development. They come into being from the firm's experience, strength and knowledge from time to time.

Capabilities are not only important for dealing with the organization's problems but they are also one of the main sources of getting competitive advantage over the competitors in the market. It enhances competitive strength and sustains firm's competitive edge [25]. Capabilities also increase performance of the firm. This shows that organizational capabilities are not only necessary for dealing with the firm routine issues and problems but it is also important for getting competitive advantage and for increasing productivity and performance. It is very difficult to transfer capabilities from one organization to another [23].

There are two main types of problems and it is highly important for organizations to deal with. The first one is to develop new resources and to try new alternatives. The second one is to use the available resources effectively. In other words, either management develops new long run strategies for the betterment of their organizations or makes such process which increases the present organizational performance [26].

The above literature survey concludes that organizational capabilities are very necessary and important for any organization's performance and existence. Every organization has to adopt such strategies inside their organization which not only increase its performance but also increase its decision capabilities. They following hypotheses are proposed.

H (2.4.3): Organizational Capabilities has positive impact on Decision Making.

Ho (2.4.3): Organizational Capabilities has no impact on Decision Making.

2.4 Availability of Information

Business organizations are facing tremendous challenges of modern age. These challenges come from organizational inside and outside environment. Therefore organizations formulate and deploy its strategies in such a manner to answer the difficulties, issues and challenges in an effective manner. In order to formulate market based organizational strategies, information about the customer, market and all other elements are extremely needed [27].

Availability of information means access to information at the required time by the right person. There may be some interruptions which may disturb the information availability but organizations have to solve them. There is need of information in organizational operations, supply chain management, and decision making [27].

Information availability gives the opportunity of making strategically suitable decisions which are customer focused, market oriented and visionary. It transforms any non-profitable operation to profitable and increases the value of the firm through its proper use [28].

Through information organization can satisfy its customers in much better way and can get highly acceptable return from its decisions [29]. It is true that information is very necessary for planning and formulating every operation of organizations. Yet the most importance of it is in designing the firm's strategy and making SSD. Therefore information will be used to change the non-profitable process to profitable one. For this, right information is needed to the right person at the right time.

This research is going to find out the importance and need of information availability mode of usage in decision making. The authors have assumed the relationship in the following order.

H (2.4.4): Availability of Information has positive influence over DM.

Ho (2.4.4): Availability of Information has no influence over DM.

2.5 Decision Making

Decision making is a selection process in which an action course is selected from many alternatives. A final choice is produced through the process [30]. It is not necessary that the final choice must be a course of action, but it can be an opinion also. Therefore the process of decision making is defined as "the selection of a choice among two or more alternatives and choices."

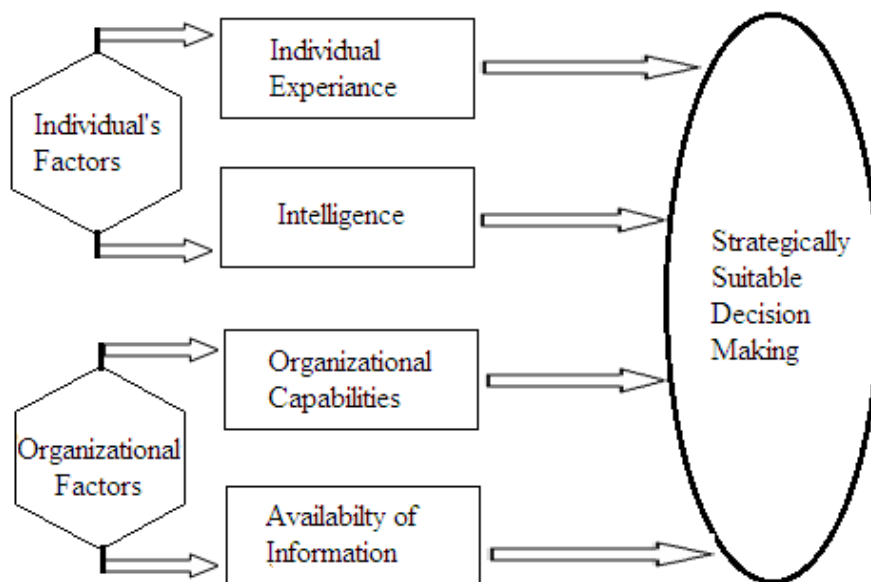
There are many factors which contribute to the DM process. Among them the important are its logic and its output or goal [31]. Decisions are made, when its time comes by analyzing its benefits and costs [32]. The aim of decision makers is to minimize cost and maximize its benefits [33].

Management makes decision with the help of knowledge and information available for the problem to be solved or for decision to be made. This shows the need of information and its strong relation with the analyzing of alternatives and DM [34]. But it should be kept in mind that the overload of information may spoil the worth of decision, because too many information requires high skills, tools, knowledge and technology for its using and assimilation [35]. Usually decisions are made by considering Rational Choice Theory into account [36].

2.6 Proposed Structural Model

The following model was designed for the proposed research. The author has included two types of factors, i.e. factors related to an employee and factors related to the working organization. The head of the arrow represents the direction of relationship from independent variable towards dependent variable. The model will be tested and analyzed through SPSS tools.

Figure 1: Proposed Model: Factors Influencing the Process of Decision Making



Model:

Factors Influencing the Process of Decision Making By Engr. Sayed Fayaz Ahmed

3. Research Methodology

The research is a part of PhD research. Hypothesis testing method was used for the research which was carried out with the help of questionnaire, which were first timely developed after the literature survey. The questionnaire was distributed among employees of PTCL, Warid, Ufone, Mobilink, Zong and Telenor. After getting back the questionnaire, the data was analyzed through SPSS software. The results were obtained through Correlation and Regression Analysis.

4. Analysis and Results

4.1 Reliability Test

Before going for complete research, some data was collected for finding the reliability and suitability of the data for getting the research objectives. Reliability test was done for this purpose and the data was found reliable and suitable with the Cronbach's Alpha value 0.794 which is an acceptable value.

4.2 Correlation Analysis:

To find out the relationship among different variables of the research, the author did correlation analysis of the data. The correlation value and significance level for Individual Experience, Individual Intelligence, Organizational Capabilities and Availability of Information are (0.591**) and 0.005, (0.629**) and 0.000, (0.740**) and 0.001; and (0.761**) and 0.000. As for all of the relationships the p-value is less than 0.05, so there are significant and positive relationships among the variables of interest. The correlation matrix below shows the description of the analysis.

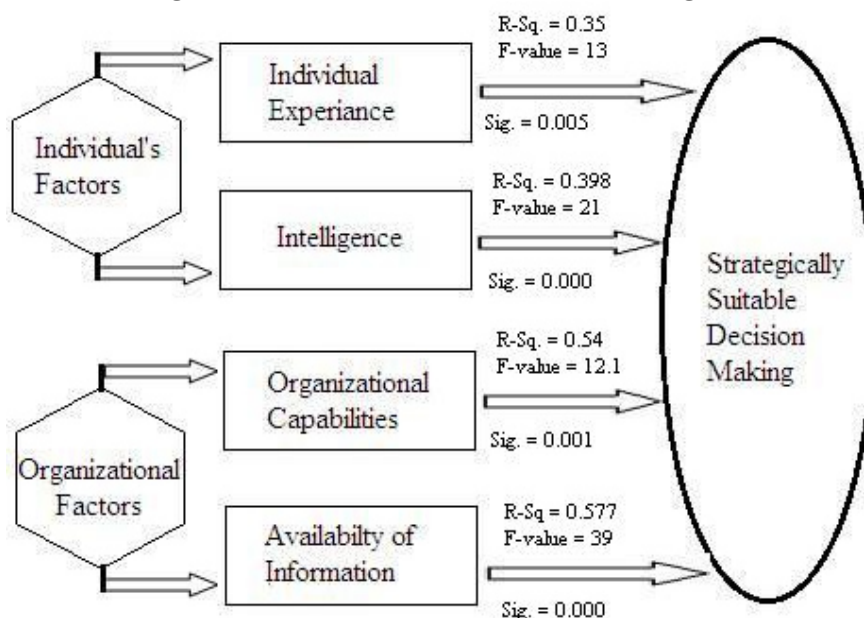
		IE	II	OC	AI	DM
IE	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	200				
II	Pearson Correlation	.273**	1			
	Sig. (2-tailed)	.000				
	N	200	200			
OC	Pearson Correlation	.093	.682**	1		
	Sig. (2-tailed)	.188	.000			
	N	200	200	200		
AI	Pearson Correlation	.414**	.447**	.355**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	200	200	200	200	
DM	Pearson Correlation	.591**	.629**	.740**	.761**	1
	Sig. (2-tailed)	.005	.000	.001	.000	
	N	200	200	200	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

4.3 Regression Analysis:

To check the affect of one variable over another, the author did regression analysis of the data. The following lines discuss the regression analysis of various relationships the author proposed after literature survey.

Figure 2: Tested Model for “Factors Influencing the Process of SSDM”



Model:

Factors Influencing the Process of Decision Making By Engr. Sayed Fayaz Ahmed

Hypothesis 1:

H (1): Individual’s Experience has positive impact on Suitable Decision Making:

H₀ (1): IE has no impact on SSDM:

The relationship between IE and SSDM was checked through regression analysis and the value noticed is $R = 0.591$, $R\text{-square} = 0.348$, $F\text{-statistic} = 13.76$ with significance level 0.005. It means that the relationship is significant and positive. From the value of R-Square it is concluded that SSDM can be predicted with 34 % certainty while taking Individual Experience into account. As the value of significance level value is less than 0.005, null hypothesis is rejected and our assumption is true that there is IE has positive impact on SSDM. Details of the statistics are given in the table below.

Table 2: Regression Analysis

		B	Std. Error	t-Stat	Sig.	R-Square	F-Stat	P-Value
1	(Constant)	1.248	.151	8.285	.000	.348	13.7	.005
	IE	.190	.097	1.948	.005			
a. Predictor: (Constant), IE								
b. Dependent Variable: DM								

Hypothesis 2:

H (2): Individual's Intelligence has positive influence over SSDM:

H₀ (2): II has no influence over SSDM:

There is positive and significant relationship between II and SSDM. The following tables clearly shows that $R = 0.629$, $R\text{-square} = 0.392$, $F\text{-test value} = 21.42$ with the significant level 0.000. Therefore the assumed null hypothesis that II has no influence over SSDM is rejected and it was proved that there is positive relationship. SSDM can be predicted with the certainty value of about 40 % from II.

Table : Regression Analysis

		B	Std. Error	t-stat	Sig.	R-Square	F-Stat	P-Value
1	(Constant)	1.070	.103	10.423	.000	.398	21.3	.000 ^a
	II	.294	.064	4.627	.000			
a. Predictors: (Constant), II								
b. Dependent Variable: DM								

Hypothesis 3:

H (3): Organizational Capabilities has positive impact over SSDM

H₀ (3): OC has no impact over SSDM

The relationship between OC and SSDM was also found out through regression analysis. It was noticed that for this relationship $R = 0.740$, $R\text{-Square} = 0.548$, $F\text{-value} = 12.33$ with the level of significance 0.001. Hence the null hypothesis is rejected and it is proved that there is positive and significant relationship between OC and SSDM with the certainty level of 54 %. So SSDM can be predicted with 54 % accuracy from OC.

Table: Regression Analysis

		B	Std. Error	t-Stat	Sig.	R-Square	F-Stat	P-Value
1	(Constant)	1.213	.095	12.760	.000	.548	12.13	.001 ^a
	OC	.202	.058	3.483	.001			
a. Predictors: (Constant), OC								
b. Dependent Variable: DM								

Hypothesis 4:

H (4): Availability of Information has positive influence on Strategically Suitable Decision Making:

H₀ (4): AI has positive influence on SSDM

The relationship of AI and SSDM was checked through regression analysis. It was found out that there is positive and significant relationship with the predictable value of 57 %. R-value for the relationship is 0.761, R-square is 0.577, F-test value is 39 with the significant level 0.000. As the values show the rejection of null hypothesis, the proposed hypothesis that there are positive relationship between AI and SSDM is true with the certainty value 57 %. The following table shows the statistical values and coefficients of the relationship.

Table: Regression Analysis

		B	Std. Error	t-stat	Sig.	R-square	F-stat	P-value
1	(Constant)	.876	.107	8.165	.000			
	AI	.416	.067	6.247	.000			
a. Predictors: (Constant), AI								
b. Dependent Variable: DM								

5. Conclusion

It is concluded from the research that there are many contributing elements which are necessary for making decisions in any organization. As a matter of fact that all the business of a firm depends upon the strategy and planning, the firm makes. Therefore it is very necessary that organization should make suitable decisions. This research study reveals that IE, II, OC and AI have great importance in SSDM. It is clear from the analysis and results that all of the relationships, the author assumed are positive and significant. So, it can be said that with out II, AI, IE and OC SSDM is very difficult. As much as decisions are the most influential factor of success, the elements which are essential for DM is also important.

The relationship of IE and DM is positive and significant which shows that experienced employees will make more appropriate decisions than those having no or less experience. Experienced staff knows how to manage and solve the organization's complexities and matters more easily and accurately. Other factors which have also a great impact on DM are the intelligence and talent of the maker. If the intelligence level of a decision maker is low, ultimately the probability of good decision and suitable strategy formulation will be low. Shortly, without enough power of mind and intelligence SSDM is just a dream. There are some organizational features which have also great deal with SSDM. Among them OC and AI are studied in the research. The result shows that OC and AI have positive and significant relationship with SSDM. In other words with out the capabilities of organization, SSD can not be made. And it is the duty of top management to provide all of the necessary information and knowledge at right time and at right place to the decision makers.

5.1 Recommendations

1. The research divides the system of decision making into two categories. The first one is related to the individuals making the decisions and the other is related to the organizational environment and organization itself.
2. Organizations should consider both individual and organizational factors while making their short and long term decisions. In the absence of one the other is incomplete to fill the pre-requisite of DM in a suitable strategic manner.
3. II and IE have crucial role in DM. So it is important that employees with high intelligence and experience should consider for making the firm's strategy, planning its long term objectives and goals.
4. All of the required and essential materials should be provided to the decision makers on time and on proper desk. Improper time and place is unacceptable at any cost and may create severe disturbance in DM.
5. While making decisions, organization should keep in notice all its weaknesses and capabilities. Anything which is beyond the capabilities should be left for any suitable position and those which are achievable must be considering to be planned for the betterment of the firm.
6. Organization should make strategy only for those goals which are achievable. Most difficult and impossible objectives should not be planned and considered during DM. These targets will blame high management and may run the firm to economic break down.

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