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Exploring the impact of the personal attitude of decision-makers on decisions at the construction organisations in Saudi Arabia

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Abstract

The study is to explore the impact of the personal attitude on decision making at one of the most critical sectors in the Gulf area; which is construction. This objective is explicitly selected to developing the skills of the decision-makers to avoid personal interference in decisions. To achieve these goals, the researcher utilised a mixed methodology, which includes both qualitative and quantitative data collection methods. The designed questionnaire was distributed via emails accounts to the selected sample of eighty (84) employees from a staff working in 1st-degree Construction Company in Riyadh/Saudi Arabia. Interviews have been done with four (4) of the senior managers were selected from amongst the selected 1st-degree construction company of Saudi Arabia management. The study found that culture does not affect decision-making, while both emotions and risks attitude affects decision-making. The results confirmed that positive emotions positively affect the work environment, and noted the importance of having clear and broad knowledge among decision-makers on risk management.

Keyword: Exploring, personal attitude, decision-makers , decisions , construction organisations.

Introduction

Decision-making is the primary turning point between success and failure in organizations. During the day-to-day process, many decisions emerge that need attention and resolution within tight time frames to ensure smooth workflow. A variety of factors overlap in this process, from time pressures and financial considerations to complexities related to personal attitudes.(Ejimabo, 2015).

These situations can swing like a pendulum, either cast a shadow of negativity or exhibit a light of positivity, all influenced by the unique circumstances of that fleeting moment. This research aims to delve into how personal attitudes shape decision-making, particularly in one of the most vital sectors in the Gulf region: construction. Over the past fifty years, the industry has emerged as a formidable force, weaving itself into the fabric of the Gulf economy. (Group, 2019).

Decisions lie at the heart of management, woven through the complex fabric of activities and tasks that define the organization. As we delve into the ever-evolving world of decision-making, its importance is increasing exponentially. The success and efficiency of business processes depends on how choices are made and put into practice (Omarli, 2017). However, even the most sophisticated systems for collecting and evaluating information get stuck when faced with an unrecognized problem or an unnoticed data gap – situations that rely mainly on insight Humanity (Omarli, 2017).

The Decision-Making Process

Decision making plays an important role in business management (Alrashidi, 2016). There are many definitions of decision making in the literature. Dawes (1971) described it as a decision made between options; when there are no more options available and no decision needs to be made. Decisions are made to achieve a certain goal; that is, their decisions are made for a reason (Eidles-Maoz, 2006). Therefore, decision making is a strategy of action that weighs different options to achieve a desired outcome (Glassberg, 2The procedure of decision-making represents one of the most fundamental mechanisms of human reasoning (de Acedo Lizarraga et al., 2007). Salas & Klein (2001) describe the decision-making process as a series of consciously performed cognitive tasks that take into account the relevant environmental factors at a specific time and place. These factors are related to the ability of individual decision makers to access information and are limited by their cognition, experience, and judgment (Gavetti & Levinthal, 2000).

According to the vast majority of literature and writings on strategic search and decision making, culture, experience, and existing intellectual constraints affect decision makers' radar screens and their ability to access relevant knowledge, guide their search, and choose between available alternatives. (Rosenkopf & Almeida, 2003).

Decision Makers and Personal Attitudes

Significant elements had been identified as having a sizable impact at the decision making the procedure (Pohankova, 2010). However, consistent with Blackmore and Berardi (2006), individual and organisational factors are the two "natural" elements impacting the selection-making method.

Haris (2012) additionally emphasised at the concept that the 2 crucial factors that affect the technique of choice-making are: nature of the organisation and private competencies of selection-maker. Decision maker, with their persona traits and attitudes inclusive of, age and gender contrasts, values, revel in, cognitive biases and confidence in personal relevance represent the most critical factor contributing to the decision-making process as indicated via Bruin et al. (2007); de Acedo Lizarraga et al. (2007) and Juliusson et al.(2005)

Several studies related to decision-making process focus on the influence of individual factors, on the way the decisions made, such as Burke and Miller's (1999) research who investigated several personal attitudes of the decision-makers influence on the decision-making process; where five different kinds of decisions obtained as follow: (1) Experience-based decisions-Managers make the decision based on experiences, (2) Affect-İnitiated decisions, (3) Cognitive-based decisions, (4) Subconscious mental processing, and (5) Values or ethics-based decisions (Omarli, 2017).

However, according to Maheran, Isa, Norezam and Abdul (2009), there are critical factors that influence the process of decision-making: nature of the company and personal capabilities of decision-maker. Moreover, Haris (2012) considered the personal factor as the hardest to control or to anticipate in the decision-making process because numerous variables may include in this factor.

Culture

Carnevale and Kwok (2002) contend that culture assumes a fundamental role in finding two significant anthropological components in regards to how people interact with decision making: etic (universal) and emic (culture-specific).

As indicated by Kroeber and Kluckhohn (1952, p. 181) cited by Abunar (2016): "Culture consists of patterns, explicit and implicit, of and for behaviour acquired and transmitted by…, the core of culture is mainly traditional ideas and especially their attached values". Several researchers of the management have perceived the sociocultural condition as one of the variables that have the most effect on the practices of individual and gatherings in companies (Sagie & Aycan, 2003). Many other researchers; including (Heller et al., 1988; Ali, 1993) have clarified the significance of the cultural setting in decision-making process; however, it has not systematically examined in the construction sector in Saudi Arabia.

Culture involves a complex effect on several dimensions of human attitude (Soares et al., 2007). Culture is a crucial part of each society and can characterise as the learned pattern of conduct and everything which makes up an individual's entire way for living. A satisfactory definition is that of Hofstede (1991) which expresses that culture is a pattern of presumptions, beliefs and values whose shared meaning is acquired by individuals of a group and affecting their life's choices. As per Wild et al., (2012) culture can be characterised as a lot of qualities, convictions, guidelines and institution held by a specific gathering of individuals.

For the Saudi Arabia circumstance, it was found by Alamri, Cristea and Al-Zaidi (2014) implies that individuals acknowledge a hierarchical order where everyone has a place and which needs no further defence.

Moreover, for IDV, Saudi Arabia, with a score of 25, is viewed as a collectivistic culture. This show in a close long-term to the member 'group', extended family, or broadened connections. Loyalty in a collectivist culture is fundamental and over-rides most other societal standards and guidelines. The society cultivates secure connections where everybody takes responsibility for fellow members from their group (Alamri, Cristea & Al-Zaidi, 2014).

At long last, the normative nature of Saudi Arabian culture can found in its low score of 36 on LTO measurement. Individuals in such societies show extraordinary regard for customs, a generally little inclination to put something aside for the future, and an emphasis on achieving quick results (Alamri, Cristea & Al-Zaidi, 2014).

Emotions

Emotional processes interact in different groups with different degrees of influence depending on the needs of the environmental context (Blanchette & Richards, 2010). Emotional processes are more comprehensive, experimental, correlative

and passive. Lee, Amir, and Areley (2009) predict that emotional processes may have evolved for areas that require a rapid, accurate and consistent assessment of value-based trade-offs. Deliberations on these contexts can focus attention on sub-optimal traits and adversely affect judgment. The more complex the decision-making context, the more helpful the emotions may be in complementing and even governing decision-making and judgment (Resnick, 2012).

(DeSteno et al., 2000) Contend that positive emotions increase innovative critical thinking, encourage the incorporation of information and ease creative problem solving, which facilitate the process of decision making. Duque, Turla and Evangelista (2013) find that individuals in whom positive emotions have incited integrate data more effectively than do controls, show less anchoring on prior findings, and show more inventiveness in their reasoning. Therefore, Positive feelings can promote variety seeking, overestimation of the probability of significant occasions, and underestimation of the probability of adverse occasions (Lerner, Li, Valdesolo & Kassam, 2015).

Moreover, studies showed that the influence of positive emotion could lead to risk-seeking behaviour or risk-averse behaviour, which influence the decision-making process significantly depending on the context (Resnick, 2012). For instance, the findings of Zhao's (2006) study contend that staff whom less willing to take risks they have positive emotions, if the loss is real and meaningful. On the other hand, some effects are universal for all negative emotions, but some vary depending on specific emotions. For example, all negative emotions can deliver a narrowing of consideration and an inability to search for new options (Pecher, Lemercier, & Cellier, 2009). It can increase the speed with which decisions are made even with more systematic information (Raddatz, Werth, and Tran, 2007).

Risk Attitude

Making a decision requires consideration to multiple elements, mainly related to risk and uncertainty (Cocioc, 2017). In the decision-making process, risks and hazards attitude estimated by revealed inclinations. Consider a decision between a gamble and sure thing equivalent to the reasonable estimation of the gamble (Tom et al., 2007). Individuals who pick the sure thing are said to have risk disinclined inclinations, and the individuals who pick the gamble have risk-seeking inclinations (Al-Tarawneh, 2012).

Inclinations are frequently risk-averse in the area of gains. Hsu et al. (2005) point out that risk premiums (contrasts between the standard estimation of a gamble and its certainly equal) can generously be diminished if risks collected after some time. Polasky

et al. (2011) give extra support to this claim. Furthermore, several factors have been found to alter risk aversion. For example, people tend to accept risks more often for smaller than larger cash rewards as indicated by Weber and Chapman (2005), more often for primary rewards than for secondary rewards, and in many often when offered more chances to wager than when offered only one chance (Hayden & Platt, 2008).

Research methodology

Research Methods

A mixed research method selected for this study, with two different research methods (quantitative and qualitative) brought together to construct the general research framework. The reason for selecting a mixed methodology in this study was due to the scope it affords the researcher to triangulate qualitative and quantitative approaches, in order to gain depth and breadth of validation and understanding while balancing the shortcomings of each approach (Cooper & Schindler, 2011).

Data Collection Methods

The researcher used more than one method to collect the primary data, as exemplified in the following subsections:

Questionnaire

The questionnaire was utilised in this research as an instrument to collect the primary data for different reasons including; its ability to collect enormous amount of data which is the case in our study, as well as; it is appropriateness for extracting and obtaining desired information efficiently (Creswell, 2009).

Data Analysis

Primary Research:

A cross-sectional survey was utilised to obtain results by distributing it on a sample of (84) participants. Thus, the statistical package for the social sciences

(SPSS) was utilised to analyse the collected data in tabular and graphical form, to perform a comparative analysis.

Questionnaire Analysis Methods

The researcher has used the fifth Likert scale to measure the opinions of the participants, (strongly agree) has been given (5), and (agree) given (4) while (neutral) was given (3), and (disagree) is given (2), and finally (strongly disagree) was given (1).

Table 1: Mean values and their interpretation

Mean values	Response standard (degree)
From 1 - 1.80	Strongly disagree
From 1.81 - 2.60	Disagree
From 2.61 - 3.40	Neutral
From 3.41 - 4.20	Agree
From 4.21- 5	Strongly agree

Note: rank is the order of the sentences in terms of the highest mean, where the upper sentence gives the mean number one and then the followed by the number 2 and so on to the lowest value of the mean.

Normality

There are various ways to test the normality of data; one of the most common is using the skewness and kurtosis value that efficiently deliberate the distribution shape of responses which obtained from two tests; Kolmogorov-Simimov and Shapiro-Wilk tests. In which the negative value of skewness of the two components as shown in Table (1) means that there is negative skew, while the kurtosis negative value means that there is flatter in distribution of responses and the positive kurtosis indicates a peaked distribution. Also, as shown in the same table that all values were within +1 to -1, which indicates that it is acceptable.

Table 2: Skewness and kurtosis value for the impact of decision-makers' attitude on decisions

Component	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
culture	-.729-	.263	3.7284	.05770
emotions	-.914-	.263	.874	.04810
risk attitude	-.506-	.263	.835	.520

According to Table (2), which represents the results of Kolmogorov-Simimov and Shapiro-Wilk tests, the significance value of the impact of decision-makers' attitude on decisions are equal to (.015), (.000), (.000) respectively, according to the Kolmogorov-Simimov. Also as the significant value in the Shapiro-Wilk test is equal (.001), (.000), (.045) respectively, which are less than 0.05 for culture, emotions, and risk attitude thus significant value indicates that the data deviates from the non-normal distribution significantly.

Table 3: Test of normality of the impact of decision-makers' attitude on decisions

	kolmogorov-smirnov[a]			shapiro-wilk		
	statistic	df	sig.	statistic	df	sig.
culture	.109	84	.015	.941	84	.001
emotions	.156	84	.000	.936	84	.000
risk attitude	.149	84	.000	.970	84	.045
a. lilliefors significance correction						

Descriptive Analysis

The summary of demographic information from participants presented in this section. The percentage and frequency were computed for each demographic variable (position, age, qualifications, gender, and experience years) to explore the participant's profile, as shown below:

Gender

Table 4: Distribution of the sample according to gender

Variable	Categories	Frequency	Percent %
Gender	Male	84	100.0
	Female	-	-
	Total	84	100.0

The table above shows that male participation equal to (100%) from senior employees in construction organisations in Saudi Arabia, which indicates that the entire study sample is male.

Years of Experience in Construction Organizations

Table 5: Distribution of the sample according to experience

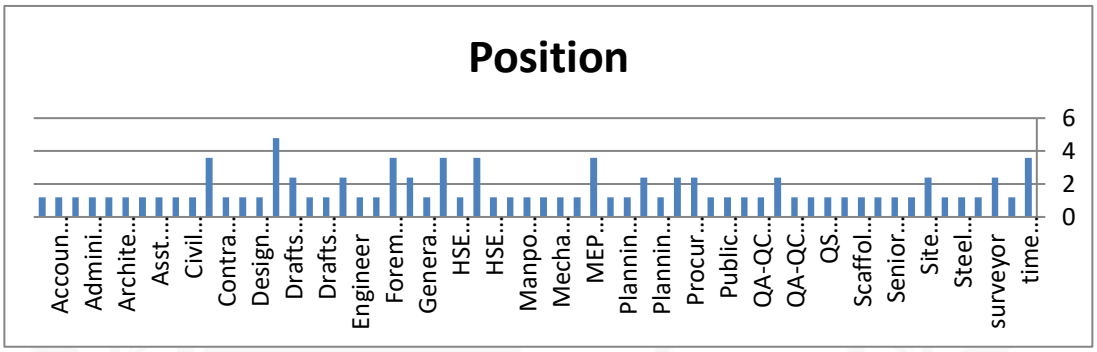
Variable	Categories	Frequency	Percent
Qualifications	Bachelor's degree	59	70.2
	Master's degree	6	7.1
	Without	19	22.6
	Total	84	100.0

Table (5) shows that 45.2% of the participants have above ten years' experience, while 27.4% have experienced between seven to ten years, with the remaining of 11.9 % who have three years' experience.

Qualifications

Table 6: Distribution of the sample according to qualifications

Table (6) shows the education level; it is worth pointing out that most of the respondents hold bachelor level degree at a percentage 59%. It could confirm that they are qualified enough to the decision-making process



The Three Dimensions' Means and Standard Deviation:

Means and standard deviation for the whole domains calculated in SPSS; table 6 shows that.

Table 7: Means and standard deviation for each domain of "impact of the attitude of decision-makers on decisions" and total means of them (n= 84)

No	Domain	Mean	Standard. Deviation	Rank	Agreement degree
1	Culture	3.6071	.54646	3	Agree
2	Emotions	3.7279	.52880	2	Agree
3	Risk attitude	4.0595	.44085	1	Agree
Total means		3.7895	.38690	Agree	

Table 8 shows that the highest mean reached (4.06) out of (5) for the domain (3) “risk attitude", then followed by domain (2) "emotions" with mean of (3.73), and the lowest mean (3.61) for the domain (1) "culture". The overall mean for the three dimensions was (3.790) and standard deviation of (0.387)

Culture

Table 8: Means and standard deviation for “culture" items and total means of them

No	Item		Agreement					Mean	Sd	Rank
			Strongly agree	Agree	Neither	Disagree	Strongly disagree			
1	I feel that Saudi culture is trapped by behavioral and religion biases which might affect decision making process and make it more restricted	F	4	37	25	17	1	3.310	.8914	7
		%	4.8	44.0	29.8	20.2	1.2			
2	In order to meet the objectives of the organization in a way that does not conflict with Saudi ethical values, the construction managers seek always to make the right decisions	F	9	60	14	1	-	3.917	.5642	1
		%	10.7	71.4	16.7	1.2	-			
3	The culture of Saudi Arabia obligates decision-makers to commit to credibility and integrity in their decisions	F	12	49	17	6	-	3.798	.7727	2
		%	14.3	58.3	20.2	7.1	-			
4	Saudi restricted socially transmitted standards of conduct, expressions, convictions and beliefs affect decision making process significantly	F	2	40	25	15	2	3.298	.8751	8
		%	2.4	47.6	29.8	17.9	2.4			
5	The practice of individualism rather than collectivism in the culture of Saudi Arabia negatively affects decision-making process	F	11	43	20	6	4	3.607	9696	5
		%	13.1	51.2	23.8	7.1	4.8			
6	The distance of power and unequal distribution of it in Saudi construction sector play an important role in restricting the degree to which different employee participate in the decision-making process	F	19	31	28	3	3	3.714	.9765	3
		%	22.6	36.9	33.3	3.6	3.6			
7	The fact of masculinity of the Saudi society has a major impact on the decision-making process in construction sector	F	10	41	21	8	4	3.536	.9872	6
		%	11.9	48.8	25.0	9.5	4.8			
8	The cultural trends in construction of Saudi Arabia to have project with long-term outcomes affect the decision-making process	F	10	46	21	5	2	3.679	.8525	4
		%	11.9	54.8	25.0	6.0	2.4			
Total means								3.607	.5465	

As shown in Table (8) the means of paragraphs " culture " ranging from (3.30-3.917), and most notably the highest means reached (3.92) out of (5) for the item (2). However, the lowest mean was (3.31) for items (4), and the total mean for culture reached (3.607) and standard deviation of (0.547).

Emotions

No.	Item		Agreement					Mean	SD	Rank
			Strongly agree	Agree	Neither	Disagree	Strongly disagree			
1	Feeling and emotions have significant on Saudi decision makers process in this sector	F	8	46	12	14	4	3.476	1.0352	7
		%	9.5	54.8	14.3	16.7	4.8			
2	Positive emotios increase innovative critical thinking and problem soliving for Saudi managers that facilitate process	F	20	53	9	2	-	4.083	.6624	1
		%	23.8	63.1	10.7	2.4	-			
3	Positive feelings can promote overestimation of probability of negative occasions that affect the nature of decision making significantly	F	11	50	18	3	2	3.774	.8118	3
		%	13.1	59.5	21.4	3.6	2.4			
4	Negative emotions can deliver a narrowing of consideration and inability to search for new options to aieffective decisions	F	11	53	17	1	2	3.833	.7578	2
		%	13.1	63.1	20.2	1.2	2.4			
5	Saudi negative construction managers with emotions make more attribute than option	F	8	44	23	7	2	3.583	.8672	6
		%	9.5	52.4	27.4	8.3	2.4			
6	Inner invoice heart sound and instinct emotions have a significant effect the cons	F	8	49	19	8	-	3.679	.7786	4
		%	9.5	58.3	22.3	9.5	-			
7	Aggresive and anger due to nature of Saudi constriction work reflect negatively	F	18	39	10	15	2	3.667	1.0792	5
		%	21.4	46.4	11.9	17.9	2.4			
Total means								3.728	.5288	

(9) Means and standard deviation for "emotions" items and total means of them

As shown in Table 18 that the means of paragraphs "emotions" ranging from (3.476-4.083), and most notably the highest means reached (4.08) out of (5) for

item (2). However, the lowest mean was (3.48) for items (1). The total mean for "emotions" reached (3.728), and the standard deviation was (0.5288). It is consistewith

Risk attitude

Table 10: Means and standard deviation for “risk attitude" items and total means of them

No.	Item	Agreement						Mean	Sd	Rank
			Strongly agree	Agree	Neither	Disagree	Strongly disagree			
1	Construction acts itself that implies in risky business that affect the quality of decisions made by decision makers	F	15	51	16	2	-	3.941	.6829	5
		%	17.9	60.7	19.0	2.4	-			
2	Saudi decision makers should have the ability to take risks and make decisions in bad circumstances	F	25	48	9	2	-	4.143	.6978	4
		%	29.8	57.1	10.7	2.4	-			
3	Saudi decision makers should take responsibility of their decisions and have the willingness to address the consquences	F	27	50	7	-	-	4.238	.5935	3
		%	32.1	59.5	8.3	-	-			
4	The ability to make instantaneous emergence and rapid decision represents a range of risk that is Saudi Decision makers	F	12	49	22	1	-	3.857	.6612	6
		%	14.3	58.3	26.2	1.2	-			
5	Over confident representative and loss aversion decision makers needed to deal with difficult situations	F	14	41	14	9	6	3.571	1.1117	7
		%	16.7	48.8	16.7	10.7	7.1			
6	The ability to make instantaneous emergence and rapid decision represents a range of risk that is Saudi Decision makers	F	36	40	7	1	-	4.321	.6795	2
		%	42.9	47.6	8.3	1.2	-			
7	Managers who have risks are more likely to have positive decesions	F	37	40	6	1	-	4.345	.6676	1
		%	44.0	47.6	7.1	1.2	-			
Total means								4.060	.4409	

As shown in table (10) the means of paragraphs "risk-attitude" ranging from (3.571-4.345), and most notably the highest means reached (4.35) out of (5) for the item (7). However, the lowest mean was (3.57) for items (5). The total mean for “risk attitude" reached (4.060) and standard deviation (0.4409).

The Effect of the Personal Attitude of Decision Makers on the Construction Sector in Saudi Arabia

In order to assess the statistical difference on the impact of the personal attitude of decision-makers on decisions in the construction organization in Saudi Arabia; according to age and qualifications, the Kruskal Wallis test was applied as a non-paramedic test where data is not distributed normally as previously described in normal life tests.

the study by Xie et al. (2011) who found that negative emotions can lead to pessimistic predictions and thus higher risk perception.

As shown in Table (8) the means of paragraphs " culture " ranging from (3.30−3.917), and most notably the highest means reached (3.92) out of (5) for the item (2). However, the lowest mean was (3.31) for items (4), and the total mean for culture reached (3.607) and standard deviation of (0.547).

Risk attitude

As shown in table (10) the means of paragraphs "risk-attitude" ranging from (3.571-4.345), and most notably the highest means reached (4.35) out of (5) for the item (7). However, the lowest mean was (3.57) for items (5). The total mean for “risk attitude" reached (4.060) and standard deviation (0.4409).

The Effect of the Personal Attitude of Decision Makers on the Construction Sector in Saudi Arabia

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Qualifications:

Table 11: The Kruskal-Wallis test result for the impact of decision-makers' attitude on decisions according to qualification

	Qualification	N	Mean rank	Chi-square (df=2)	Sig.
Culture	Bachelor's degree	59	37.73	9.372	.009
	Master's degree	6	42.42		
	Without	19	57.34		
Emotions	Bachelor's degree	59	37.13	12.146	.002
	Master's degree	6	41.75		
	Without	19	59.42		
Risk Attitude	Bachelor's degree	59	39.52	4.378	.112
	Master's degree	6	39.50		
	Without	19	52.71		

According to Table (11), there is a difference between qualifications in culture that are chi-squared (9.372), which are significant at the level (0.009) with a preference for stateless with a higher average (57.34). According to the same table, emotions have a significant difference at the significance level (0.002) at chi-squared (12.146) in favor of the stateless with a higher average (59.42). It is also clear that there is no difference in the risk position at the chi-square (4.378) which is important because the significance level is more of (0.05) in favor of the stateless who have a higher average (52.71).

Culture Effect

On the impact of this culture on decision-making, participants did not provide a clear and definitive answer. Participants noted that this culture does not influence decision-making. Participants argued that this culture does not have a day-to-day impact on employee engagement but is likely to have an impact on senior decisions related to key decisions, in addition to affecting the characteristics of the work environment. Participants showed that this effect cannot be generalized because culture depends on the level of skills and experience of individuals and these skills vary from person to person and each person has a different culture from the other.

The second question aims to reveal the impact of Saudi cultural aspects, including (on the decision-making process in the participants' current projects). Participants differed in their answers. Participants noted that all of the above culture-related factors do not affect decision-making. Participants noted that the four factors negatively affected the level of project performance. It slowed down the level of project progress, which means that these factors influenced the decision-making culture. Participants differed significantly, with participants noting the following: There are two main factors influencing decision-making, including religious restrictions and beliefs. Participants stressed that religion is one of the most important cultural factors, but the least influential in organizational decision-making. Participants noted that the main factor to be taken into account when making decisions is nationality.

Table 12: The participants' opinions regarding the impact of Saudi cultural aspects including (behavioural and religious restrictions, conduct, expressions, convictions and beliefs) on the decision-making process:

Participant No.	The impact of Saudi cultural aspects including (behavioral and religion restrictions, conduct, expressions, convictions and beliefs) on decision making process
P1	Saudi Arabian culture aspects as mentioned in the question does not affect the decision making process of current projects
P2	One aspect could be that we can't assign female engineers on a site as the cultural habits restrain us even if the candidate is qualified , another issue is prayer time as it is miss used by labour and staff and used as a break affecting progress and working hours
P3	There is more than one dimension of the culture, Religions might be one of the major factor in the Saudi culture, but brought up of the society plays the pivotal role in the decision making process. Religion is the relatively less influential and could be easily defined as one of the minor factor. The above statement explains the functional decisions taken by the individual. However, when it comes to the organizational decision making, nationality plays the major role in the influencing the decision makers
P4	Bureaucracy led to slow down the rhythm of the projects

The third question aims to find out whether the masculinity of Saudi society in the culture of Saudi Arabia affects the decision-making process. Participants noted that there was no impact on individual practices on decision-making. Participants denied the assumption that there are individual practices in Saudi society and, if they exist, they do not affect the decision-making process. Participants emphasized the impact of individual practices on decision-making. It does not exist in the culture of individuals in Saudi society. They explained that decision-makers' reliance on individual decision-making practices is due to the lack of well-

established decision-making procedures and non-compliance with the procedures necessary to adhere to them.

Table 13: The participants' opinions regarding the effect of the masculinity of Saudi society as well as the spread of individualism practices in the culture on the process of decision-making

Participant No.	The effect of the masculinity of the Saudi society as well as the spread of individualism practices rather than collectivism in the culture on the process of decision making
P1	There are no individualism practices in Saudi society. Anyhow such things does not affect the decision making process
P2	In a lot of cases people will take decisions based on their own ego rather than a collective decision, team work spirit is not embedded in the culture even when it is referred to in the religious teachings
P3	It definitely does. It affects more because of individualism practices rather than masculinity. I say it because when tend to behave in the same individualism way as man does, the major contributing factor behind this is the lack of established procedures for operating and decision making. At the same time, it is also lack of adherence of the established procedures (if any) in short, the decision making style is more 'Authorization' than 'democratic
P4	No, I think for now society are going for change

Emotions Effect

Regarding emotions, participants were asked three questions. The fourth question aims to ask participants about the impact of emotions as a personal attitude on the nature of the decisions Saudi decision-makers make in the field of construction. Three participants agreed that emotions have an impact on decision-making.

Participants showed that Saudi society is an emotional community and is influenced by their personal feelings towards employees.

Moreover, participants showed that emotions have a significant impact on decision-making, participants. "*Emotions tend to influence more decisions of individuals if the decision-maker is authoritarian. This is more true in the Saudi construction industry because the decision-maker is less consulted in letter and spirit*." Participants referred to one type of emotion, hatred, and stressed that it negatively affects the nature of the decisions made.

Table 14: The participants' opinions regarding the effect of emotions as a personal attitude on the nature of decisions taken by Saudi construction decision-makers

Participant No.	The effect of emotions as a personal attitude on the nature of decisions taken by Saudi construction decision makers
P1	No way. The emotions never play role in the Saudi construction decision makers
P2	By nature we in this region are emotional and most people are affected by the personal emotions towards a person or establishment, this depends on the education of the decision maker age. The old generation managers tend to be more emotional than younger more methodical managers
P3	Emotions tend to impact more in the decisions of the individuals if the decision maker is autocratic. This holds truer in Saudi construction industry because the decision makers is less consultative in letter and spirit
P4	Like, Dislike, bias could led to negative impacts on decision making

To the fifth question. Participants emphasized that there is an impact of negative or positive emotions on decision-makers. The participant showed that positive emotions will contribute to keeping employees focused on the job, while negative emotions will negatively affect the work environment and turn it into a hostile one.

Moreover, the participant showed that positive emotions are beneficial for decision-makers in the work environment, but there must be a separation between personal interest and the nature of the decisions made. If the decision-maker uses authoritarian management style, his emotions will affect his decisions made, but if his approach is bureaucratic, his feelings will have no impact on the decisions taken as they will be neutral as evidenced by his statement in the following table (14).). Participant 1 pointed out that there is no negative or positive impact on decision-making, as decisions in construction projects are based on professionalism.

Table 15: The participants' opinions regarding the effect of positive emotions as well as negative ones on the nature of decisions that are taken in the construction projects

Participant No.	The effect of positive emotions as well as negative ones on the nature of decisions that are taken in the construction projects
P1	No, I don't agree with the statement because any decision taking based on accountability and professionalism in the construction projects
P2	Yes, a positive attitude towards the job, client from the manager will flow dawn to the staff this will help in keeping the focus on job, on the other hand a negative emotion will turn the site into a hostile environment
P3	In the decision taker is directive or autocratic, the influence of the emotions will be visible in the decisions. The affect will be visible in motivation and performance of the decision makers' team. If the decision taker is consultative, delegate, bureaucratic, the effect of personal emotions will be neutralized
P4	Positive emotions could help in that matter, but we should not let it have a bad impact on the decision process. And separate the personal and work Interest

The sixth question aims to find out what influence the inner voice, the voice of the heart, and instinctive emotions have on the decision-making process and whether

they have the same effect as aggressive and angry emotion. Participants agreed that there is a different effect of the above factors on the decisions made, but the nature of this effect is different for them. Participants stressed that these feelings can be helpful in making critical decisions. Participants pointed out that emotions of all kinds contribute to making dangerous and motivating decisions and thus contribute to In the production of many risks. Participants noted that the voice of conscience positively influenced the decisions taken. Participants noted that none of the previous sentiments had an impact on the decision-making process."

Risk Attitude Effect

Regarding the risk situation, three questions were asked to the participants. The seventh question aims to find out the views of the participants regarding the assumption that the construction sector involves risky work that affects the quality of the decisions made by Saudi decision-makers. Participants did not agree with this assumption because risk management already exists in the construction sector and is considered a crucial stage before the decision-making process. Participants noted However, decisions made in construction projects depend on the predetermined value of the project and the information and drawings associated with it. Participants noted that there was a risk if the project was not adequately studied, and that was the only aspect that could affect the quality of the decisions taken. Participants pointed out that risk management is an important part of the study of construction projects, so the risks facing projects can be identified in advance and quantitatively and qualitative and ways to avoid them can be determined.

Table 16: The participants' opinion regarding the assumption which includes that construction sector implies a risky business that affected the quality of decisions made by Saudi decision-makers

Participant No.	The participants' opinion regarding the assumption which includes that construction sector implies a risky business that affected the quality of decisions made by Saudi decision makers
P1	No, I don't agree because the decision on the construction project depends on the well prepared in advance estimated value, project schedule, drawings and specifications
P2	No, only when the project is not studied properly it becomes risky the quality of the decisions are not affected because the business is risky but could be due to lake of information and preparation
P3	I principally do not agree with the statement because risk management is an established in the construction industry. We can calculate all the risks qualitatively and quantitatively and can make informed decisions. We can also plan to mitigate risk probability and risk impact
P4	Yes, Risk analysis should be done prior to take decision

The eighth question aims to ask participants to identify risk-related characteristics that decision-makers in this Saudi sector must achieve in order to make decisions effectively. Participants agreed that decision-makers should have extensive knowledge of risk management and risk analysis. Participants added a range of features, such as; the ability to develop a risk management plan, record risk, perform SWAT analysis, perform qualitative and quantitative risk analysis, plan a risk response and monitor residual risks and secondary. Participants pointed to two main features; the ability to make decisions immediately rather than relying on a personal situation. Participants added two advantages, including maneuverability around financial statements and significantly restricting the market.

Table 17: The participants' opinion regarding the characteristics that are needed to be met by decision-makers in this Saudi sector in order to make decisions effectively

Participant No.	The characteristics that are needed to be met by decision-makers in this Saudi sector in order to take decisions effectively
P1	Risk related characteristics are like spot decision making without knowledge on the issue and personal attitude effect in same decision makers. In order take best decision on the related staff to be trained properly
P2	In the market current situation the decision maker must be able to manoeuvre around the operations and financials as market shares are changing and market is more restrained
P3	The ability to make risk management plan, make risk register, make SWAT analysis, make qualitatively and quantitatively risk analysis, make risk categorization, make Tornado diagrams, make plan risk response and monitor residual and secondary risks
P4	Risk management, create risk management department in the company to help in such cases. Use the efficient way of risk analysis.

The final question is how the ability of construction decision-makers to make immediate emerging and rapid decisions will affect the efficiency of decision-making. Participants and participants agreed that it affects the quality of decisions made. Participants notedthat speed affects the nature of decisions made. Participants noted that market needs and requirements are constantly changing and challenging. Participants 4 noted that there was no impact of these areas on the effectiveness of the decisions taken. Participants noted that the usefulness of decisions taken does not It depends on these attributes, but if the decision maker examines the various risks, challenges and precautions in the project, his ability to make a useful decision will not be affected. .

Conclusions and recommendations

The majority of respondents confirmed that emotions affect decision-making, as Saudi society is a passionate society, and their relationships influence their decisions in the work environment. Hatred necessarily affected the nature of the decisions taken negatively. This finding is in line with the study of Ortega et al. (2017), which found that anxiety is positively associated with risk avoidance.

The majority of respondents confirmed the influence of inner voice, heart voice and instinctive emotions on decision-making. And that these feelings have a positive impact on decision-making, as they are useful in making critical decisions, as participants showed that emotions have a strong influence in driving serious decisions. The result of the study of Lerner et al. (2015) supported this finding, with Lerner et al. (2015) finding that positive emotions can promote the search for diversity, overestimating the likelihood of important occasions , and reduce the likelihood of adverse events.

The majority of respondents disagreed with the assumption *that the construction sector involves risky work, which affected the quality of decisions made by Saudi decision-makers*. He pointed out that making decisions after studying risks and risk management is an essential stage when the project is useful in determining the quality and size of the risks that the project is likely to face and try to find solutions to avoid them, and decisions can be made after studying the risks. One participant agreed with this hypothesis and stated that the risk study should They are taken into account before making a decision.

Participants emphasised that; there are many characteristics that are needed to be met by decision-makers in this Saudi sector in order to make decisions effectively. They emphasised that the decision-maker should have a broad knowledge of risk management methods and use the most appropriate risk analysis method, should be able to make immediate decisions that are appropriate to the situation, in addition to not making decisions based on personal situation.

The results suggest that emotions influence decision−making. The results also agreed that negative emotions negatively affect the decision−making process and thus increase the level of risk. The results agreed that the decision−maker needs to expand his knowledge of everything related to risk management, as a good knowledge of the risks surrounding the project contributes to making sound and

correct decisions. The results also confirmed that decision−makers should be able to analyze risks and make decisions that respond to requirements. and the constant changes surrounding the work environment.

Recommendations:

1. Adopting a rational and scientific approach to decision-making through fragmentation of the problem in a way that brings all the causes and possibilities available to the solution
2. Make decisions without influencing, either positive or negative emotions.
3. Analysing the risks surrounding the work environment
4. Designing special units in the construction sector companies to improving the decision-maker ability to make critical decisions.
5. Improve the work environment that contributes to reducing external pressures

Future research:

This study came out with a few recommendations for future research.

A comparative study between the Saudi environment, and one of the Arab or foreign environments; to examine the level of the impact of emotions on the decision-making process. In addition to conducting a study aims to identify the level of decision-makers' knowledge in risk management and analysis and the impact of this knowledge on decisions taken in the work environment.

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