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## The Impact of Demographic Variables on Decision Making Process in EGYPTAIR Airlines

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Decision Making Process

PESTEL Framework

Employees' Participation

Egypt Air Airlines

### Abstract

The decision-making process is one of the most important issues in the lives of individuals, groups, and organizations, it is a human function that requires a great deal of intellectual and emotional energy, which prompted researchers to study the decision-making process in its various aspects and dimensions. This research attempt to examine the impact of the demographic variables of employees on recognizing the decision-making process in EGYPTAIR Airlines. This research pertains to the descriptive methodology with a five-point Likert scale questionnaire and the agreement level ranges from strongly agree to strongly disagree. The researchers used frequencies, a One-way ANOVA test, and independent sample T-test statistics. The sample of the research consisted of 447 employees and managers in EGYPTAIR Airlines' sectors of commercial affairs, air hospitality, air operations, and the departments of air hospitality, hospitality training, product promotion, stations, customer service, marketing, and sales. It was found that qualification levels matter in decision-making, while gender, job experience levels, and income levels had no significant influence. In general, three out of four hypotheses were supported by the research. The researchers recommend that the administration of EGYPTAIR Airlines should organize workshops about cognitive skills to increase the consciousness of organizational decision-making.

## 1. Introduction

Organizations are social systems that grow and expand, and their structure become more complicated due to the more unstable conditions, and making decisions becomes more challenging and difficult, which could easily overpower any individual's ability (Dimara et al., 2020; Bayo & Akintokunbo, 2022)

In an organization, decision-making refers to the process of making strategic decisions by a manager or group of decision-makers (Maw, 2020).

Furthermore not all decisions are of the same magnitude. Decision Making may be a simple task, and decisions could be a matter of routine. In other areas, decision making may require the most demanding exercise of judgment, rational, and creativeness (Stiess, 2005), and involve a large number of stakeholders, competing goals, complex alternatives, significant uncertainty, and serious consequences (Parnell & Bresnick, 2013).

In fact, the whole purpose of management is to make effective and timely decisions. Unfortunately, the majority of management structures are created without taking into account the needs for making decisions that will ensure the successful functioning of the business (Frankel, 2009).

Every decision needs to be evaluated and interpreted. So we often need to process and evaluate data that comes from several sources. Our perceptions determine which information is relevant to the decision and which is not. Additionally, we must create options and assess their advantages and disadvantages (Robbins & Judge, 2015).

Variety of factors could influence the decision-making processes and outcomes, data quality is one of them (Alshikhi & Abdullah, 2018). In addition there are numerous factors affecting the decision making process, including those pertaining to the firm (size, resources, organizational expertise, etc.), the external context (market type, level of competition, environment of both domestic and foreign markets, etc.), and the decision-maker (Francioni, et al., 2015).

The process of "Decision Making" is the basis of management systems (Ugurlu, 2013). Almost all of our decisions are managerial in nature. They typically concern people (human resources), money (budgeting), buying and selling (marketing), how things are done (operations), or how things will be done in the future (strategy and planning). These can be further subdivided into two types of decisions: routine (repetitive decision situations) and non-routine (strategic decisions) (Fitzgerald, 2002).

Managers' decision-making approaches typically fall into one of three categories: the classical model, the administrative model, or the political model. The manager's personal preference, whether the decision is programmed or nonprogrammed, and the degree of uncertainty associated with the decision all influence the model selection (Daft, 2008).

In order to make decision, it is necessary to do some stages. These stages can guarantee decision's objectivity and ethical nature, they are as following: definition the concerned issue, identification other alternatives, focusing on the legislations and public policies, identification the consequences, finding out different ideas or perspectives, selecting the final decision and action, and the manager needs to realize and look at the decision from different perspectives (Maw, 2020).

- **Research Problem**

Researchers are coming to the conclusion that the demographic Variables such as: gender, qualification level, job experience level, and the income level of the employees of EGYPTAIR Airlines play a significant role in determining

organizational processes, including decision-making, which in turn influences organizational performance. Hence the problem of this study is to know how these demographics determine the employees' perception of organizational decision making process and their participation in this process.

- **Research Aim**

The research's aim is to measure the differences of demographic variables on the decision-making process in EGYPTAIR Airlines.

The research's objectives are as following:

- Measure the significant differences between genders of the research's sample regarding to the organizational decision making process.
- Measure the significant differences between qualification levels of the research's sample regarding to the organizational decision making process.
- Measure the significant differences between job experience levels of the research's sample regarding to the organizational decision making process.
- Measure the significant differences between income levels of the research's sample regarding to the organizational decision making process.

- **Research Hypotheses**

The research aims to test the following hypotheses:

- H1: There are statistically significant differences between genders of the employees with regard to the organizational decision making process.
- H2: There are statistically significant differences between qualification levels of the employees with regard to the organizational decision making process.
- H3: There are statistically significant differences between job experience levels of the employees with regard to the organizational decision making process.
- H4: There are statistically significant differences between income levels of the employees with regard to the organizational decision making process.

- **Research Significance**

The significance of the current research is to know the impact of differences of the following demographic Variables: gender, qualification levels, job experience levels, and income levels of the employees of EGYPTAIR Airlines on their awareness of the organizational decision making process.

## **2. Literature Review**

### **2.1 Definition of Decision**

Humans are distinguished from all other living beings by their ability to think and free will, which allows them to make decisions (Farokhi & Hossenchari, 2020). Frankel (2009, p. 5) noted that "the word 'decision' literally comes from the Latin word 'decidere' which really means to cut off or concludes a choice from among alternative choices". The word, 'decision', is defined as, "an answer to some question, a choice between two or more alternatives" (Alkhawlani, et al., 2019)

Decisions made as a result of such thinking processes can sometimes have an impact on individuals, their surroundings, or the larger community. The fact that those who make decisions in enterprises are also those who manage the businesses increases the significance of the decisions in terms of their scope (Turan & Yildiran, 2019).

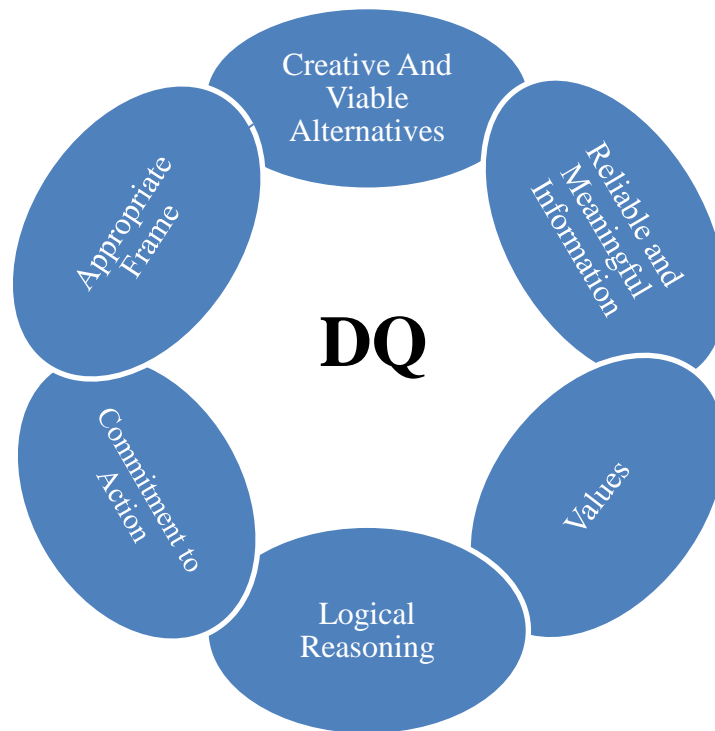
Daft (2008, p. 214) stated that "decision is a choice made from available alternatives". Drucker, who is considered to be the master of management science, stated that "the decision is a judgment and that in very rare cases a decision is a

choice between right and wrong”. Drucker stated that “the decision is the choice of which of the two alternatives is the closest to the truth, rather than the choice between right and wrong” (Turan & Yildiran, 2019).

## **2.2 Decision Quality**

High quality decisions can be characterized by six elements as following and shown in figure -1 (Parnell & Bresnick, 2013; Spetzler, et al., 2016; Meer, et al., 2020):

1. **Frame:** a good decision requires an appropriate frame that clearly specifies its purpose, perspective, and scope, as well as a clear understanding of the problem and the participation of the appropriate people. It is about what is to be decided.
2. **Alternatives:** a good decision necessitates a set of creative and viable alternatives that have the potential to create value for decision makers, which is attainable and compelling in its own right, and which together cover the entire range of possible actions. They defined what we can do.
3. **Information:** a good decision requires reliable, meaningful, and objective information that reflects all relevant uncertainties and risks. The ideal here is not to collect all of the information that might be relevant, but rather to collect information only until the cost of obtaining additional information exceeds the value of that information in making the decision.
4. **Values:** a good decision necessitates the specification of value metrics for comparing potential decision outcomes. The value metrics should accurately represent the preferences of the decision makers, and the trade-offs among competing values should be stated explicitly.
5. **Logical reasoning:** a good decision must make good sense because it is founded on good evidence. To achieve high quality in this element, the decision must adhere to the “Five Rules” as follows: the probability rule, the order rule, the equivalence rule, the substitution rule, and the choice rule.
6. **Commitment to action:** a good decision is one that the decision makers are willing to put into action as soon as possible. We may have clarity of intention without commitment to action, but that is not a decision. Participation of implementers in the decision-making process increases commitment to action.



**Figure 1-** The Decision Quality Chain

Source: Carl Spetzler, Hannah Winter, and Jennifer Meyer (2016) *Decision Quality: Value Creation from Better Business Decisions*, 1<sup>st</sup> Edition, John Wiley & Sons, p. 12.

### 2.3 Levels of Decision

There are various classifications of decision making in an organization according to the decision level, they are as following (Parnell & Bresnick, 2013):

- Strategic decisions: they deal with the long-term future of an entire organization (Bayo & Akintokunbo, 2022). Ndanu (2014, p. 10) stated that “strategic issues are defined as events, developments or trends that are perceived by decision makers as having potential to affect their performance”. They also can be defined as “important, in terms of the actions taken, the resources committed, or the precedents set.” Such decisions influence the success or failure of organizations (Elbanna, et al., 2020)
- Operational decisions: which are carried out by ‘front-line’ managers (Phipps, 2013). These decisions are made in the short term, and the decision context can change quickly. It is about day-to-day decisions, specifically how the organization allocates scarce resources (Parnell & Bresnick, 2013).
- Tactical decisions: Khalifa (2021, p. 390) defines tactics as “the power creating use of resources to gain a partial advantage, in specific domains, over external actors”. Determining the price of goods and services and the amount to spend on advertising and marketing are examples of tactical decisions that are made over a period of a few weeks to a few months (Fitzgerald, 2002).

### 2.4 Decision Making Process

One of the most important behaviors of human beings is decision making. Managers spend most of their time managing human resources and making decisions that have long-term effects and cannot be reversed (Samson & Bhanugopan, 2022). Elbanna, et al. (2020, p. 43) noted that the decision process is “the process by which a strategic decision is formulated and implemented”. The decision making is a process

of making a choice from a number of alternatives to achieve a desired result (Simon, 1955, p. 106; Lunenburg, 2010, p. 2; Robbins & Judge, 2015, p. 191), and assessing their consequences, and comparing the efficiency and accuracy of each of these consequences (Shrestha, et al., 2019). This organizational process is about designing where, when, and how to make and integrate decisions involving groups of individuals. It occurs as a reaction of a problem (Robbins & Judge, 2015; Zaki, et al., 2018).

According to Daft (2008, p. 214) Decision making is the process of identifying problems and opportunities and then resolving them. Decision making involves effort both before and after the actual choice.

Decision making is “a rational or emotional process that may be rational or irrational based on implicit or explicit assumptions” (Farokhi & Hossenchari, 2020).

The decision making process includes the following steps (Al-Tarawneh, 2012; Khakheli & Morchiladeze, 2015; Panpatte & Takale, 2019) which connected to each other logically:

1. Problem diagnosis: This process is a must, to identify real causes, reducing presumptions, organizational and system limits and interfaces, and any decision maker issues. It is a critical and necessary point before proceeding to the next step.
2. Selection of decision-making criteria and restrictions: it is the requirements which spell out the must do solution to the concerned issue, these requirements are the constraints describing the set of the feasible and acceptable solutions of the issue.
3. Outlined alternatives: which are the goals, in other words they are broad statements of intent and desirable programmatic values. These goals go beyond the requirements to desires. However, the goals may be conflicting but this is a natural consequent of practical decision situations.
4. Evaluation of alternatives: alternatives provide different techniques for transforming the initial condition into the required condition, and any alternative must satisfy the requirements. The infeasible ones must be eliminated from further evaluation, resulting in an explicit list of alternatives.
5. Selection of alternatives: this selection must be founded on the goals. It is necessary to define distinct rules as objective measures of the goals to measure how well each alternative achieves the goals.
6. Implementation: it is the selection of a decision making tool .There are several tools for resolving a decision issue. The selection of a suitable tool is not an easy task and depends on the particular decision issue, as well as on the goals of the decision makers.
7. Establishing feedback: the final and most important step in the decision-making process is to evaluate the effectiveness of your decision. Trailing allows you to identify any deficiencies or negative consequences of your decision. It provides valuable feedback that can be used to revise or reconsider the decision.

## 2.5 Decision Making Styles

According to Scott and Bruce, the main decision making styles are five styles: intuitive, dependent, rational, spontaneous and avoidant (Alkhawlan, et al., 2019). They defined decision making style as “the learned habitual response pattern exhibited by an individual when confronted with a decision situation. It is not a personality trait, but a habit-based propensity to react in a certain way in a specific decision context” (Thulholm, 2008; Gambetti & Giusberti, 2019), and they are as

following (Daft, 2008; Alkhawlan, et al., 2019; Crespo, et al., 2019; (Palmiero, et al., 2020) :

- Rational style: which is distinguished by a logical approach to decision making through the search for information and alternatives, as well as a well-thought-out plan, and use of analytical techniques, models and decision tools to assist in the decision-making process. It is based on analytic processing.
- Intuitive style: which means that people make decisions based on their experience or feelings as well as the flow of information, then convert them into action. It is considered to be unsystematic information processing and reliance on premonitions and feelings. It is based on tendency to rely on feelings and hunches.
- Dependent style: which characterized by an over reliance on others to make decisions. “Is indicative of the lack of intellectual and practical independence of decision-making and guidance on the protection and support of others when making decisions” (Alkhawlan, et al., 2019). It is based on social support.
- Avoidant style: which characterized by an unwillingness and procrastination to make decisions or a tendency to withdraw from decision-making. It is based on attempts to postpone decisions whenever possible.
- Spontaneous style: characterized by making quick decisions rather than exerting any serious effort to evaluate alternatives. It is based on the desire to make decisions immediately.

## **2.6 Decision-making participation**

The participating in the decision making process is considered to be vital in organizations because it will make the employees realize the importance of their involvement in deciding their future in their organizations. Incorporating employees’ opinions into organizational decision making will result in more efficient and effective delivery of companies’ services (Marzuki, 2015). There is a model of decision-making can help managers to match the features of a particular decision situation which called the “Vroom and Yetton Model”, which identified five levels of decision-making participation, ranging from completely autocratic to completely participatory as following: the first two forms are autocratic in the manner that the manager makes the decision alone, whereas the second autocratic approach solicits information from his or her staff. The third and fourth styles are advisory; the leader makes the decision alone, but advises his or her staff to a greater extent in preparation. In the fifth style, the decision is made by consultation. (Fitzgerald, 2002).

## **2.7 Factors that Affect Decision Making Process**

The environment provides organizations with a means of surviving. In the private sector, satisfied clients are what keep a business operating; in the public sector, government, customers, patients, or students typically assume the same role. However, threats can arise from the environment, such as hostile shifts in market demand, new legislative requirements, revolutionary technologies, or the entry of new competitors. Environmental change can be disastrous for businesses. Decision-making is defined as an integrated cogni-emotional, reflective process that takes into account both internal and external factors related to the decision and is made with the greatest number of decision makers' well-being in mind (Intezari & Pauleen, 2018).

The internal factors include the qualities of the leadership factor (Khakheli & Morchiladeze, 2015), which include: a) past experience of the leader or the decision maker whom his/her character could influence decision-making process (Griffin, 2021). The decision making teams are usually comprised of highly experienced

professionals who combine their discipline specific expertise in order to respond to critical situations associated with higher levels of uncertainty, complexity, and dynamism, particularly in given increasingly turbulent external environments (Ejimab, 2015; Uitdewillifen & Waller, 2018), b) information which can assist organizations in their efforts to be better informed as data are able to remarkably contribute to situational consciousness, which can in turn inform decision making, such as resource distribution (Watson, et al., 2017).

Johnson, et al. (2008) defined PESTEL analysis as a model to analyze the external factors affecting airline industry as international companies. PESTEL provides a list of influences on the possible success or failure of the made decision (Gregoric, 2014; Pan, et al., 2019), as illustrated and shown in figure-2:

1. Political factors: include state stability, tax policy, foreign trade restrictions, legislation, and community welfare.
2. Economic factors: include the business cycle, GDP trends, inflation, interest average, unemployment and currency in deliberation.
3. Socio-cultural factors: include demographic indicators, income distribution, social mobility, lifestyle diversification, manner and approaches toward work and leisure, consumerism, and educational level.
4. Technological factors: include government research expense, government efforts toward technological achievements, new discoveries and evolution, and the rate of technology transport.
5. Environmental factors: include the environmental constitution, waste removal, and energy consumption.
6. Legal considerations: include state monopoly rules, labor law, health and safety, and product safety.

<b>Political</b>	<ul style="list-style-type: none"> <li>•Government support for national carriers.</li> <li>•Security controls.</li> <li>•Restrictions on migration.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>•Rise in travel by elderly.</li> <li>•Student international study exchange.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>•Noise pollution.</li> <li>•Energy consumption controls.</li> <li>•Land for growing airports.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>•Natioanal growth rates.</li> <li>•Fuel prices.</li> </ul>
<b>Technological</b>	<ul style="list-style-type: none"> <li>•Fuel-efficient engiens and airframes.</li> <li>•Security check technologies.</li> <li>•Teleconferencing.</li> </ul>
<b>Legal</b>	<ul style="list-style-type: none"> <li>•Restrictions on mergers.</li> <li>•Preferential airport rights for some carriers.</li> </ul>

**Figure 2-** PESTEL Analysis of the Airline Industry

Source: Gerry Johnson, Kevan Scholes, Richard Whittington (2008), Exploring Corporate Strategy, 8<sup>th</sup> Edition, Pearson: London, p. 56.



## 2.8 EGYPTAIR Airlines Organizational Chart

EGYPTAIR is the world-renowned national airline of Egypt, based in the cosmopolitan city of Cairo. It started operations May 7th 1932 as the first airline in the Middle East and Africa and the seventh airline in the world to join IATA and become a treasured brand.

EGYPTAIR AIRLINES is the core of EGYPTAIR HOLDING. Throughout more than 88 years of service, it has successfully extended its network to reach major destinations across the world. EGYPTAIR has been an active member of the Star Alliance since July 2008. Being a part of that huge network, EGYPTAIR customers are able to reach more destinations in 195 countries all over the globe. It consists of three major sectors: the Commercial Affairs, Air Hospitality, and Air Operations and it includes the following administrations: General Administration of Air Hospitality, Administration of Hospitality Training, Administration of Product Promotion, General Administration of Stations, General Administration of Customer Service, General Administration of Marketing, and General Administration of Sales (EGYPTAIR Group, 2022).

## 3. Methodology

This research is a nonexperimental quantitative approach which is used in education, social and behavioral sciences (Johnson, 2001; Mishra & Alok, 2017), to answer research questions that require numerical data (Williams, 2007). This research depends on the descriptive approach which aims to explain the current set of circumstances about the decision making process in EGYPTAIR Airlines (Mishra & Alok, 2017). In this approach, the researchers are trying to describe the subject of the study, analyze the data, and compare, explain, and assess, hoping to reach meaningful generalizations to increase and enrich knowledge on the subject. This research used self-administrated mail questionnaire technique. This research methods is preferable method because it measures different data such as preferences and beliefs, collecting data about the targeted population in a wide and remote rang and make the respondents feel free to answer the questions without feeling of be observed (Bhattacharjee, 2012; Krosnick, 2018).

### • Data Collection

Data has been collected through questionnaires that were prepared in approach that is relevant to the situation so as to decrease invalid responses. Accordingly, questionnaires are distributed on a sample of EGYPTAIR Airlines' employees to know their attitudes about the organizational decision making process in their company.

### • Measures

The Questionnaire was designed as five-point Likert scale and the agreement level ranges from "strongly agree = 5" to "strongly disagree = 1".

The questionnaire was divided into two sections as follows:

1. The first section included the demographic Variables of the research's sample: gender, qualification levels, job experience, and income.
2. The second section included the scale of decision making process consisted of 15 statements.

The population of the research was the EGYPTAIR Airlines employees. The sample of the research consisted of 447 employee and manager in EYGPTAIR Airlines.

To determine the appropriate sample size of the research population, the researcher used the Cochran (1977) formula as follows:

$$n = \frac{z^2 \times p(1 - p)}{e^2}$$

$$n = \frac{1.96^2 \times .5(1 - .5)}{0.05^2} = 384.16$$

Where:

- n: appropriate sample size
- z: standard degree (1.96 at significant level of 0.05)
- p: Sample proportion and neutral = 0.50
- e: maximum allowed error (0.05 at significant level of 0.05)

By applying these values to the Cochran, J. formula reveals that the appropriate sample size for this research is 385 participants but the researcher distributed 450 questionnaires. After revising of the responded questionnaires, there were 3 questionnaires not valid for analysis; the valid is (447) with the respondent rate of 99.33%. The collected questionnaires' data were coded and analyzed by Statistical Package for Social Science (SPSS V.23).

• **Data Validity and Reliability**

This research determined the validity of the scale by using the following:

- a. Face validity: the scale was reviewed by nine academic reviewers. The comments and observations of them have been considered before implementing the filed study.
- b. Validity of internal consistency: results demonstrated that all correlation coefficients of statements are significant at level of significance of  $\leq 0.01$  which ensures the validity of internal consistency of organizational conflict scale.

Regarding the reliability of scale, it was calculated using Cronbach's Alpha coefficient as shown in table 1. The Overall Cronbach's Alpha exceeded 0.7 for the 15 variables; this means that all variables were acceptable and reliable.

**Table - 1:** Cronbach's Alpha Value

Variables	No. of items	Cronbach's Alpha Value	Validity
Employees' Participation in Decision Making Process	5	.861	0.927
Quality of Decision Making Process	5	.894	0.945
Factors affect Decision Making Process	5	.609	0.780
<b>Total</b>	<b>15</b>	<b>.782</b>	<b>0.884</b>

Source: Developed by the researchers depending on the results of SPSS.

This study implemented parametric statistical tests to identify significant differences between categories of demographic variables as follows:

1. Frequencies of the sample demographic Variables.
2. T-test: it was used to test the differences between two categories within one variable of the study's sample.
3. One-Way ANOVA test: it was used to identify the significant differences between more than two categories within one variable of the study's sample.
4. LSD test: it was used for multiple comparisons.

#### 4. Results and Discussion

This part of the research begins with describing variables of the study, then illustrated the differences between groups of demographic variables.

**Table - 2:** The Sample Variables Statistics

Variable	Response	Frequency	Percent	Rank
<b>Gender</b>	Male	268	60.0	1
	Female	179	40.0	2
	Total	447	100.0	-
<b>Qualification Level</b>	Bachelor	259	57.9	1
	Master	154	34.5	2
	PH.D	34	7.6	3
	Total	447	100.0	-
<b>Job Experience</b>	From 5-10 years	79	17.7	3
	From 11-15 years	284	63.5	1
	More than 15 years	84	18.8	2
	Total	447	100.0	-
<b>Income</b>	Less than 1000 EGP	0	0	3
	From 1000-2999 EGP	0	0	3
	From 3000-5999 EGP	0	0	3
	From 6000-8999 EGP	339	75.8	1
	From 9000 and above	108	24.2	2
	Total	447	100.0	-

Source: Developed by the researchers depending on the results of SPSS.

Table 2 includes the statistical frequencies of demographic variables as following:

- a) According to “Gender”, the results showed that the percent of “Males” (60.0%) was more than “Females” (40.0%) of investigated sample.
- b) According to respondents’ “Level of Qualification”: the majority of the respondents had “Bachelor” (57.9%), followed by “Master” (34.5%), and followed by “PH.D” (7.6%). Thus the employees are knowledgeable enough to understand the concept of decision making process and might have been actually involved in participation in this process in there sectors and administrations of EGYPTAIR Airlines Company, this result came with an agreement with the study of Bulog (2016) .
- a) According to respondents’ “Job Experience”, the majority of the respondents was “From 11-15 years” (63.5%), followed by “More than 15 years” (18.8%), followed by “From 5-10 years” (17.7%).
- b) According to respondents’ “Income”, the majority of the respondents was “From 6000-8999” (75.8%), followed by “From 9000 and above” (24.2%).

**Table - 3:** Differences between Genders of EGYPTAIR Airlines Company’ Employees in Decision Making Process

Variable	Gender	N	Mean	SD	T-Test	
					t	Sig.
Employees’ Participation in Decision Making Process	Males	268	3.2284	.59695	1.193	.233
	Females	179	3.1575	.64091		
Quality of Decision	Males	268	3.2657	.49402	.805	.421

Making Process	Females	179	3.2257	.54341		
Factors affect Decision Making Process	Males	268	4.0575	.36451	.458	.647
	Females	179	4.0413	.36515		

Source: Developed by the researchers depending on the results of SPSS.

From the results shown in Table 3, the independent samples T-test used to determine the differences between the two groups, it was noticeable that the significance levels for all variables were more than (0.05), this means that there were no statistically significant differences between males and females with respect to “Employees’ Participation in Decision Making Process”, “Quality of Decision Making Process”, and “Factors affect Decision Making Process”. This result indicated that the first hypothesis of the study was not accepted concerning these variables.

This result came to an agreement with the study of Ilie and Cardoza (2018) who found that men and women at the same managerial level do not seem to have differences in decision making.

**Table - 4:** One-Way ANOVA for Differences between Qualification Levels of EYGPTAIR Airlines Company’ Employees in Decision Making Process

Variable	Variance	Sum of Squares	df	Mean Square	F	Sig.
Employees’ Participation in Decision Making Process	Between Groups	2.466	2	1.233	3.291	.038
	Within Groups	166.334	444	.375		
	Total	168.800	446			
Quality of Decision Making Process	Between Groups	.310	2	.155	.585	.558
	Within Groups	117.588	444	.265		
	Total	117.897	446			
Factors affect Decision Making Process	Between Groups	.121	2	.060	.454	.636
	Within Groups	59.116	444	.133		
	Total	59.237	446			

Source: Developed by the researchers depending on the results of SPSS.

Table 4 illustrated the one-way ANOVA to analyze the differences between qualification levels with respect to “Employees’ Participation in Decision Making Process”, “Quality of Decision Making Process”, and “Factors affect Decision Making Process”. The results showed that the significance levels for all variables of qualification levels were more than (0.05). This means that there were no statistically significant differences between qualifications levels with respect to all variables of “Quality of Decision Making Process”, and “Factors affect Decision Making Process”. This result indicated that the hypothesis of the study was not accepted concerning these variables except the variables of “Employees’ Participation in Decision Making Process”.

The LSD (Least Significant Difference) test was calculated to determine the sources of differences as shown in table 5.

**Table - 5:** LSD between Qualification Levels concerning the Employees’ Participation in Decision Making Process

The Dimension		(I) Qualification	(J) Qualification	Sig.
Employees’ Participation in Decision Making Process	LSD	Bachelor	Master PH.D	.043 .264
		Master	Bachelor PH.D	.043 .031
		PH.D	Bachelor Master	.264 .031

Source: Developed by the researchers depending on the results of SPSS.

Table 5 showed that there was statistically significant difference between “PH.D.” and “Bachelor” (Sig. =0.264), while there was statistically significant difference between “PH.D.” and “Master” (Sig. =0.031). These differences were in favor of “PH.D” (Mean = 3.3588) then “Bachelor” (Mean = 3.2340), lastly “Master” (Mean = 3.1078) as shown in table 6.

**Table - 6:** Means of Qualification Levels concerning Employees’ Participation in Decision Making Process

The Dimension	Bachelor	Master	PH.D
Employees’ Participation in Decision Making Process	3.2340	3.1078	3.3588

Source: Developed by the researchers depending on the results of SPSS.

This result indicated that the second hypothesis of the research was accepted concerning this variable. This result came to an agreement of the studies of (Francioni, et al., 2015; Elbanna, et al., 2020; Ngo, 2020) who found that the higher education levels of employees influence their way of perceiving the world, process information, and make decisions.

**Table -7:** One-Way ANOVA for Differences between Job Experience Levels of EYGPTAIR Airlines Company’ Employees in Decision Making Process

Variable	Variance	Sum of Squares	Df	Mean Square	Job Experience	
					F	Sig.
Employees’ Participation in Decision Making Process	Between Groups	.551	2	.276	.728	.484
	Within Groups	168.249	444	.379		
	Total	168.800	446			
Quality of Decision Making Process	Between Groups	.399	2	.199	.754	.471
	Within Groups	117.499	444	.265		
	Total	117.897	446			
Factors affect	Between	.161	2	.081	.605	.546

Decision Making Process	Groups					
	Within Groups	59.076	444	.133		
	Total	59.237	446			

Source: Developed by the researchers depending on the results of SPSS.

Table 7 illustrated the one-way ANOVA to analyze the differences between job experience levels with respect to “Employees’ Participation in Decision Making Process”, “Quality of Decision Making Process”, and “Factors affect Decision Making Process”. The results showed that the significance levels for all variables of job experience levels were more than (0.05). This means that there were no statistically significant differences between job experience levels with respect to all variables of “Employees’ Participation in Decision Making Process”, “Quality of Decision Making Process”, and “Factors affect Decision Making Process”. This result indicated that the third hypothesis of the study was not accepted concerning these variables. These results came to an agreement of the study of Sattar, et al. (2018) who noted that job experience had no significant influence on the decision making as a dimension of “Quality of Work Life”.

**Table -8:** Differences between Incomes of EYGPTAIR Airlines Company’ Employees in Decision Making Process

Variable	Income	N	Mean	SD	T-Test	
					t	Sig.
Employees’ Participation in Decision Making Process	From 6000-8999	339	3.1746	.61341	-1.547-	.123
	From 9000 and above	108	3.2796	.61686		
Quality of Decision Making Process	From 6000-8999	339	3.2555	.51761	.422	.673
	From 9000 and above	108	3.2315	.50505		
Factors affect Decision Making Process	From 6000-8999	339	4.0496	.36165	-.149-	.882
	From 9000 and above	108	4.0556	.37475		

Source: Developed by the researchers depending on the results of SPSS.

Table 8 illustrated the independent samples T-test used to determine the differences between the two groups, it was noticeable that the significance levels for all variables were more than (0.05), this means that there were no statistically significant differences between the two groups of income “From 6000-8999 EGP” and “From 9000 EGP and above”, with respect to “Employees’ Participation in Decision Making Process”, “Quality of Decision Making Process”, and “Factors affect Decision Making Process”. This result indicated that the fourth hypothesis of the study was not accepted concerning these variables. This result was not agreed with the study of Ndanu (2014) who found that the income levels have a statistically significant influence on decision making.

## 5. Conclusions

This research divided the decision making process into three dimensions as following: employees' participation in decision making process, quality of decision making process, and factors affect decision making process. The current study aimed to evaluate significant differences of demographic Variables about organizational decision making process in EGYP AIR Airlines Company. Results demonstrated that there are not any significant differences in "Gender" in the organizational decision making process' dimensions. There are significant differences between "Qualification Levels" in favor of "PH.D" in the employees' participation in decision making process dimension. There are not any significant differences in "Job Experience Levels" in the organizational decision making process' dimensions. And there are not any significant differences in "Income Levels" in the organizational decision making process' dimensions.

## 6. Recommendations

Due to the importance of the decision making process in any organization to be able to continue in a world full of rapid continuous changes, it is necessary to take some procedures regarding this important process, and accordingly, we propose to some recommendations:

1. According to the related literature that top managers' demographic Variables may limit the influence of external and internal factors on decision making processes by limiting information search and retrieval activities, we argue that it is time to test for such effects using empirical data.
2. The administration of EGYPTAIR Airlines should organize workshops about cognitive skills and increase the consciousness of organizational decision making from time to time for the employees, which will enable employees to know about organizational decision making and to realize the importance of their participation in this process in their departments.
3. The administration of EGYPTAIR Airlines should take the opinions and concerns of the employees in consideration, which could increase the responsibility and transparency of the decision making process in the company.
4. The administration of EGYPTAIR Airlines should promote the level of data quality within the company, which contributing to improve the quality of decision-making, and enabling the reduction of uncertainty and the production of more timely and accurate decision consequences.
5. The administration of EGYPTAIR Airlines should adopt new technologies in gathering information about the concerned issues of the decisions to cope the rapidly change in such turbulent work environment.
6. The administration of EGYPTAIR Airlines should enhance the effective intergroup collaboration, innovation, and productivity are by the thoughtful and intentional integration of diversity-focused programs that encourage inclusion, respect, and equal treatment of people in the workplace.

### • Recommendations for Further Research

Based on the study's findings, recommendations for more research should examine staff diversity's effects and influences on organizational decision-making and company efficiency in greater depth and detail. Future studies might focus on other commercial sectors, such as the public and private ones. Additionally, it should be encouraged to choose participants from a wider range of backgrounds in

future research on employee diversity management and other research approaches since this could result in a more thorough study with comprehensive findings.

## References

- Alkhwilani, M. A., Bohari, A. M., & Shamsuddin, J. (2019). Factors that Influence Crisis Management in Yemeni Organizations: The Mediating Effects of Decision-Making Styles. *International Journal of Innovation, Creativity and Change*, 5(2), 11-34. Retrieved from [www.ijicc.net](http://www.ijicc.net)
- Alshikhi, O. A., & Abdullah, B. M. (2018, October). Information Quality: Definitions, Measurement, Dimensions, and Relationship with Decision Making. *European Journal of Business and Innovation Research*, 6(5), 36-42.
- Al-Tarawneh, H. A. (2012). The Main Factors beyond Decision Making. *Journal of Management Research*, 4(1). doi:10.5296/jmr.v4i1.1184
- Bayo, P. L., & Akintokunbo, O. O. (2022). Strategic Decision Making: Process and Aid to Better Decision Making in Organizations: A Literature Review Approach. *International Journal of Economics and Business Management*, 8(1), 56-62.
- Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods, and Practices* (2nd ed.). Tampa, Florida, USA: University of South Florida.
- Bulog, I. (2016). The Influence of Top Management Demographic Variables on Decision Making Approaches. *Ekonomski vjesnik/Econviews - Review of Contemporary Business, Entrepreneurship and Economic Issues*, 29(2), 393-403. Retrieved from <https://hrcak.srce.hr/ojs/index.php/ekonomski-vjesnik/article/view/4142>
- Butler, R. (1998). Strategic Decision Making: A Contingency Framework, and Beyond. In V. Papadakis, & P. Barwise (Eds.), *Strategic Decisions* (1st ed., pp. 35-50). New York: Springer Science+Business Media. doi:10.1007/978-1-4615-6195-8
- Cochran, J. (1977). *Sampling Techniques* (3rd ed.). New York, U.S.A: John Wiley & Sons.
- Crespo, A. A., Fuentes, M. C., Tortosa, D. A., Lopez, I. C., Gonzalez, E., & Serrano, M. A. (2019). Spanish Validation of General Decision-Making Style Scale: Sex Invariance, Sex Differences and Relationships with Personality and Coping Styles. *Judgement and Decision Making*, 14(6), 739-751.
- Daft, R. L. (2008). *Management*. South-Western, Cengage Learning.
- Dimara, E., Zhang, H., Tory, M., & Franconeri, S. (2020). The Unmet Data Visualization Needs of Decision Makers within Organizations. *Journal of Latex Class Files*. doi:10.1109/TVCG.2021.3074023
- EGYPAIR Group. (2022, November 20). Retrieved from EGYPTAIR: <https://www.egyptair.com>
- Ejimab, N. O. (2015). The Influence of Decision Making in Organizational Leadership and Management Activities. *Entrepreneurship and Organization Management*, 4(2), 138-152. doi:10.4172/2169-026X.1000138



- Elbanna, S., Thanos, I. C., & Jansen, R. J. (2020). A Literature Review of the Strategic Decision-Making Context: A Synthesis of Previous Mixed Findings and an Agenda for the Way Forward. *International Association of management Strategies*, 23(2), 42-60. Retrieved from <http://dx.doi.org/10.37725/mgmt.v23i2.4621>
- Farokhi, E., & Hossenchari, M. (2020). Emotion Regulation and Action Control as Predictors for Decision Making Style. *International Journal of Behavioral Sciences*, 14(1), 34-39. doi:10.30491/IJBS.2020.204430.1146
- Fitzgerald, S. P. (2002). *Decision Making*. Oxford: Capstone Publishing.
- Francioni, B., Musso, F., & Cioppi, M. (2015). Decision Maker characteristics and International Decisions SMEs. *Management Decision*, 53(10), 2226-2249. doi:0.1108/MD-03-2015-0094
- Frankel, E. G. (2009). *Quality Decision Management-The Heart of Effective Futures-Oriented Management (Vol. 14)*. (A. V. Gheorghe, Ed.) Springer.
- Gambetti, E., & Giusberti, F. (2019). Personality, Decision Making Styles and Investments. *Journal of Behavioral and Experimental Economics*, 80, 14-24. doi:10.1016/j.socec.2019.03.002
- Gregoric, M. (2014). Pestel Analysis of Tourism Destinations in the Perspective of Business Tourism (MICE). *Trends in Tourism and Hospitality Industry*, (pp. 551-565).
- Griffin, E. L. (2021). *The Culture of Decision-Making in Complex Organizations*. Proquest.
- Ilie, C., & Cardoza, G. (2018). Thinking Styles, gender, and Decision Making in Latin American Management. *Academia Revista Latinoamericana de Administración*, 31(1), 29-42. doi:DOI 10.1108/ARLA-04-2017-0093
- Intezari, A., & Pauleen, D. J. (2018). Conceptualizing Wise Management Decision-Making: A Grounded Theory Approach. *Journal of the Decision Sciences Institute*, 49(2), 335-400.
- Johnson, B. (2001). Toward a New Classification of Nonexperimental Quantitative Research. *Educational Researcher*, 30(2), 3-13.
- Johnson, G., Scholes, K., & Whittington, R. (2008). *Exploring Corporate Strategy (8th ed.)*. London: Pearson.
- Khakheli, M., & Morchiladeze, G. (2015). Factors Affecting Decision Making In an Organization. *International Journal of Management and Commerce Innovations*, 3(1), 425-428. Retrieved from [www.researchpublish.com](http://www.researchpublish.com)
- Khalifa, A. S. (2021). Strategy and what it means to be strategic: redefining strategic, operational, and tactical decisions. *Journal of Strategy and Management*, 14(4), 381-396. doi:10.1108/JSMA-12-2020-0357
- Krosnick, J. A. (2018). Improving Question Design to Maximize Reliability and Validity. In D. L. Vannette, & J. A. Krosnick (Eds.), *The Palgrave Handbook of*

- Survey Research (pp. 94-101). Provo, Utah, USA: Springer Nature. doi:10.1007/978-3-319-54395-6
- Lunenburg, F. C. (2010). The Decision Making Process. *National Fourm of Educational Administration and Supervision Journal*, 27(4), 1-12.
- Marzuki, A. (2015). Challenges in the Public Participation and the Decision Making Process. *Institute for Social Research in Zagreb Sva prava pridržana*, 201(1), 21-39. doi:10.5673/sip.53.1.2
- Maw, N. T. (2020). Ethical Decision-Making in Public Administration. *Research Journal*, 1-8.
- Meer, J. v., Hartmann, A., Horst, A. v., & Dewulf, G. (2020). Multi-Criteria Decision Analysis and Quality of Decisions in Infrastructure Tenders: A Contractor's Perspective. *Construction Manangement and Economics*, 38(2), 172-188. doi:10.1080/01446193.2019.1577559
- Mishra, S. B., & Alok, S. (2017). *Handbook of Research Methodology*. New Delhi: Educreation Publishing. Retrieved from <https://www.researchgate.net/publication/319207471>
- Ndanu, M. R. (2014). Top Manangement Demographics, Strategic Decision Making, Macro-Environment and Performance of Kenyan State Corporations. University of Nairobi. Retrieved from <http://hdl.handle.net/11295/76868>
- Ngo, T. S. (2020). *Impacts of Demographic Variables on Vietnamese' Decision Making Process for Domestic Tourism Activity*. London: Proquest.
- Palmiero, M., Nori, R., Piccardi, L., & D'Amico, S. (2020). Divergent Thinking: The Role of Decision-Making Styles. *Creativity Research Journal*, 32(4), 323-332. doi:10.1080/10400419.2020.1817700
- Pan, W., Chen, L., & Zhan, W. (2019). PESTEL Analysis of Construction Productivity Enhancement Strategies: A Case Study of Three Economies. *Journal of Management in Engineering*, 35(1), 1-40. doi:10.1061/(ASCE)ME.1943-5479.0000662
- Panpatte, S., & Takale, V. (2019). To Study the Decision Making Process in an Organization for its Effectiveness. *The International Journal of Business Management and Technology*, 3(1), 73-78. Retrieved from [www.theijbmt.com](http://www.theijbmt.com)
- Parnell, G. S., & Bresnick, T. A. (2013). *Handbook of decision analysis*. New Jersey: A John Wiley and Sons Publications.
- Phipps, D. (2013). Operational Decision-Making in Highhazard Organizations: Drawing a Line in The Sand. *Ergonomic*, 56(12), 1945-1947. doi:10.1080/00140139.2013.836298
- Robbins, S., & Judge, T. (2015). *Organizational Behavior* (16 ed.). Pearson.
- Samson, K., & Bhanugopan, R. (2022). Strategic human capital analytics and organisation performance: The mediating effects of managerial decision-making. *Journal of Business Research*, 144, 637-649. doi:10.1016/j.jbusres.2002.01.044

- Sattar, S., Laila, K., Khan, M. Z., & Khan, G. M. (2018). Relation of Job Related Factors with Different Dimensions of Quality of Work Life. *World Journal of Public Health*, 3(1), 16-22. doi:10.11648/j.wjph.20180301.13
- Shrestha, Y. R., Ben-Menahem, S. M., & Krogh, G. v. (2019). Organizational Decision-Making Structures in the Age of Artificial Intelligence. *California Management Review*, 61(4), 66-83. doi:10.1177/0008125619862
- Siddique, C. M., & Siddique, H. F. (2020). Antecedents and consequences of managerial decision-making styles in the Arabian Gulf. *Management Research Review*, 43(7), 811-845. doi:10.1108/MRR-02-2018-0047
- Simon, H. A. (1955). A Behavioral Model of Rational Choice. *The Quarterly Journal of Economics*, 69(1), 99-118. Retrieved from <https://www.jstor.org/stable/1884852>
- Spetzler, C., Winter, H., & Meyer, J. (2016). The Requirements for Decision Quality. In C. Spetzler, H. Winter, & J. Meyer, *Decision Quality: Value Creation from Better Business Decisions* (pp. 11-20). John -Wiley & Sons.
- Stiess, A. W. (2005). *Strategic Management for Public and Nonprofit Organizations*. Virginia: Taylor & Francis.
- Thulholm, P. (2008). Decision-Making Style and Physiological Correlates of Negative Stress: Is there a relation? *Scandinavian Journal of Psychology*, 49, 213-219. doi:10.1111/j.1467-9450.2008.00640.x
- Turan, U. F., & Yildiran, C. (2019). Critical Thinking as a Qualified Decision-Making Tool. *Journal of History Culture and Art Research*, 8(4), 1-18. doi:10.7596/taksad.v8i4.2316
- Ugurlu, C. T. (2013). Effects of decision making styles of school administrators on general procrastination behaviors. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 51, 253-272.
- Uitdewillifen, S., & Waller, M. J. (2018). Information Sharing and Decision-Making in Multidisciplinary Crisis Management Teams. *Journal of Organizational Behavior*, 39, 731-748. doi:10.1002/job.2301
- Watson, H., Finn, R. L., & Wadhwa, K. (2017). Organizational and Societal Impacts of Big Data in Crisis Mnagement. *Journal of Contingencies and Crisis Management*, 25(1), 15-22. doi:10.1111/1468-5973.12141
- Williams, C. (2007). Research Methods. *Journal of Business & Economic Research*, 5(3), 65-72.
- Zaki, H. N., Abd-Elrhaman, E. S., & Ghoneimy, A. G. (2018). The Effect of Emotional Intelligence Program on Decision Making Style. *American Journal of Nursing Research*, 6(6), 524-532. doi:10.12691/ajnr-6-6-21