

## The impact of time management on making and taking managerial decisions: A study of commercial banks operating in the municipality of Zliten

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### Abstract:

This study aimed to assess the influence of time management on the making and administrative decision-taking, for managers and employees of commercial banks operating in the municipality of Zliten. The study sample was represented by (240) individuals from the study community. the questionnaire form was used to collect data, where it was distributed to (240) employees of commercial banks in the municipality of Zliten, and the number of analyzable forms was (224) forms. The researchers used hierarchical regression and Constructivist modeling by the Amos technique. The study has conducted that the time management affects the decision-making process more than it affects decision-Taking, and that the dimensions of time planning and organization have an impact on decision-making, but they did not affect decision-taking. And there is no influence of directing time on both decision-making and decision-Taking..

**Keywords:** time management, time planning, decision making, decision taking.

**(JEL) Classification:** M0, M1, M10

### 1. General framework of the study:

#### 1.1 Introduction:

Time is an important resource, it needs planning, organizing, directing and following-up processes, and high efficiency in establishing contacts capable of motivation, and coordination between the various administrative levels, to ensure its optimal investment (al-Ashhab, 2015). And time is the measure that depends on it in the speed of completion and competition (Al-Ghamdi, 2018).

Time is essential for the success of any manager, and those who cannot manage this time cannot manage anything else. Therefore, good time management is useful in terms of saving on project costs, and it is also useful in the proper use of other resources of the organization as well (al-jeraisi, 2007). Time management saves time, effort and taking the right decision.

The efficiency of the decision is determined by the time interval that is between the appearance of the problem and the decision-making, and the decision is made in time to address a particular situation (Amer & al-Masri, 2016). Time management is an important factor within the organization, so in making and taking critical decisions that can not tolerate postponement (al-Ashhab, 2015).

Work in the banking sector has a special nature, as it requires accuracy, skills in dealing with others and respect for time. Therefore, managers and employees in the banking sector are exposed to increased performance resulting from long working hours, customer volume, salary system, promotions, bonuses, etc., all of which affect the decision-making process.

On this basis, this study attempts to determine the impact of time management on the decision-making and decision-taking process of managers and employees of commercial banks operating in the municipality of Zliten.

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## 1.2 The problem of study:

The decision-making process needs a certain period of time to be achieved, and there is no doubt that the different quality of the problems and the different circumstances faced by the manager, all have an impact on the time set in decision-Taking (Al-Ghamdi, 2018). Through the personal interviews conducted by the researchers with managers and employees of banks in the municipality of Zliten, questions related to the subject of the study were asked, and through the answers, it was noted that there is a problem that lies in the weak concentration and attention to time management in commercial banks operating in the city of Zliten, which would negatively affect the decision-making process and thus influence administrative decision-taking. Among the evidences that indicate this :

Weakness in planning and organizing time by managers and employees of banks in Zliten and not finishing daily tasks as they plan, low in the level of time guidance and how to deal with data by employees of those banks, difficulty in accessing information when it is needed to make a decision in banks, and the administrative decision is not taken when it is needed.

As a result, the problem can be formulated in the following question :

How much does time management contribute to making and taking administrative decisions in commercial banks operating in the municipality of Zliten?

It branches off the following questions:

- What is the impact of time management dimensions on administrative decision-making in banks in Zliten?
- What is the impact of time management dimensions on administrative decision-taking in banks in the municipality of Zliten?

## 1.3 Study hypotheses:

The main hypothesis

A-zero hypothesis: there is no statistically significant effect between time management and decision-making, administrative decision-taking in commercial banks in the municipality of Zliten.

B-alternative hypothesis: there is a statistically significant effect between time management and decision-making, administrative decision-taking in commercial banks in the municipality of Zliten.

It branches off from the following main premise :

The first sub-hypothesis:

A-Null hypothesis: there is no statistically significant effect between the dimensions of time management and administrative decision-making in commercial banks in the municipality of Zliten.

B-alternative hypothesis: there is a statistically significant effect between the dimensions of time management and administrative decision-making.

The second sub-hypothesis:

A- Null hypothesis: there is no statistically significant effect between the dimensions of time management and administrative decision-taking in commercial banks in the municipality of Zliten.

B-alternative hypothesis: there is a statistically significant effect between the dimensions of time management and administrative decision-taking.

## 1.4 Objectives of the study:

- Identify the impact of the dimensions of time management on making and taking administrative decisions in commercial banks in the municipality of Zliten.

- Identify the most prominent solutions to reduce time waste affecting the efficiency of administrative decision-making and decision-taking in these banks.

### **1.5 Study methodology:**

This study is considered a quantitative analytical cross-sectional. Hierarchical regression and structural modeling were used to test hypotheses using the Amos technique.

### **1.6 Community and sample study:**

The study community is represented by all managers and employees of commercial banks in the municipality of Zliten (Jumhoria Bank, Whda Bank, North African Bank, National Commercial Bank, Al-Sahari bank). To achieve the research objectives, a random sample of managers and employees was selected and the researchers distributed (240) questionnaires, from which (224) questionnaires were retrieved.

## **2. Literature review:**

### **2.1 Previous studies:**

1 - the study of Atoudi and Abdel Aal (2021) entitled : The study sought to determine the impact of time management on job performance in Al-Shuqiq Water and Electricity Company. The researchers used the descriptive method, and the study sample included (82) employees. The study produced a number of results, most notably: a-the existence of an impact of time management on the performance of employees in Al-Shuqiq Company, where the arithmetic mean (3.72) and standard deviation (SD) were both positive. B-the presence of a beneficial impact on time use among company employees, where the arithmetic mean (4.08) and the standard deviation C-There are age-related statistical differences that are significant in terms of the impact of time management on job performance. D-the absence of significant statistical differences about the impact of time management on job performance attributed to the two variables scientific qualification and years of experience. The study recommended several recommendations, the most important of which are: a - the need for the workload to be commensurate with official working hours. B-the need to provide means and techniques that help employees to accomplish the work entrusted to them efficiently.

2-Al-Bakri's study (2020) entitled: The study's goal was to determine how time management applications affected how well employees performed at the General Bureau of the General Authority of Zakat. To gather data, a descriptive analytical method and questionnaire were used, and the study's study population was made up of bureau employees. (120) questionnaires were distributed, and (91) analyzable questionnaires were collected: a- The level of interest in time management at the Zakat authority's office was very high, as it received an approval rate of (84.92%), and the dimensions of time management received varying percentages, where supervision came first, followed by communication, followed by planning and then managing meetings, and delegation came last. B-the presence of a statistically significant impact of time management in improving the performance of employees at the General Authority of Zakat. The study recommended a number of recommendations, the most important of which are : a - strengthening the concept of time management among the leaders and employees of the authority's office. B-delegating powers to employees to enable them to manage their business efficiently and responsibly and away from the centralization of senior management, thus their potential energies will be released, which can be utilized in managing the daily administrative work at the authority's office.

3 - the study of Al-Taba and Abdullah (2020) entitled : The study's objective was to determine the influence of information system efficiency on the efficacy of decision-making and decision-making at the Central Bank of Yemen. The researchers distributed (70) questionnaires, of which (64) were successfully returned. The survey produced a number of findings, but the most significant ones are as follows: a - workers' opinions of the efficacy of decision-making and decision-making at the central bank are high, with an average of (3.78). B-that the efficacy of decision-making is positively impacted by the effectiveness of information systems in a statistically meaningful way. The study recommended that senior management, when building and developing information systems, should be keen to involve employees of all categories at all stages of development, in order to reduce the gap between employees in the information sector and administrative aspects.

4- The study of servants and employees (2015) entitled : work pressures and their relationship to administrative decision-making, where the study aimed to identify the level of professional pressures faced by administrators working in the Ministry of Interior when making administrative decisions, and to identify the relationship between professional pressures and administrative decision-making. The study sample consisted of (66) administrators. The results of the study indicated the most important : the arithmetic average of all paragraphs related to administrative decisions was (4.08), which is a high degree, indicating that the relationship between professional pressures and administrative decision-making is an inverse relationship. The study recommended finding effective and appropriate strategies to deal with these pressures and mitigate as much as possible the negative effects of them.

5- The study of Abbas and Hassan (2010) entitled : The purpose of the study was to determine the impact of time management effectiveness on performance based on the hypothesis that there is a relationship between the time management variable and the performance of government commercial banks from the point of view of managers. To that end, (50) questionnaires were given to employees working in government banks, and the results revealed a number of findings. The degree of effectiveness of the effective use of time management methods ranged from high to medium. The study recommended the need to rationalize working time and reduce waste by identifying and diagnosing the causes of waste and reducing it. B-rehabilitation of cadres and development of their skills to work flexibly, quickly and accurately for the purpose of exploiting time.

After reviewing previous studies related to the independent variable as well as studies related to the dependent variable, the researchers see the importance of time management at work and its direct reflection on administrative decision-making, as some previous studies have shown that the problem lies in poor time management, which always results in a decrease in the level of performance, so this study came as a complement to the previous ones and a foundation for the studies that will come after. The researchers believe that successful time management means making and taking better administrative decisions, and this study talks in particular about the impact of time management dimensions on making and Taking administrative decisions in commercial banks operating in the municipality of Zliten, which has not been discussed by any of the previous studies related to this topic within the limits of the researcher's knowledge.

## **2.2 Definition of time management:**

The word management is associated with time through the existence of a continuous process of Planning, Analysis and continuous evaluation of all the activities carried out by the employee in a certain period of time in order to achieve high efficiency in exploiting the available time to reach the limited goals by the

best means and the lowest costs, and time is the means of management and its main input in achieving this (Abu Al-Nasr, 2015). Time management is the science of planning, organizing, directing and controlling the use of time as a scarce resource, with the greatest effectiveness and efficiency, to reach the required goals (Al-oqaili & al-Hayali, 2015). It is also known as controlling time and investing it in managing activities and business (al-Ashhab, 2015). Al-Deeb (2006) says that time management means a series of administrative activities from analysis, planning, implementation, follow-up and evaluation to achieve control and good and optimal use of time. Al-jeraisi (2007) describes it as making the greatest possible use of the time and resources at hand in order to achieve significant objectives, such as understanding how to use time now and how to analyse it, as well as making plans for how to utilise time wisely in the future. Al-Serafi (2007) said that it may be seen of as a method for arranging your time so that you can pick what to accomplish and do a lot of work quickly.

It is evident from the foregoing that time management is the coordination of the numerous administrative procedures to utilise the time effectively and efficiently in order to accomplish the objectives of the firm.

### **2.3 The importance of time management:**

- 1- helps to optimize the use of financial and human resources.
- 2- help to reduce the cost resulting from achieving the goals.
- 3- it improves productivity for individuals and society.
- 4-development of individual and collective abilities.
- 5- relieve the pressure and tension caused by the backlog of work (Al-Ghamdi, 2018).
- 6-sound planning aware of the value of time.
- 7-the safety of flexible organization that accommodates the variables and aspirations of individuals and career advancement .
- 8-follow up closely and properly, whether spatial, temporal or active.
- 9-the safety of positive guidance to the best ways and least effort to achieve the required performance (Gilda & Hariz, 2007).

### **2.4 Dimensions of time management:**

- 1-time planning: It entails attempting to foresee the amount of time that will be available in the future, the amount of effort that will be necessary to complete particular tasks, and scheduling everything in light of the possibilities and constraints that will be present (al-Ashhab, 2015).
- 2-organizing time: renewing and simplifying the work procedures followed by preparing the necessary organizational studies that save a lot of time by eliminating unnecessary tasks, or using modern devices and equipment to complete the work quickly. The length and complexity of the procedures, and the length of time it takes to complete the work, usually lead to serious complaints from employees (Al-Ghamdi, 2018).
- 3 - time guidance: it is to instruct employees on how to perform and implement the work with the optimal use of time in addition to communication in various oral, written and technical forms. The fact that prolonging the time of directives makes workers bored does not achieve the desired benefit, so guidance in a short time during varying periods gives good fruits (al-jeraisi, 2007).
- 4-control and time: comparing the actual time to the anticipated time, identifying deviations, investigating them to determine their causes, weighing the pros and cons, and coming up with treatment proposals for their treatment (Elfeki, 2009).

### **2.5 Definition of administrative decisions:**

The decision is the essence of the administrative process, and it is seen as the orders and instructions given by the higher authorities to the lower authority to implement and comply with them. It means choosing one alternative from two or more alternatives (Ayoub, 1989). It is considered a rational action that comes as a result of measures, calculation and reflection (al-Fadl, 2009).

### **2.6 Definition of managerial decision-taking and managerial decision-making:**

The process of making a decision, or selecting one option over another, is called decision-taking. It is based on research and objective thought (Ayoub, 1989). It symbolises how corporate organisations constantly confront and attempt to address their difficulties on a regular basis. It is considered the final result of the implementation of the functions of the administrative process of planning, organizing, directing and controlling in order to reach the goal of the project, as well as not related to one individual, but includes the parts of the organization and its individuals in general (Radwan, 2012). It is a choice or a certain action after study and reflection (al-Najjar, 2008). Decision-taking is a rational process through which the best possible solutions are selected and a judgment is made regarding a specific problem to achieve the desired goal in the shortest possible time and at the lowest cost (Amer & al-Masri, 2016).

While decision - making is the process and a series of logical steps that precede the decision and are one of its inputs before its implementation in reality, which includes the steps of recognizing the problem, identifying it, evaluating it, setting standards for measurement and collecting data ( Russo & Shoemaker, 2019). It is also a position for reflection, compromise, debate and review of the results of one decision without another, as it may be to solve a problem or in order to exploit a certain opportunity (Amer & al-Masri, 2016).

We conclude from the above that the administrative decision is an alternative among several alternatives, while decision-taking is the choice of the optimal alternative, and administrative decision-making is the number or sum of alternatives offered.

### **2.7 The importance of industry and administrative decision - taking:**

The importance of decision-taking is as follows :

- 1- The multiplicity and complexity of the goals witnessed by modern administrative institutions and the existence of conflict between them at times, which has increased the problems facing senior management and this requires taking many decisions to face these problems.
- 2- Decision-taking is one of the core tasks of the manager, so that the manager's ability to take decisions is what distinguishes him from other members of the Administrative Organization.
- 3- Without the decision - taking process, the administrative process stops and the whole work stops.

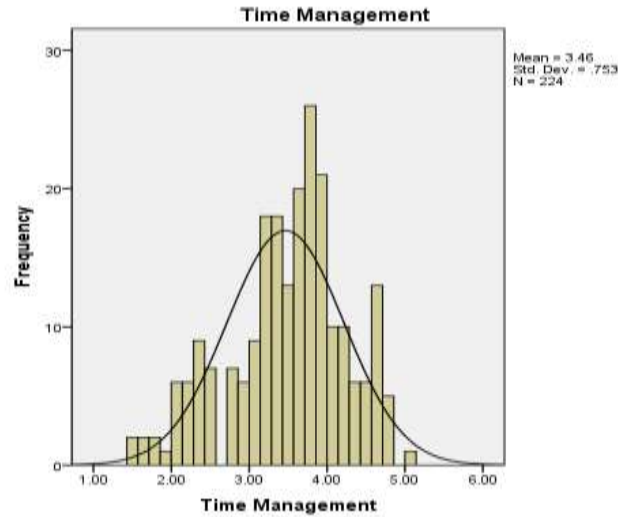
The importance of decision-making is that the decision must be based on scientific foundations and correct information, especially in case of uncertainty, as the importance of sales forecasting appears in the availability of data for decision-making at various strategic and administrative levels. Making any decision is the result of a complex process that requires two ways of thinking: looking back to understand the past and looking forward to predict the future (Amer & al-Masri, 2016).

## **3. Practical framework of the study:**

### **3.1 Test for the normal distribution:**

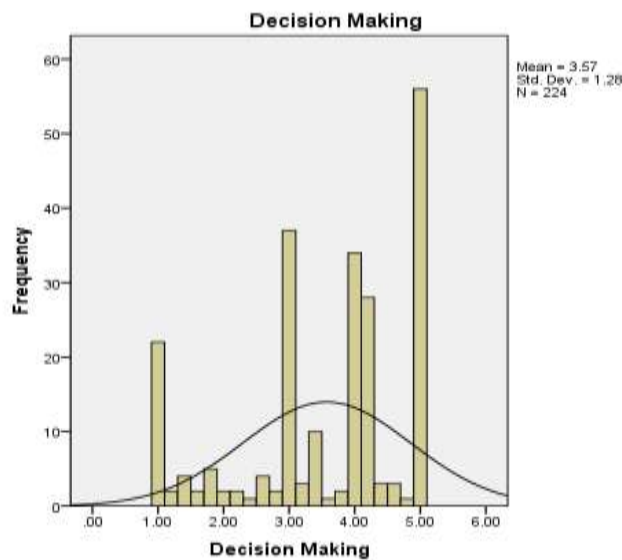
Graphs were used to find out the data distribution curve. The results of the analysis as shown in Figure (1) indicated that the distribution of time management data follows the normal distribution.

**Figure (01): Time management variable data distribution.**



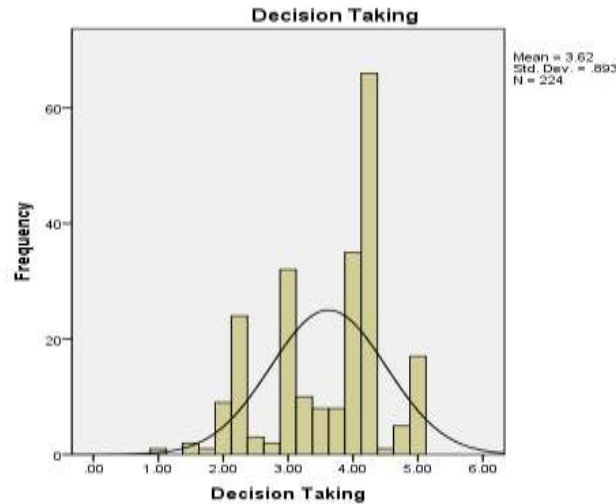
For the decision-making variable, Figure 2 shows that the data distribution tends to be normal.

**Figure (02): Decision making variable data distribution**



Lastly, Figure 3 shows that the data included in the decision-taking variable are distributed normally

Figure (03): Decision taking variable data distribution.



### 3.2 Assuming linearity and homogeneity of residuals:

Figures 4 and 5 show the linearity assumption while Figures 6 and 7 show homoscedasticity assumption. For the linearity, by examining the scatter plot residuals and predictors using SPSS 22, the findings in figure 4 and figure 5 indicate a straight-line association between independent variables (time planning, time organisation, time orientation, and time control) and dependent variables (decision making and decision taking).

Figure (04): Linearity assumption between independent variables and dependent variable (decision making).

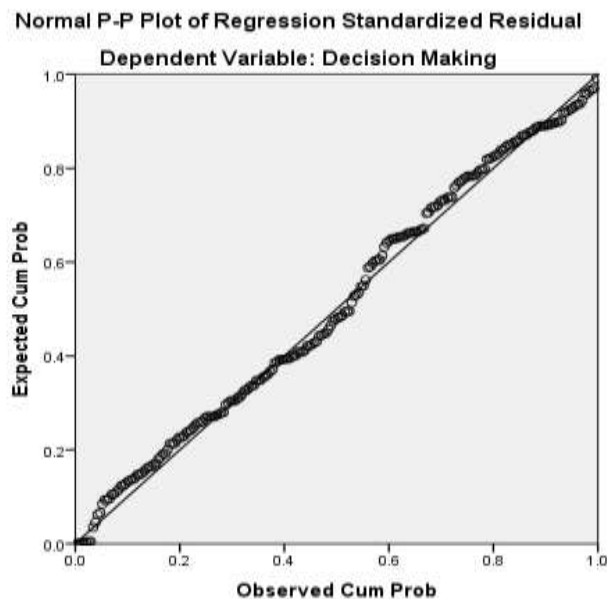
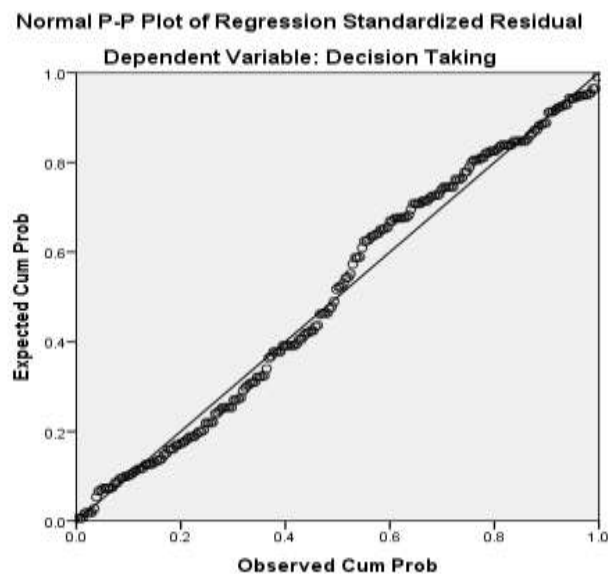




Figure (05): Linearity assumption between independent variables and dependent variable (decision taking).



Figures 6 and 7 show the results of the homoscedasticity test through scatter plot diagrams of standardized residuals. These results indicate that homoscedasticity exists in the set of IVs (time planning and control, time organisation, and time orientation) and the variance of the DVs (decision making and decision taking). Furthermore, a visual inspection of the distribution of residuals suggests an absence of heteroscedasticity.

Figure (06): Homoscedasticity Assumption for Decision Making

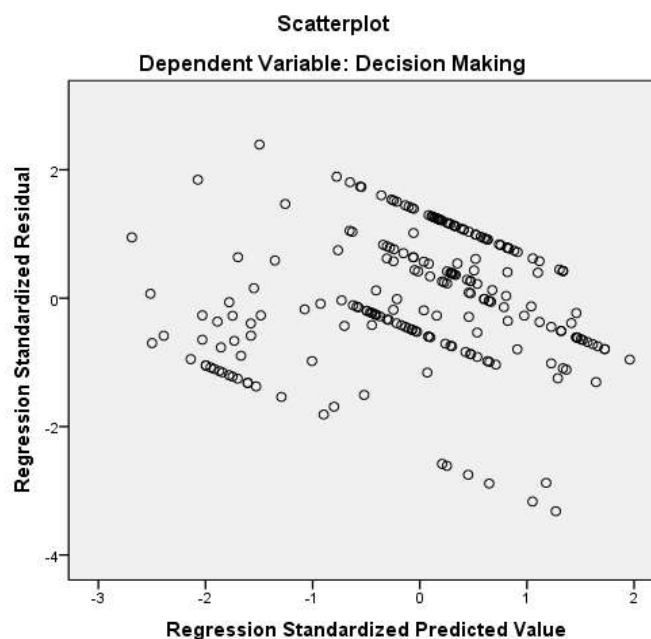
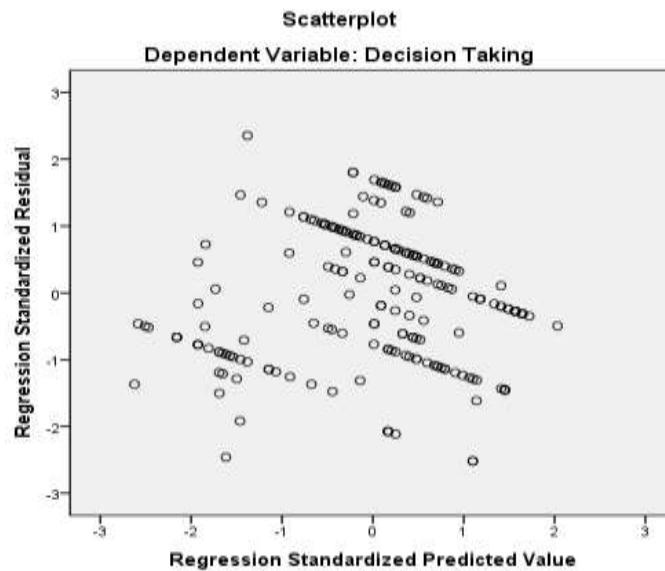


Figure (07): Homoscedasticity assumption for decision taking



### 3.3 Multicollinearity:

The multicollinearity test was used to investigate the correlation between independent variables the coefficients of which should not exceed 5.00 and Tolerance levels should be in excess of 20 (Hair, Black, Babin, & Anderson, 2010). Table 1 shows the results of Variance Inflation Factor (VIF). It reveals that all values of VIF are less than 5.00 which, means there is no multicollinearity between all the independent variables.

Table (01): Variance Inflation Factor (VIF)

Independents Variables	Collinearity Statistics	
	Tolerance > .2	VIF < 5
Time planning and control	.640	1.583
Time organisation	.915	1.093
Time orientation	.630	1.588

### 3.4 Exploratory Factor analyses:

An exploratory factor analysis was conducted for each variable separately, and then the analysis was carried out for all the variables combined. Table J1 indicates the results of the revised analysis, since Principal Components Analysis method based on Eigenvalue > 1 to extract the factors using. In this regard, to extract the factors of the time management variable, the factors of the decision-making variable, and the factors of the decision-taking variable, Vraimax rotation was used.

Table 2 reveals KMO and Bartlett's test of Sphericity. The table shows that the value of the Kaiser Olkin Mayer (KMO) was .89 (Very good) which provided evidence to support the sample size as suitable for EFA ( Kenny, 2016). Moreover, statistical value of Bartlett's Test of Sphericity was 2978.214 and

statistical significance was .000 (less than .05) indicating that correlation matrix contains minimum relationship for EFA (Kenny, 2016).

**Table (02): KMO and Bartlett's test for study's scales**

KMO and Bartlett's Test		
Kaiser- Meyer-Olkin Measure of Sampling Adequacy		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	2978.214
	Df	231
	Sig	0.000

Table 3 shows the loading of the items, the commonality coefficients and the latent root of each item for each scale, where the results revealed that the coefficients of communities for all items in most of them exceeded .50. This is an indication that the items of the study scales are characterized by stability, and more specifically, the item is related to itself based on its specificity, quality, and its relationship to other variables.

Table 3 also revealed that study scales were rated on five factors. Where three factors belong to time management (fourteen items), they are: the first factor is planning and time control (6 items: a2, a3, a4, a5, a24, a25), the second factor is time organisation (5 items: a8, a9, a10, a13, a14), and finally, time orientation by (3 items: a15, a16, a18). On the other hand, decision- making loaded by five items (b1, b2, b3, b4, b5), while decision- taking loaded by three items (b10, b11, b12).

**Table (03): Exploratory factor analysis for study's scales**

Item	Factor Loading					Communalities
	1	2	3	4	5	
A2		.776				.784
A3		.772				.801
A4		.749				.740
A5		.583				.686
A8			.828			.671
A9			.629			.619
a10			.794			.431
a13			.783			.743
A14			.669			.612
A15				.869		.719
A16				.882		.692
A18				.829		.597
a24		.759				.774
a25		.658				.605
b1	.805					.712
b2	.797					.751
b3	.844					.851

b4	.832					.793
b5	.813					.774
b10					.844	.769
b11					.815	.685
b12					.859	.783
Eigenvalue % of variance	3.92	3.76	3.29	2.35	2.28	Cumulative % = 70.87

### 3.5 Reliability :

Reliability estimates are based on the average internal correlation between all individual items within a test ranging between 0, 1 and the value 70. It is considered an appropriate value for reliability (Sekaran & Bougie, 2016).

After the exploratory factor analysis was performed, the reliability test was carried out. Table 4 shows that Cronbach's alpha coefficients exceeded the recommended level, with values ranging from (.87 to .91). On the other hand, the value of the total consistency coefficient for the time management scale was 887. The decision-making variable was recorded (.92) and the decision-taking variable was (.81).

**Table (04): Reliability Test for the Scales**

Code	Item	Alpha coefficients
<b>Reliability test for time management</b>		
a2	Poor ability to work.	.877
a3	Setting dates for achieving the objectives of the activities.	.877
a4	Lack of a plan template.	.881
a5	Possess planning skills.	.883
a8	Dividing tasks helps in managing time.	.879
a9	Putting deadlines on the agenda.	.875
a10	Administrative lack of delegation skills in the organization.	.876
a13	Poor coordination between offices.	.877
a14	Preoccupation with marginal work for the employee in the organization.	.878
a15	Employee self-direction leads to better results.	.888
a16	Increasing the number of employees leads to saving a lot of time.	.889
a18	Having a good communication system in the organization.	.886
a24	Errors are corrected in a short time.	.873
a25	Control over time to correct deviation, not impose punishment.	.876
Cronbach's alpha value for the scale as a whole .887.		.887
<b>Reliability test for decision making</b>		
b1	Participation in decision-making takes place along with expanding the base of participants.	.919
b2	There are pressures that distract decision-making steps.	.910

b3	Poor official decision-making skills in a timely manner.	.894
b4	It is sufficient to accept the known traditional solutions and do not present new alternatives.	.904
b5	Avoid individual action in decision-making.	.909
Cronbach's alpha value for the scale as a whole.		.925
<b>Reliability test for decision taking</b>		
b10	Choosing the right solution to problems at the right time.	.716
b11	The decision is taken objectively and scientifically, without personal considerations.	.823
b12	The data and information necessary to make an effective decision is collected.	.709
Cronbach's alpha value for the scale as a whole.		.819

### 3.6 Measurement model :

The standard model of the study was built to assess the relationship between those variables, and their ability and validity to design the proposed model. Figure 8 shows the measurement model of the study.

After the process of linking standard errors of items, the results of the measurement model revealed the appropriateness of all factors and their proportionality with the indicators, as follows: The chi-square index ( $\chi^2$ ) recorded a value of 272.612 with degrees of freedom (df= 199) and the p- value (p) = 000. Standard chi-square ( $\chi^2/df$ ) = 1.37, root mean proximity errors (RMSEA) = .041, CFI = .97, Toka-Lewis index (TLI) = .97, Incremental fitness index (IFI) = .98.

On the other hand, the standard model was employed in evaluating the validity of convergence, which is required to achieve the correlation of the item with the factor greater than (60.), and the second condition that the mean of the extracted variance is greater than .50, and the last condition is that the composite reliability is greater than (60.) (Awang, 2015). Table 6 shows the results of the convergence viability test.

Figure (08): the measurement model of the study

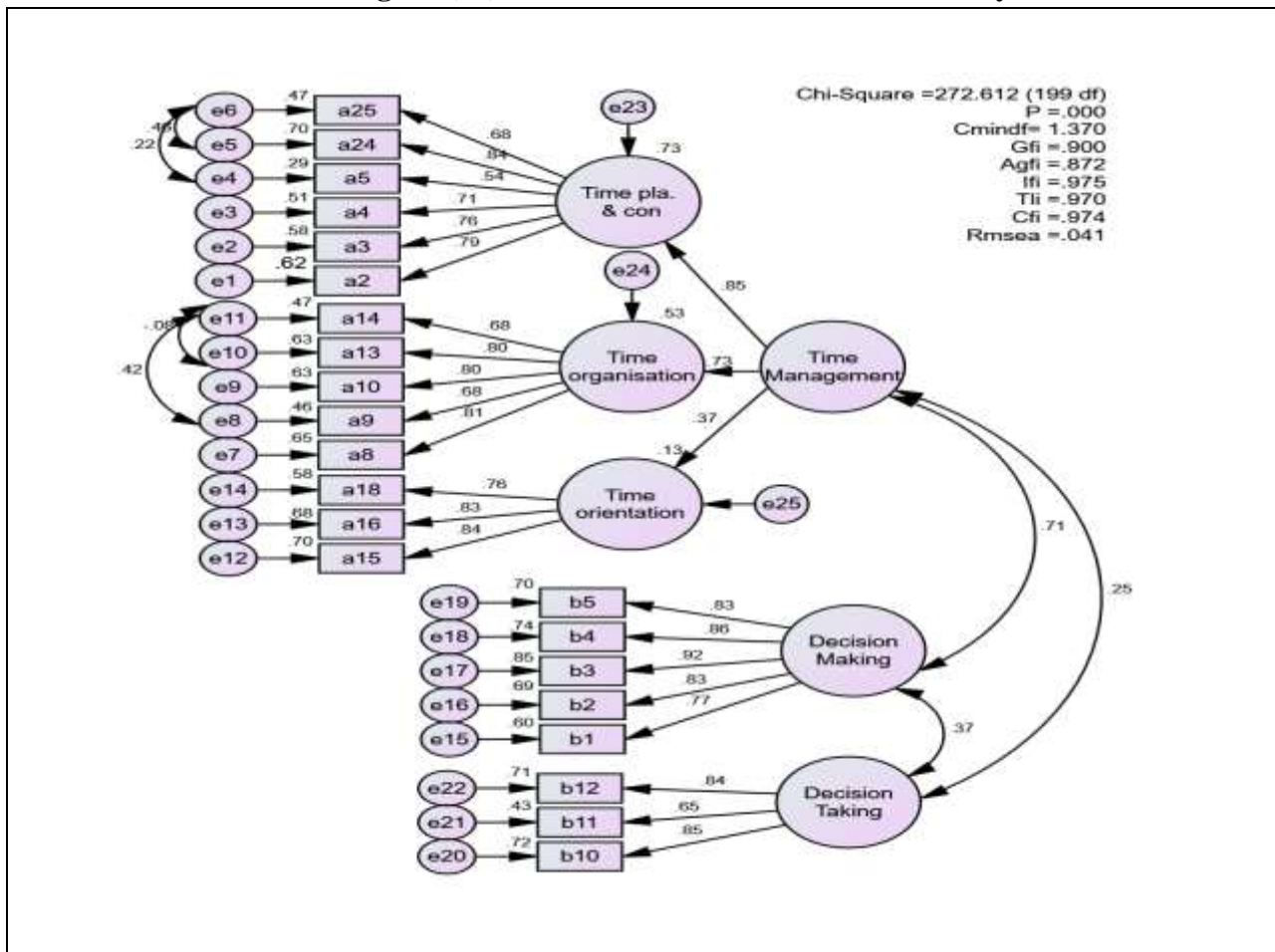


Table 5 summarises the convergent validity, where it displays factors loading, Composite Reliability (CR) is calculated from (<http://www.thestatisticalmind.com/composite-reliability>), and Average Variance Extracted (AVE) is obtained by the sum of the standard errors of the items in the factor divided by the number of those items. The table below provides evidence of convergent validity where, the CR values for time management, decision-making, and decision-taking constructs are greater than .50 and AVE values for each them exceeds .50. The CR and AVE requirements are referred to as reliability.

Table (05): Evidence of Convergent Validity for time management Construct

Construct	Factor	Item	Factor Loading	CR	Standard error	AVE
Time management	Time plan& con	a2	.79	.861	.62	.53
		a3	.71		.58	
		a4	.70		.51	
		a5	.54		.29	
		a24	.84		.70	
		a25	.68		.47	
	a8	.81	.869	.65	.57	

		a9	.68		.46	
		a10	.80		.63	
		a13	.80		.63	
		a14	.68		.47	
	Time orientation	a15	.84	.852	.70	.65
		a16	.83		.68	
		a18	.76		.58	
Decision making	-	b1	.77	.925	.60	.662
		b2	.83		.69	
		b3	.92		.85	
		b4	.86		.74	
		b5	.83		.70	
Decision taking	-	b10	.85	.827	.72	.620
		b11	.65		.43	
		b12	.84		.71	

For discriminant validity, two conditions should be met which are: a) Foreter and Larker’s criterion which refers to the Average Variance Extracted (AVE) is greater than Common Variance (CV); b) Composite Reliability (CR) greater than Average Variance Extracted (AVE). The discriminant validity is explained in Table 6.

**Table (06): Discriminant Validity using Foreter and Larker Criteria**

Construct	Time management	Decision making	Decision taking
Time management	<b>.75</b>		
Decision-making	.71	<b>.84</b>	
Decision-taking	.25	.37	<b>.78</b>

### 3.7 Structural Equation Model – Testing Hypotheses:

After supporting the measurement model via the indicators, which demonstrated the reliability and validity of the measurements used for analysis, and the ability of the proposed model to analyses and study the correlations among the structures, the next stage is to run a structural model in order to prove or refute the hypotheses. To test hypotheses of the study, two scenarios were used. First scenario was used to overall structural model in order to examine effects of time management on both decision making and decision taking. Second scenario is detailed structural model to test effects of dimensions of time management on decision making and decision taking.

The researcher used the Amos technology version 22 to implement the structural modeling and choose the direct relationships in the structural model of the study, where the quality of the structural model was tested through the appropriateness indicators shown in Figure 9. The results in the Figure shown below indicated the quality of the model and the validity of the data for analysis after linking a number of standard errors to the same factor, where ( $\chi^2/df$ ) index scored 1.41, which is a very suitable value as less than 2 (Hair et al., 2010).

Furthermore, the correlation between the standard errors led to the improvement of the model indicators, where the value of the CFI and the incremental fitness index (IFI) reached .97, while the Toka-Lewis index (TLI) reached .96, and (RMSEA) index recorded a value of .04. These numbers indicate the strength of the relationship between the factors studied in this study.

Figure (09): Overall Structural Model

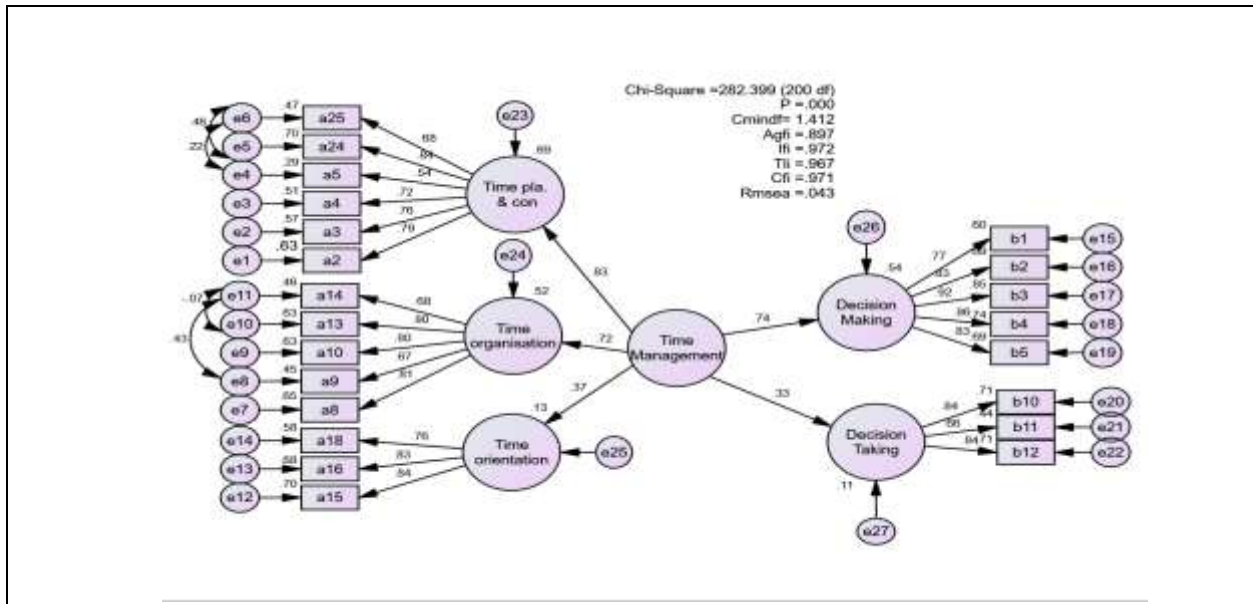


Table 7 displays the estimates to test the impact size, Critical Ratio (C.R), and significance to judge the acceptance or rejection of the hypothesis. The table indicates that the first and second mean hypotheses were supported. In other words, time management has positive effects on both decision making and decision making, where C.R. greater than 1.96, since its values were (7.12) and (3.87) respectively.

The findings of the analysis presented in the table show the extent to which exogenous constructs can predict the endogenous constructs, as well as the explanatory power of these constructs. Accordingly, time management contributes to improving decision making and decision taking by 74% and 33% respectively.

For explanatory power, The Squared Multiple Correlation (SMC) or ( $R^2$ ) of time management has impact size on decision making by .54. In other words, time management explains 54% of the variance in trust in decision-making. Similarly, 11% of variance in decision-taking is explained by management explains.

Table (07): Regression Weights of Overall Structural Model

Hypo.	Exgo.	Path	Endo.	Estimate	C.R.	P	Result
H1	Time management	- →	Decision making	.74	7.12	.000	Supported
H2	Time	- - →	Decision	.33	3.87	.000	Supported



	management		taking			
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To test the sub-hypotheses, a detailed analysis was conducted for the purpose of assessing the effects of exogenous constructs (time pla. & con., time organization, and time orientation) on endogenous constructs which are decision-making and decision-taking.

Figure 8 shows that all fitness indices were achieved, where  $\chi^2$  was 263.790, df was 195,  $\chi^2/df = 1.35$ , CFI reached .97, RMSEA reached .040, p-value was .000, and CMIN/DF was 1.40. Moreover, the correlations among sub-endogenous constructs were less than .85, meaning the collinearity was not violated.

Figure (10): Detailed Structural Model

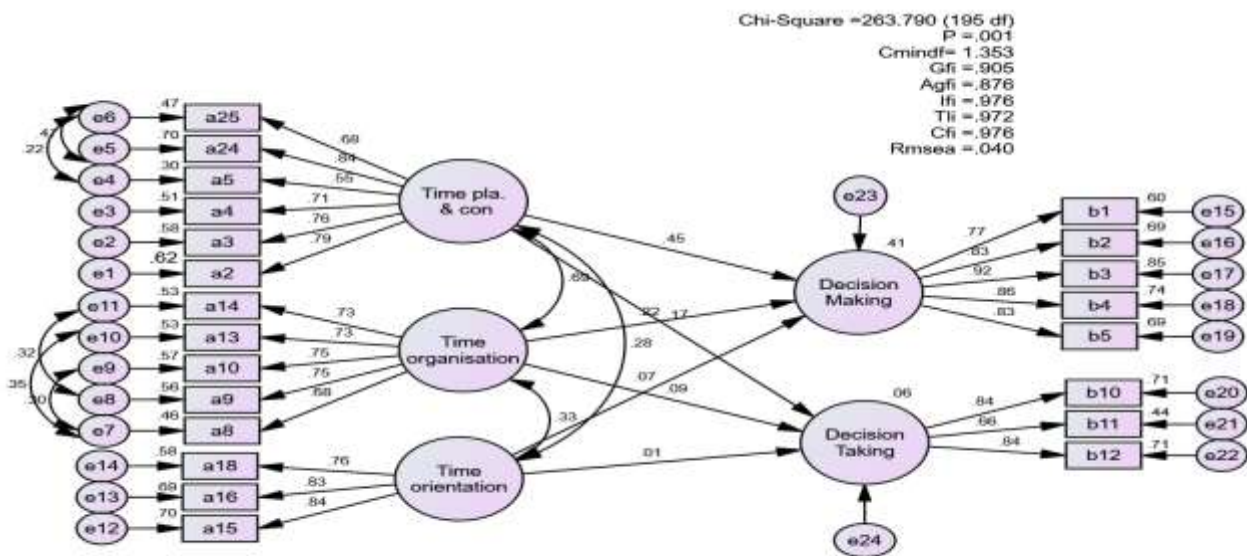


Table 8 provides the estimates to test the effect sizes of sub-exogenous constructs on endogenous constructs. The results of the detailed structural model analysis indicated that two of the six sub-hypotheses were accepted. The two accepted sub-hypotheses are (H1a), which states that time planning and management influence decision-making. Furthermore, (H1b), which states that time organisation influences on decision-making, where p-values for the relationships of the (H1a) and (H1b) were significant. In contrast, there is no statistical evidence for the significance of the rest of the sub-hypotheses.

Table (08): Regression Weights of Detailed Structural Model

Path	Estimate	S.E.	C.R.	P
Time pla & con → Decision making	.45	.140	4.42	.000
Time pla & con → Decision taking	.17	.135	1.42	.155
Time organisation → Decision making	.22	.144	2.11	.035
Time organisation → Decision taking	.09	.143	.68	.497
Time orientation → Decision making	.01	.073	1.04	.296
Time orientation → Decision taking	.07	.074	.130	.896

#### 4. Conclusion:

The study aimed to test the impact of time management on both decision-making and decision-taking. The Cronbach's alpha and measurement model proved the reliability and convergent and discriminant validity of the study scales.

EFA was carried out in order to extract the factors. For time management, the results of the analysis combined time planning and time control into one factor. The other two factors are time organisation and time orientation. Thus, time management included three factors, while decision-making and decision-making were carried, each of them included one factor.

The findings of overall structural model appeared that time management affects decision-making more than (Sekaran & Bougie, 2016) its impact on decision-taking. On the other hand, detailed structural model reported that the dimension of planning and controlling time, as well as, the dimension of time organisation have an impact on decision-making, but they did not affect decision-taking. Moreover, empirical evidence does not support the finding of an effect of time orientation on both decision-making and decision-taking.

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