



## The Relationship between Organizational Structure and Organizational Agility

Shymaa Gamal wahba<sup>1</sup>, Gehan Mohamed Mostafa<sup>2</sup> and Aliaa Ezz Eldin Abd-Elmoaty<sup>3</sup>

1-M.Sc. Nursing, Faculty of Nursing Zagazig University, Cairo, Egypt,

2- Professor of Nursing Administration Faculty of Nursing, Helwan University, Cairo, Egypt,

3- Lecturer of Nursing Administration Faculty of Nursing, Helwan University, Cairo, Egypt.

### Abstract

**Background:** Organizations realize the importance of being quick and responsive, but many do not have the right structure to do so, the flexible structure is the best for practicing agility. **Design:** A descriptive – correlational research design was used in the current study. **Setting :** the study was conducted at Public Chest hospital at Zagazig which affiliated to Ministry of Health in Egypt. **Subjects:** A convenience sample of nurses were included (N=70). **Data collection tools:** Two tools were used for data collection. 1st Tool: Organizational structure scale. 2nd Tool: Organizational Agility Questionnaire. **Results:** More than half and two-third of the studied nursing personnel have a high level of organizational structure and organizational agility respectively. **Conclusion:** The study concluded that, there was a highly statistically significant positive strong correlation between organizational structure and organizational agility among the studied nursing personnel. **Recommendations:** Improving flexibility through decentralization and adopting flexible structures. Utilizing flexible service support systems to adapt with changeable conditions to order policy insurances.

---

**Keywords:** *Organizational Agility; Organizational Structure; and Nursing Personnel*

### Introduction

Change is a fact that occurs all the time in every part of the world where people live. Explicitly, the continuous changes in customers' requests and needs forces supervisors and managers of organizations to continually adjust to variations to keep their organizations in a highly competitive condition. They look for new arrangements and solutions to manage and endure their firms in challenging, dynamic, and changing business circumstances. For this reason, managers concentrated on adaptation of different structures, flexibility and on organizational agility (Ahmed, & Badawy, 2024).

An organizational structure is a vital element for any organization's success. It helps to define roles, responsibilities, and reporting relationships, creating a framework for effective decision-making and communication. It involves the division of tasks, coordination of activities, and allocation of resources across different levels of hierarchy. Organizational structure also impacts the healthcare setting's culture and performance. A well-designed structure can promote collaboration,



communication, and innovation, while a poorly designed structure can lead to confusion, inefficiency, and conflict. Therefore, it is essential for healthcare settings to regularly review and optimize their organizational structure to ensure that it aligns with their goals and promotes success (*Gomathy, et al., 2023*).

Organizational agility is the ability to rapidly sense, act and adapt to environmental changes while maintaining operational robustness, organization agility is increasingly recognized as a critical determinant of sustainable competitive advantage. The concept of organizational agility originated in the domain of manufacturing as a response to the limitations of lean systems in the face of demand unpredictability and the need for rapid product innovation (*Motwani, & Katatria, 2024*).

Organizational agility represents an ability to respond and create value and competitive advantage in the midst of unpredictable changes. Agile organizations can achieve conditions that promote learning, since agility has been recognized as the key to sustaining the market and recovering knowledge for application in high- quality development. So, through their workforce and the use of agile methods, organizations aim to optimize the time taken to develop and allocate new features (*Franco, et al., 2023*).

Organizations realize the importance of being quick and responsive, but many do not have the right structure to do so. The flexible structure is the best for practicing agility. Flexible structure allows the organizations to make quick decisions and distribute authority when possible, and it activates the collaboration between the organizations' members. Organizational structure shapes the resources and organizational capabilities and develops them (*Darweesh, 2023*).

### **Significance of the Study**

Organizational structure plays an important role in the success of the health care organization through setting up and defining the duties of each department and to determine each department's objectives and contribute to the overall organization's performance and objectives (*Nene, & Pillay, 2019*).

Organizational agility enables organizations to adapt to an environment that is always changing, so it is very useful to health care sector because it is helping the organization responding quickly to unpredictable and continual changes in the environment, which enables organizations to continue to grow and develop in a competitive environment (*Hussein, et. al, 2022*).

Several studies which were carried in Africa that aims to explore the impact of organizational structure on organizational agility found that about **77%** of organization indicate that organizational structure significantly predicted organizational agility and the study recommends that management of organizations should emphasis organizational agility when redesigning the structure of organizations as these will enhance the ability of the organization to respond to changes taking place in its environment (*Ejiroghene, 2021*).

The significance placed on that healthcare organizations need the agile factor that enable organization to lead change positively in the way to perform assigned duties perfectly to keep up with updates and development which inspired by changes in the healthcare fields all over the world, so this study will be done to assess the relationship between organizational structure and organizational agility and show how we can adapt quickly to the changes in surrounding environment through agile and flexible structure that improves the work quality and achieves the organizational agility which impact positively in the performance of nurses that achieve the main and critical goal which is the patient safety and high quality of care delivered.

### **Aim of the study**

The aim of this study was to assess the relationship between organizational structure and organizational agility.

**Research question:**

Is there a relationship between organizational structure and organizational agility?

**Subjects and Methods****Technical design:**

The technical design includes: research design, setting, subjects, tools of data collection, validity of the tools, reliability and ethical considerations.

**Research design:**

A descriptive – correlational research design was used in the current study.

**Setting:**

This study was conducted at Public Chest hospital at Zagazig which affiliated to Ministry of Health in Egypt. The Public Chest hospital contains (2) building, (97) beds, and number of nursing personnel is (110) nurse.

**It consists of two buildings:****Building (1)** consists of:

- **Ground floor** contains emergency unit (9 beds), CPR room (1bed), emergency pharmacy, radiology unit, laboratory unit, sterilization unit, archives room, employees' affairs room, director room, kitchen room, supplies store room, (4) pharmacies.
- **First floor** contains nursing director room, quality team room, infection control team room, Occupational Health and Safety team room, The Technical Office room, Intensive care for chest diseases (14 beds), Intermediate care for chest diseases (16 beds), Intensive care for tuberculosis (3 beds), Intensive care for corona (4 beds), Chest diseases ward A (11 beds).
- **Second floor** contains pharmacy, Chest diseases ward B (18 beds), Tuberculosis ward (19 beds), Sleep disorders unit (2 beds).

**Building (2)** (outpatient\_building) consists of:

- **Ground floor** contains (7) clinics, ticking room, laboratory room, (2) pharmacies.
- **First floor** contains (2) clinics, Maintenance Technicians room.

**Subjects:**

Convenience sample of nursing personnel was included at the time of this study (N=70).

**Inclusion criteria:**

All available nursing personnel (nursing director, nursing supervisor, head nurse and charge nurse) who have more than one year of work experience were included.

**Tools for data collection:**

Two tools were used for data collection.



### 1<sup>st</sup> Tool: Organizational structure scale

This tool was developed by (*Erol & Ordu, 2018*) and was modified by the researcher based on literature review (*Gomathy, et al., 2023*) & (*Hussein, et al., 2022*) & (*Albert, 2023*).

It was consisted of two parts:

#### Part 1: Demographic Data of nursing personnel.

(Age, gender, hospital department, educational qualifications and years of experience)

#### Part 2: Organizational structure scale:

It was consisted of the following four dimensions: (a) Complexity (9 items), (b) Centralization (6 items), (c) Formalization (6 items), and (d) Stratification (6 items). This tool was measured based on three options provided against each statement ranging from (agree) =3, (neutral) =2, (disagree) =1 for each question.

#### Scoring system:

The Organizational structure scale (OSS) scoring system ranged from (27- 81), it was calculated based on three levels as following:

- Low level (27- >45) → → (<55%)
- Moderate level (<45 - >63) → → (55 %-< 77%)
- High level (<63 - 81) → → (>77%)

### 2<sup>nd</sup> Tool: Organizational Agility Questionnaire

This tool was developed by (*Wendler& Dresden, 2014*) and was modified by the researcher based on literature review (*Basiony & Ibrahim, 2023*) & (*Mahmoud, et al.,2022*) & (*Sajuyigbe, et al., 2023*) to measure Organizational agility from the beliefs and actions of nursing personnel in the selected setting.

It was consisted of two parts:

#### Part 1: Demographic Data of nursing personnel.

(Age, gender, hospital department, educational qualifications and years of experience)

#### Part 2: Organizational agility questionnaire:

It was consisted of the following six dimensions: (a) Agile Values (7 items), (b) Technology (6 items), (c) Workforce (11 items), (d) Management of Change (7 items), (e) Collaboration and Cooperation (9 items), and (f) Flexible Structures (5 items).

This tool was measured based on three options provided against each statement ranging from (agree) =3, (neutral) =2, (disagree) =1 for each question.

#### Scoring system:

The Organizational agility questionnaire (OAQ) scoring system ranged from (45 – 135) it was calculated according to three levels as following:

- Low level (45 - <75) → → (<55%)



- **Moderate level** (>75 - >105) → → (55 %-< 77%)
- **High level** (<105 -135) → → (>77%)

#### **Validity of the tools:**

The tools were formulated, translated into Arabic and submitted to five experts specialized in nursing administration at faculty of nursing (Zagazig university) to assess the face and content validity and translation through an opinionnaire sheet. Accordingly, the necessary modifications were done.

#### **Reliability of the tools:**

Reliability for the utilized tools was tested to determine the extent to which the items of the tools are inter-correlated to each other. The Cronbach's alpha model is one of the most popular reliability statistics in use today and considered as a model of internal consistency that is used to estimate reliability of test scores. The statistical equation of Cronbach's alpha reliability coefficient normally ranges between 0-1, (*Malkewitz et al., 2023*).

#### **Ethical Considerations:**

The research approval was obtained from the Ethical Committee of faculty of nursing, Helwan University before starting the study, the researcher assured anonymity and confidentiality of the collected data, which was used by the researcher for the purpose of scientific research. The subjects were informed that they were allowed to choose to participate or not in the study and individual oral consent was also obtained from each nursing personnel who participate in the study. Also, they have the right to withdraw from the study at any time, ethics, values, culture, and beliefs were respected, and study subjects were informed about research purpose.

#### **Operational Design:**

It included preparatory phase, pilot study and field work.

#### **Preparatory phase:**

It included reviewing of past, current, national and international related literature and theoretical knowledge of various aspects of the study using books, articles, internet, periodicals and magazines to develop tools for data collection.

#### **Pilot study:**

The pilot study was carried out after translation of the tools and before starting the actual data collection. It was done to confirm understanding, clarity and applicability of study tools, and to determine required time to fulfill them (15-20) minutes for the first tool and (20-30) minutes for the second one. The pilot study was carried out on 10% (7 nurses) of the total sample size, (70 nurses), those participants were included from the main study sample as no modifications were done.

#### **Field work:**

The actual field work started at the beginning of January 2024 and was completed by beginning of march 2024. The researcher obtained the approval from the director of selected hospital. the oral consent was taken from each study subjects and the researcher explain the aim of the study to gain her\ his approval for data collection, the researcher went to the selected hospital **2 days/ week (for 6 hour / day)** from (8:30 AM to 2:30 pm) and collected data by herself through meeting each nursing

personnel, explaining the aim of study and method for fulfilling questionnaire. The researcher was present all the time during fulfilling the study tools to answer any questions. The researcher checked the completeness of each filled sheet to ensure the absence of any missing data.

**Administrative design:**

An official written letter was addressed to the manager of selected setting that included explaining the aim and objective of this study.

**Statistical analysis:**

Data entry and analysis were performed using SPSS statistical package version 26. Categorical variables were expressed as number and percentage while continuous variables were expressed as (mean ±SD). Moreover, weight mean is a type of mean which provides a more accurate representation of the data and allows for a more comprehensive analysis to rank variables of both structure and organizational agility. The P value is set at 0.05. Descriptive statistics tests as numbers, percentage, mean ± standard deviation (± SD) is used to describe the results. Appropriate inferential statistics used as well. Chi-Square (x<sup>2</sup>) in one sample used to compare differences between levels of organizational structure as well as organizational agility among the studied nursing personnel. Crosstab Chi-Square (x<sup>2</sup>) was used to test the association between row and column variable of qualitative data. ANOVA test was used to compare mean in normally distributed quantitative variables at more than two groups. Pearson correlation was done to measure correlation between quantitative variables. For all tests, a two-tailed p-value ≤ 0.05 was considered statistically significant, P-value ≤ 0.01 was considered highly statistically significant. While p-value > 0.05 was considered not significant.

**Results:**

*Table (1): Percentage distribution of demographic data of the studied nursing personnel (n= 70).*

Personal data		No	%
Age (year)	▪ 20 < 30 Yrs.	37	<b>52.9</b>
	▪ 30 < 40 Yrs.	20	28.6
	▪ 40 < 50 Yrs.	12	17.1
	▪ 50 < 60 Yrs.	1	1.4
	▪ <b>Mean ± SD</b>	<b>31.90 ± 7.48</b>	
Hospital department	▪ ICU for chest disease	16	<b>22.9</b>
	▪ Intermediated ICU for chest	10	14.3
	▪ ICU of tuberculosis	2	<b>2.9</b>
	▪ ICU of corona	6	8.6
	▪ Chest disease ward A	7	10.0
	▪ Chest disease ward B	8	11.4
	▪ Tuberculosis ward	3	4.3
	▪ Sleep disorder unit	4	5.6
	▪ Clinics (outpatient clinics)	7	10.0
	▪ Emergency	7	10.0
Years of Experience	▪ 1 < 5 Yrs.	30	<b>42.9</b>



<b>in nursing</b>	▪ 5 < 10 Yrs.	19	27.1
	▪ 10 < 20 Yrs.	10	14.3
	▪ ≥ 20 years.	11	15.7
	▪ <b>Mean ± SD</b>	<b>9.60 ± 7.84</b>	
<b>Qualification</b>	▪ Diploma	9	12.9
	▪ Technical institute	25	35.7
	▪ Bachelor	35	50.0
	▪ Master	1	1.4
<b>Current position</b>	▪ Director	1	1.4
	▪ Supervisor	9	12.9
	▪ Head nurse	19	27.1
	▪ Charge nurse	41	58.6

**Table (1)** showed that more than half (**52.9%**) of the age of them was ranged from **20 < 30** years old, with a mean age of **31.90 ± 7.48**. Additionally, more than fifths (**22.9%**) of them working in ICU for chest disease while only (**2.9%**) of them working at ICU of tuberculosis. Regarding years of experience in nursing, more than two-fifths (**42.9%**) of them were had experience in nursing field ranged from **1 < 5** years with a total mean of **9.60 ± 7.84**.

**Table (2):** Total mean score of organizational structure as perceived by the studied nursing personnel (n= 70).

<b>Organizational structures:</b>	<b>Min</b>	<b>Max</b>	<b><math>\bar{x} \pm SD</math></b>	<b><math>\bar{x}_w \pm SD</math></b>	<b>Rank</b>	<b>F Test</b>	<b>P value</b>
Complexity	12	27	21.61 ± 4.19	2.40 ± 0.46	1 <sup>st</sup>		
Centralization	6	18	13.41 ± 3.35	2.23 ± 0.55	4 <sup>th</sup>		
Formalization	6	18	13.44 ± 2.86	2.24 ± 0.47	3 <sup>rd</sup>		
Stratification	6	18	13.67 ± 3.03	2.27 ± 0.50	2 <sup>nd</sup>		
<b>Total</b>	<b>30</b>	<b>81</b>	<b>62.14 ± 13.18</b>	<b>2.28 ± 0.49</b>	<b>-</b>	<b>2.21</b>	<b>0.087</b>

Significant  $p \leq 0.05$

F: ANOVA Test

\*\*Highly significant  $p \leq 0.01$

1: Strongly Disagree

2: Neutral

3: Agree

**Table (2):** represented that the total mean score of organizational structure among the studied nursing personnel is  $\bar{x} \pm SD = 62.14 \pm 13.18$ . Additionally, complexity gained the higher weight mean (**2.40 ± 0.46**) ranked as the first dimensions of **organizational structure**. While centralization gained the lower weight mean (**2.23 ± 0.55**) and ranked as the last dimensions of **organizational structure**. In addition to the presence of a highly statistically significant difference between the total mean scores of **organizational structure**, at **P = 0.000**.

**Table (3):** Total mean  $\pm$ SD score of organizational agility as perceived by the studied nursing personnel (n= 70)

Organizational agility:	Min	Max	$\bar{x} \pm SD$	$\bar{x}_w \pm SD$	Rank	F Test	P value
Agile values	7	21	16.26 $\pm$ 3.38	2.32 $\pm$ 0.48	4 <sup>th</sup>	21.9	0.000**
Technology	6	18	13.57 $\pm$ 3.02	2.26 $\pm$ 0.50	5 <sup>th</sup>		
Workforce	18	33	29.76 $\pm$ 4.18	2.70 $\pm$ 0.38	1 <sup>st</sup>		
Management of change	7	21	15.04 $\pm$ 3.39	2.14 $\pm$ 0.48	6 <sup>th</sup>		
Collaboration and cooperation	16	27	23.80 $\pm$ 2.94	2.64 $\pm$ 0.33	3 <sup>rd</sup>		
Flexible structures	8	15	13.36 $\pm$ 1.85	2.67 $\pm$ 0.36	2 <sup>nd</sup>		
<b>Total</b>	<b>60</b>	<b>135</b>	<b>111.76 <math>\pm</math> 18.2</b>	<b>2.45 <math>\pm</math> 0.41</b>	<b>-</b>		

\*Significant  $p \leq 0.05$

F: ANOVA Test

\*\*Highly significant  $p \leq 0.01$

1: Strongly Disagree

2: Neutral

3: Agree

**Table (3):** represented that the total mean score of organizational agility among them is  $\bar{x} \pm SD = 111.76 \pm 18.2$  (Total score is 135). Additionally, workforce gained the higher weight mean  $\pm$ SD (2.70  $\pm$  0.38) ranked as the first dimension of **organizational agility**. While management of Change gained the lower weight mean  $\pm$ SD (2.14  $\pm$  0.48) and ranked as the last dimension of **organizational agility**. In addition to the presence of a highly statistically significant difference between the total mean scores of different dimensions of **organizational agility**, at **P = 0.000**.

**Table (4):** Correlation between the dimensions of organizational structure and dimensions of organizational agility as perceived by the studied nursing personnel (n= 70).

Organizational agility		Organizational structure			
		Complexity	Centralization	Formalization	Stratification
Agile Values	R	0.953	0.940	0.940	0.926
	P	0.000**	0.000**	0.000**	0.000**
Technology	R	0.952	0.949	0.948	0.921
	P	0.000**	0.000**	0.000**	0.000**
Workforce	R	0.892	0.879	0.883	0.886
	P	0.000**	0.000**	0.000**	0.000**
Management of Change	R	0.927	0.952	0.962	0.916
	P	0.000**	0.000**	0.000**	0.000**
Collaboration & Cooperation	R	0.977	0.961	0.949	0.904
	P	0.000**	0.000**	0.000**	0.000**
Flexible Structures	R	0.943	0.919	0.915	0.864
	P	0.000**	0.000**	0.000**	0.000**

\*Significant  $p \leq 0.05$

\*\*Highly significant  $p \leq 0.01$

**Table (4):** represented that there was a highly statistically significant positive strong correlation between the dimensions of organizational structure (complexity, centralization, formalization & stratification) and dimensions of organizational agility (agile values, technology,



workforce, management of change, collaboration & cooperation, and flexible structures) as perceived by the studied nursing personnel at r ranged from (0.879 to 0.977) & p = 0.000

**Table (5):** Linear regression analysis of organizational structure effect on organizational agility as perceived by the studied nursing personnel (n= 70).

Model	Unstandardize d coefficients		Standardize d coefficients	T Test	P Value	R	r Square	F	P Value
	$\beta$	Std. Error	Beta						
<b>Organizational structure</b>	<b>1.35</b>	0.034	0.980	40.2	0.000	0.980	0.960	1617	0.000**
<b>a. Dependent variable: Total score of organizational agility</b>									
<b>b. predictors (constant): Total score of organizational structure</b>									

**Table (5)** showed linear regression analysis of organizational structure effect on organizational agility as perceived by the studied nursing personnel. Linear regression analysis was conducted to empirically determine whether organizational structure was a significant determinant of organizational agility as perceived by the studied nursing personnel. Regression results indicate the goodness of fit for the regression between of organizational structure and organizational agility, was excellence. Additionally, F statistic of (1617) indicated that the overall regression model was highly significant (P = 0.000). Moreover, regression coefficients, revealed that independent variable (Total score of organizational structure) is a positive predictor factor of organizational agility among the studied nursing personnel. As  $\beta = (1.35)$  indicates that the increase in organizational structure by one standardized point score is associated with an increase in organizational agility by (1.35) standardized point score.

**Discussion**

The current study discussed that regarding the age of the studied nursing personnel; more than half was ranged between twenty to less than thirty years old and more than fifths of them working in ICU for chest disease while only of them working at ICU of tuberculosis while considering years of experience in nursing more than two-fifths of them were had experience in nursing field ranged between one to less than five years and half them holding a Bachelor degree of Nursing certificate while more than half of them were charge nurse.

The current results were contradicted with (*Ejiroghene, 2021*) in the study titled (Organizational Structure as Predictor of Agility in Organizations in Nigeria) who stated that regarding the age of the participants in this study; more than half was ranged between thirty to less than forty years old and more than half of them holding a Bachelor degree certificate while more than half of them had worked in their organization for a period between one to ten years.

The current results were agreed that nearly three-fifths of studied nursing personnel perceived a high level of organizational structures regarding complexity.



Regarding researcher point of view, these findings were due to that the hospital structure was highly formalized and less complicated so, the nurses participated in activities regarding their professional development, involved in activities outside work hours and belong to professional associations related to their field.

These results were consistent with (*Sharma & Pallin, 2021*) in the study titled (Structural Impact on Relational Coordination and Organizational Learning: A Study of Norwegian Organizations) who indicated that the organizational structures that are less complicated allows employees across the departments or the same sector to communicate and share information/resources easily coordinate effectively by having common shared goals and knowledge.

The ongoing study revealed that more than two-fifths of the studied nursing personnel perceived a high level of organizational structures regarding formalization, with presence of a highly statistically significant difference between levels of organizational structure regarding formalization dimension as perceived by the studied nursing personnel.

Regarding researcher point of view, these findings were due to the hospital was highly formalized and centralized and the nurses in the hospital not afraid from sharing their opinions and decisions while they respected all decisions their director take them.

This study was consistent with (*Sharma & Pallin, 2021*) in the study titled (Structural Impact on Relational Coordination and Organizational Learning: A Study of Norwegian Organizations) who indicated that the organizational structures that are highly formalized and less centralized, are more likely to develop positive relational coordination through shared goals, shared knowledge, mutual respect, and communication to facilitate organizational learning and the formalized structure allows employees across the departments or the same sector to communicate effectively by having common shared goals and knowledge.

The current results found that there was a highly statistically significant difference between the total mean scores of organizational structures. These results were consistent with (*Ejiroghene, 2021*) in the study titled (Organizational Structure as Predictor of Agility in Organizations in Nigeria) who showed that there was a highly significant difference between the total dimensions of organizational structure.

The current study demonstrated that there is a presence of a highly statistically significant difference between levels of organizational structure regarding complexity, centralization and formalization and stratification dimensions as perceived the studied nursing personnel.

While the results of (*Zadeh, et al., 2020*) in the study titled (The Effect of Organizational Structure Dimensions on the Spirituality in the Workplace) revealed that formalization has a significant effect that increases the organization formalization which lead to increasing in the stratification at the workplace; also, lesser formalization in the organization reduces meaningful work, and there was a significant positive relationship was observed among formalization, complexity and stratification in the workplace, but no relationship between centralization and stratification in workplace could be demonstrated.

The ongoing study revealed that more than three quarters of the studied nursing personnel have high organizational agility regarding management of change. These findings were consistent with (*Hussein, at. el, 2022*) in the study titled (Organizational Agility: The Pathway to Job Enrichment



among Nurses) who revealed that two thirds the studied nurses had moderate organizational agility regarding management of change.

The current study stated that it describes that one half of the studied nursing personnel have a high level of organizational agility prerequisites regarding technology.

Regarding researcher point of view, these findings were due to the hospital is striving to convert all systems to digital systems and use computers to record data to prevent loss and facilitate access to it at any time.

On the same line (*Zhang, at. el, 2023*) in the study titled (How Organizational Agility Promotes Digital Transformation: An Empirical Study) stated that two thirds of employees have a high level of organizational agility regarding technology which can improve the efficiency of service delivery and innovation through digital technology. This is very helpful for governments' working with other organizations and departments in the digital transformation process which make the organization more agile.

In accordance to the current study the results indicated that four-fifths of the studied nursing personnel perceived a high level of organizational agility of people regarding workforce, with presence of a highly statistically significant difference between levels of organizational agility of people dimension regarding workforce as perceived by the studied nursing personnel.

From the researchers' point of view, this is due to that adaptive behavior on workforce agility can be reconfigured quickly and easily in response to change conditions. Also, staff nurses need training programs about workforce agility and how to respond to circumstances proactively instead of merely adapting to changes or show resilient behavior. Moreover, work overload and stress could be obstacles facing staff nurses as they have no time to be proactive and plan to changes.

This results were consistent with (*El-Sayed, at. el, 2022*) in the study titled (The Relationship between Workforce Agility and Staff Nurses' Innovative Work Behavior at Critical Care Units) who stated that slightly more than half of staff nurses had high level of workforce agility. Meanwhile there was a highly significant difference between levels of organizational agility regarding workforce as perceived by the studied subjects.

The results of the current study displayed that more than three quarters of the studied nursing personnel perceived a high level of organizational structures enhancing agility regarding collaboration and cooperation with presence of a highly statistically significant difference between levels of organizational structures regarding collaboration and cooperation as perceived by the studied nursing personnel.

These findings were consistent with (*Sharma & Pallin, 2021*) in the study titled (Structural Impact on Relational Coordination and Organizational Learning: A Study of Norwegian Organizations) who revealed that there was a high level of cooperation and coordination between respondents which allows the organizational team members to build trust and create ownership and commitment to the tasks. It provides opportunities for the employees to learn from their co-workers and increasing relational coordination. Furthermore, to facilitate the social interaction between the members, knowledge workers, experience or expertise.

The current study described that more than three quarters of studied nursing personnel perceived a high level of organizational flexible structures enhancing agility with presence of a highly statistically



significant difference between levels of organizational structures as perceived by the studied nursing personnel.

Regarding researcher point of view, with a good organizational structure, flexibility in procedures, decision-making and teamwork, and providing all means leading to achieving success, a state of high morale, self-confidence and innovation is created, and the provision of support from superiors to subordinates is an important matter in achieving goals.

This study was in harmony with (*Helmiatin, et al., 2022*) in the study titled (Workplace Flexibility Research 2015-2020: Future Research) stated that a high level of flexible workplace plays a significant role in increasing flexibility in work arrangements. The findings show a significant and positive relationship between flexible environment and workplace performance.

The study results demonstrated that there was a highly statistically significant positive strong correlation between organizational structure and organizational agility as perceived by the studied nursing personnel while in the same line the study of (*Ejiroghene, 2021*) in the study titled (Organizational Structure as Predictor of Agility in Organizations in Nigeria) who agreed with this results and indicated that organizational structure was a strong predictor of organizational agility.

### **I. Conclusion**

Based on the study findings about the relationship between organizational structure and organizational agility among nursing personnel, it was concluded that, there was a highly statistically significant positive correlation between organizational structure and organizational agility which answered the research question.

### **II. Recommendations**

Based on the study findings, the following recommendations are suggested in order to promote nursing personnel awareness about the relationship between organizational structure and organizational agility.

Hospital needs to:

- Create a supportive environment where nursing personnel feel safe to propose and try new ideas related to organizational agility.
- Encourage collaboration between nursing personnel and other departments to foster a broader understanding of organizational agility.
- Design flexible organizational structures that can adapt quickly to changes and improve responsiveness.

Nursing personnel need to:

- Ensure greater delegation of authority and use of training and education as critical learning tools to enhance the human resource capability of a strategically agile organization.
- Participate in events such as team buildings and trainings organized by hospital in order to enhance agility.
- Encourage nursing personnel to be proactive in the workplace.

Further studies:

- The study should be conducted in different healthcare units and settings with a large sample size to generalize the results.



## References

1. **Ahmed, A. A., & Badawy, S. M. (2024).** Influence of Leadership Agility and Organizational Innovation on Organizational Performance. *Journal of the Higher Institute for specific Studies - Giza*, 4(5), 1543-1577.
2. **Albert, D. (2023).** What do you mean by organizational structure? Acknowledging and harmonizing differences and commonalities in three prominent perspectives. *Journal of Organization Design (2024)*, (13), 1–11.
3. **Basiony, B. M., & Ibrahim, F. F. E. (2023).** Organizational Agility and its Relation with Nursing Manpower Teamwork Attitude at Beni-Suef University Hospital. *Assiut Scientific Nursing Journal*, 11(34), 373 – 383.
4. **Darweesh, R., & Abuareish, M. (2023).** How does organizational structure impact the relationship between organizational agility and customer satisfaction? *Journal of Economics Business and Organization Research*, 5(2), 88-109.
5. **Ejiroghene, A. E. (2021).** Organizational structure as predictor of Agility in organizations in Nigeria. *Himalayan journal of economics and business management*, 2(3), 92-97.
6. **El-Sayed, N. M., Abdel-Azeem, A. M., & zaki, A. K. A. (2022).** The Relationship between Workforce Agility and Staff Nurses' Innovative Work Behavior at Critical Care Units. *Egyptian Journal of Health Care*, 13(3), 560-573.
7. **Erol, E., & Ordu, A. (2018).** Organizational Structure Scale – University Version. *European Journal of Educational Research*, 7(4), 775-803.
8. **Franco, M., Guimarães, J., & Rodrigues, M. (2023).** Organizational agility: systematic literature review and future research agenda. *KNOWLEDGE MANAGEMENT RESEARCH & PRACTICE*, 21(6), 1021–1038.
9. **Gomathy, C. K., Dharshini, S., Chowdary, U. S., & Sai, V. B. (2023).** A STUDY ON ORGANIZATION STRUCTURE AND DESIGN. *International Journal of Scientific Research in Engineering and Management (IJSREM)*, 7(5), 1-11.
10. **Helmiatin, Sawitri, H. S. R., & Vu, N. T. (2022).** Workplace Flexibility Research 2015-2020: A Challenge for Future Research. *Jurnal Analisis Bisnis Ekonomi*, 20(1), 75-92.
11. **Hussein, N. H. Y., El-Shahat, M. M., & Mohamed, N. A. A. (2022).** Organizational Agility: The Pathway to Job Enrichment among Nurses. *Egyptian Journal of Health Care*, 13(3), 529-540.
12. **Mahmoud, G. M. K., El-Sabahy, H. E., & Kassem, A. H. (2022).** Organizational Agility and Teamwork as Perceived by Nursing Staff at Main Mansoura University Hospital. *Mansoura Nursing Journal (MNJ)*, 9(2), 237-249.
13. **Malkewitz, C. P., Schwall, P., Meesters, C., & Hardt, J. (2023).** Estimating reliability: A comparison of Cronbach's  $\alpha$ , McDonald's  $\omega$ t and the greatest lower bound. *Social Sciences & Humanities Open*, 7(1), 100-368.
14. **Motwani, J., & Katatria, A. (2024).** Organization agility: a literature review and research agenda. *International Journal of Productivity and Performance Management*, 73(11), 1-46.
15. **Nene, S. W., & Pillay, A. S. (2019).** An investigation of the impact of organizational structure on organizational performance. *Financial Risk and Management Reviews*. 5(1), 10-24.
16. **Sajuyigbe, A. S., Ayeni, A., ENIOLA, A. A., & Obi, N. J. (2023).** Employee Relationship Management and Organizational Agility: Mediating Role of Employee Empowerment in



Consumer Goods Sector. *Journal of Evolutionary Studies in Business*, 8(2), 50-76.  
*Management Studies*,9(4), 16-24.

17. **Sharma, S., & Pallin, S. (2021).** Structural Impact on Relational Coordination and Organizational Learning: A Study of Norwegian Organizations (Master's thesis, NTNU).
18. **Wendler, R., & Dresden, T. (2014).** Development of the Organizational Agility Maturity Model. *Computer Science and Information Systems*, 2, 1197-1206.
19. **Zadeh, E. J., Nosratabadi, S., Bahram, P., & Fathi, M. R. (2020).** The Effect of Organizational Structure Dimensions on the Spirituality in the Workplace. *Journal of Health Management and Informatics*, 7(4), 240-251.
20. **Zhang, H., Ding, H., & Xiao, J. (2023).** How Organizational Agility Promotes Digital Transformation: An Empirical Study. *Digital Rural Service Research Center*,15(11304), 2-13.