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Original Article

Relation between Workforce Agility and Managerial Decision Making with Organizational Intelligence at Main Mansoura University Hospital

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1.ABSTRACT

Background: Organizational intelligence is a combination of all skills that organizations need and use; it enables managers to make sound decisions and improve the effectiveness of the existing informational systems in achieving organizational goals and result in workforce agility. **Aim:** To investigate the relationship between the workforce agility and managerial decision making with the organizational intelligence at Main Mansoura University Hospital. **Subjects and methods**: Descriptive correlational design was used. Three tools were used for data collection; Workforce Agility Scale, Managerial Decision-Making Questionnaire and Organizational Intelligence Questionnaire. **Results**: Highly statistically significant relation, between workforce agility and overall items of organizational intelligence, while no statistically significant relation between total and overall types of managerial decision and all items of organizational intelligence. More than half of studied sample reported moderate level of workforce agility, majority of them reported satisfactory level about types of managerial decision and more than half of them reported acceptable condition of organizational intelligence. **Conclusion**: Highly statistically significant relation between workforce agility and overall items of organizational intelligence, while no statistically significant relationship between total and overall types of managerial decision and all items of organizational intelligence. **Recommendations:** Adopt change policies that improve an organization's ability to mobilize individuals to support environmental reforms and increase the organization ability to use and mobilize brain power that facilitate mission achievement through adopting experts, workshops and educational lectures.

Keywords: *Managerial Decision Making, Main Mansoura University Hospital, Nursing staff, Organizational Intelligence, Workforce Agility*.

2.Introduction:

It's clear that in a rapidly changing world only intelligent organizations survive; and the efficiency of organization is proportional with the usage of their fulfillment depends on their intelligence requirement

Nowadays, it is obvious that only intelligent organisations can survive in a fast changing environment, and an organization's effectiveness is proportional to the use of their fulfilment, which is dependent on their intelligence requirement. In the current worldwide COVID-19 pandemic, health organisations are increasingly operating under global competition and vital societal needs based on frequent and rapid-paced developments that have a direct and indirect impact on their operations **(Munteanu, Bibu, Nastase, Cristache, & Matis, 2020 and Varshney & Varshney, 2020).** Widely recognized elements that may represent potential possibilities or challenges, such as new technologies, new techniques of dealing with competition, digitalization, and changing demographics, have changed the work environment. Various solutions, including as reengineering, modular organizations, flexible production, and just-in-time workforces, have been developed and applied in this regard. **(Björkdahl, 2020 and Felipe, Leidner, Roldán, & Leal-Rodríguez, 2020).**

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The concept of agility, which first gained popularity among North American scholars in the early 1990s, is one of the most current solutions **(Qin & Nembhard, 2015).** Since then, numerous studies have been devoted their efforts to researching the concepts, techniques, and functions associated with it. Agility, according to **(Nouri & Mousavi ,2020),** is a possible chance to enhance organizational productivity, as well as a strategy that helps organizations to survive on a borderless battlefield, due to advances in information technology and changes in paradigms and production strategies**. (Storme**, **Suleyman, Gotlib, & Lubart, 2020).**

Agility is defined as the capacity to obtain a competitive edge, exploit opportunities, and endure challenges as a result of frequent and often unexpected changes, and to respond rapidly by rearranging resources, techniques, and employees in an efficient and effective manner **(Basˇkarada & Koronios, 2018; and Walter, 2020).** The ability of an organization to relocate employees to accommodate changes in the environment is referred to as workforce agility (WFA). Managers can simply move nurses from one site where demand is low to another where demand is strong because to workforce agility. If the manager believes he requires workforce agility, he must take three actions to get it. To begin, determine what each position/role requires, which is a role-based competency model that incorporates what nurses must perform now in that job. Second, do a competency evaluation to determine who possesses which skills, so that management can see who is promoted. Finally, utilize technology to make things easier **(Lasse, 2018).**

The following are some of the advantages of (WFA): Be open and honest (Share changing skill requirements for a role, Share supply and demand trends). Encourage nurses to build skills for both their own responsibilities and high-demand roles so that they can be called upon when needed. Inspire and empower them to evaluate their skills in relation to their current and previous employment, and build a personalized learning plan to overcome any gaps in their knowledge. "Would you like to work on this project for two months as a method to gain experience outside of your area?" rather than "Would you like to work on this project for two months as a way to gain experience outside of your area?" "Demand in this area is declining, but we could really use someone with your talents in this other department," or "Demand in this area is declining, but we could really use someone with your skills in this other department." As an incentive, promote these transfers **(Lasse, 2018).**

Autonomy in decision-making is one of the cornerstones to make the workforce actually agile. The act or process of considering various options and choosing one is known as decision-making. It's vital to recognize that managers are constantly making decisions, and that the quality of those decisions has a significant impact on the organization's and workforce effectiveness **(Victoria**, **2018).** Organizations face situations requiring judgement and decision-making on a regular basis, regardless of whether the employee is in a strategic or operational role. In certain cases, making a decision may appear to be a straightforward task, yet it requires complicated cognitive processing because current options must be judged before a selection is made. The consideration of the qualities of each alternative for a specific decision problem, as well as the evaluation of the implications of the choice to be made, are all part of judgment and decision making **(Cerutti, Macke & Sarate, 2020).**

Managers make decisions in a variety of ways, with some deliberating for extended periods of time, others needing direct sense of courage and making rational and systematic decisions, and still others taking additional emotive and disordered approach **(Hamilton, Shih, & Mohammed, 2016).** Personal and organizational concerns such as goals, attitudes, values, and so on will influence how these leaders respond to options. When confronted with such forces, the typical response suggests that the leader has a 'decision-making' style. The time when the leader takes the course of action that appears most suitable to him or her in order to attain the previously defined goals, he or she is said to be making a decision. A good decision can support an organization develop and survive in the long run, but a bad decision can lead to failure. Lower-level managers have a condensed impact on the organization's survival, but they can still have a substantial influence on their department and its workers **(Dinh, Lord, Gardner, Meuser, Lider, & Hu, 2014).**

Managerial decision-making can be divided into several categories based on its scope, significance, and impact. Managers in organizations typically make four types of decisions: programmed, non-programmed, operational, and strategic. The nature of programmed decisions is that they are repetitive. These decisions are completed in reply to simple,

common, and frequently happening problems with well-established procedures. These decisions are made based on the organization's existing policy, rule, or procedure. Non-programmed decisions aren't made on a regular basis. They have to do with unusual circumstances for which there are no established procedures. Decisions made at the operational or tactical levels are related to current issues or problems. The primary goal is to achieve extreme efficiency. Top-level executives make strategic decisions **(Gayathri, 2019).**

Emotional intelligence, high intelligence Quotient (IQ), technical competence, and other qualities that aid managers advance in the organization do not essentially make them effective once they are in a leadership position. They'll want organizational intelligence (OI) to accomplish this, or the capacity to get the organization to do what they want. Those with organizational intelligence can successfully communicate top strategic priorities; foster an organizational-wide sense of "how we do things here," get things done even when there is no consensus, stage dramatic moments, and rebel from the top. **(Philips & Yip, 2020).**

Organizational intelligence (OI) and organizational decision-making are mutually facilitative, higher intelligence allows for more effective information processing, which facilitates decision-making, and decision-making creates categorizations, sensitivities, memories, and routines that increase the effectiveness of subsequent information processing, thereby increasing intelligence. Organizational intelligence is one of the prerequisites for organizational success, and it aids organizations in achieving their missions **(Huber, 2016).**

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Kavosi (2021) defines OI as the capacity of an initiative to mobilize all its existing brain power and to emphasis that brain power on reaching its mission. Strategic vision, shared fate, appetite for change, heart, alignment and congruence, knowledge deployment, and performance pressure are all elements of OI, according to him. Organizational intelligence is also an organizational effectiveness measure in information distribution, decision-making and execution. OI encompasses the knowledge, experience, information, and perception of organizational problems, which may help to produce a smart organization. Organizational intelligence represents an organization's intellectual ability to integrate human and technical (information and communicative)
potential in order to solve tangible organizational p roblems is referred to organizational intelligence **(Torkamani & Maymand, 2016).**

The importance of OI emphasizes an organization's capability to raise innovation, information, general knowledge, and effective work, as well as providing a competitive advantage by translating information into knowledge **(Ahmad, Sadq, Othman & Saeed 2019)**. Organizations operate in an ever-changing economic, technological, social, cultural, and political environment. Surviving in such competitive and complex environments necessitates sensitivity to the environment as well as timely and appropriate responses. Organizations can respond more quickly to changes when they use OI. Ensure the collection, processing, interpretation, and transfer of technical and political information required in the decision-making process; establish the required systems for the learning cycle in organizations; and develop the organization's coping skills with the complexities encountered are all features of organizational intelligence **(Altındağ, & Öngel, 2021)**. Organizations that usage their intelligence are occupied with learning processes employing intuitive information tactics. Furthermore, organizational intelligence and its environment can be harmonized to determine and strengthen performance **(Hamad, 2019).**

2.1Significance of the study:

The health field is moving forward at an incredible pace with high-tech advancements and cultural variations all around. Organizations have to innovate and adapt continuously to keep up with developing market circumstances. That is only probable if is there is workplace agility and every change is involved. An agile workplace can deal with any challenges and is effective in instilling productivity. It promotes a positive work environment and helps staffs grow into better leaders and top performers in the future. Workforce agility (WFA) is a term used to describe a strategy for increasing profitability in fast-changing and undefined production environments. Workforce

agility is thought to have a extensive range of benefits, including quality improvement, improved customer service, learning curve acceleration, and space and depth economy, all of which lead to organizational intelligence **(Sohrabi, Asari & Hozoori, 2014).** No research study has looked into the relations between these three variables; so, this study aims to investigate the relation between workforce agility and managerial decision making with the organizational intelligence

2.2Purpose of the study:

The study aims to investigate the relation between the workforce agility and managerial decision making with the organizational intelligence at Main Mansoura University Hospital.

2.3Research questions:

Q1: What is the level of workforce agility at Main Mansoura University Hospital?

Q2: What is the type of managerial decision making applied at Main Mansoura University Hospital?

Q3: What is the condition of organizational intelligence at Main Mansoura University Hospital?

Q4: Is there a relation between workforce agility and managerial decision making with organizational intelligence at Main Mansoura University Hospital?

3.Subjects and Method:

3.1Study design: Descriptive correlational study design was used to achieve study aim. Descriptive correlational design is a study in which the researcher is primarily interested in describing relationships among variables (**McBurney, & White, 2009).**

3.2Study setting: The study was carried out at Main Mansoura University Hospital. This hospital offers a comprehensive range of health service at Delta Region. It includes general medical surgical, chest and heart, orthopedic, obstetrics, gynecology, antenatal care, psychiatry, fertilization, knee-joint, neurology, radiology and blood bank unit. It provides health care for all patients with bed capacity (1800).

3.3Participants: Convenience sample was used to collect the data collection of the study included all available nursing staff at the time of data collection with at least one year of experience and accepted to be involved in the study.

3.4Tools of data collection: Three tools were used for data collection as follow; Workforce Agility Scale, Managerial Decision-Making Questionnaire and Organizational Intelligence Questionnaire.

The 1st tool is Workforce Agility Scale: Which consists of two parts:

1st part: Contains the personal and job characteristics of nursing staff such as age, gender, marital status, level of education, experience years, nursing category and department.

2nd part: Workforce Agility Scale (WAS): This scale adopted by **Muduli, (2016).** It aims to assess the workforce agility and contains 7 items. Respondents were asked to share their assessment through 5-point Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Scoring System: Based on cut of value 40%. Workforce agility level is determined as low ≤ 40, moderate 41-≤ 80 and high ≥ 81.

2nd tool is Managerial Decision-Making Questionnaire (MDMQ) based on the Vroom and Yetton's model and developed by **Frankovsky, Birknerova, Zbihlejova & Suhanyi, (2017).** The questionnaire consists of 20 items that enable assessment of the types of managerial decision-making from different perspectives, which consists of four types namely programmed type (4 items), non-programmed (6 items), strategic (5 items) and operational (5 items). The given items were evaluated on a 5-point Likert scale as: 1 = definitely no, 2 = no, 3 = neither no nor yes, 4 = yes, and 5 = definitely yes.

3rd tool is Organizational Intelligence Questionnaire (OIQ), adopted from **Albrecht (2002),** which aims to assess the organizational intelligence. The questionnaire consists of seven key dimensions namely; strategic vision, shared fate, change, heart, alignment, knowledge and performance. Each dimension contains (7) items with total 49 items. The given items were evaluated on a 5-point Likert scale where: (1) Strongly disagree, (2) Disagree, (3) Neutral (4), Agree, and (5) Strongly agree. The total average score for OI was a number between 49 and 245 and interpreted into: 49-97 – unsuitable condition, 98-146 – weak condition, 147-195 – acceptable condition and 196-245 – good condition.

3.5Validity and reliability:

Five experts in the field of academic nursing administration assessed the face and content validity of the study tools, determining whether the questions, as well as the overall instruments, were relevant, thorough, and appropriate to test what they needed to measure, and modifications were

made. The study tools Workforce Agility Scale, Managerial Decision-Making Questionnaire and Organizational Intelligence Questionnaire were tested to assess reliability via Cronbach's alpha test was 0.879, 0.899 and 0.93 for three scales respectively.

3.6Pilot study:

A pilot study was applied on 10% (15 nursing staff) from studied participant to investigate the clarity and applicability of tools and to determine the time needed to fill in questions.

3.7Data collection:

The actual field work was started from beginning of October 2021 to the end of December 2021. The researchers met nursing staff in the morning and afternoon shifts in the working units. The purpose of this study was explained to the hospital director, head nurses, supervisors and staff nurses. The questionnaire was distributed to all nursing staff at the end of morning and afternoon shifts. The researchers gave each nursing staff her copy to fill it and handed it back to the researchers. Researchers were utilized a self-administered questionnaire (1, 2, and 3) for collecting the data. The time that nursing staff were spent to fill questionnaire was ranged between 25 to 30 minutes.

3.8Ethical considerations

The Research Ethical Committee of Faculty of Nursing, Mansoura University granted ethical permission. The relevant administrator of the researched hospital granted official approval to conduct the study. All subjects were informed that participation in the study is entirely voluntary, and that they have the freedom to withdraw at any time. The confidentiality of the obtained data was assured to all participants, as was the privacy of the study sample.

3.9Statistical design:

The collected data were organized, tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 26, SPSS Inc. Chicago, IL, USA). The normality assumption was accepted. Therefore, categorical variables were represented as frequency and percentage. Continuous variables were represented as mean, and standard deviation. Independent t-test was used to test the difference between two mean of continuous variables. ANOVA-test was used to test the difference between more than two means of continuous variables. Chi-square test was conducted to test the association between two categorical variables. Pearson correlation coefficient test was conducted to test the association between two continuous variables. Statistically significant was considered as (p-value $\leq$0.01 &0.05).

4.Results:

Table (1): Shows that more than half of the studied nursing staff aged from 20-30 years (51.3%), majority of them were married (74.3%), (86.8%), were female, (48.7%) of them had a bachelor degree of nursing, (42.8%) of them working in medical department, and majority of them (75.0) were staff nurses category with (50.7%) having experience more than 10 years.

Table (2): shows that more than half of studied nursing staff (67.1%) reported moderate level of workforce agility, while slightly more than one third of the studied nursing staff (32.2%) reported high level workforce agility followed by (0.7%) reported low level workforce agility. Regarding managerial decision majority of studied nursing staff (75.7%) reported satisfactory level about types of managerial decision, while (24.3%) of the studied nursing staff reported unsatisfactory level about it. Also more than half of studied nursing staff (53.9%) reported acceptable condition of organizational intelligence, followed by (22.4%) of them reported weak condition of organizational intelligence, while (19.7%) of them reported good condition of organizational intelligence, and (3.9%) reported unsuitable condition of organizational intelligence.

Table (3): Shows mean score of overall nursing staff perception toward their workforce agility was mean±SD 26.81±3.52. The overall nursing staff mean score related to managerial decision was 67.13±8.20. Regarding managerial decision types, the highest perception was for operational type with mean±SD (18.86±2.49), whereas the lowest perception was for programmed type with mean±SD (11.94±3.33). Regarding organizational intelligence, the overall mean score was 164.84±34.24. The highest perception of studied sample was for alignment item with mean±SD (23.90±5.06), whereas the lowest perception was for change item with mean±SD (22.59±5.54).

Table (4): Shows that there was highly statistically significant relationship between nursing staff workforce agility and their age, years of experience and statistically significant relationship with their level of education. There was highly statistically significant relationship between managerial decision, and nursing staff level of education. There was highly statistically significant relationship between organizational

intelligence and nursing staff 'age, marital status, level of education and years of experience.

Table (5): Shows that there was a high statistically significant relationship between workforce agility and overall items of organizational intelligence.

Table (6): Shows that there was no statistically significant relationship between total and overall types of managerial decision and all items of organizational intelligence.

5.Discussion:

The globe was undergoing significant changes at the start of the twenty-first century, particularly in terms of communication methods. Organizations must rethink their strategic aims and aspirations in order to adapt to these developments. One of the ways for dealing to these changes and revolutions variables is workforce agility (WFA). The WFA is, in fact, a new paradigm for creating competitive organizations. Organizations, also, require agile leaders who can effectively implement the ideas and practices of agility through managerial decision-making. Organizational intelligence is a crucial tool for building better decision. It help decision-maker to makes the best decision at the appropriate times **(Sahin, & Furkan, 2020).**

Accordingly, this study attempted to investigate the relation between the workforce agility and managerial decision making with the organizational intelligence at Main Mansoura University Hospital.

Regarding the level of workforce agility, the present study revealed that more than half of studied nursing staff reported moderate level of workforce agility. This results could be due to the organization's awareness that it must continually adapt to changes in order to remain competitive and dynamic in today's environment. As a result of this problem, managers develop workplace agility in respond to rapid external changes. Furthermore, WFA is attained by nursing staff collaboration, dedication, and competence, which are essentially derived from nursing staff skills, knowledge, acuity, skills, and intelligence. This result was agreed with **Rasouli, Soodi, & Jafarzadeh, (2016)** who revealed workforce agility reported moderate level by studied nursing staff. On the other hand, this result was opposite with **Kavosi, et al., (2021)** who showed that work force agility score is reported low level by studied staff.

Regarding managerial decision making, the present study result showed that nursing staff reported satisfactory level about types of managerial decision. This result may be due to management strategies that can successfully affect the decision-making process were incorporated into the management practices philosophy. Best management strategies included selecting the correct nursing staff, expressing empathy, effectively communicating, being constructive, creative, appreciating, and rewarding staff, which all helped nurses feel committed and satisfied.

This result was in agreement with the result of **Mohammed, Nassar, Ghallab, & Morsy, (2013)** who revealed that, more than half of nursing staff working with nurse managers using authoritarian decision-making style were satisfied with it. Meanwhile, the majority of them working with nurse managers using participative and delegative decision making styles were satisfied too. On the other hand, the finding of the current study was opposite with the finding of **Albejaid, Kundi & Mughal (2020)** who concluded that nursing staff unsatisfied with managerial decision making. It means that managerial decision making is ignored in the organizations.

As regard to condition of organizational intelligence, the present study revealed that more than half of studied nursing staff reported acceptable condition of organizational intelligence. This result may returns to organizational intelligence have flexibility and adaptation to the setting, viewpoints, learning and applying knowledge, organizational structure and performance, ethics, processing information technologies, and organizational memory. Furthermore, concentrating on problem-solving planning that boosts the organization's efficiency and effectiveness.

This result go in the same line with **Rasouli , Soodi , & Jafarzadeh, (2016)** who mentioned that organizational intelligence means scores are higher than the moderate level. Also, **Bornillo, (2021)** showed that the total average score of the organizational intelligence is an acceptable condition. On the opposite side, the current result not matched with the result of **Keyvanara, Yazdekhasty, Bahrami & Masodian, (2011)** who mentioned that organizational intelligence levels were less than the average level.

Regarding managerial decision types, the current study revealed the highest perception was for operational type. This result may be related to operational or tactical decisions reflects the present daily issues or problems and the main purpose is to achieve high degree of efficiency which made it more observable and measurable by nurses. This result goes in the same line with **Frankovsky,**

Birknerova, Zbihlejova & Suhanyi, (2017) stated that decision-making types such as operational plays an important role in management as managers´decisions have a multiplicative impact in various areas of organization.

Regarding organizational intelligence, the current result showed the highest perception was for alignment item whereas the lowest perception was for change item. This result may be due to the alignment item describe the overall structure of the organization, policies, rules, and regulations, processes, e information systems and tools, authority and responsibility and the divisional and departmental missions and if all are matched and appropriate to the mission and work priorities which means that all of these items could be observed by nurses. This result not matched with **Pombo& Gomes, (2019)** who mentioned that the employees 'perception toward policies, rules and system was low and may sometimes vary from one organization to another. Also, **Bornillno, (2021)** mentioned that strategic vision had the highest level among the indicators while performance pressure was at the lowest. Also, **Ismail & Al-Assa'ad (2020)** showed that change and alignment reported lower perception, while strategic vision reported high perception.

The present study revealed that there was highly statistically significant relationship between nursing staff workforce agility and their age, years of experience and statistically significant relationship with their level of education. This result may be related to elder nurses, more years of experience and high level of education are considered considerable factors affecting the nurses' ability to support changes in the organization. Moreover, the more nurses' age the more ability to understand the needs of the organization and support changes helps to achieve these needs.

This result goes in the same line with the result of **Sohrabi, Asari & Hozoori, (2014)** who mentioned that age and experience were found to have a positive link with workforce agility. While, this study result was opposite to the current finding where showed that no significant relationship was found between educational level and workforce agility. As well as, **Thayyib & Khan, (2021)** who mentioned that the agility level at the workplace is likely to be linked with nurses' demographic factors as age, professional qualifications, education level, service type, and job level. In the opposite side, **Thayyib & Khan (2020)** fail to analyze the variance in agility based on demographic factors of professionals in Bangalore.

The result of current study revealed that there was highly statistically significant relationship between managerial decision, and nursing staff level of education. This result may be due to the level of education is a considerable factor for understanding, judging and supporting the managerial decision. This result goes in the same line with the finding of **Omarli, (2017)** showed that personal factors such as cognitive style, age, experience, education, level of knowledge of the manager play a role in the decision-making. On the other hand, this result opposite the result of **Abdelgawad, Mohamed, Abdelrahman, & Fahmy, (2021)** who mentioned that no statistically significant relation between personal data and managerial decision making among nursing staff.

The present study showed that there was highly statistically significant relationship between organizational intelligence and nursing staff 'age, marital status, level of education and years of experience. This finding may be related to the ability of the organization to use the brain power and employ it in achieving its mission is affected by the nurses' level of education, and years of experience. The more experience, the more understanding and supporting of organization mission.

This result not matched with the finding of **Bornillno, (2021)** who showed that there is no significant relationship between age, sex, and academic rank of the faculty members to organizational intelligence. Also, **Khosravi, Sokhan, & Fazelpoor, (2014)** mentioned that there is no significant correlation between organizational intelligence and education and work experience.

The present study revealed that there was high statistically significant relationship between workforce agility and overall items of organizational intelligence. This finding may be due to achieve the hospital mission needs cooperation between manager and available brain power and employ the available workforce according to the demands with interpret the relation between workforce agility that means moving nurses easily from one place to another according to demand and organizational intelligence that means mobilize available brain power in achieving mission.

The result of this study go in the same line with the result of **Sohrabi , Asari, & Hozoori, (2014)** who revealed a significant positive correlation between workforce agility and organizational intelligence. Furthermore **Suharti & Pramono**

(2016) found that a significant positive correlation between workforce agility and organizational intelligence. Moreover, **Kavosi , Delavari , Kiani , Bastani , Vali , & Salehi, (2021)** agree with the present study and concluded that organizational intelligence, has a greater impact on workforce agility and enhances organizational agility, which in turn will increase the effectiveness and efficiency of activities in the organization.

The result of current study revealed that there was no statistically significant relationship between total and overall types of managerial decision and all items of organizational intelligence. This result may be because the types of decision-making do not depend on organizational intelligence but there are other factors affect the decision making as finance, human resources, technology and time available.

This result not matched with **Huber, (2016)** who mentioned that organizational intelligence and decision-making are mutually beneficial; higher intelligence allows for more effective information processing, which facilitates decision-making and creates categorizations, understandings, memories, and routines that improve the effectiveness of subsequent information processing, resulting in increased intelligence.. Also, **Ismail & Al-Assa'ad, (2020)** stated that organizational intelligence has a great effect on managerial decision makings. Moreover, **Chaman, Hesam & Yazdanpanah, (2016)** showed that organizational intelligence allows for successful decision-making in all aspects of the organization. In the same path**, Pranjic, (2018)** concluded that organizational intelligence is a significant tool for making well-informed decisions. It aids decision-makers in making the best and most timely decisions achievable.

6.Recommendations:

1. Adopt change policies that improve an organization's ability to mobilize staff to assist environmental change.
2. Build an effective strategic agility system includes all forms of competitive, technological, and commercial strategic agility, which helps organization to acquire useful information that gives them a competitive edge.
3. Provide the decision-making authority with the necessary information, resources, and cooperation from other organizational units that impact decision-makers' choices.
4. Increase the organization ability to use and mobilize brain power that facilitates mission achievement through adopting experts, workshops and educational lectures.
5. Enhance nurses' participation in decision making, change management and mission achievement.

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Table (1): Personal characteristics of the studied nursing staff (n=152)

Characteristics	No.	%
Age years:		
▪ 20-30	78	51.3
▪ 31-40	66	43.4
▪ > 40	8	5.3
Mean±SD	31.22±6.43	
Gender:		
▪ Male	20	13.2
▪ Female	132	86.8
Marital status:		
▪ Unmarried	39	25.7
▪ Married	113	74.3
Level of education:		
▪ Diploma degree	63	41.4
▪ Bachelor degree	74	48.7
▪ Master degree	15	9.9
Experience years:		
▪ < 1	4	2.6
▪ 1-5	58	38.2
▪ 6-10	13	8.6
▪ > 10	77	50.7
Mean±SD	10.16±7.78	
Department:		
▪ Medical	65	42.8
▪ Surgical	53	34.9
▪ Orthopedic	28	18.4
▪ Neurological	6	3.9
Nursing category:		
▪ Staff nurse	114	75.0
▪ Nursing supervisor	12	7.9
▪ Head nurse	25	16.4
▪ Nursing director	1	0.7

Table (2): Levels of workforce agility, managerial decision and organizational intelligence as perceived by the studied nursing staff (n=152)

Variables	Levels of the study variables	Score	No.	%
A. Workforce agility	▪ Low (≤40%)	7-14	1	0.7
	▪ Moderate (41%-≤80%)	15-28	102	67.1
	▪ High (≥81%)	29-35	49	32.2
B. Managerial decision	▪ Unsatisfactory (≤60%)	20-60	37	24.3
	▪ Satisfactory (>60%)	61-100	115	75.7
C. Organizational intelligence	▪ Unsuitable condition	49-97	6	3.9
	▪ Weak condition	98-146	34	22.4
	▪ Acceptable condition	147-195	82	53.9
	▪ Good condition	196-245	30	19.7

Table (3): Mean score of workforce agility, managerial decision and organizational intelligence as perceived by the studied nursing staff (n=152)

Variables	No of items	Min – Max	Mean±SD
A. Workforce agility	7	10.0-35.0	26.81±3.52
B. managerial decision	20	48.0-95.0	67.13±8.20
B1. Programmed type	4	4.0-20.0	11.94±3.33
B2. Non- programmed type	6	6.0-28.0	17.67±4.44
B3. Strategic type	5	9.0-25.0	18.65±3.02
B4. Operational type	5	11.0-25.0	18.86±2.49
C. Organizational intelligence	49	59.0-244.0	164.84±34.24
C1. Strategic vision	7	7.0-35.0	23.75±5.35
C2. Shared vision	7	9.0-35.0	23.82±5.92
C3. Change	7	8.0-35.0	22.59±5.54
C4. Heart	7	7.0-34.0	23.74±5.30
C5. Alignment	7	7.0-35.0	23.90±5.06
C6. Knowledge	7	7.0-35.0	23.73±5.39
C7. Performance	7	7.0-35.0	23.30±5.58

Table (4): Workforce agility, managerial decision and organizational intelligence in relation to personal characteristics of the studied nursing staff (n=152)

Characteristics	Workforce agility	Managerial decision	Organizational intelligence
Age years	Mean±SD	Mean±SD	Mean±SD
▪ 20-30	25.77±3.63	65.92±7.40	157.21±34.63
▪ 31-40	27.97±2.90	68.53±9.01	174.27±32.43
▪ > 40	27.38±4.31	67.38±7.78	161.50±28.94
F value / p-value	7.74 /0.001**	1.83 / 0.16	4.70 / 0.01**
Gender			
▪ Male	27.75±3.65	67.55±8.81	167.2±50.75
▪ Female	26.67±3.49	67.07±8.14	164.48±31.26
t value / p-value	1.29 / 0.20	0.24 / 0.81	0.33 / 0.74
Marital status			
▪ Unmarried	26.23±3.06	67.00±8.13	150.49±39.25
▪ Married	27.01±3.65	67.18±8.26	169.80±31.01
t value / p-value	1.19 / 0.24	0.12/0.91	3.12/0.002**
Level of education			
▪ Diploma degree	27.65±3.41	69.14±8.27	179.06±33.1
▪ Bachelor degree	26.08±3.07	64.99±7.31	155.14±33.15
▪ Master degree	26.87±5.18	69.27±9.85	153.00±22.50
F value / p-value	3.50 / 0.03*	5.20/0.007**	10.47/0.000**
Experience years			
▪ < 1	26.50±3.11	67.50±13.03	165.75±49.17
▪ 1-5	25.66±3.85	66.26±7.41	153.66±33.45
▪ 6-10	25.46±2.7	63.15±6.87	154.08±37.14
▪ > 10	27.92±3.06	68.44±8.57	175.04±30.93
F value / p-value	5.81/ 0.001**	1.93 / 0.13	5.16 /0.002**
Department			
▪ Medical	26.92±3.30	68.29±8.85	165.77±32.90
▪ Surgical	26.17±3.83	66.21±7.44	159.60±37.56
▪ Orthopedic	27.54±3.36	66.89±7.91	171.04±32.88
▪ Neurological	27.83±3.43	63.83±8.82	172.17±21.75
F value / p-value	1.18 / 0.32	0.99 /0.40	0.82/ 0.48
Nursing category			
▪ Staff nurse	26.48±3.60	67.70±8.20	164.53±35.44
▪ Nursing supervisor	29.75±3.14	65.17±8.55	172.17±34.78
▪ Head nurse	27.00±2.68	64.88±7.45	163.12±29.60
▪ Nursing director	24.00	82.00	156.00
F value / p-value	3.53 / 0.02	2.19/0.09	0.23/0.88

* Statistically significant (p ≤0.05) / * * highly statistically significant (p ≤0.01)

Table (5): Relationship between workforce agility and organizational intelligence as perceived by the studied nursing staff (n=152)

Variables	Workforce agility	
	r	p
Organizational intelligence	0.31	0.000**
1.Strategic vision	0.21	0.008**
2. Shared vision	0.30	0.000**
3. Change	0.28	0.001**
4. Heart	0.32	0.000**
5. Alignment	0.26	0.002**
6. Knowledge	0.28	0.000**
7. Performance	0.30	0.000**

** Highly statistically significant (p<0.01)

Table (6): Relationship between managerial decision and organizational intelligence as perceived by the studied nursing staff (n=152)

Variables	Types of managerial decision								Total managerial decision	
	Programmed		Non-programmed		Strategic		Operational			
	R	p	r	p	r	p	r	p	r	p
Organizational intelligence	0.08	0.31	0.11	0.16	0.01	0.85	0.07	0.38	0.12	0.13
1.Strategic vision	0.03	0.71	0.07	0.39	0.09	0.24	0.03	0.69	0.09	0.24
2. Shared vision	0.14	0.07	0.14	0.08	0.05	0.54	0.003	0.91	0.15	0.06
3. Change	0.11	0.17	0.14	0.08	0.02	0.78	0.08	0.31	0.16	0.05
4. Heart	0.13	0.11	0.13	0.11	0.03	0.72	0.06	0.46	0.13	0.11
5. Alignment	0.022	0.79	0.04	0.61	0.04	0.65	0.05	0.51	0.06	0.45
6. Knowledge	0.004	0.96	0.08	0.34	0.02	0.77	0.09	0.24	0.06	0.43
7. Performance	0.06	0.41	0.10	0.21	0.05	0.51	0.13	0.11	0.10	0.21