

Organizational Agility and Job Engagement among Staff Nurses

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ABSTRACT

Context: Agility is one of the adjustments organizations must make in a tumultuous environment. Organizational agility is a collection of concepts that aims to maximize both tangible and intangible resources while continuously improving the organization as a whole. It has a great impact on job engagement among nurses.

Aim: To assess the relationship between organizational agility and job engagement among the staff nurses.

Methods: A descriptive, correlational study approach was employed. Ain Shams University Hospital, one of the hospitals affiliated to Ain Sham University, served as the study's setting. Of the 303 staff nurses, 170 were chosen randomly for the study. The two instruments utilized were the Job Engagement Scale and the Organizational Agility Assessment Questionnaire.

Results: The findings demonstrated that although 20% of the studied staff nurses exhibited a high perception level of organizational agility, the largest proportion (55%) demonstrated a moderate perception level. Additionally, 30% of the staff nurses reported moderate job engagement, and a larger percentage (60%) reported a high engagement level.

Conclusion: A statistically significant positive relationship was observed between job engagement and organizational agility among staff nurses. The study recommends that hospital managers cultivate an agile atmosphere, enhance self-awareness, and ensure that organizational strategies promote resilience to effectively address daily challenges.

Keywords: Job engagement, organizational agility, staff nurses

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1. Introduction

The evolving global landscape demands leaders to adopt greater agility in enhancing organizational effectiveness (Mithani, 2020). Hence, amidst the dynamic environment and the prevailing global health emergency, there is a necessity for a fresh political outlook on navigating through diverse strategies (Coard et al., 2023).

One approach used in recent decades and becoming a necessity for survival rather than just an option is organizational agility (Caferra et al., 2022). Organizational agility has become essential for navigating organizations' unpredictable challenges, enhancing competitiveness, and reducing disturbances (Ghadi et al., 2020).

Agility refers to an organization's capacity to reinvent itself, adjust, and thrive within a swiftly changing and uncertain environment and take advantage of organizational resources to achieve results quickly and flexibly (Melian-Alzola et al., 2020). Additionally, organizational agility is a package of ideas that aims to smooth organizational structures and work teams, optimize resource utilization, prevent wastage or loss, and effectively manage the preparation process. Agile organizations possess adaptability, responsibility, and a culture that embraces change, rapidity, seamless integration, simplicity, superior quality, personalized offerings, and effective utilization of fundamental skills (Zainal & Zainal, 2020).

Numerous elements impact the agility of healthcare institutions, encompassing structural setup, leadership style, patient expectations, hospital distinctiveness, enforcement of clinical governance, technological advancement, market insight, outsourcing practices, and provision of mental support to patients (Sindhvani et al., 2019).

There are three dimensions of organizational agility: Sensing, decision-making, and acting agility. First, sensing agility, as discussed by Zitkiene & Deksnys (2018), involves quickly perceiving changes in both external market conditions and internal operations. This capability allows organizations to anticipate shifts in client preferences, market trends, and competitive landscapes, empowering them to proactively adjust strategies and make informed decisions.

The second aspect is decision-making agility, which involves rapidly acquiring, comprehending, and utilizing information to formulate strategic decisions. Organizations adept in decision-making agility exhibit heightened adaptability and responsiveness to market fluctuations, enabling them to capitalize on emerging opportunities and navigate uncertainties adeptly (Abdel Qader et al., 2021).

Finally, acting agility, a crucial facet alongside decision-making and sensing agility plays a significant role in bolstering organizational effectiveness within dynamic settings. Acting agility allows an organization to react to new possibilities in an ever-evolving environment. Additionally, by acting agility, organizations can improve the efficiency of

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their operations by strategically converting opportunities into suitable actions. Therefore, organizations proficient in acting agility excel in seizing emerging opportunities and mitigating risks more efficiently (Akkaya & Mert, 2022).

As healthcare team members who deal directly with patients, nurses impact the work environment and, consequently, patient outcomes (Putri & Setianan, 2019). Job engagement has surfaced as a crucial instrument for managers to enhance nurses' contentment and foster organizational growth. Scholars and practitioners alike have given this ideological construct significant attention. It is described as a situation where workers fully immerse themselves in their jobs. Critical results, including work output, civic engagement, satisfaction with work, and organizational dedication, are predicted by it (Deepa, 2020).

The three main elements of job engagement encompass emotional, physical, and cognitive engagement. Emotional engagement represents a profound dedication to one's work, involving passion, pride, a sense of purpose, challenge, and motivation. It indicates a strong link between an individual's feelings and the organization, fostering enthusiasm for the job (Nahum-Shani et al., 2022). Emotionally engaged employees perceive their work as meaningful, are willing to work beyond regular hours, and exhibit creativity in their tasks (Ali et al., 2022; Kaur & Mittal, 2020).

Physical engagement, or vigor, entails exerting significant effort to achieve work-related objectives. Consequently, physically engaged employees are likely to invest more effort and demonstrate persistence in reaching their goals under various circumstances. Nurses continuously develop and grow in their roles in healthcare settings, reflecting this physical engagement (Kuok & Taormina, 2017).

Finally, cognitive engagement refers to total immersion in tasks and resistance to external distractions (Huang et al., 2022). It suggests individuals are deeply involved in their responsibilities, showing strong resolve and dedication to achieving organizational objectives. When cognitively engaged, employees focus on their tasks and demonstrate a profound commitment to organizational goals (Khusanova et al., 2021).

2. Significance of the study

Compared to other established terms and ideas, job engagement and organizational agility are relatively new concepts in contemporary management. They involve providing employees with knowledge and advanced skills, restructuring organizational processes, and adopting new technologies, all of which warrant further research and investigation (Abdel Qader et al., 2021). Hence, researchers strongly endorse organizational agility as an essential attribute crucial for the hospital's existence, competitiveness, and overall success, particularly in turbulent environments (Nsour, 2021).

Hospitals can expand and thrive in a competitive market because of organizational agility, a deliberate and significant response to erratic and ongoing environmental change. So, the researchers are interested in studying the relationship between organizational agility and job engagement among staff nurses.

3. Aim of the study

The study assesses the relationship between organizational agility and job engagement among staff nurses through:

- Evaluating the perception level of organizational agility among staff nurses.
- Evaluating job engagement level among staff nurses.
- Determining the relationship between staff nurses' organizational agility and job engagement.

3.1. Research question.

What relationship exists between staff nurses' organizational agility and job engagement?

4. Subjects & Methods

4.1. Research Design

The study utilized a descriptive correlational design. Research aimed at providing an overview of the existing state of affairs is known as descriptive studies. Research designs for correlational investigations aim to identify relationships between variables and enable future event prediction based on current information (Stangor & Walinga, 2019).

4.2. Study setting

The study was conducted in Ain Shams University Hospital, one of the hospitals and medical centers affiliated to Ain Shams University. It has one main structure with five floors that house its emergency ICU, intensive care units, dialysis units, cardiac catheterization lab, and inpatient units. It offers both general and medical services and has 618 beds available.

4.3. Subjects

Staff nurses employed in the study above setting served as the study's subjects.

Inclusion criteria

- Full-time staff nurses with at least one year of experience.

Exclusion criteria

- Newly staffed nurses under training and nurses' interns.

Sample size:

A sample size of 170 staff nurses was determined from a total population of 303 using the equation for calculating sample size.

$$N = [DEFF * N p(1-p)] / [(d^2/Z^2 - \alpha^2 * (N-1) + p*(1-p)]$$

The equation took into account the population size (n), the desired error rate (d), the standard score corresponding to the significance level (z), and the availability of the property of interest (P). With a design effect of 1.0 (DEFF), a proportion of 0.50 for the property's availability, and a desired error rate of 0.5, the equation yielded a sample size of 170. This methodology was based on the approach outlined by Dean and Sullivan (2013).

Sample technique:

A simple random sampling technique ensures a fair and unbiased representation of the studied sample for inclusion.

4.4. Tools of data collection

The following tools were utilized in the current study.

4.4.1. Organizational Agility Questionnaire

It comprised two primary sections: Section I: Nurse attributes including age, gender, marital status, tenure in current role, and educational background. Section II: Adapted from *Jaworski and Kohli's (1993)* work, this portion assessed the perceived organizational agility among the nurses being examined.

It comprised 15 statements that were clustered into three main domains. They were sensing agility (3 statements): "The hospital has been sluggish in recognizing changes in patient preferences for services, the hospital has been sluggish in identifying shifts in competitors' movements, and the hospital has been slow in identifying technological changes." Decision-making agility (5 statements): "The hospital analyzes important events concerning patients, without any delay, the hospital detects the chances and threats for change in patients, and the hospital conducts a precise action plan to meet patient needs immediately." Acting agility (7 statements): "The hospital can use new technology in the proper time, the hospital can introduce new services in the proper time, and the hospital can change prices of the services quickly in the proper time."

Scoring system

Staff nurses responded using a five-point Likert scale, ranging from strongly agree (5) to strongly disagree (1). Subscale scores were calculated by summing the scores for each item and then dividing the subtotal and total scores by the number of items to determine the average score for each section. These averages were converted into percentage scores and mean percentages. Perception levels of organizational agility were categorized as follows: a score below 60% indicated a low perception level, a score ranging from 60% to less than 75% indicated a moderate perception level and a score exceeding 75% indicated a high perception level (*Jaworski & Kohli, 1993*).

4.4.2. Job Engagement Scale

This tool was developed by *Rich et al. (2010)*. It aimed to assess job engagement levels among staff nurses. It consisted of 18 statements divided into three dimensions: Cognitive engagement (6 statements) as "At work, I concentrate on my tasks, at work, I devote considerable attention to my job, and at work, I dedicate substantial attention to my job." Emotional engagement (6 statements): "I am passionate about my job, I feel energized while working, and I am proud of my job." Physical engagement (6 statements): "I work with vigor on my job, I invest considerable energy in performing my job, and I dedicate my utmost effort to my job."

Scoring system

Staff nurses responded using a five-point Likert scale, ranging from strongly agree (5) to strongly disagree (1). The scores for each subscale were aggregated, and then the total score was divided by the number of items to determine the average score for each section. These averages were converted into percentage scores and mean percentages. Job engagement levels were classified as follows: scores below

60% indicated low engagement, scores ranging from 60% to less than 75% indicated moderate engagement, and scores of 75% or higher indicated high engagement (*Rich et al., 2010*).

4.5. Procedures

A panel of experts consisting of five nursing administration academicians evaluated the tools' face and content validity. The panel comprised two professors from Ain Shams, two from Menoufia, and one from Cairo University. They assessed the tools for relevance, clarity, accuracy, comprehensiveness, consistency, and layout. Based on their feedback, minor adjustments were made, mainly involving rephrasing certain statements.

The tools' reliability was determined using Cronbach's alpha coefficient test to assess their internal consistency. The organizational agility questionnaire yielded a coefficient of 0.89, while the job engagement scale yielded 0.98, indicating high reliability.

Ethical considerations were addressed by obtaining approval from the Scientific Research and Ethical Committee of the Ain Shams University Faculty of Nursing for the research proposal. Additionally, the Dean of the Faculty of Nursing at Ain Shams University sent formal correspondence to medical and nursing hospital directors to secure data collection permission. This correspondence clearly outlined the aims and procedures of the study. After outlining the study's goal, participants were asked for their informed written agreement before being allowed to participate. The information would be guaranteed to be confidential through coding questionnaires. They were informed that they could withdraw from the study at any time or quit voluntarily during the data collection period without any consequences/penalties during the study period. Their collected responses were used only for study purposes.

Before the actual data collection, a pilot study was piloted after selecting the study instruments. This phase took place in mid-June 2023. Seventeen staff nurses, comprising ten percent of the overall study sample, participated in the pilot study, and their data were not included in the final analysis. The pilot study aimed to assess the clarity and feasibility of the research methodology and the tool's applicability and determine the questionnaire's completion time, which ranged from 25 to 35 minutes.

The study's fieldwork was completed over two months, from August 2023 to September 2023. To secure the nurses' consent and cooperation for participation, the researchers visited the study setting, discussed the study's objectives with each unit's head nurse, and scheduled a suitable time for data collection.

After that, the researchers met with the study participants and reviewed the study's goals, the parts of the instruments, and how to complete them. Each respondent received a form at their workplace during a break, and the researchers were available if any explanation was required. The researcher checked the filled-out instruments to ensure they were accurate and complete. Data collection occurred two days a week during morning shifts per a prearranged schedule. Approximately 10–13 questionnaires were gathered daily between 9 AM and 2 PM.

4.6. Data analysis

After undergoing revision, data were collected, coded, and tabulated using the Statistical Package for the Social Sciences (SPSS) version 25.0. The collected data were presented, and appropriate analyses were conducted based on the nature of the data for each parameter. Pearson correlation analysis assessed the associations between variables, with mean, standard deviation, and mean percentage range calculated for parametric numerical data and frequency and percentage calculated for non-numerical data. Statistical significance was considered present at a p-value <0.05 and highly significant at a p-value <0.001.

5. Results

Table 1 shows that 44.7% of staff nurses were under thirty, with a mean age of 33.65±6.86. Most (88.2%) were female, and 70.6% were married. Additionally, 47% held a nursing secondary school diploma, while 14.2% possessed a baccalaureate degree in nursing. Furthermore, over seventy percent of staff nurses reported having ten to twenty years of experience in their current role.

Table 2 illustrates that the highest mean percent (78.6%) was for decision-making agility, followed by acting agility (73.5%). Meanwhile, sensing agility had the lowest mean percentage (62.5%).

According to Figure 1, twenty percent of participants showed a high perception level of organizational agility, compared to fifty-five percent with a moderate level.

Table 3 shows that the physical engagement dimension had the uppermost mean percentage (69.9%), while cognitive engagement had the lowermost mean percentage (53.3%).

According to Figure 2, 60% of the staff nurses reported high levels of job engagement, 30% reported moderate levels, and 10% reported poor levels of job engagement.

The statistical analysis in Table 4 demonstrates a strong positive correlation between every aspect of organizational agility and every dimension of job engagement.

Table 5 elucidates the strong statistically positive correlation between organizational agility and job engagement among staff nurses.

Table (1): Frequency and percentage distribution of the studied staff nurses’ demographic characteristics (N = 170).

	Frequency	Percent
Age		
<30	76	44.7
30-40	64	37.6
>40	30	17.6
Mean± SD	33.65±6.86	
Gender		
Male	20	11.8
Female	150	88.2
Nursing qualification		
Nursing Diploma	80	47.0
Technical Institute of Nursing Diploma	66	38.8
Bachelor of Nursing	24	14.2
Gender		
Single	50	29.4
Married	120	70.6
Experience years in current position:		
<10	30	17.6
10-20	120	70.6
>20	20	11.8

Table (2): Organizational agility dimensions among studied staff nurses (N = 170).

Variables	Max	Mean percent	Mean±SD
Sensing Agility	15	62.5%	9.4±0.50
Decision-Making Agility	25	78.6%	19.6±0.62
Acting Agility	35	73.5%	25.7±0.66

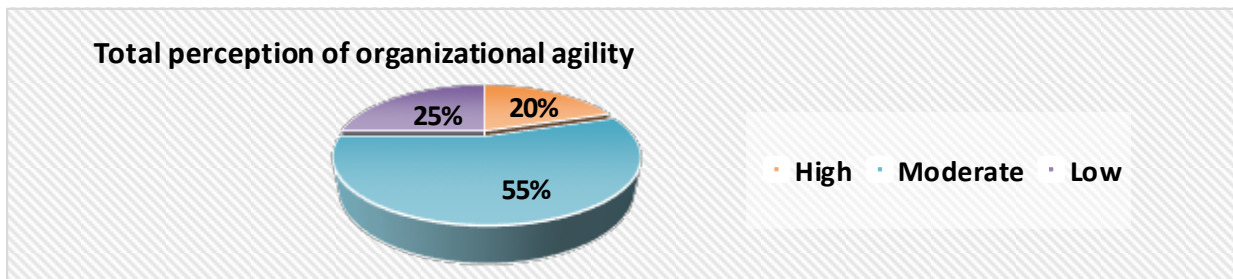


Figure (1): Percentage distribution of the overall perception of organizational agility among studied nurses.

Table (3): The dimensions of job engagement among studied staff nurses (N = 170).

Variables	Max	Mean percent	Mean±SD
Cognitive engagement	30	53.3%	15.9±0.78
Emotional engagement	30	55%	16.5±0.76
Physical engagement	30	69.9%	20.9±0.80

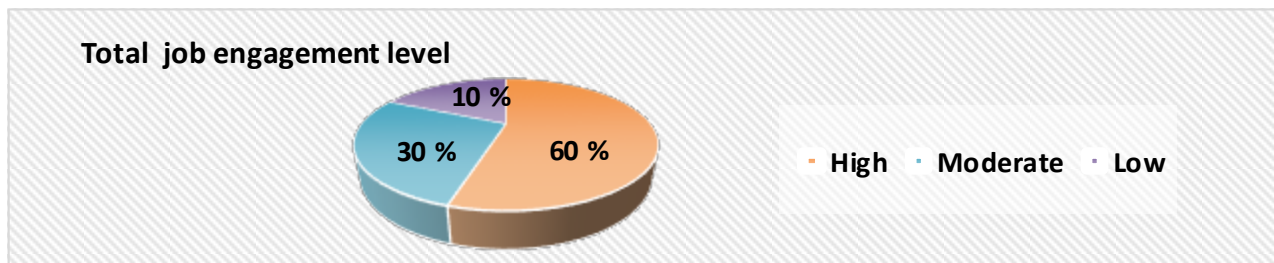


Figure (2): Percentage distribution of total job engagement level among studied nurses (n= 170).

Table (4): Correlation matrix among organizational agility and job engagement dimensions.

Organizational agility dimensions	Job engagement dimensions					
	Cognitive Engagement		Emotional Engagement		Physical Engagement	
	r	p-value	r	p-value	r	p-value
Sensing Agility	0.577	0.000	0.832	0.000	0.663*	0.000
Decision-Making Agility	0.330	0.000	0.301	0.000	0.476*	0.000
Acting Agility	0.840	0.000	0.530	0.000	0.664*	0.000

Table (5): Correlation between total organizational agility and total job engagement among staff nurses.

Variables	Total job engagement	
	r	P-value
Total organizational agility	0.663	0.001

6. Discussion

Organizations must adapt and respond effectively to new situations to confront the uncertain future full of chances and challenges, the rapidly changing global landscape, and rising market demand. As a result, many organizations frequently use organizational tools and management procedures to be more adaptable and agile (Zainal & Zainal, 2020). In this context, the current study aimed to assess the relationship between organizational agility and job engagement among staff nurses.

The current study's results show organizational agility dimensions, acting agility came in second place with the second highest mean percent and decision-making agility had the topmost level. Sensing agility, on the other hand, had the lowest mean percent. According to the investigators, this result could be attributed to nurses' frequent utilization of the decision-making agility practice, which involves the capacity to gather, organize, compile, reorganize, and estimate pertinent information. These findings corroborate those of Al Nashily (2020), who found that acting agility was the most agile category and that the dimension of decision-making agility obtained the highest average score. Sensing agility earned the lowermost mean score.

In contrast to the present findings, Hussein et al. (2022) reported organizational agility as a pathway to job engagement among staff nurses at Benha University Hospitals. They noted that sensing agility ranked highest among the dimensions of organizational agility, followed by

the dimension of acting agility, with decision-making agility ranking the lowermost.

This finding aligns with the findings of Nafei (2016), who examined job engagement as a mediator between organizational performance and agility in Egyptian hospitals. Nafei discovered that sensing agility achieved the uppermost mean score, with acting and decision-making agility following in sequence. The differences between these studies may be attributed to variations in the settings, organizational structures, or methodologies, underscoring the need for contextual considerations in interpreting research outcomes.

Based on the overall perception of organizational agility level by studied nurses, the present study's results indicate that over half possessed a moderate perception of organizational agility. However, just twenty percent demonstrated a high perception of organizational agility. Furthermore, just twenty-five percent of them exhibited a low organizational agility level. From the researchers' perspectives, these findings may be attributed to various factors, particularly the organizational culture prevailing within the healthcare institution. These factors include leadership style, communication methods, and decision-making processes, which can significantly influence how nurses perceive their organization's agility.

Furthermore, a moderate perception might suggest a blend of agile elements with areas needing improvement.

Moreover, nurses' sense of empowerment and support in facing challenges and embracing change within their work environment can contribute to their perception of the organization as more agile.

This conclusion was consistent with research by Hussein et al. (2022), which discovered that nearly two-thirds of the nurses exhibited moderate organizational agility. Additionally, Mahmoud et al. (2022) study, which found that over half of the nurses in his study indicated a moderate level of organizational agility, corroborated similar findings. Similarly, the findings presented by Al-Taweel and Al-Hawary (2021) found a moderate overall level of agility. Additionally, Ismael et al. (2021) determined that over fifty percent of studied nurses indicated moderate organizational agility.

The existing study findings indicate that the physical engagement dimension had the uppermost mean score among the job engagement dimensions. Conversely, the mean for cognitive engagement was the lowest. This result could be attributed to nurses exerting a lot of energy and effort to provide care to their patients.

This outcome was in line with a study by Deepa (2020), which looked at how organizational justice dimensions affected different aspects of job engagement and discovered that participants' physical job engagement was higher than their other two dimensions.

Meanwhile, the present study's result was inconsistent with Nafei (2017). Most of the data showed that cognitive engagement was the highest, followed by emotional and physical engagement.

In terms of overall job engagement, the results of the present study indicate that fewer than two-thirds of the staff nurses demonstrated high levels of job engagement. According to the researchers, this outcome may be because the nurses believe that the hospital administration is always attempting to give independence and motivate staff nurses to perform at a high level and work efficiently by implementing the necessary resource policies that allow opportunities for ability development.

This study's results agreed with studies conducted by Farah et al. (2019), who searched the effect of organization agility on job engagement. Ferreira et al. (2019) showed that the employees had high job engagement, leading to higher organizational performance. Contrary to this, employees typically reported a moderate level of job engagement, as demonstrated in research conducted by Oluwatayo and Adetoro (2020), who investigated the influence of workers' characteristics, work milieu, management behaviors, and human resources on job engagement, and by Mishra and Mohanty (2016), who explored the factors predicting employee engagement.

The present study demonstrated a highly statistically significant positive correlation between organizational agility and job engagement across all dimensions of organizational agility and job engagement. According to the investigators, this outcome might result from more engaged workers who thought their organization responded swiftly to unforeseen circumstances.

Additionally, organizational agility is important for improving nurses' job engagement and performance and

giving them additional chances for personal development and success. Therefore, increased job engagement directly results from high organizational agility. Nafei (2017) supported the study's findings by demonstrating a significant relationship between job engagement and organizational agility.

7. Conclusion

According to the study's outcomes, about two-thirds of the staff nurses exhibited high levels of job engagement, with over half having a moderate perception of organizational agility. Furthermore, a statistically significant positive correlation was found between organizational agility and job engagement among the staff nurses. Therefore, the study's results effectively addressed the research question concerning the association between organizational agility and job engagement among staff nurses.

8. Recommendations

Based on the above results, the following suggestions could be proposed:

- Healthcare policymakers should embrace organizational agility programs as a part of their professional development programs for nurse managers and offer them periodically.
- Policymakers at the hospital should conduct seminars and workshops to achieve flexibility and rapid responsiveness and accommodate work with the essential elements of the agile organization.
- Hospital administrators must create and encourage a more agile environment, promote self-awareness, and ensure that organizational strategies can generate resilience to daily challenges.
- Nurse managers must regularly meet with nurses to discuss and solve their problems and express their feelings and needs.

Research is suggested as follows:

- Assess the factors influencing organizational agility.
- Examine how the leadership style of nurse managers affects organizational agility.
- Examine the relationship between creative behavior and organizational agility.
- Investigate the relationship between organizational success and agility.

9. References

- Abdel Qader, M. A., Harahsheh, F., & Abu Qulah, M. (2021). The role of organizational agility and its impact on achieving organizational commitment a field study: Jordan Cement Company. *Natural Volatiles & Essential Oils*, 8(4), 2858–2876.
- Akkaya, B., & Mert, G. (2022). Organizational agility, competitive capabilities, and the performance of health care organizations during the COVID-19 pandemic. *Central European Management Journal*, 30(2), 2–25. <https://doi.org/10.7206/cemj.2658-0845.73>
- Ali, H., Li, M., & Qiu, X. (2022). Employee engagement and innovative work behavior among Chinese millennials: Mediating and moderating role of work-life balance and

- psychological empowerment. *Frontiers Psychology*, 13, 942580. <https://doi.org/10.3389/fpsyg.2022.942580>
- Al Nashily, D. H. (2020).** The role of organizational agility in achieving organizational commitment «field study. » *Arab Journal of Administration*, 40(3), 9. <https://doi.org/10.2168/aja.2020.111816>.
- Al-Taweel, I. R., & Al-Hawary, S. I. (2021).** The mediating role of innovation capability on the relationship between strategic agility and organizational performance. *Sustainability*, 13(14), 7564. <https://doi.org/10.3390/Su13147564>.
- Caferra, R., Falcone, P. M., Morone, A., & Morone, P. (2022).** Is COVID-19 anticipating the future? Evidence from investors' sustainable orientation. *Eurasian Business Review*, 12, 177–196. <https://doi.org/10.1007/s40821-022-00204-5>.
- Coard, A., Amaral-Garcia, S., Bauer, P., Domnick, C., Harasztosi, P., Pál, R., & Teruel, M. (2023).** Investment expectations by vulnerable European firms in times of COVID. *Eurasian Business Review*, 13(1), 193-220. <https://doi.org/10.1007/s40821-022-00218-z>
- Dean, A. G., & Sullivan, K. M. (2013).** Open epi: Open source epidemiologic statistics for public health, version. www.open.epi.com
- Deepa, S. M. (2020).** The effects of organizational justice dimensions on facets of job engagement. *International Journal of Organization Theory & Behavior*, 23(4), 315-336. <https://doi.org/10.1108/IJOTB-05-2019-0066>.
- Farah, S. F., Badwy, M. Y., & Babek, S. Y. (2019).** The impact of organization agility on job engagement at Agricultural Companies in Gadarif State Sudan. *Journal of Economic, Administrative, and Legal Sciences*, 3(1), 73-91. <https://doi.org/10.26389/AJSRP.F151018>
- Ferreira, A. I., da Costa Ferreira, P., Cooper, C. L., & Oliveira, D. (2019).** How daily negative affect and emotional exhaustion correlates with work engagement and presenteeism-constrained productivity. *International Journal of Stress Management*, 26(30), 261-271. <https://doi.org/10.1037/str0000114>.
- Ghadi, M. Y., Sakka, F., & Ismail, O. (2020).** Examining the impact of organization learning and job crafting on organizational agility: An organizational analysis study in UAE. *International Journal of Management Review (IJM)*, 11(10). <https://doi.org/10.34218/IJM.11.10.2020.200>
- Huang, S.Y.B., Huang, C-H., & Chang, T-W. (2022).** A new concept of work engagement theory in cognitive engagement, emotional engagement, and physical engagement. *Frontiers Psychology*, 12, 663440. <https://doi.org/10.3389/fpsyg.2021.663440>.
- 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.
- Ismael, Z. I., El-kholy, S. M., & Abd Elrahman, A. E. (2021).** Knowledge management as a predictor of organizational resilience and agility. *Egyptian Journal of Health Care*, 12(4), 1397-1412. <https://doi.org/10.21608/ejhc.2021.209025>
- Jaworski, B. J., & Kohli, A. K. (1993).** Market orientation: Antecedents and consequences. *Journal of Marketing*, 57(3), 52-70. <https://doi.org/10.1177/002224299305700304>
- Kaur, P., & Mittal, A. (2020).** Meaningfulness of work and employee engagement: The role of affective commitment. *The Open Psychology Journal*, 13(1), 115-122. <https://doi.org/10.2174/1874350102013010115>
- Khusanova, R., Kang, S-W., & Choi, S. B. (2021).** Work engagement among public employees: Antecedents and consequences. *Frontiers Psychology*, 12, 684495. <https://doi.org/10.3389/fpsyg.2021.684495>
- Kuok, A. C. H., & Taormina, R. J. (2017).** Work engagement: Evolution of the concept and a new inventory. *Psychological Thought*, 10(2), 262-287. <https://doi.org/10.5964/psyc.v10i2.236>
- 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*, 9(2), 237-249.
- Melian-Alzola, L., Domingues-Falcon, C., & Martin-Santana, J. D. (2020).** The role of the human dimension in organizational agility: An empirical study in intensive care units. *Personnel Review*, 49(9), 1945-1964. <https://doi.org/10.1108/PR-08-2019-0456>
- Mithani, M. A. (2020).** Adaptation in the face of the new normal. *Academy of Management Perspectives*, 34(4), 508–530. <https://doi.org/10.5465/amp.2019.0054>
- Mishra, S., & Mohanty, J. K. (2016).** The predictors of employee engagement: A study in a Ferro Alloys company of India. *Global Business Review*, 17(6), 1441–1453. <https://doi.org/10.1177/0972150916660429>.
- Nafei, W. A. (2016).** The role of organizational agility in reinforcing job engagement: A study on industrial companies in Egypt. *International Business Research*, 9(2), 153–167. <https://doi.org/10.5539/ibr.v9n2p153>.
- Nafei, W. A. (2017).** Job engagement as a mediator of the relationship between organizational agility and organizational performance: A study on teaching hospitals in Egypt. *International Business Research*, 10(1), 223–240. <https://doi.org/10.5539/ibr.v10n1p223>.
- Nahum-Shani, I., Shaw, S. D., Carpenter, S. M., Murphy, S. A., & Yoon, C. (2022).** Engagement in digital interventions. *The American psychologist*, 77(7), 836–852. <https://doi.org/10.1037/amp0000983>
- Nsour, J. A. (2021).** Investigating the impact of organizational agility on the competitive advantage. *Journal of Governance & Regulation*, 10(1), 153–157. <https://doi.org/10.22495/jgrv10i1art14>
- Oluwatayo, A. A., & Adetoro, O. (2020).** Influence of employee attributes, work context and human resource management practices on employee job engagement. *Global Journal of Flexible Systems Management*, 21(4), 295–308 <https://doi.org/10.1007/s40171-020-00249-3>
- Putri, W. H., & Setianan, A. R. (2019).** Job enrichment, organizational commitment, and intention to quit: The mediating role of employee engagement. *Problems and*

Perspectives in Management, 17(2), 518-526.
[http://doi.org/10.21511/ppm.17\(2\).2019.40](http://doi.org/10.21511/ppm.17(2).2019.40)

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635.
<http://dx.doi.org/10.5465/AMJ.2010.51468988>.

Sindhvani, R., Singh, P. L., Iqbal, A., Prajapati, D. K., & Mittal, V. K. (2019). Modeling and analysis of factors influencing agility in healthcare organizations: an ISM approach. *Advances in Industrial and Production Engineering*, 683-696.
https://doi.org/10.1007/978-981-13-6412-9_64.

Stangor, C., & Walinga, J. (2019). Introduction to psychology. Canadian ed. Open textbook project. Hewlett Foundation.
<https://opentxtbc.ca/introduction-to-psychology/frontmatter/about-the-book/>.

Zainal, A. Y., & Zainal, H. Y. (2020). Dimensions of agility capabilities organizational competitiveness in sustaining. https://doi.org/10.1007/978-3-030-44289-7_71

Zitkiene, R., & Deksnys, M. (2018). Organizational agility conceptual model. *Montenegrin Journal of Economics*, 14(2), 115-129. <https://doi.org/10.14254/1800-5845/2018.14-2.7>