



THE ROLE OF REVERSE MENTORING IN CRYSTALLIZING ADAPTIVE PERFORMANCE

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Article history:	Abstract:
<p>Received: January 30th 2022 Accepted: March 1st 2022 Published: April 4th 2022</p>	<p>The issue of information privacy and crisis management in recent decades. The purpose of this research is to investigate the existence of a relationship between reverse mentoring and adaptive performance, and whether the effect it has is significant or not. The research was conducted in private universities in the central Euphrates provinces in Iraq. The data was collected using the questionnaire tool, which was distributed to (196) individuals from the assistant deans and heads of scientific and administrative departments in private universities in the governorates of the Middle Euphrates. Of the (196) questionnaires that were sent by e-mail or via WhatsApp for each person, (163) were returned for use and analysis, which resulted in a response rate of (83.16%), the target group in the research was the middle administrations of private universities in Middle Euphrates governorates (Warith Al-Anbiya University, Ahl al-Bayt University (PBUH), Al-Zahra University (PBUH) for Girls, Al-Ameed University, Al-Kafeel University, and the Islamic University) all sample members were targeted. The research conducted data analysis to reveal the relationship between variables using the Pearson correlation factor, as well as the effect of reverse mentoring on adaptive performance using structural equation modeling. The results showed that there is a correlation between reverse mentoring and adaptive performance, as well as reverse mentoring exerts a significant effect on adaptive performance.</p>

Keywords: *Reverse Mentoring , Performance , Adaptive Performance*

INTRODUCTION

The rapid technological change has led to the realization of all managements of organizations and researchers that knowledge is not a one-way street, and that it is in everyone's interest to share experiences. The Reverse Mentoring may be seen as an opportunity for human resource practitioners to facilitate the exchange of knowledge across generations, as research has proven (Allen et al. , 2004 ; Allen & Eby, 2007 ; Ragins & Kram, 2007) that mentoring is beneficial to individuals and organizations. Traditionally, mentoring relationships have consisted of a senior senior executive advising a younger colleague, while reverse mentoring turns this formula on its head (Murphy, 2012: 550). Given the paucity of comprehensive research on reverse mentoring to date, the literature review of the current study focuses on better elucidating the concept and functions of reverse mentoring .

On the other hand, when the environment becomes more turbulent, the ability of employees to deal with emergencies, learn quickly and solve new problems is

required . Previous perspectives on work performance have not captured the full range of individual behaviors that contribute to job effectiveness in uncertain and interconnected systems, and as a result, adaptive performance has gained significant interest as a way to better understand the dynamic nature of employee performance in today's rapidly changing business environment . Adaptive performance reflects the need to address clearly the ability of employees to adapt to changes in the work environment. Regulatory and keeping pace with changing customer expectations (Park & Park, 2019: 294) .

Since the service sector has become over the past few years the dominant element in many economies, in many industrialized countries the service sector constituted more than 50% of the GDP, for example in 1989 the service sector constituted 69% of the GDP of the states United. It amounted to 67% of the GDP of France, 62% of the GDP of the United Kingdom, 60% of the GDP of Germany, and 56% of the GDP of Japan (Gupta et al. , 2005 : 1) . As universities have a special position among service organizations, health disorders have imposed upon



them during the spread of the (COVID-19) pandemic a lot of restrictions and challenges, as education has turned into e-learning, as it required teachers and students to adapt to emergency conditions as well as learn many methods of education . and electronic communication. Therefore, this research came to test the role of Reverse Mentoring in achieving adaptive performance .

I. RESEARCH METHODOLOGY

1. Research Problem

Modern organizations have witnessed a state of increasing uncertainty and sudden changes, and as a result, their work environments are unstable and unpredictable, as globalization, rapid technological progress and varying age trends increase the complexity of today's work environments . In the midst of this turmoil, the ability of the individual worker to be tactful with meeting the needs of work and the increasing change in the tastes of customers has become a pivotal element for the survival and success of the organization . Researchers in the field of human resources have become interested in the adaptive performance of workers in their work, at the present time job performance requires adaptive performance of the individual worker's task-oriented behavior, which must correspond to changing work situations, as well as interest in improving the ability of workers to deal with fast-paced tasks and deal with situations More uncertain work than ever before (Park et al. , 2020 : 1) .

Since education organizations are among the most prominent and most important service organizations as they are responsible for building an educated society that contributes to the success of all governmental and non-governmental institutions, and since the Corona pandemic imposed great challenges on education organizations, it made them in their beginnings abnormally confused, which formed disturbances in the work of many colleges and departments Even the teachers, and many teachers have faced problems in dealing with technology and means of communication with students, so this research came to test important aspects that are the practices of total quality management and reverse mentoring in mitigating these disorders and acting on the size of the impact they have on adaptive performance. Therefore, the main features of the problem can be clarified by asking the following questions :

1. To what extent is reverse mentoring adopted in universities, research community ?
2. Is adaptive performance available in its various dimensions in the research community ?
3. Does reverse mentoring affect the adaptive performance of the surveyed universities ?

2. Research Importance

The variables dealt with in the research could be a

source of its importance, as the research dealt with two variables that everyone realizes their importance. Reverse Mentoring is a special opportunity to build relationships between generations with different roles. This type of guidance allows for better and more responsible cooperation, achieving common goals or searching for inspiration, in addition to Transfer of knowledge between generations (Tomlinson, 2020: 9). The ability to adapt to changing task environments is also a prerequisite for high performance for individuals and teams because what is required for effective performance in one moment can change in the next moment (Acikgoz & Latham, 2020 : 1).

In addition to that, the research also derives its importance from the importance of the researched organizations, the private universities in the Middle Euphrates (Warith Al-Anbiya University, Al-Ameed University, Ahl Al-Bayt University, peace be upon him, Al-Zahra University, peace be upon him, the Islamic University, and Al-Kafeel University) due to the importance of educational organizations in the progress and development of any A country because it contributes to preparing an educated generation in various scientific disciplines .

3. Research model and its hypotheses

The research dealt with two variables :

- The independent variable : Reverse Mentoring: It is about exchanging experiences and skills with the elderly who need such competencies and building a community whose members support each other (Gadomska-Lila, 2020 : 6) . And believes (Murphy, 2012 ; Chen, 2013, 2014) that reverse mentoring consists of three dimensions (career development , psychological support , and role modeling) .

- The dependent variable : Adaptive performance: It is the ability of individuals to modify their behaviors according to the requirements of work situations and new events (Charbonnier-Voirin & Roussel, 2012 : 281) , and it consists of six dimensions (Handling emergencies or crisis situations, Managing work stress, Solving problems creatively, Dealing with uncertain and unpredictable work situations, Training and learning effort , Interpersonal / Cultural / Physical Adaptability).

Figure (1) shows the hypothetical scheme of the research

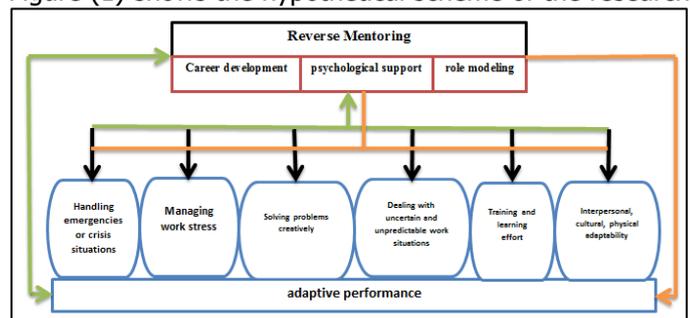


Figure (1) The hypothetical model of the Research
Source: Prepared by the Researcher



Based on the above hypothesis, the Research hypotheses can be formulated as follows :

The first main hypothesis : There is a positive correlation between Reverse Mentoring with its dimensions and adaptive performance with its dimensions . Several hypotheses are branched from it :

1. There is a positive correlation between career development and each dimension of adaptive performance.
2. There is a positive correlation between psychological support and each dimension of adaptive performance.
3. There is a positive correlation between role modeling and each dimension of adaptive performance.

The second main hypothesis : There is a direct, significant effect of the reverse mentoring with its dimensions on the adaptive performance in its dimensions, and several hypotheses are branched from it :

- a. There is a direct effect of the reverse mentoring its dimensions in Handling emergencies or crisis situations .
- b. There is a direct significant effect of the reverse mentoring its dimensions in Managing work stress .
- c. There is a direct effect of the reverse mentoring its dimensions in Solving Problems Creatively.
- d. There is a direct significant effect of the reverse mentoring its dimensions in Dealing with Uncertain and Unpredictable Work Situations .
- e. There is a direct significant effect of the reverse mentoring its dimensions in the Training and Learning effort.
- f. There is a direct effect of the reverse mentoring its dimensions on Interpersonal , Cultural , Physical Adaptability .

II. THEORETICAL BACKGROUND

1. Reverse Mentoring

(Czaja et al., 2006) explained that technology plays an important role in many aspects of daily life, which makes digital literacy of increasing importance. It was also found (Charness et al., 2002) that compared to the younger population, the elderly face increasing difficulty in learning and using technology . However, research has shown that older adults' anxiety about technology use is alleviated when they receive technical training from others, which is consistent with the position that digital competence has more to do with exposure and education about the digital world (Cotugna & Vickery, 1998: 1166; Breck et al. , 2018: 3). Based on this gap, many organizations have adopted reverse mentoring to bridge the knowledge, cultural and technology gaps between generations. The concept of reverse mentoring was first issued and officially implemented by (Jack Welsh), president of General Electric (GE) in 1999. (Welsh) asked 500 top level managers in Electric to learn how to use the Internet from young employees, then with the advancement of information technology the

reverse mentoring has gained increasing importance as junior employees share modern concepts and information media technologies with senior employees, and gradually the popularity of this concept has increased among International and multinational organizations. For example, IBM, which is internationally listed among the best training companies, and the public relations firm Burson-Marsteller, have established official reverse mentoring systems in their organizations, and the reverse mentoring practice can also be found in leading organizations such as (The Hartford, Procter & Gamble, Cisco, General Motors). , Unilever, Deloitte & Touche, Wharton School of Business at the University of Pennsylvania) (Murphy, 2012: 551; DeAngelis, 2013: 4; Chen, 2014: 205; Breck et al., 2018: 3; Tomlinson, 2020: 6) .

Noe (1988) divided the function of guidance into two categories: career development and psychological support, as career development revolved around the advancement of junior employees in their careers under the reverse of senior employees, while psychological support referred to the process by which senior employees helped junior employees in building their personality While both Scandura & Ragins (1993), identified the role model as the third reverse mentoring (Chen, 2013 : 201) . Most of the researchers, including (Murphy, 2012 ; Chen, 2013, 2014 ; Gadowska-Lila, 2020) agreed that these functions are the same in Reverse Mentoring, but by changing some aspects of each function .

• Career development

The career is visualized as a sequence of professional positions during the career period, where the development of the career is described as the interactive progression of the formation of internal professional identity and the growth of external professional importance (Bowen & Lawler, 1992: 10; Hoekstra, 2011: 159-160). Traditional guidance includes some aspects through which a career can be developed, such as learning, presenting challenges, exposure and clarity, and these aspects remain the same in Reverse Mentoring except for replacing the protective effect of traditional guidance with the managerial effect of Reverse Mentoring. Because of cultural and contextual differences, some of the available studies (Chaudhuri & Ghosh, 2012; Murphy, 2012) on Reverse Mentoring that occurred in the American workforce have suggested some different additions to career development, namely knowledge sharing, training, exposure and vision, skill development, and change Ideas, Communication, and Social Affiliation (Chen, 2014: 209) .

• psychological support

Psychological support includes the positive resources obtained from the mentor. A person who enjoys high levels of psychological support has a strong ability to deal with emerging work requirements with less training or



mentoring time . The Reverse Mentoring may share with the traditional guidance in some aspects such as acceptance, guidance, counseling and friendship. However, there is no content of approval in the Reverse Mentoring due to the difference in age and job level between the mentor and the trainee . Finally, (Murphy, 2012) stated that some effects must be integrated into psychological support for Reverse Mentoring, such as affirmation, encouragement and feedback (Chen, 2014 : 210) .

- **role modeling**

(Charters, 2000) asserts that the relationship in teaching and learning is a dual relationship, conducted between two people with most of the learning acquired informally through a role model, and the term "role model" is often understood to describe the person who represents a behavior or social role for others to emulate, who sets a positive example and whose attitudes and values are assimilated by learners (Felstead , 2013 : 14) .

2.Adaptive Performance

Several definitions of performance have been proposed, as Campbell, 1990, defined it as the behavior associated with the fulfillment of the requirements of the expected, specified or formal role on the part of the members of the individual organization (Waldman, 1994: 514). As defined by (Campbell, 1990 ; Murphy, 1989) it refers to actions, behavior, and scalable results in which employees participate or achieve and that are related to organizational goals and contribute to their achievement (Viswesvaran & Ones, 2000 : 216). Advances in technology, globalization of organizations, and frequent business mergers and acquisitions have created flexible and dynamic work environments. The problems faced by workers are also becoming increasingly complex due to technological advances and changes in the infrastructure of organizations. As a result of these changes, work procedures have become less standardized and workers are required to adapt to changing environmental requirements and opportunities and to uncertainty (Hesketh & Griffin, 2003 : 65 ; Han & Williams, 2008 : 657 ; Pulakos et al., 2002 : 299) .

Early research on adaptive functioning was conducted mostly in the field of psychology. After the term "adaptive performance" was coined (Hesketh & Neal, 1999), a debate emerged about whether adaptive performance is a distinct concept from performance. It was found (Johnson, 2001) that adaptive performance can be considered as part of contextual performance. While many researchers have recently shown (Allworth & Hesketh, 1999 ; Pulakos et al., 2000 ; Johnson, 2001 ; Han & Williams, 2008) that adaptive performance is an important component of overall performance at work, which can be distinguished from performance on the task. and contextual performance. These studies have

evaluated all three types of functioning—task performance, context, and adaptation—and have shown that they are unique and discrete structures (Charbonnier-Voirin & El Akremi, 2011 : 129; Park & Park, 2019: 300). Adaptive performance was defined by (Allworth & Hesketh, 1999) behaviors that show the ability to deal with change and transfer learning from one task to another with different work requirements (Han & Williams, 2008 : 658 ; Acikgoz & Latham, 2020 : 1) . While (Johnson, 2001) sees that adaptive performance is the individual's ability to modify his behavior according to the requirements of new environments, situations or events (Charbonnier-Voirin & El Akremi, 2011: 129 ; Charbonnier-Voirin & Roussel, 2012 : 280 ; Charbonnier-Voirin , 2013 : 18). What is known (Heinze & Heinze, 2020) is the ability of individuals or groups to change perceptions and behaviors to adapt to changing environments (Park et al., 2020 : 4) .

Based on the foregoing and based on the point of view of (Allworth & Hesketh, 1999; Johnson, 2001), adaptive performance can be defined as the capabilities possessed by the individual that enable him to respond and deal with emergency conditions, whether environmental, organizational, functional or personal, and thus fulfill the requirements Work and solve problems in the best way .

The current research will go with what was stated (Pulakos et al., 2000, 2002) in determining the dimensions of adaptive performance. The dimensions of adaptation (personal, cultural, and physical) have been merged into one dimension so that the total dimensions are six dimensions instead of eight dimensions (dealing with cases emergencies or crises, dealing with uncertain or unexpected work situations, creatively solving problems, dealing with work stress, learning new tasks, techniques, and procedures, and demonstrating interpersonal/cultural/physical adaptability) .

(Pulakos et al., 2000) considers that dealing with emergency or crisis situations requires the speed with which the individual can react or avoid a danger, crisis or emergency in an appropriate manner (Charbonnier-Voirin & Roussel, 2012 : 281) . It also requires the employee in order to deal with work pressures to remain calm and cool when facing difficult circumstances or workloads or a highly demanding schedule. Adapting to new or dynamic and changing situations requires frequently solving new and unfamiliar problems by developing creative solutions to those problems. Many researchers have also discussed adaptability in relation to a wide range of unpredictable and uncertain work situations that result from various factors such as formal organizational restructuring, or changing work priorities. In addition, adaptive performance requires learning new ways of performing a job or learning different skill sets or tasks (Pulakos et al., 2000 : 616-617) . It also requires employees to achieve adaptive performance by modifying their personal behaviors to work effectively with a wide range of co-



workers or customers, as well as adapting to the cultural demands within the organization, or a new country, as well as the ability to adapt to uncomfortable or difficult work environments (Charbonnier-Voirin & Roussel, 2012 : 282) .

III. RESEARCH DESIGN

1. The Research sample

The sample of the Research is represented in the middle administrations in private universities in the central Euphrates governorates represented by (deans' assistants, heads of scientific departments, heads of administrative departments) in those universities, which number (196) individuals, as shown in Table (1) .

Table (1)

Preparing the Research sample members in each university

Seq	University Name	Location	The Number		
			Associate Dean	Head of scientific department	Head of administrative department
1	University of the Prophets	Karbala	8	7	19
2	Al-Ameed University	Karbala	8	15	19
3	Ahl al-Bayt University	Karbala	12	11	8
4	Al-Zahra University for Girls	Karbala	6	8	17
5	Islamic University	Najaf	8	10	22
6	Al-Kafeel University	Najaf	8	6	4
Total			50	57	89
			196		

Source : Prepared by the Researcher based on University Websites

2. Research Measurement

Several researchers have developed measures of Reverse Mentoring (Murphy, 2012 ; Chen, 2013, 2014) and adaptive performance (Pulakos et al., 2000 ; Charbonnier-Voirin & Roussel, 2012) . However, most of these metrics have not been experimentally tested and validated in the context of our local environment, and to overcome this limitation, the current research has provided an adapted, controlled questionnaire from a group of experts in the field of competence, as shown in (Appendix 1).

3. Descriptive Statistics

Table (2) shows the results that indicate that psychological support for the Reverse Mentoring came in the first place with an arithmetic mean (3.75) and a standard deviation of (0.84) and a high level, and an answer towards agreement to show a relative interest of

(75) to indicate that the Researched universities are interested By addressing the work pressures that the worker faces while performing the tasks assigned to him, the results also showed the interest of the Researched universities in modeling their roles by showing a relative interest equal to (70%) and with a mean of (3.52) and a standard deviation of (0.763) to indicate that the Researched universities Interested in modeling the roles of total quality management.

From the above, it is clear that the general arithmetic mean of the Reverse Mentoring variable is (3.65) with a standard deviation of (0.597) and a relative importance of (73%) to indicate the interest of the Researched universities in showing the behaviors, attitudes and skills necessary to respect workers and take into account their ideas and aspirations.

Table (2)

Descriptive Statistics for the Reverse Mentoring Variable (n=163)

Paragraph	Mean	Standard deviation	Answer direction	Answer level	Relative importance	Availability level	Test T	Order of importance
Career development	3.68	0.71	Agreed	High	74%	Good	12.225	2
Psychological support	3.75	0.84			75%		11.379	1
Role modeling	3.52	0.763			70%		8.622	3
Reverse Mentoring Variable								
Mean	3.65	Standard deviation	0.597	Relative importance	73%			
Answer direction	Agreed	Answer level	High	Availability level	Good			
Test T				13.855				

Source : Prepared by The Researcher

The results in Table (3) indicate the interest of the researched universities in dealing with work pressures and using new methods to implement work requirements and discuss them calmly in order to identify the best appropriate solutions to work pressures on workers, and this interest is by (78%) and with an arithmetic mean equal to (3.91) . and a standard deviation of (0.775), while the results indicated the interest of the researched universities to encourage their workers to show the ability to adapt between people, cultural, and material with a relative interest of (76%) to show the contribution of universities striving to adapt between co-workers on the one hand and with the beneficiaries From the service on the other hand, as well as adapting to difficult working conditions with an arithmetic mean of (3.79) and analyzing the weaknesses experienced by it with a



standard deviation of (0.671) in order to understand and treat work methods and develop businesses that suffer from reluctance and weakness in providing acceptable productivity .

Table (3)

Descriptive Statistics for Adaptive Performance Variable (n = 163)

Paragraph	Mean	Standard deviation	Answer direction	Answer level	Relative importance	Availability level	Test T	Order of importance
Handling Emergencies and Crises	3.86	0.761	Agreed	High	77%	Good	14.414	4
Managing work stress	3.91	0.775			78%		14.926	1
Solving Problems Creatively	3.9	0.661			78%		17.292	2
Dealing with Uncertain and Unpredictable Work Situations	3.82	0.752			76%		13.991	5
Training and Learning effort	3.88	0.573			78%		19.585	3
Interpersonal , Cultural , Physical Adaptability	3.79	0.671			76%		15.089	6
Adaptive Performance variable								
Mean	3.86	Standard deviation	0.491	Relative importance	77%			
Answer direction	Agreed	Answer level	High	Availability level	Good			
Test T				22.329				

Source : Prepared by The Researcher

IV. Hypothesis Test Results

The research relied on testing the correlation and impact hypotheses between the independent variable (Reverse Mentoring (REM)) in three dimensions (career development, psychological support, and role modeling), and the dependent variable (adaptive performance (AP)) in six dimensions (Handling Emergencies and Crises , Managing work stress , Solving Problems Creatively , Dealing with Uncertain and Unpredictable Work Situations , Training and Learning effort , Interpersonal / Cultural / Physical Adaptability) , through the use of the statistical package (SPSS.V.26) to measure The simple correlation hypothesis (Pearson), and the statistical package of the (AMOS.V.26) program to measure the structural and special equation modeling in the impact hypothesis by (n = 163), and in order to measure the strength of the correlation between the research variables, the research adopted a scale (Cohen et al., 1983 : 2) And as in Table (4) .

Table (4)

The level of availability of the relationship between the variables

The type and strength of the relationship	Correlation coefficient value
Strong positive relationship	from 0.50 - 1
Moderate positive relationship	from 0.30 - less than 0.50
Weak positive relationship	from 0.10 - less than 0.30
There is no relationship	0
Weak inverse relationship	From (0.10-)- Less than (0.30-)
Moderate inverse relationship	From (0.30) – Less than (0.50)
Strong inverse relationship	From (0.50-) – (1-)

Source : Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. , (1983) , "Applied Multiple Regression /Correlation Analysis for the Behavioral Sciences" , 3rd Edition, Mahwah, NJ: Lawrence Erlbaum Associates, P: 2 .

The first main hypothesis states that : There is a positive correlation between Reverse Mentoring with its dimensions and adaptive performance with its dimensions

The current research also extracted a matrix of simple correlation coefficients between the dimensions of the Reverse Mentoring variable and the dimensions of the adaptive performance variable, as shown in Table (5) , which was extracted using the statistical program (SPSS vr.26) .

Table (5)

Matrix of the correlation between reverse mentoring and adaptive performance and their dimensions¹

Variables	Career development	psychological support	role modeling	Reverse Mentoring
Handling Emergencies and Crises	.322**	.293**	.273**	.381**
Managing work stress	.494**	.322**	.424**	.527**
Solving Problems Creatively	.329**	.212**	.488**	.438**
Dealing with Uncertain and Unpredictable Work Situations	.381**	.413**	.414**	.521**
Training and Learning effort	.448**	.186*	.530**	.491**
Interpersonal , Cultural , Physical Adaptability	.454**	.268**	.328**	.446**
Adaptive performance	.574**	.410**	.575**	.665**

Source : Prepared by The Researcher

It is noted from the results of Table (5) that the presence of Reverse Mentoring contributes to urging universities to improve adaptive performance by (0.665)

¹(**) indicates a level of significance less than (0.01), i.e. a confidence level of (0.99)

(*) indicates a level of significance less than (0.05), i.e. a confidence level of (0.95)



to indicate the interest of the researched universities in the growth and improvement of the dimensions of adaptive performance from (0.381) for the dimension of Handling emergencies or crisis situations to (0.527) for the dimension of dealing with stress Work to show the researched universities' endeavor to address crises by dealing with work pressures and developing the capabilities of workers to suit their adaptive performance. Three sub-hypotheses are derived from this hypothesis:

1. There is a positive correlation between career development and each dimension of adaptive performance .

It is noted from the results of Table (5) that the existence of career development contributed to improving the adaptive performance of the surveyed universities, as the results showed that increasing interest in applying career development by one unit leads to addressing the universities' abilities to consolidate the relationship with the rest of the sectors in order to enhance their adaptive performance And an amount of (0.574) to indicate the interest of the surveyed universities in the growth and improvement of the dimensions of adaptive performance from (0.322) for the dimension of Handling emergencies or crisis situations to (0.494) for the dimension of dealing with work pressures to indicate the researched universities' endeavor to develop mechanisms for the tasks entrusted to workers in order to reduce the occurrence of crises and deal with Work stress while it happens .

2. There is a positive correlation between psychological support and each dimension of adaptive performance .

It was shown to us through the results of Table (5) that the presence of psychological support contributed to improving the adaptive performance of the surveyed universities. (0.410) to indicate the interest of the surveyed universities in the growth and improvement of the dimensions of adaptive performance from (0.186) for the dimension of Training and Learning effortto (0.413) for the dimension of Dealing with Uncertain and Unpredictable Work Situations situations to show the researched universities' endeavor to pay attention to psychological support for workers in order to ensure improvement of workers' performance and adaptation With the work requirements entrusted to them and address the problems that occur in the workplace as much as possible .

3. There is a positive correlation between role modeling and each dimension of adaptive performance .

It is noted from the results of Table (5) that the presence of role modeling contributed to improving the adaptive performance of the universities surveyed, as the results showed that increasing interest in applying role modeling by one unit leads to addressing the

capabilities of universities, consolidating the relationship with the rest of the sectors in a way that leads to gaining the satisfaction of the parties during the distribution of power In order to ensure the enhancement of its adaptive performance by an amount of (0.575) to indicate the interest of the surveyed universities in the growth and improvement of the dimensions of adaptive performance from (0.273) for the dimension of Handling emergencies or crisis situations to (0.530) for the dimension of learning and training effort to show the researched universities' endeavor to urge workers to learn and enter into courses and workshops Training to ensure the maturity of their experience and their practical skills to improve their adaptive performance .

The second main hypothesis states that : There is a direct, significant effect of the reverse mentoring with its dimensions on the adaptive performance with its dimensions .

To test this hypothesis, a model was built showing the nature of the relationship between the dimensions of the Reverse Mentoring variable and the adaptive performance, as shown in Figure (2) through the use of structural equation modeling in the program (AMOS V.26) . From Table (7) it appears that the final model of the direct effect of the reverse mentoring variable on adaptive performance is compatible with the indicators of conformity quality when compared with Table (6), so it can be relied upon for the purpose of hypothesis testing .

Table (6)

Conformance quality indicators of the direct effect of the reverse mentoring variable on adaptive performance

pointer	pointer value	Comparison
X²/ df	2.228	less than 5
Absolute Match Indicators (AFI)		
GFI	0.926	greater than 0.90
AGFI	0.917	greater than 0.90
RMSEA	0.059	less than .080
Incremental Match Indicators (IFI)		
CFI	0.933	greater than 0.90
NFI	0.930	greater than 0.90

Source : Prepared by The Researcher

Table (7) shows the results shown in Figure (2), which indicate that there is an effect of the Reverse Mentoring on the adaptive performance, as the Reverse Mentoring contributed to the interpretation of (0.889) of the issues that stand without development and crystallization of the adaptive performance in the surveyed universities, which indicates that Increasing the Reverse



Mentoring by one unit leads to an increase in adaptive performance by (0.943) and with a standard error of (0.048) and a critical value of (19.646), which means the interest of the researched universities in improving the Reverse Mentoring contributes to improving its adaptive performance by (0.057).

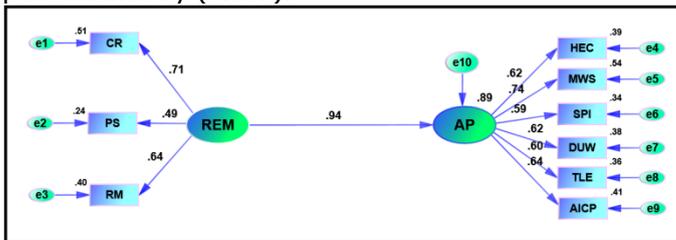


Figure (2)

A structural model for the effect of Reverse Mentoring on adaptive performance

Source: Prepared by the researcher

Table (7)

Results of analyzing the effect of Reverse Mentoring on Adaptive Performance

Regression	Standard Weights	Standard Error	Critical Ratio	Coefficient of Determination R ²	Probability (P)	Effect Type
Reverse Mentoring → Adaptive Performance	0.943	0.048	19.646	0.889	***	moral

Source : Prepared by The Researcher

Six sub-hypotheses emerge from the second main hypothesis, the corresponding indicators of which are shown in Table (8) :

Table (8) Conformance quality indicators of the direct effect relationship of the dimensions of the Reverse Mentoring variable on adaptive performance

pointer	pointer value	Comparison
X²/ df	1.851	less than 5
Absolute Match Indicators (AFI)		
GFI	0.937	greater than 0.90
AGFI	0.925	greater than 0.90
RMSEA	0.071	less than .080
Incremental Match Indicators (IFI)		
CFI	0.930	greater than 0.90
NFI	0.904	greater than 0.90

Source : Prepared by The Researcher

It is noted from Table (8) that the search model is identical to the matching quality indicators, so Table (9) shows the results of analyzing the impact of the dimensions of reverse mentoring on the dimensions of adaptive performance, and Figure (3) reflects those results in the form of a structural model .

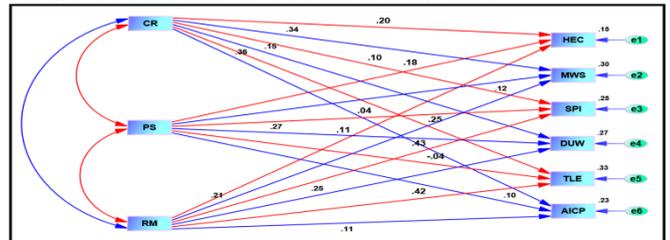


Figure (3)

Structural model of the effect of the dimensions of the opposite orientation on the dimensions of adaptive performance

Source: Prepared by the researcher

Table (9)

The results of analyzing the effect of the dimensions of the opposite orientation on the dimensions of adaptive performance

Regression	Standard Weights	Standard Error	Critical Ratio	Coefficient of Determination R ²	Probability (P)	Effect Type
Career development → Handling Emergencies and Crises	0.195	0.093	2.097	0.148	0.025	moral
	0.182	0.072	2.528			
	0.115	0.085	1.353			
Career development → Managing work stress	0.341	0.086	3.965	0.298	***	moral
	0.125	0.067	1.866			
	0.21	0.079	2.658			
Career development → Solving Problems Creatively	0.1	0.076	1.316	0.248	0.219	not moral
	0.035	0.059	0.593			
	0.637	0.059	0.593			



Role modeling	∨ ∓		0.425	0.07	6.071		***	moral
Career development	∨ ∓	Dealing with Uncertain and Unpredictable Work Situations	0.152	0.085	1.788	0.274	0.059	not moral
Psychological support	∨ ∓		0.275	0.066	4.167		***	moral
Role modeling	∨ ∓		0.248	0.078	3.179		0.002	
Career development	∨ ∓	Education and training effort	0.254	0.063	4.032	0.326	0.001	moral
Psychological support	∨ ∓		0.045	0.048	-0.94		0.525	not moral
Role modeling	∨ ∓		0.416	0.057	7.298		***	moral
Career development	∨ ∓	Interpersonal, Cultural, Physical Adaptability	0.36	0.078	4.615	0.227	***	moral
Psychological support	∨ ∓		0.096	0.06	1.6		0.206	not moral
Role modeling	∨ ∓		0.115	0.071	1.62		0.159	not moral

Source: Prepared by the researcher

Table (9) indicates the results of the impact hypotheses between the dimensions of the inverse orientation in the dimensions of adaptive performance, which are as follows :

1. There is a direct effect of the reverse mentoring its dimensions in Handling emergencies or crisis situations.

The results of Table (9) and the data shown in Figure (3) indicate that there is a significant effect between the dimensions of Reverse Mentoring (career development, psychological support, and role modeling) and the dimension of Handling emergencies or crisis situations, and this relationship can be explained as follows:

- There is a significant effect of the career development dimension in the dimension of

Handling emergencies or crisis situations, as the standard weight reached (0.195) with a critical percentage of (2.097).

- There is a significant effect of the psychological support dimension in the dimension of Handling emergencies or crisis situations, as the value of the standard weight was (0.182) with a critical percentage equal to (2.528).
- There is no significant effect of the role modeling dimension in the dimension of Handling emergencies or crisis situations.

It is noted from Figure (3) that the dimensions of the Reverse Mentoring explain (0.148) of the variance in Handling emergencies or crisis situations, which means that the remaining value of (0.852) falls outside the limits of the study. These results provide support for the first sub-hypothesis and the second main hypothesis.

2. There is a direct effect of the reverse mentoring in Managing work stress .

The results of Table (9) and the data shown in Figure (3) indicate that there is a significant effect between the dimensions of Reverse Mentoring (career development, psychological support, and role modeling) and the dimension of dealing with work stress, and this relationship can be explained as follows:

- There is a significant effect of the career development dimension in the dimension of dealing with work stress, as the standard weight reached (0.341) with a critical percentage of (3.965).
- There is no significant effect of the dimension of psychological support in the dimension of dealing with work stress, which means that the surveyed universities have to pay attention to the psychological state of their employees.
- There is a significant effect of the role modeling dimension in the dimension of dealing with work stress, as the standard weight reached (0.21) with a critical percentage of (2.658).

Figure (3) shows that the dimensions of the Reverse Mentoring explain (0.298) of the variance in dealing with work pressures, which means that the remaining value of (0.702) falls outside the limits of the research. These results provide support for the second sub-hypothesis of the second main hypothesis.

3. There is a direct effect of the reverse mentoring in Solving Problems Creatively .

The results of Table (9) and the data shown in Figure (3) show that there is a significant effect between the dimensions of Reverse Mentoring (career development, psychological support, and role modeling) and the dimension of creative problem solving, and this effect can be explained as follows:

- There is no significant effect of the career development dimension and psychological support in the dimension of creative problem solving.



- b. There is a significant effect of the role modeling dimension in the dimension of problem solving in a creative way, as the standard weight reached (0.425) and a critical percentage of (6.071).

Figure (3) can show that the dimensions of Reverse Mentoring explain (0.248) of the variance in solving problems in a creative way, which means that the remaining value of (0.752) falls outside the limits of the research.

4. There is a direct effect of the reverse mentoring in Dealing with Uncertain and Unpredictable Work Situations .

The results of Table (9) and the data shown in Figure (3) indicate that there is a significant effect between the dimensions of Reverse Mentoring (career development, psychological support, and role modeling) and the dimension of Dealing with Uncertain and Unpredictable Work Situations situations, and this relationship can be explained as follows:

- a. There is no significant effect of the career development dimension in the dimension of Dealing with Uncertain and Unpredictable Work Situations situations .
- b. There is a significant effect of the psychological support dimension in the dimension of Dealing with Uncertain and Unpredictable Work Situations situations, as the value of the standard weight was (0.275) with a critical percentage equal to (4.167) .
- c. There is a significant effect of the role modeling dimension in the dimension of Dealing with Uncertain and Unpredictable Work Situations situations, as the standard weight reached (0.248) with a critical percentage of (3.179) .

It is clear from Figure (3) that the dimensions of the Reverse Mentoring explain (0.274) of the variance in Dealing with Uncertain and Unpredictable Work Situations situations, which means that the remaining value of (0.726) falls outside the limits of the research. These results provide support for the fourth sub-hypothesis of the second main hypothesis.

5. There is a direct effect of the reverse mentoring on Training and Learning effort.

It is noted from the results of Table (9) and the data shown in Figure (3) that there is a significant effect between the dimensions of Reverse Mentoring (career development, psychological support, and role modeling) and the Training and Learning effort dimension, and this relationship can be explained as follows:

- a. There is a significant effect of the career development dimension in the Training and Learning effort dimension, as the standard weight is (0.254) and a critical percentage of (4.032) .
- b. There was no significant effect of the psychological support dimension in the Training and Learning effort dimension .

- c. There is a significant effect of the role modeling dimension in the Training and Learning effort dimension, as the standard weight is (0.416) with a critical percentage of (7.298) .

It is clear from Figure (3) that the dimensions of the Reverse Mentoring explain (0.326) of the variance in the education and training effort, which means that the remaining value of (0.674) falls outside the limits of the research. These results provide support for the fifth sub-hypothesis of the second main hypothesis.

6. There is a direct effect of the reverse mentoring on Interpersonal , Cultural , Physical Adaptability .

The results of Table (9) and the data presented in Figure (3) indicate that there is a significant effect between the dimensions of Reverse Mentoring (career development, psychological support, and role modeling) and the dimension of showing adaptability between people/cultural/physical, and this relationship can be explained as follows:

- a. There is a significant effect of the career development dimension in the dimension of showing adaptability between people/cultural/material, as the standard weight reached (0.36) and a critical percentage of (4.615).
- b. The absence of a significant effect of the dimension of psychological support, and role modeling in the dimension of showing adaptability between people/cultural/material, which makes it imperative for the researched universities to make changes in their university structures in order to address psychological support and job role modeling in order to show the ability to adapt with workers culturally and materially.

Figure (3) shows that the dimensions of the Reverse Mentoring explain (0.227) of the variance in showing the ability to adapt between people / cultural / material, which means that the remaining value of (0.773) is outside the limits of the research. These results provide support for the sixth sub-hypothesis of the second main hypothesis.

V. Conclusions, limitations and Future Proposals

The results showed that psychological support as one of the dimensions of Reverse Mentoring ranked first as the highest arithmetic mean, and this indicates the interest of the surveyed universities in treating psychological conditions, especially among the elderly. The role modeling came in the last rank, and this indicates that simulating the roles shown by young people may be moderate, and this may be due to age and societal barriers in the elderly. The results of the research also highlighted that young people have technological knowledge and skills that they share with others of different age groups, but the result of this participation may not be at the level required to improve the efficiency of others in the use of information technology, and this



may indicate that the elderly do not accept learning from young people or may They face the difficulty of learning modern technology, and the research also found that there is a desire among employees in the surveyed universities to learn and develop talents and in various available ways, whether by joining official training workshops or by exchanging ideas and information with subordinates or colleagues in the workplace, and this indicates their desire to keep pace with Rapid developments. The results of the research also showed the existence of a correlation and impact relationship between the research variables and thus the possibility of reaching possible solutions to the research problem. The research faced many limitations through which it can launch future studies. In addition to the health restrictions from the outbreak of the Corona epidemic (COVID-19) that accompanied conducting the research, there was another limitation represented in the research's use of cross-sectional surveys to collect data, meaning that the data were all collected in one time so that any causal inferences are temporary . Therefore, future studies should use a longitudinal or experimental design to verify the causal relationship between the variables. The nature of the questionnaire could be self-reported, i.e. the participants' self-report is a limitation because it is linked to the bias that leads to inflating the research results, so future studies should use objective indicators such as peer assessment for Reverse Mentoring or adaptive performance, and adaptive performance can also be evaluated through performance evaluations Or through other sources such as supervisors and colleagues.

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