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## Effect of Workforce Agility on Competitive Advantage in Jordan Telecom Companies

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### Abstract

*This study aims to investigate the effect of Workforce Agility on Competitive Advantage. The study population comprised top managers who participated in strategy formulation at Jordan telecom companies. A target sampling method was used in this research after assessing the opinions of experts and academic professors who specialize in the strategic field regarding the instrument used to collect data. Initially, the recovered questionnaires were 223 out of 250 distributed, where it was found that 213 questionnaires were usable for statistical analysis, representing a response rate of 85.20%. A structural equation modeling (SEM) method was used to examine the hypothetical impact between the significant research constructs of workforce agility and competitive advantage and the impact of the dimensions of workforce agility on competitive advantage. The outcomes of the hypothesis concerning the workforce agility dimensions (namely adaptability, problem-solving creativity, professional flexibility, ability to cope with work pressures, and acquisition of work skills) in relation to the strategic agility of telecommunications companies show the significance of all these dimensions as indicated by the regression test. A set of recommendations were set based on the study results.*

**Keywords:** Workforce Agility, Competitive Advantage telecom companies, Jordan.

### Introduction

The fast rate of growth has posed a decisive factor in enchanting the importance of organizations to gain from the experiences they have had, especially in the area of interest in the workforce in as much as they seek to utilize and harness them with the variation of these human resources in a bid to reap from experience gotten by this resource. Since strategy and strategic planning became part of the corporate culture, companies aspire to rationalize their structures and resources, especially the labor force, as they have passed through the experiences in the field of work. However, these experiences are low performance and are successful experiments. However, experiences have yet to be learned from them, and companies may have realized that most of their loss is the result of the decline in the workforce capabilities. In particular, agility within the workforce is still one of the most pressing topics for research and discussion.

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Although many studies on agility have been conducted for a long time, few field studies provide a comprehensive analysis of enabling factors, practical strategies, and administrative procedures that can enhance the agility of the workforce (Alavi et al., 2014; Sherehiy et al., 2014; Muduli, 2013; Bottani, 2010).

The author has observed that the absence of a flexible labour force has been cited as one of the key factors explaining why some organizations require assistance in addressing markets and technological progression (Alavi, 2016, Mohammad et al., 2025e). According to Muduli (2013), the concept of workforce agility defines the corporate human resource capability as a firm-for-purpose force ready to respond to new opportunities and conditions in the marketplace in the shortest time possible. The adaptability of the workforce is a favorable reaction to environmental instability (Bosco, 2007; Mohammad, 2025). As pointed out by Alavi and Wahab (2013), workforce agility is the extent to which an organization responds to the requirements of the environment easily. So, employees need to process a variety of information, which means that the more complex the response, the greater the need for employees to generate information (Liu et al., 2015; Mohammad et al., 2025f). Therefore, the increased flexibility of the workforce can be regarded as a significant factor in any investment (Alavi, 2016; Mohammad et al., 2025a). Therefore, applying the principles of labor agility may help Jordan telecom companies increase their competitiveness, rectify past mistakes and foster new innovative strategic activities and hence attaining the concept of strategic agility and its application.

Competition is unavoidable in the world of business. Therefore, any available effort must be made to ensure one understands the market forces and customer disposition. Also, understanding changes in the business environment is necessary to compete with others. For this reason, business firms should always attempt to understand how to manage various resources to win the competition and attain a competitive advantage. This value created by the business so that customers can use it continuously becomes a sustainable competitive advantage to meet customer demands, product quality complaints, customer needs, new market purchases, and constant product innovation (Kuncoro & Suriani, 2018; Mohammad et al., 2025c). An organization with a competitive advantage is not necessarily the largest company in its field. However, it makes its customers happy by selling a desirable product, and its shareholders are happy by achieving excellent profits (Stupino et al., 2019). Competitive advantage in the existence and development process involves satisfying customer needs as pointed out by Slater (1996). In order to obtain a competitive advantage, a firm must be organized with policies and procedures to leverage existing resources (Gutiérrez-Martínez & Duhamel, 2019; Mohammad et al., 2025b). Competitive advantage can originate from two different sources: Both tangible and intangible ones. They are also known as fixed resources and are defined as the financial and physical assets which are recognized in balance sheets. Intangible assets are those not seen in tangible statements (Syapsan, 2019).

Most studies have focused on the theoretical description of flexibility and agility in firms, while few studies have verified these concepts based on the applied frameworks (Sherehiy et al., 2007; Mohammad et al., 2025d). In addition, more studies need to conduct practical investigations into the modalities of implementation and adoption of agility (Tseng & Ching-Torng, 2011). Workforce agility has yet to gain much attention in the literature, leading to no explicit agreement on its definition (Bala et al., 2019). Hence, the need for more consideration for the agility of the workforce is one of the areas that require more research regarding the outcomes of the results. (Alavi, 2016). The importance of this study stems from the vital role played by the agility of the workforce in the progress and continuity of companies and from the modern

theoretical concept of the agility of the workforce, which is based on strengthening the strategic capacity of contemporary companies, which makes them able to put themselves on track. This study is the cornerstone from which other researchers can begin their work. The workforce in telecommunication needs to enhance its supply relative to demand; this requires a more systematic effort.

## **Theoretical Framework and Hypotheses Development**

### **Workforce Agility**

Balaet al. (2019) opined that employee agility is essential in the determination of organizational agility. According to Plonka (1997), the following are the main flexibility attributes of an agile workforce: positiveness in life, self-direction, ability to learn, problem-solving ability, innovation and readiness to challenge coupled with the ability to learn. According to the literature published by Cai et al. (2018), the meaning of workforce agility is the ability of an employee to manage variability and volatilities as opportunities. The concept of WFA is defined as the strength and flexibility of skills from the workforce to enable the personnel to substantially support the organization to overcome the shocks and assist the organization in growing, competing within the market and expanding (Al-Hadid& Abo-Rumman, 2015, p. 35). The agility of the workforce means that individuals working in the organization are adaptive, responsible, and self-innovating (Al-Muwadiya, 2015, p. 13). The concept of workforce agility, as envisaged by the organization, comprises developing the surprise element, managing the knowledge and ensuring the ability to contribute to changes within a volatile market (Sherehiy 2008: 44). Gunasekaran (1999) commented that workforce agility achieves the collaboration within and outside the organization. Workforce agility can be defined as the ability of workers to strategically respond to uncertainty with a focus on their greater prominence in companies that rely heavily on the workforce to transfer advanced technologies to products (Qin & Nembhard, 2010; Chen et al., 2024). Zhand and Sharifi (200) explained that workforce agility denotes having a clear vision and a capability to utilize the change in customers' preferences in a turbulent environment. Shorabi et al., 2014 define workforce agility as a means to an end in which changes can help entities make profits from products that are being manufactured amidst uncertainty about the environment. According to Alawi et al. (2014), workforce agility is the extent of the organization's employees' capacity to adapt rapidly to new changes within the internal and external environment of the firm. According to Richter et al. (2018), workforce agility refers to the segment of the internal, external, extended, and potential workforce that operates based on the agile principles in an organization and its interests. Muduli (2013) explained workforce agility as a well-trained workforce with the ability to promptly seize changes in opportunities. Kidd (1994) defined workforce agility as the ability to promptly and suitably address change and gain from it. According to Qin & Nembhard (2010), workforce agility could be defined as the dynamic capability of an organization to improve and transform the workforce's capability at a constant and rapid rate. Workforce agility was defined by Teece et al. (2016) as a dynamic capability that allows the organization to anticipate the future and respond as needed or fittingly. According to Paul et al., (2020) workforce agility is the state of being adaptable to the staff of an organization in the firm's working environment.

In order to ensure that individuals working in the organization can achieve their goals, the organization must increase their ability to work and increase their willingness to perform their work tasks by developing their training capacity, providing the right atmosphere for work, increasing loyalty and belonging through a fair system of wages and incentives, and engaging in

humanitarian relations, and work to strengthen them from time to time (Zaid, 2010, p. 25). The ability of the employees to manage the environmental issues in the light of disruptions and changes, the preparedness of the organization and its ability to respond to changes in internal and external environment, are all included in the definition of the workforce agility (Bosco, 2007; Al-Oraini et al., 2024). In detail, Forsythe (1997) posited that WFA (Work Force Agility) can satisfy the increasing clientele need for value-added goods, which calls for the integration of efforts from diverse departments and different organizations. The fact the Working environments is uncertain means that the workforce agility in order to respond to the changes. (Liu et al., 2015).

The agile characteristics of the workforce encompass the ability to learn and develop independently, problem-solving skills, adaptability to changes, new ideas, and technologies, generation of creative ideas, willingness to take on new responsibilities, expertise in manufacturing strategies and technologies, quick adaptation to new environments, fast access to information, utilization of technology for performance, autonomy at the workplace, knowledge sharing, employee empowerment, conformity to general rules, automatic cooperation, and product behavior, which involves learning and teaching (Sherehiy, 2008; Ekanayake et al., 2024). Kidd (1994), as cited by Muduli (2016), commented that the agility of the workforce has two main elements: the ability to respond to changes in appropriate and timely ways and the ability to exploit changes and benefit from them as opportunities.

According to Sherehiy (2008), workforce agility has three main dimensions: an organization's ability to proactive, its capacity to adapt to changes, and its overall resilience, Muduli (2013) proposed seven dimensions of workforce agility: possibilities of changes, openness for changes, positive attitudes towards development, speed, collaboration, productivity, and information. Dyer and Shafer (2003) also identified three typed of measurement, proactive adaptive, and generative, concerning the workforce agility. Sherehiy and Karwowski (2014) applied the following definitions of workforce agility: proactive, adaptive and resilient. Workforce agility was measured in seven dimensions: Adaptability, flexibility, development. Collaboration, competence, speed, information, and others, according to the definition made by Muduli in 2017.

To ensure workforce agile in the organization, the manager should encourage employees to focus on important things at work by reducing time and money on non-important programs, helping employees cope with changes and work pressures, using scenarios to explore potential future opportunities, overcoming expected difficulties and challenges, information and ensure timely access to workers, where employees need information relevant to their work and suitable to solve work problems and achieve advanced levels of individual performance, which reflected on the organizational performance.

For the study, the researcher summarized the workforce agility into the following five dimensions:

1. **Adaptability:** Organizations should carry out environmental analysis; it helps their management to provide early warning systems to prepare for the optimal response to threats before they emerge at the right time, thus designing efficient strategies capable of countering the threat and minimizing its negative impact on their operations or turning them into positives towards the achievement of strategic objectives, and the ability to exploit opportunities, exploit strengths and overcome weaknesses (Al-Hammadin, 2013;

Ayyalsalman et al., 2024). In order to analyze opportunities and threats in the external environment and to analyze strengths and weaknesses in the internal environment, it is necessary to use staff who are skilled and capable of adapting to unplanned developments and situations (Goldman, 1995) and to increase the ability of staff to adapt and cope with developments. An organization should encourage them to come up with new ideas, discuss them, listen to them, criticize them, recognize the contributions and accomplishments of others, encourage competition among workers, and create channels of communication with them to reach creativity and embrace new ideas (Cristina & Colurico, 2006).

2. **Creativity in Problem-Solving:** These conditions are necessary for business organizations since creativity is an essential aspect in the present dynamic environments. Promoting innovation as a process has emerged as one of the key drivers for many organizations due to the increasing rivalry in the market. It implies developing original solutions to business challenges. As we mentioned in the definition of the task, it is embedded in a set of interrelated performances that can be achieved through distinct skills and talents. The employees must be entrusted with resolving complex issues. Therefore, individuals and information must be increased by encouraging creativity and enabling the free flow of information, exchange of ideas, cooperation and collaboration within and outside the organization, attention to individual initiatives, and personal responsibility (Goldman, 1995).
3. **Professional flexibility:** The capacity and efficiency of each team to deliver various tasks in the firm. Teamwork is a vital procedure since it contributes to the resolution of issues and the making of decisions. Collective work by employees and their ability to work affect the decision-making process rather than identifying the problem. , Until reaching the appropriate decision to solve the problem and implementation of the collective action of the appropriate means to the success of decisions and their ease of application, which ultimately reflected positively on the level of individual and organizational performance, it is necessary to involve subordinates in the managerial process to ensure visibility and exchange of opinion, and to ensure their cooperation and to reach healthier and far-reaching decisions (AL-Kavan, 2005).
4. **Working under pressure** is handling the worker and some circumstances, having tolerance, and doing a job irrespective of working environment. The compatibility process between the working individual's capabilities and his needs and requirements affects his suffering from work pressure. The more compatible his abilities with the job requirements, the less he suffers from the pressure at work. That is why the identified characteristics specify the level of difficulty and the roots of pressure or less (Sohrabi, Asari&Hogoori, 2014).
5. **Acquiring job skills:** discovering fresh methods for carrying out tasks and structuring the, allowing the organization's employees to gain knowledge of work assignments and processes via the training programs offered by the organization. Training is the primary building of human resources development to keep abreast of rapid developments in various aspects and fields. Any organization that has different budgets and specific centers should consider this process crucial. In this way, one can provide the population with new knowledge and skills that will contribute to the achievement of the organization's goals and improve the weaknesses and provide new knowledge and skills to the population,

contributing to the completion of the objectives and the improvement of staff performance. Training also provides a measure of support for the individuals carrying out tasks in the organization through repeating capacity and competence of a company, which revitalizes the organization's facilities and departments (Al-Azizi, 2007).

### **Competitive Advantage**

Understanding how firms position them and achieve competitive advantages in the today's competitive market is an important question that needs to be answered by both the practitioners and the theorists. Strategic Advantage S. A. is contained at the internal level, while Competitive Context (CC) is contained at the external level. When aggregated, the aforementioned factors comprise Competitive Advantage that models the extent of the absolute pressures both from inside and outside of the organization (Annarelli et al., 2018). The competitive advantage measures the company's capacity to develop a barrier against its competitors (Porter, 1985, cited in Abeyssekara et al., 2019). Competitive advantage then focuses on offering the valued goods and services higher and over and above what other competitors, substitutes and potential entrants are offering in the market (Martinez et al., 2014). Competitive advantage means the position of a firm's product or service in comparison to its rivals or its ability to use lower costs or better performance to outdo its competitors (Nair, 2019). Competitive advantage could be described as the capability of a firm to complete its tasks in a manner that is superior to the other players in the market, as described by Porter (1998). There are several models to assess the C.A. (and its sustainability) (de Lemos et al., 2003). Resource-based view (RBV) is a tool to analyze the sources of competitive advantage (Sachitra & Siong-Choy, 2016). Certain organizational theories (Hoyt and Huq, 2000) are grounded in the characteristics of supply chain transactions, including theories such as transaction cost theory, resource-based theory (RBT), and strategy structure theory (SST), all of which evaluate C.A. based on the nature of relationships formed within the partnerships. There are two sources of competitive advantage: fixed and non-fixed. Financial assets are resources that are tangible and reported in a firm's balance sheets includes monetary values. Intangible assets are those not seen in tangible statements (Syapsan, 2019). Some of the components are incorporated into the assessment of competitive advantages, and the aforementioned include the extent of product differentiation, quality, and price. The first signal demonstrates how unique the separation of the company's product is, which is art and customer demand. The physical characteristics allude to the quality of the design of the product, hence the quality of the company involved. Finally, the last result, which speaks about competitive pricing, shows the ability of the company to adjust the prices of the produced product to the general market prices (Dirisu et al., 2013).

### **Workforce Agility and Competitive Advantage**

According to Muduli (2016), force dexterity is one vital component that enables the achievement of competitiveness. Workforce agility can strengthen the strategic goals associated with cost, time, quality and variety, as stated by Muduli (2013). According to Alavi (2016), the increase in the WFA leads to an increase in product, mix, and volume adaptability regarding new products. This paper reveals that Work flexibility and its implications involve looking on the bright side and focusing on the positive outcomes of flexibility like enhanced quality, improved client relations, and more. The speed learning curve and economies of scope and depth (Sherehiyet et al., p. 2007, cited in Sohrobi et al., p. 2014). they have concluded that organizations which apply the concept of workforce agility will be able to achieve organizational goals both through innovations and developing strategic processes, as well as to minimize the structural personnel

costs at the fixed and contingent level for employees' usage (Beatty, 2005, as cited by Muduli, 2017). The efficiency of the working individuals' performance is reflected in the organization's productivity level, and this is increased by the agility of the workforce. Fink and Newman (2007) thought that through the attainment of workforce agility, there are numerous opportunities and benefits; these include quality, customers, learning curve and scopes and depths economies. The literature review by Sumukadas and Sawhney (2004) noted that the concept of workforce agility is a possibility-based capability that offers an opportunity to improve performance and help an organization achieve its chance of persisting in the unprecedented face of today's highly competitive globalized business environment. It becomes obligatory for organizations to create a flexible workforce that would mean business fiscal effectiveness under conditions (Karpie, 2018). Any company that is wise enough to understand the meaning of a capable, flexible workforce will guarantee the longevity of the company and its success in the future (Martin, 2015).

The adaptability of the workforce encompasses enhancing knowledge and information, improving their capacity to carry out their responsibilities efficiently, resolving work-related issues, and maximizing the utilization of resources by enhancing productivity and reducing costs. The type of adaptability that is discussed here begins from the personal level where people grow. Through it, they can engage themselves in their preferred activities by getting better grades in school, being appreciated and accepted by their peers and society, as well as establishing self-esteem. Organizations that have an agile workforce can provide the community with efficient and skilled labor capable of competing in the labor market at home and abroad by attracting outstanding energies and leadership with renewable knowledge and high capacities to contribute to the agility and sustainability of the organization (Zaid, 2010: 26). Given the literature reviewed above, the proposed research hypothesis is:

**H1: Workforce Agility has a statistically significant effect on Competitive Advantage of Jordan telecom companies.**

## **Research Methodology**

### **Instrument Development**

A distributed questionnaire is a frequent method for collecting data needed for the study based on a crucial information approach in research methodology (Mierzejewska *et al.*, 2020; Galdolage et al., 2024). Therefore, the study instrument was presented as a questionnaire divided into three major themes. The first theme dealt with demographic and functional data needed to identify the sample profile, including gender, qualifications, and experiences. The second theme related to the independent variable, which was workforce agility, which was measured using the dimensions of productivity (PA1-PA5), adaptability (AD1-AD5), and resilience (RE1-RE5). The last theme included the dependent variable, where it was measured through five dimensions represented by delivery (DE1-DE3), quality (QU1-QU3), dependability (DA1-DA3), price (PR1-PR3), and product innovation (PI1-PI3). The responses of the participants were given on the 5-point Likert scale whereby (1) reflected strongly disagree and (5) reflected strongly agreed.

### **Data Collection Procedures**

The focal goal of this research was to investigate the impact of workforce agility on competitive advantage, where both variables are considered in the strategic field for achieving the organization's long-term goals. The Jordan telecom companies were the most appropriate to discover this impact due to their experience and ability to strategic planning in the Jordanian

context. Therefore, the study population comprised top managers who participated in strategy formulation at Jordan telecom companies. A target sampling method was used in this research after assessing the opinions of experts and academic professors who specialize in the strategic field regarding the instrument used to collect data. Initially, the recovered questionnaires were 223 out of 250 distributed, where it was found that 213 questionnaires were usable for statistical analysis, representing a response rate of 85.20%. The demographic and functional details of the research sample are illustrated in Table 1.

**Table 1: Research sample profile (n=213)**

Variables	N	%
<b>Gender</b>		
M	165	77.46
F	48	22.54
<b>Qualification</b>		
Bachelor	108	50.70
Master	72	33.80
Doctoral	33	15.50
<b>Experience</b>		
< 5	26	12.20
5 < 10	70	32.86
10 < 15	99	46...47
≥ 15	18	8.47

### Data Validity and Reliability

EFA (Exploratory Factor Analysis) and CFA (Confirmatory Factor Analysis) were used to determine the structural validity of the study model, where the method of factor analysis was used to explain how the items relate to the formation of one factor towards the development of the research constructs (Hair et al., 2017). EFA provides a set of criteria for determining the fitness of the measure through the item loadings on the construct through the use of the varimax rotation matrix. It also shows the level of convergent validity by using the AVE values for each construct. Moreover, copies of the measurement model are distinct. It can be evaluated by MSV (Maximum Shared Variance), ASV (Average Shared Variance), and the square root of the AVE. These values, in turn, help the researchers to establish the reliability of the measurement model by computing the composite reliability (C. R.). Table 2 illustrates the results extracted from the application of EFA.

**Table 2: Composite reliability, convergent and discriminant validity**

Construct	Items	Loadings	AVE	MSV	ASV	$\sqrt{\text{AVE}}$	CR
Proactivity	PA1	0.673	0.511	0.222	0.171	0.715	0.839
	PA2	0.718					
	PA3	0.762					
	PA4	0.687					
	PA5	0.731					
Adaptability	AD1	0.703	0.506	0.419	0.231	0.711	0.836
	AD2	0.663					
	AD3	0.748					

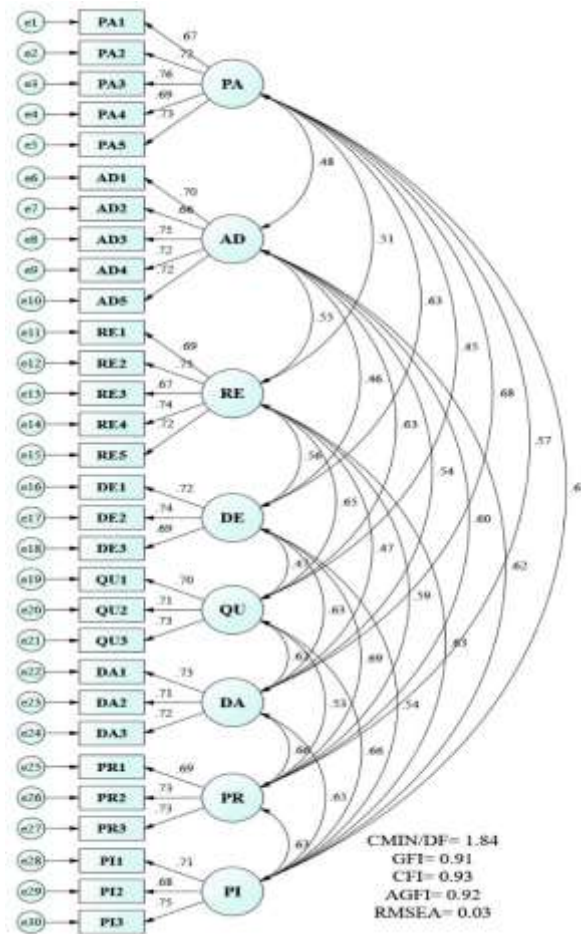


	AD4	0.721					
	AD5	0.719					
Resilience	RE1	0.692	0.509	0.458	0.300	0.714	0.838
	RE2	0.746					
	RE3	0.672					
	RE4	0.738					
	RE5	0.717					
Delivery	DE1	0.718	0.513	0.267	0.184	0.717	0.760
	DE2	0.737					
	DE3	0.694					
Quality	QU1	0.703	0.512	0.381	0.290	0.715	0.759
	QU2	0.712					
	QU3	0.731					
Dependability	DA1	0.728	0.520	0.464	0.406	0.721	0.765
	DA2	0.711					
	DA3	0.724					
Price	PR1	0.694	0.515	0.437	0.376	0.718	0.761
	PR2	0.728					
	PR3	0.731					
Product innovation	PI1	0.706	0.511	0.468	0.328	0.715	0.758
	PI2	0.684					
	PI3	0.752					
<p><b>Note:</b> AVE: Average variance extracted, MSV: Maximum shared variance, ASV: Average shared variance, <math>\sqrt{AVE}</math>: Square root of average variance extracted, CR: Composite reliability.</p>							

Table 2 shows that all item loadings ranged from 0.663 to 0.762, which is higher than the lower threshold for item maintaining 0.50 (Al-Hawary & Al-Namlan, 2018), as well as all values of AVE were more significant than 0.50, which represents the minimum value for accepted convergent validity (Al-Hawary, Abdul Aziz Allahow and Aldaihani, 2018; Sahoo, 2019). Furthermore, MSV and ASV values were less than AVE's. Thereby, the discriminatory validity can be considered achieved, which is also confirmed through the values of  $\sqrt{AVE}$  that came higher than the correlation between the other constructs (Sung, Yi, and Shin, 2019). Regarding reliability, the results in Table 2 indicated that C.R. values came within the range of 0.758 - 0.839, which is higher than the acceptable minimum of 0.70. Therefore, the measurement model

can be considered reliable (Şimşek&Noyan, 2013). CFA is also applied, which uses the maximum likelihood estimation technique, to verify the constructal viability of the latent factors that were extracted by EFA, where it provides a set of indices that determine the degree of model fit, which are chi-square ratio (CMIN/DF), the GFI (goodness of fit index), CFI (comparative fit index), AGFI (adjusted goodness of fit index), and RMSEA (root mean square error approximation) depend on (Marsh *et al.*, 2019), where AMOS program was utilized to determine these indices which presented in Figure 1.

**Figure 1: Measurement model - Standardized coefficients**



The results shown in Figure 1 show an appropriate fit for the empirical data, where the value of CMIN/DF was 1.48, which is less than the highest limit of 3. The GFI, CFI, and AGFI values were 0.91, 0.93, and 0.92, higher than the minimum admission threshold of 0.90. Moreover, the value of RMSEA was 0.03, which is lower than the maximum acceptable value of 0.05 (Dardas& Ahmad, 2014; Bebb, Bentafat and Al-Hawary, 2017; Sahoo, 2019).

## Results and Findings

Thus, in the context of determining the outstanding cases of workforce agility and competitive advantage in Jordan telecom companies, the mean and the standard deviation were calculated. The results in Table 3 indicated that the dimension of proactivity was at a high level (M= 3.79, SD= 0.974). In contrast, the dimensions of adaptability and resilience showed a moderate level where their averages and standard deviation were respectively (M= 3.54, SD= 0.772) and (M= 3.41, SD= 0.538) as for the dimensions of a competitive advantage which were at a moderate level, where the highest level for the dimension of delivery (M= 3.62, SD= 0.927), while the lowest level the dimension of quality (M= 3.25, SD= 0.817).

**Table 3: Mean, standard deviation and correlation**

	<b>PA</b>	<b>AD</b>	<b>RE</b>	<b>DE</b>	<b>QU</b>	<b>DA</b>	<b>PR</b>	<b>PI</b>
Mean	3.79	3.54	3.41	3.62	3.25	3.38	3.52	3.48
SD	0.974	0.772	0.538	0.927	0.817	0.724	0.835	0.826
PA	1							
AD	0.483*	1						
RE	0.514*	0.552*	1					
DE	0.627*	0.458**	0.558*	1				
QU	0.451**	0.625*	0.645*	0.468*	1			
DA	0.682*	0.538*	0.471*	0.628*	0.618**	1		
PR	0.574*	0.604**	0.591*	0.691**	0.527*	0.657*	1	
PI	0.672*	0.615**	0.625*	0.538*	0.660**	0.648*	0.628*	1

**Note:**SD: Standard deviation, PA: Proactivity, AD: Adaptability, RE: Resilience, DE: Delivery, QU: Quality, DA: Dependability, PR: Price, PI: Product innovation.

The results in Table 3 also list the relationships between the various latent constructs of the research through the values of correlation coefficients that ranged between (R= 0.451) and (R= 0.691), indicating medium to high correlation levels. By looking at the correlation values related to the dimensions of the independent variable, it is clear that they were below 0.80, which indicates that the research data is accessible from the multicollinearity problem (Hair, 2010; Al-Hawary& Mohammed, 2017).

A structural equation modeling (SEM) method was used to examine the hypothetical impact between the significant research constructs of workforce agility and competitive advantage and the impact of the dimensions of workforce agility on competitive advantage. Figure 2 indicates the structural model for testing the central research hypothesis.

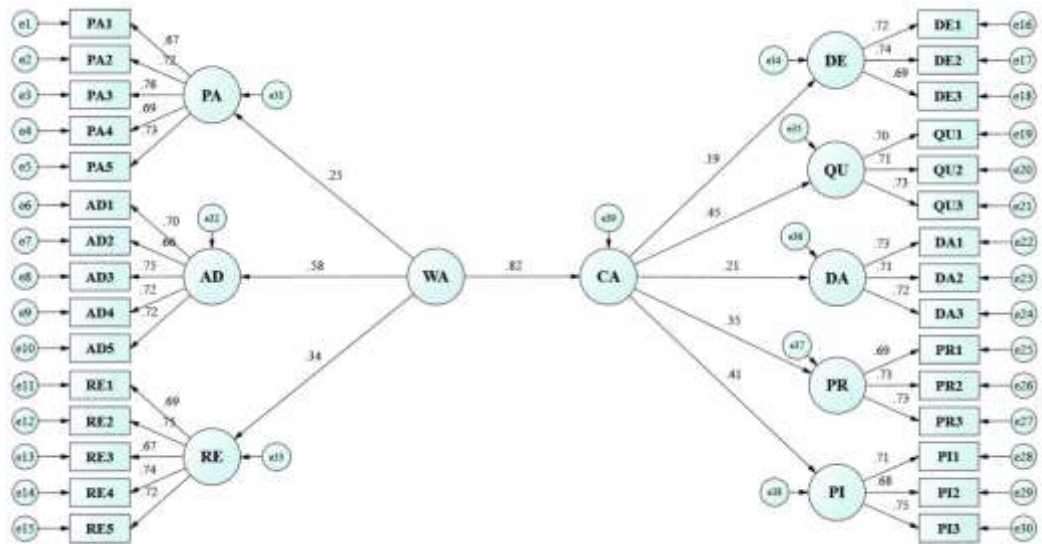


Figure 2: Structural equation modeling results of main hypothesis

The results presented in Table 4 show that there is a statistically significant impact of workforce agility in competitive advantage, depending on the level of statistical significance that was smaller than 0.001, where the value of the impact according to the standard beta value was 0.824, which corresponds to a critical ratio 19.313.

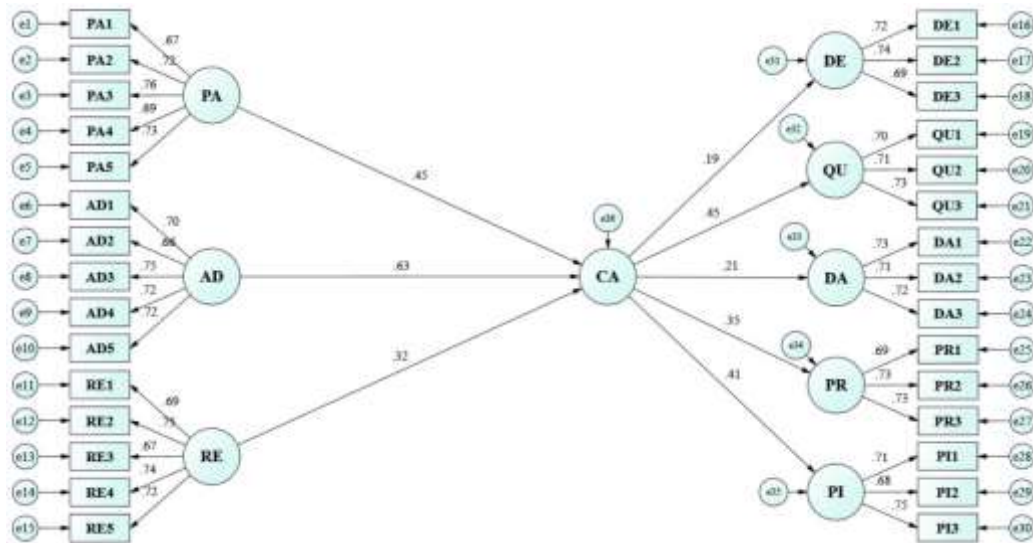
Table 4: Structural equation modeling results

Hypotheses	Path		Unstandardized coefficient		Standardized coefficient	C.R.	P	Decision
			Estimates	S.E.				
H1	WA	→ CA	0.927	0.048	0.824	19.313	***	Supported
H1a	PA	→ CA	0.689	0.341	0.452	2.020	**	Supported
H1b	AD	→ CA	0.718	0.280	0.628	2.564	***	Supported
H1c	RE	→ CA	0.621	0.442	0.315	1.405	**	Supported

**Note:**WA: Workforce agility, CA: Competitive advantage, PA: Proactivity, AD: Adaptability, RE: Resilience, \* Significance at  $p < 0.05$ , \*\* Significance at  $p < 0.01$ , \*\*\*Significance at  $p < 0.001$

In order to get a more detailed picture of the distribution of the effect of the considered aspect on competitive advantage, it was proposed to construct a structural model reflecting the dimensions of workforce agility, associated with proactivity, adaptability, and resilience, on

competitive advantage, depicted in Fig 3.



**Figure 3: Structural equation modeling results of sub-hypotheses**

Based on the structural model for the sub-hypotheses testing, the results are listed in Table 4, which indicate a statistically significant impact of all dimensions of workforce agility on competitive advantage. The most significant impact of the adaptability dimension, which was statistically significant at a level less than 0.001, and it had a standard beta value of 0.628 and a critical ratio of 2.564, followed by the proactivity, which was statistically significant at a level less than 0.01 and had a standard beta value of 0.445 and a critical ratio of 2,020, regarding resilience, which was the most negligible impact on competitive advantage. However, it was statistically significant at a level of < 0.01 and had a simple average beta value of 0.315 and a critical ratio of 1.405.

## Discussion

The results of the analysis of the adaptive capacity dimension reveal that there is an interest by the company's departments to focus on the wisdom in disposing of, especially in situations that need to be able to overcome the pitfalls of positions and complexity as well as dealing with strange and complex ideas in the environment of the industry in which companies operate, To deal with unplanned or unexpected conditions and variables to respond to unexpected shifts in market demands by corporate clients.

In understanding the research study outcomes, the management of telecommunications companies in Kuwait is interested in problem-solving. The researcher can attribute this to the fact that the services provided by the employees to the customers are routine, not services that require a high level of creativity. Moreover, it provides creative solutions to labor problems through participation in decision-making related to solving work problems.

The researcher noted that attention should be paid to several practices that achieve professional flexibility, including the ability of employee's in telecommunications companies to perform various tasks and learn new ways to perform their functional tasks. This should be promoted

through open meetings with employees to see their needs and benefit from their opinions and advice.

The interest of the company in adapting to work pressures is related to the ability to make serious decisions by employees in the light of the risks faced by the company and the commitment of the staff to accomplish the most significant number of tasks in as low as possible time and respond thoughtfully to the demands of their managers which are unspecified, and the possession of many workers to high skills enable them to work under pressure to address High production requirements.

The researcher notes that telecommunications companies are keen to provide training programs for their employees to teach them new ways of doing work and development programs to provide them with new skills. The cooperation of employees in a company is also highly encouraged so that people can exchange the skills they have acquired while on the job.

The subjects show a clear interest in the values regulating the employees' behaviour within the Kuwait telecommunications companies, and they have a clear perception of the organizational vision to utilize these values for strategic organizational decisions at work. These values can guide employee behavior, but the concern relates to practices that point to the importance of vision in the company because of the ability to explain the overall objectives and that the vision is achieving continuous progress in the company surveyed, so the workers are proud of them.

Research has also found that there is sufficient interest in the management of telecoms, as well as in comprehending the tactical knowledge and competencies that ought to be implemented to obtain desired outcomes for the clientele. This strategic knowledge impacts understanding all aspects of activities, prioritizing, and processes to achieve and bridge the strategic gap. In addition to enhancing employees' awareness of the company's reputation among the customers to enhance the market share of these companies as part of the competition process between the competitors at the level of one industry, namely the telecommunications companies, in order to achieve the sustainability of competitive advantage, and adds value to the services provided.

It has been shown that there is an interest from the viewpoint of the respondents in the telecommunications companies about the strategic objectives, especially in the field of determining the high value of services by competing market sectors, providing service to customers, and accomplishing strategic goals by being able to adjust strategically in order to generate extra value for customers and to gauge the level of service improvement to fulfil the needs of customer market segments by carrying out transactions to deliver a unique service to the intended groups.

It has been shown that there is a clear interest in the practice of feedback as an opportunity to learn from the beneficiaries to address errors; this means that the exchange of information and data, which constitutes a kind of care for the Participatory responsibility of employees and this naturally enhances the dealings with customers and employees in terms of information delivery, In addition to the above, feedback enhances the principle of participatory responsibility for the success of its projects in a holistic manner and this strengthens the state of total involvement in the process of planning and implementation of projects to strengthen access to results.

The results of the study indicate that there is a clear interest in the telecommunications companies in that they ensure that their employees are in a strategic consensus, which is a kind of alignment between the strategic objectives of companies, and this enhances the possibility of exploiting the opportunities available to companies in comparison to other competitors, This

agreement strengthens the adjustment of the plan to accommodate evolving conditions while still keeping the general goals of the plan in mind and reaching the companies' strategic goals and objectives. Based on this, the companies take the ideas of the key employees in the formulation, implementation, and monitoring strategy to implement them with a focus on discussing staff and clients in the procedures necessary to implement the best strategy by business units.

The outcomes of the hypothesis concerning the workforce agility dimensions (namely adaptability, problem-solving creativity, professional flexibility, ability to cope with work pressures, and acquisition of work skills) in relation to the strategic agility of telecommunications companies show the significance of all these dimensions as indicated by the regression test. This is due to the high value of F calculated, indicating that the telecommunications companies are following proper ways of applying the practices of the agility of the workforce dimensions (adaptability, problem-solving creativity, professional flexibility, adaptation to work pressures, and learning of work skills) especially learning of work skills because this practice strengthening core capacities, achieving strategic objectives, and enhancing the sense of participatory responsibility in a way that enhances the skills of implementing procedures. Adapting to work pressures enhances the access to the experience accumulated in implementing the procedures. It enhances the responsibility to achieve the strategic objectives of the company, in addition to the ability to adapt to the most challenging times that the company faces and bear the pressures of various work, especially in cases where the company goes through when entering new opportunities or resisting market pressures and diverse threats at the industry level in which telecom operators work, all of which enhance professional flexibility towards achieving strategic objectives, participatory responsibility, implementation of procedures, and strengthening core competencies which enabled the company to reach strategic objectives to achieve the strategic vision adopted by the company, as well as to promote a company towards pursuing creativity in solving problems, especially in finding new and innovative products.

### **Recommendations**

Therefore, managers should promote knowledge management in order to improve their capacity to solve problems, as well as enhance employees' problem-solving ability by giving them the proper knowledge to make the right decisions. Managers must also provide training needs for employees to ensure their business performance efficiently by providing them with the necessary and sufficient skills to enable them to make decisions, solve problems, lead and understand work analysis, and team building. Bosco (2007) pointed out that it is managers' responsibility to ensure that the employees are motivated, both materially and morally, in order to competently and satisfactorily finish the tasks at hand.

By the results of the study, the researcher presents several recommendations that the decision-makers are expected to adopt in order to enhance the benefits of applying the agility of the workforce as follows:

1. In order to gain the commitment of employees, telecommunications companies need to commit the time and resources to defining the vision and increasing the level of telecommunication employees' awareness of it, in order to achieve better levels of strategic agility.
2. The telecommunications companies have to pay attention to the core capabilities because of

their impact in enhancing the strategic agility and achieving the competitive advantage of these companies.

3. The telecommunications companies must exercise the ability to adapt and achieve strategic agility in the companies surveyed through training and the formation of effective teams.

4. Conduct new studies that seek to understand the effect of workforce agility on organizational agility in other fields, such as the industry sector.

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### **References**

- Al-Hawary, S. I. S. and Al-Namlan, A. A. (2018) 'Impact of Electronic Human Resources Management on the Organizational Learning at the Private Hospitals in the State of Qatar', *Global Journal of Management and Business Research: A Administration and Management*, 18(7), pp. 1–11.
- Al-Hawary, S. I. S. and Mohammed, A. K. (2017) 'Impact of Team Work Traits on Organizational Citizenship Behavior from the Viewpoint of the Employees in the Education Directorates in North Region of Jordan', *Global Journal of Management and Business*, 17(2-A), pp. 23–40.
- Al-Hawary, S. I. S., Abdul Aziz Allahow, T. J. and Aldaihani, F. M. F. (2018) 'Information Technology and Administrative Innovation of the Central Agency for Information Technology in Kuwait', *Global Journal of Management and Business*, 18(11-A), pp. 1–16.
- Al-Oraini, B., Khanfar, I. A., Al-Daoud, K., Mohammad, S. I., Vasudevan, A., Fei, Z., & Al-Azzam, M. K. A. (2024). Determinants of Customer Intention to Adopt Mobile Wallet Technology. *Appl. Math*, 18(6), 1331-1344.
- Ayyalsalman, K. M., Alolayyan, M. N., Alshurideh, M. T., Al-Daoud, K., & Al-Hawary, S. I. S. (2024). Mathematical Model to Estimate The Effect of Authentic Leadership Components on Hospital Performance. *Appl. Math*, 18(4), 701-708.
- Bebba, I., Bentafat, A. and Al-Hawary, S. I. S. (2017) 'An Evaluation of the Performance of Higher Educational Institutions using Data Envelopment Analysis: An Empirical Study on Algerian Higher Educational Institutions', *Global Journal of Human Social Science Research*, 17(8), pp. 21–30.
- Chen, W., Vasudevan, A., Al-Daoud, K. I., Mohammad, S. I. S., Arumugam, V., Manoharan, T., & Foong, W. S. (2024). Integrating cultures, enhancing outcomes: Perceived organizational support and its impact on Chinese expatriates' performance in Dubai. *Herança*, 7(3), 25-39.
- Dardas, L. A. and Ahmad, M. M. (2014) 'Validation of the World Health Organization's Quality of Life Questionnaire with Parents of Children with Autistic Disorder', *Journal of Autism and Developmental Disorders*, 44(9), pp. 2257–2263. doi: 10.1007/s10803-014-2110-1.
- Ekanayake, E. A., Al-Daoud, K. I., Vasudevan, A., Wenchang, C., Hunitie, M. F. A., & Mohammad, S. I. S. (2024). Leveraging Aquaculture and Mariculture for Sustainable Economic Growth in Sri Lanka: Challenges and Opportunities. *Journal of Ecohumanism*, 3(6), 1229-1247.
- Galdolage, B. S., Ekanayake, E. A., Al-Daoud, K. I., Vasudevan, A., Wenchang, C., Hunitie, M. F. A., & Mohammad, S. I. S. (2024). Sustainable Marine and Coastal Tourism: A Catalyst for Blue Economic Expansion in Sri Lanka. *Journal of Ecohumanism*, 3(6), 1214-1228.
- Hair, J. F. (ed.) (2010) *Multivariate data analysis*. 7th ed. Upper Saddle River, NJ: Prentice Hall.
- Hair, J. F. et al. (2017) *A primer on partial least squares structural equation modeling (PLS-SEM)*. Second edition. Los Angeles: SAGE. Available at: <http://www.vlebooks.com/vleweb/product/openreader?id=Liverpool&isbn=9781483377438>



(Accessed: 6 June 2020).

- Marsh, H. W. et al. (2019) ‘Confirmatory Factor Analysis (CFA), Exploratory Structural Equation Modeling (ESEM), and Set-ESEM: Optimal Balance Between Goodness of Fit and Parsimony’, *Multivariate Behavioral Research*, pp. 1–18. doi: 10.1080/00273171.2019.1602503.
- Mierzejewska, E. et al. (2020) ‘Evaluation of questionnaire as an instrument to measure the level of nutritional and weight gain knowledge in pregnant women in Poland. A pilot study’, *PLOS ONE*. Edited by J. K. Das, 15(1), pp. 1–13. doi: 10.1371/journal.pone.0227682.
- Mohammad, A. A. S. (2025). The impact of COVID-19 on digital marketing and marketing philosophy: evidence from Jordan. *International Journal of Business Information Systems*, 48(2), 267-281.
- Mohammad, A. A. S., Al-Daoud, K. I., Rusho, M. A., Alkhayyat, A., Doshi, H., Dey, P., ... & Kiani, M. (2025b). Modeling polyethylene glycol density using robust soft computing methods. *Microchemical Journal*, 210, 112815.
- Mohammad, A. A. S., Mohammad, S. I. S., Al Oraini, B., Vasudevan, A., & Alshurideh, M. T. (2025c). Data security in digital accounting: A logistic regression analysis of risk factors. *International Journal of Innovative Research and Scientific Studies*, 8(1), 2699-2709.
- Mohammad, A. A. S., Mohammad, S. I. S., Al-Daoud, K. I., Al Oraini, B., Vasudevan, A., & Feng, Z. (2025a). Optimizing the Value Chain for Perishable Agricultural Commodities: A Strategic Approach for Jordan. *Research on World Agricultural Economy*, 6(1), 465-478.
- Mohammad, A. A., Shelash, S. I., Saber, T. I., Vasudevan, A., Darwazeh, N. R., & Almajali, R. (2025e). Internal audit governance factors and their effect on the risk-based auditing adoption of commercial banks in Jordan. *Data and Metadata*, 4, 464.
- Mohammad, A.A.S., Al-Hawary, S.I.S., Hindieh, A., Vasudevan, A., Al-Shorman, M. H., Al-Adwan, A.S., Turki Alshurideh, M., & Ali, I. (2025d). Intelligent Data-Driven Task Offloading Framework for Internet of Vehicles Using Edge Computing and Reinforcement Learning. *Data and Metadata*, 4, 521.
- Mohammad, S. I. S., Al-Daoud, K. I., Al Oraini, B. S., Alqahtani, M. M., Vasudevan, A., & Ali, I. (2025f). Impact of Crude Oil Price Volatility on Procurement and Inventory Strategies in the Middle East. *International Journal of Energy Economics and Policy*, 15(2), 715-727.
- Nazimuddin, W. A. W. ., Foziah, N. H. M., & Afthanorhan, A. . (2024). The effect of financial skills and strategies toward saving behavior among self-employed workers in retirement planning. *Asian Development Policy Review*, 12(3), 304–316. <https://doi.org/10.55493/5008.v12i3.5171>
- Sahoo, S. (2019) ‘Quality management, innovation capability and firm performance: Empirical insights from Indian manufacturing SMEs’, *The TQM Journal*, 31(6), pp. 1003–1027. doi: 10.1108/TQM-04-2019-0092.
- Şimşek, G. G. and Noyan, F. (2013) ‘McDonald’s  $\omega$ , Cronbach’s  $\alpha$ , and Generalized  $\theta$  for Composite Reliability of Common Factors Structures’, *Communications in Statistics - Simulation and Computation*, 42(9), pp. 2008–2025. doi: 10.1080/03610918.2012.689062.
- Sung, K.-S., Yi, Y. G. and Shin, H.-I. (2019) ‘Reliability and validity of knee extensor strength measurements using a portable dynamometer anchoring system in a supine position’, *BMC Musculoskeletal Disorders*, 20(1), pp. 1–8. doi: 10.1186/s12891-019-2703-0.
- Yaroshenko, O. M., Getman, A. P., Nazymko, E. S., Tkachenko, V. S., & Lutsenko, O. Y. (2024). Regulation of Working Time in the Context of the Global Transition to Flexible Forms of Work. *Science of Law*, 2024(4), 1-7. <https://doi.org/10.55284/sol.v2024i4.149>
- Yen, W. T. M. ., Yen, Y. Y. ., & Yen, D. Y. . (2024). Empowering work-life balance: Exploring the nexus of flexible work arrangements, job satisfaction, and women’s well-being in SMEs. *Asian Development Policy Review*, 12(4), 396–407. <https://doi.org/10.55493/5008.v12i4.5211>