
The Role of Human Competency Portfolio in Activating Digital Transformation Process in Organizations - A Study of Algeria Telecom Organization-

دور حقيبة الكفاءات البشرية في تفعيل عملية التحول الرقمي بالمؤسسة
- دراسة مؤسسة اتصالات الجزائر -

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Abstract :

This study aims to demonstrate the integration between the human competency portfolio and the digital transformation process within Algeria Telecom organization in Khenchela province. A questionnaire was utilized as a data collection tool, encompassing the fundamental dimensions of the human competency portfolio to determine the extent of its impact on activating the digital transformation process. Using structural equation modeling through SmartPLS4 software, the study concluded that there exists a positive relationship between technical competencies, competencies, and cultural competencies with the digital transformation process. Meanwhile, the results determined that managerial competencies, analytical competencies, and security competencies were not activated within the organization in a manner compatible with the digital transformation process.

Key words: Human competency portfolio, technical competencies, managerial competencies, analytical competencies, security competencies, cultural competencies, digital transformation.

JEL classification codes: J24, M12

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1. Introduction.

The organization's orientation toward the digital transformation process is an inevitable necessity rather than a choice, given the extensive, increasing, and evolving use of technology worldwide across various organizations. This contributes to performance improvement and sustainable activity efficiency, which necessarily reflects on the services provided to customers. Therefore, the existence of technology is necessarily linked to the human competency portfolio's ability to use digital tools, including artificial intelligence, cloud computing, big data, to increase competitiveness, improve operational competencies, and work to enhance innovation culture to adapt to renewable technological changes and protect information by following supervisory systems according to international security standards to reduce cyber-attack risks.

Discussion about the human resources portfolio confirms the organization's ability to divide work according to specialization and gather them within work teams characterized by blending knowledge, skills, and experiences to work efficiently and effectively, using modern technologies and adapting to them through providing technical competencies, developing data analysis skills and using them in prediction and decision-making through analytical competencies, possessing managerial competencies that enable digital planning formulation and implementation evaluation, as well as protecting information and cybersecurity that meets digital transformation requirements through security competencies, followed by cultural competencies to provide a work environment supportive of innovation.

Problem Statement:

The human competency portfolio has a strategic role in supporting and activating the success of the digital transformation process, to achieve organizational sustainability through possessing modern technologies that contribute alongside human competencies in creating significant changes in the work environment at both micro and macro levels. From here, we posed the following question:

- To what extent does the human competency portfolio contribute to activating the digital transformation process in the organization?

- What are the components of the human competency portfolio? And does this portfolio contribute to activating the digital transformation process?
- What are the high-tech mechanisms relied upon by Algeria Telecom-Khenchela- to protect data and information?
- Does Algeria Telecom-Khenchela- rely on its human competency portfolio to digitize its various operations on a daily basis?

Study Hypotheses:

First Hypothesis: There exists a statistically significant relationship between technical competencies and activating the digital transformation process at Algeria Telecom organization –Khenchela-

Second Hypothesis: There exists a statistically significant relationship between managerial competencies and activating the digital transformation process at Algeria Telecom organization – Khenchela-

Third Hypothesis: There exists a statistically significant relationship between analytical competencies and activating the digital transformation process at Algeria Telecom organization – Khenchela-

Fourth Hypothesis: There exists a statistically significant relationship between security competencies and activating the digital transformation process at Algeria Telecom organization –Khenchela-

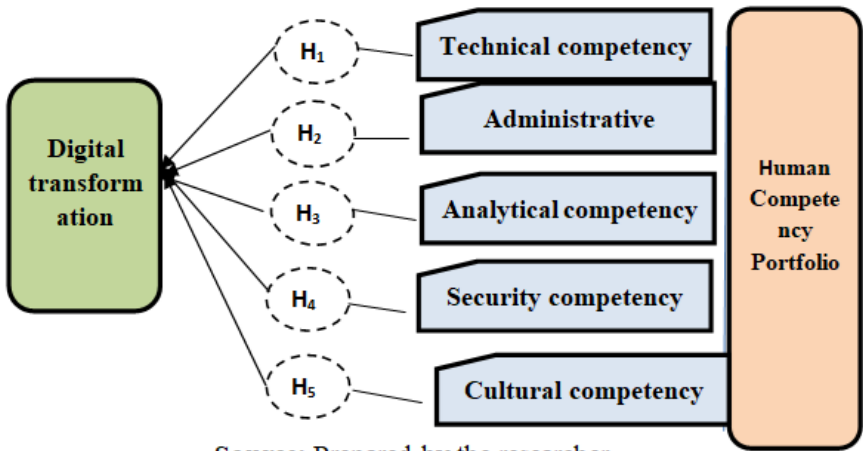
Fifth Hypothesis: There exists a statistically significant relationship between cultural competencies and activating the digital transformation process at Algeria Telecom organization –Khenchela-

Study Importance and Objectives:

The study's importance is manifested in showing the extent of integration between incorporating digital technologies and using them effectively through the human competency portfolio as an approach representing specialized roles in different fields. The study objectives are manifested in several points, some of which we mention as follows:

- Understanding how to integrate the human competency portfolio at the level of Algeria Telecom directorate-Khenchela-
- Relative confirmation that the human competency portfolio enables the organization to achieve excellence amid continuous technological changes.
- Analyzing the reality of the human competency portfolio and its role as an active asset in digitization at Algeria Telecom organization-Khenchela-

Fig 1.Study Model



Source: Prepared by the researcher.

Previous Studies:

1. Sascha Kraus and others, Digital transformation: An overview the current state of the art of research, Journals.sagepub.com, 2021.

The study aimed to provide insights regarding academic studies presented on digital transformation through conducting a systematic review. It relied on conducting co-occurrence analysis using VOSviewer software to illustrate the network nodes in studies graphically, for the purpose of presenting the main research pathways in digital transformation that consider technology as the main driver of these changes. The study classified studies related to business digital transformation qualitatively into three different groups based on technological, commercial, and societal impacts. Several research gaps identified in digital transformation studies were proposed as future research lines that could provide useful

insights for government and private sector to adapt to radical changes existing in business as a result of this phenomenon, as well as reducing their negative impacts on society.

2. Anna Visvizi and Others, Think human, act digital: activating data-driven orientation in innovative start-ups, European journal of innovation, vol.25, N 6, 2022.

The study investigated innovation management drivers in contemporary data-driven companies and data-driven organizations that integrate a strategic data-driven orientation and human capabilities. The study relied on the inductive approach to examine data collected through semi-structured interviews conducted with twenty founders of Italian startup companies. The study concluded that the main factors enabling innovation development in data-driven companies generate different innovation patterns depending on the type of capabilities used, in addition to the combination of data culture and skill enhancement and encouraging human resources enhances innovation emergence.

3. Machiel Bouwmans and others, developing the digital transformation skills framework: A systematic literature review approach, Editor: tachia chin, Zhejiang University of technology, China, 2024.

The study aimed to identify and define essential skills necessary to exploit the full potential of digital transformation and integrate identified skills into a comprehensive framework. The study included testing 36 articles subjected to thematic analysis to identify skills and unify them in a work framework. The results concluded developing a digital transformation skills framework that includes six groups of core skills. The framework covers main skill groups in digital work areas, entrepreneurship, evidence-based work, collaboration, communication and adaptation. The study also concluded providing a digital transformation skills framework with comprehensive understanding of key skills for organizations developed today and represents value for organizations and human resources experts.

4. Julia Larsson, Thea Lundqvist, Leader Competencies to enable digital transformation- A Qualitative study of Swedish business leaders competencies in the era of digital

transformation, Master thesis within: management, Jonkoping university, 2024.

The study aimed to expand research scope in core leadership competencies for success in enabling digital transformation in Swedish companies. This was done by applying exploratory research design collecting data through eighteen semi-structured interviews with Swedish company leaders. By applying the deductive approach, data was analyzed and interpreted using thematic analysis. The study concluded identifying twenty-three core leadership competencies, as well as the company must orient toward today's leaders seizing digital opportunities and understanding their challenges.

2. Theoretical Literature.

2.1. Human Competency Portfolio.

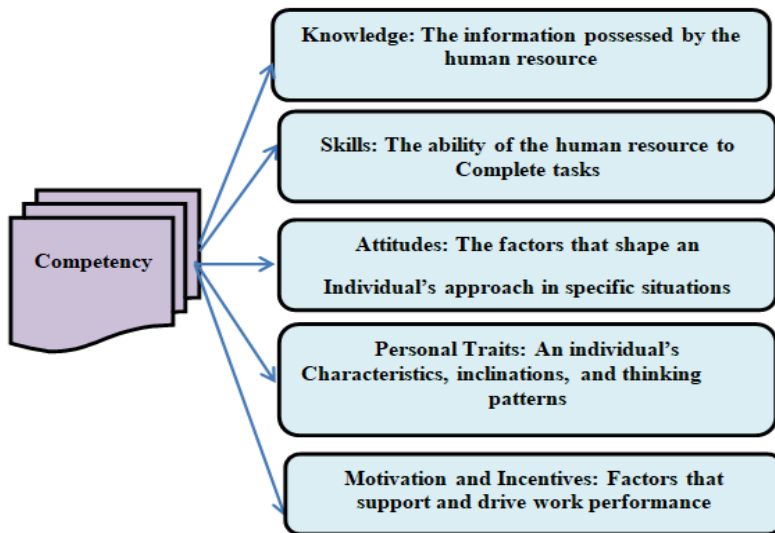
The competency-based approach is considered a radical reorganization of human resources in the organization according to renewable orientations posed by the business environment, through relying on training programs, mobility, and employment processes in a world characterized by fluctuations, complexity, and digitization. Accordingly, competencies are as follows:(lecoeur, 2015, pp. 8-9)

- Competencies are more flexible and capable of adapting at a rapid pace with complexities posed by the business environment amid technological development, thereby improving responsiveness significantly according to strategic methods.
- Competencies' ability to contribute to decision-making resulting from the ability to analyze and contain data of importance, which provides greater opportunity to direct strategic decisions and implement them.
- The ability to follow specific organizational methods that contribute to building new or advanced skills that suit competencies' interests and organization orientations amid digital transformation process.

The spread of the competency-based approach is closely linked to recognizing that the essence of modern human resource management lies in selecting, developing, and retaining the best competencies, which results in continuous improvement of organization performance at present.(belényesi & dobose, 2022, p. 28)

Competency is "the ability to perform professional activities expected from human resources within the framework of their assigned role in the organization or society, and it can be said that it is the sum of theoretical knowledge, practical knowledge, and behavioral knowledge used in a specific context."(nabil & benyahia, 2023, p. 28)

Fig 2. The main components of competency



Source:(Larsson & Lundqvist, 2024, p. 8)

According to the European Commission, digital competencies are defined "as confident, critical, and responsible use of digital technology for learning, work, and participation in society purposes. These competencies include data and information literacy, communication and collaboration, digital content creation, digital security, as well as intellectual property issues, problem-solving, and critical thinking."(Semssoum, 2024, p. 716)

Security Competencies: Interest in establishing an integrated strategy based on security dimensions that enable the company to push toward technology and innovation to transform operational models, enhance security services, align regulatory standards with information technology objectives, and invest in skills. Accordingly, security competencies in this field must be characterized by the following features(A guide to occupations and skills, Skills framework for security, 2018, p. 4):

- Ability to analyze situations from different angles and provide appropriate solutions.
- Ability to communicate and provide services professionally.
- Ability to adapt to rapid changes and great awareness of the surrounding environment.
- Ability to contribute to decision-making or propose appropriate alternatives.

Table 1. The main trends in security industry

Emerging Trends	Required Competencies	Some Security Applications
Emerging Technologies	/ Security Control Management / Robotics and Automation Applications	IDS: Intrusion Detection System A network security tool that monitors traffic and devices to detect threats and alert security personnel about known or potential risks. MFA: Multi-Factor Authentication A multi-layered security system that grants users access to a network or application only after verifying their identity—typically by combining username and password. This system enhances security posture.
Redesigning Business Processes to Address Major Security Threats	/ Contract Management / Innovation Management / Strategic Planning	
Hacking and Global Information Threats Requiring Full Security Response	/ Security Risk Analysis / Threat Intelligence Research / Continuous Monitoring	

Source:(A guide to occupations and skills, Skills framework for security, 2018, p. 5)

Managerial Competencies: They are a combination of resources and capabilities, meaning human competencies' ability to complete tasks assigned to them, which essentially includes three important aspects: knowledge-scientific knowledge-, attitude-emotion and behavioral knowledge-, skills and technique, which are integrated comprehensively to perform certain tasks efficiently.(hassane & benbouziane , 2021, p. 388)

Analytical Competencies: These are competencies' ability to manage big data, enabling individuals to extract useful information.

This includes competency in data mastery, analyzing them by applying statistical methods for prediction and analysis, alongside the ability to use appropriate presentation methods. Competency in data analysis includes following a methodical and organized approach to ensure accuracy and reliability of the analysis process. These competencies also include the ability to distinguish patterns and trends and perceive relationships that contribute to decision-making.(Bouwman & others, 2024)

Cultural Competencies: The organization's possession of a set of individual competencies, collective competencies, managerial and technical competencies contributes to reaching a cultural environment that enhances complete awareness toward digital transformation orientation and complete, flexible, and rapid adaptation. We find that to cultivate cultural competency, the organization works in two basic directions:-59 الصفحات (حمدي، 2012،
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Individual Competencies: The individual's ability to use mental capabilities to identify opportunities and threats as well as identify problems facing the organization, by collecting quantitative data and analyzing it using digital techniques to formulate an integrated vision that contributes to effective decision-making.

Collective Competencies: Possessing human competencies with a sense of cooperation, team spirit, and commitment to work standards, organizational procedures, regulations, rules, policies, as well as ethical behavior determined by the organization enables building strong communication channels that contribute to rapid information flow and using available digital techniques characterized by flexibility and speed simultaneously with technological development, which creates balance and improves performance.

Technical Competencies: These are understanding and good control of a special work or activity. Technical skill requires special knowledge and analytical ability with rapid control of tools and techniques specific to a particular activity such as programming control and accounting auditing. It is also noted that these skills are easy to measure, evaluate, and observe, and most of these activities and training programs aim to develop these skills specifically.

2.2. Digital Transformation

Digital transformation is a radical change in service delivery methods and approaches, helping achieve organizational sustainability through providing services faster and better. It represents the organization's transition process to a business model that depends on digitization in innovating and providing products and services. It transforms administrative procedures and educational practices into processes that depend on technology, devices, and software.(روفية، 2023، صفحة 60)

The organization's success in the digital transformation challenge will enable it to achieve its objectives-selling better, responding better to customer needs, providing correct information at the right time for collaborative work without barriers-, because digital transformation is a process that allows the company to integrate all available digital technologies within its activities that contribute to creating change or innovation.(amine, belghaba, & akram, 2022, p. 4)

Digital technologies help the organization adapt quickly to environmental condition changes through contributing to its flexibility, as well as its ability to discover innovative opportunities and benefit from them. Analysis and utilization of other technologies lead to improving current and future services and reducing wasted resources.(Vial, 2019, p. 21)

Digital Transformation Technologies: These technologies can be summarized in the following elements:(khalfallah & bendjelloul, 2023, pp. 780-781)

Cloud Computing: A method for accessing shared sets of configurable hardware and software resources such as computer networks, data storage, and applications that can be easily provided with minimal effort. The cloud computing model is provided using one of three service models: Infrastructure as a Service (IAAS), Platform as a Service (PAAS), and Software as a Service (SAAS).

Artificial Intelligence: Developing systems with cognitive capabilities similar to human capabilities-ability to think, learn from previous experiences-.

Internet of Things: The physical network (IOT) including sensors, software, and other technologies to exchange data with other devices and systems via the internet.

Big Data: Massive information assets in volume, velocity, and variety requiring innovative and cost-effective forms of information processing to enhance insights and decision-making.

Blockchain: A distributed digital ledger that records transactions instantly. These transactions are not limited to monetary currencies but are applied virtually across various fields and sectors.

Cybersecurity: A set of techniques and procedures designed to protect computers, networks, software, and data. It has witnessed tremendous technological changes, and its operations in computing and data science drive this change.

Enterprise architecture also enables adaptation to information technology strategy in digital transformation. As a result of new trends in information technology such as cloud computing, mobile information technology, or digital information technology, it also works to increase business flexibility and support organizations in building digital capabilities such as access to information or high degrees of automation and flexibility.(Kraus & others, 2021, pp. 7-8)

Digital Transformation Impact on Organizational Performance:

Digital transformation enhances institutional performance through integrating modern technologies, reducing effort and costs, and encouraging innovative structures such as technology and business incubators. This transformation supports initiatives aimed at building an information society.(Nadia & others, p. 8)

Digital transformation involves interaction with new technologies, leading to different effects on achieving financial stability while studying indicators that coincide with implementing various laws.

The use of modern technologies affects organizational culture, meaning that digital transformation creates cultural change that organizes behavior and performance in the organization.

Digital transformation supports change in leadership management, thought, and work to create pivotal leadership for

equipment and projects for their continuity and transition to digitization.

Digital transformation supports company performance through strategy and supporting new investments that present opportunities to reach financial stability.(Amara, 2021, pp. 3-5)

3. Applied Study.

3.1. Study Population and Sample.

The study population represented by Algeria Telecom sector was chosen for the organization's ability to proceed toward digital transformation process by using available technology and adapting to emerging ones to develop its operations and provide high-quality services. This reflects the organization's provision of infrastructure as well as having an integrated portfolio of human resources for sustainability and success of digital transformation process. To reach relatively accurate results, purposive stratified sampling was adopted, which aligns with the study subject nature. The questionnaire was directed to employees in high and specific administrative positions possessing diverse and necessary competencies to activate digital transformation process.

3.2. Study Tool.

Based on what was mentioned in the theoretical framework and previous studies, the questionnaire was relied upon as a data collection tool. The questionnaire was divided into two parts: the first part relates to personal data of the studied sample, and the second part addressed study axes. It was divided into two axes: the first axis addressed the independent variable represented in human competency portfolio through five main dimensions: technical competencies, managerial competencies, analytical competencies, security competencies, and cultural competencies. Each dimension contains a set of questions in statement form ranging from 4 to 5 statements per dimension. The second axis addressed the variable related to digital transformation, consisting of 08 statements.

3.3. Descriptive Analysis of Study Variables.

To remove scale differences between study variables and show the ability to compare their effects within the structural model, all dimensions of independent variables and the dependent variable were subjected to standardization process, where original variable

value data was converted to standard Z-Scores values, so that the arithmetic mean of all independent variable dimensions as well as the dependent variable reached 0.000, while the standard deviation value reached 1.000, according to the equation:

$$Z = \frac{X - E}{STD(E)}$$

Through applying the equation, estimation quality was improved for weights and coefficients within the structural model of coefficients and paths within the model, enhancing the model's composite reliability and statistical results credibility and predictive ability(Prihandity & Alamsyah, 2020, p. 65).

Table 2.descriptive analysis of study variables

Descriptive Analysis	Technical C	Administ rative C	Analytica I C	Security C	Cultural C	Digital Transfor mation
Mean	0.000	0.000	0.000	0.000	0.000	0.000
Standard Deviation (S.D)	1.000	1.000	1.000	1.000	1.000	1.000
Skewness	-0.652	-0.658	-0.435	-0.747	-0.542	-0.524
Kurtosis	-0.234	0.013	0.677	1.999	-0.029	-0.196

Source:Outputs of statistical analysis using Smart PLS4 software.

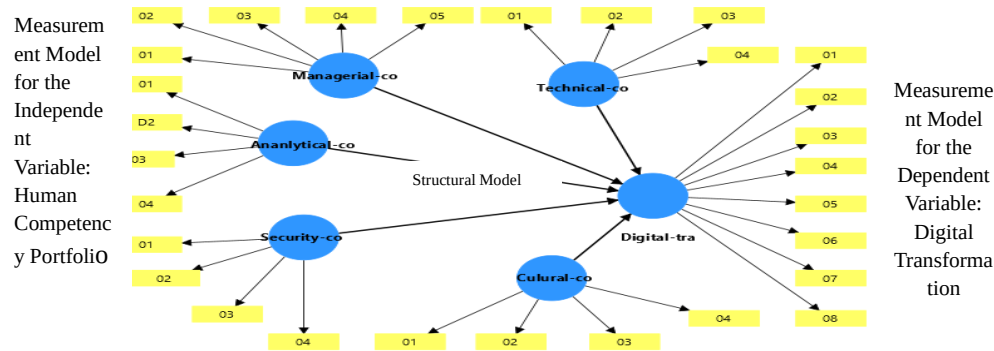
From the table results above, we find arithmetic mean values of 0.000 and standard deviation values of 1.000, making the data statistically useful in measuring relationships between variables and their paths well. Skewness values ranged between (-0.435 to -0.747), negative values reflecting left-skewed distribution. Kurtosis ranged between (-0.243 to 1.999), reflecting distribution close to normal, despite an extreme value for security competencies 1.999, but kurtosis values are acceptable for statistical analysis. Accordingly, we find that standard data for study variables are suitable, regular, and characterized by high degree of statistical homogeneity.

3.4. Study Model Evaluation.

To study questionnaire data, the PLS-SEM algorithm was run using SmartPLS4 software because the sample is small, consisting of

50 respondents. To extract relationships between research variables, various tests were included to determine statistical significance for evaluating the study model, which is conducted in two stages. In the first stage, the measurement model is evaluated based on reliability and convergent validity criteria to determine internal estimation validity. In the second stage, the structural model is evaluated to determine external relationships and test hypotheses.

Fig 3. The general study model according to PLS-SEM modeling using SmartPLS4 software



Source:Outputs of statistical analysis using Smart PLS4 software

The figure above shows a general study model consisting of two parts: the measurement model that displays the relationship between variables and a set of statements that measure them, represented by circular shape in the model. We find that statements related to each dimension of the independent variable dimensions are used in the measurement model. The model also displays the structural model through relationships (paths) between independent variables and the dependent variable. Paths are represented by arrows directed from partial independent variables (Technical-co, Managerial-co, Analytical-co, Security-co, Cultural-co) toward the dependent variable (Digital-tra). The goal of testing and evaluating the model according to the least squares method is to draw the theoretical framework as an integrated model showing research variables and testing the relationship fabric contained in the model all at once as they exist in field reality.

3.5. Measurement Model Evaluation

To measure indicator reliability and convergent validity, composite reliability criterion was used, where results ($CR > 0.7$) for all indicators leads to internal homogeneity, and average variance extracted criterion at threshold ($AVE > 0.5$), as well as external loading of indicator (statement) at threshold greater than 0.7, achieving reliability indicator.(F.Hair & Authors, 2017)

a. Internal Consistency Reliability and Convergent Validity Evaluation

Table 3.The measurement model evaluation results for convergent validity and reliability

Study Variables	Indicators (Statements)	Convergent Validity		Decision Regarding Indicator	Cronbach Alpha	Composite Reliability (CR)
		Outer Loading of the Indicator (Statement)	(AVE)		CA >0.7	
		Threshold greater than 0.7	Threshold greater than 0.5			
Technical Competencies	Statement No.1	0.814	0.686	Retain Indicator	0.847	0.869
	Statement No.2	0.854				
	Statement No.3	0.909				
	Statement No.4	0.725				
Administrative Competencies	Statement No.5	0.772	0.643	Retain Indicator	0.864	0.894
	Statement No.6	0.792				
	Statement No.7	0.786				
	Statement No.8	0.869				
	Statement No.9	0.787				
Analytical Competencies	Statement No.10	0.721	0.579	Retain Indicator	0.759	0.766
	Statement No.11	0.708				
	Statement No.12	0.812				
	Statement	0.799				

	No.13					
Security Competencies	Statement No.14	0.784	0.618	Retain Indicator	0.798	0.805
	Statement No.15	0.734				
	Statement No.16	0.812				
	Statement No.17	0.812				
Cultural Competencies	Statement No.18	0.823	0.691	Retain Indicator	0.850	0.859
	Statement No.19	0.769				
	Statement No.20	0.893				
	Statement No.21	0.834				
Digital Transformation	Statement No.22	0.704	0.626	Retain Indicator	0.913	0.920
	Statement No.23	0.702				
	Statement No.24	0.866				
	Statement No.25	0.834				
	Statement No.26	0.880				
	Statement No.27	0.854				
	Statement No.28	0.715				
	Statement No.29	0.745				

Source:Outputs of statistical analysis using Smart PLS4 software.

From the table results, we find that convergent validity evaluation criteria according to variable indicators have loading values greater than threshold 0.7. We also find that AVE values are greater than 0.5, ranging between 0.643 as minimum and 0.691 as maximum, making all indicators enjoy high degree of convergent validity. Regarding composite reliability, we find that CR indicator for variables is greater than threshold 0.7, ranging between 0.766 and 0.920. CA coefficient exceeded 0.7, making all indicators enjoy high levels of reliability and internal consistency. Therefore, we adopt all indicators as suitable for completing model evaluation process.

b. Model Quality Testing

To test the model according to PLS approach, we use the general indicator GOF (Goodness of Fit), which measures model quality through the following equation:

$$GOF = \sqrt{R^2 + AVE}$$

To determine whether the model has quality, GOF criteria must be adopted, which classifies (weak fit $GOF < 0.1$, medium fit falls within range $0.1 < GOF < 0.36$, and strong fit $GOF > 0.36$). (Shehata & Author, 2021)

Based on SmartPLS statistical analysis results, the model produced a value of 0.795 for human competency portfolio and its activation of digital transformation process in the organization. Therefore, variables meet the general quality condition of the model according to PLS path, as they provide comprehensive explanation of relationships between variables, reflecting model suitability for conducting analysis.

3.6. Structural Model Evaluation.

The quality of relationships between variables within the model is evaluated and study hypotheses are tested and their impact on studied constructs, using path coefficient criterion. The standard value range for path coefficient is between -1, +1. The closer values are to +1, the stronger the relationship between two constructs and vice versa. When evaluating the significant level of relationships using path coefficient value, t-value is usually higher than the critical table value $t=1.96$ at error probability less than $p=0.05$. (Ayyash & Author, 2020)

a. Linear Multicollinearity Between Constructs Using Variance Inflation Factor VIF:

Table 4. The examination of linear multicollinearity problem between study variables

VIF	Second Axis → Technical Competencies	Second Axis → Administrative Competencies	Second Axis → Analytical Competencies	Second Axis → Security Competencies	Second Axis → Cultural Competencies
	4.508	1.147	4.367	3.792	3.059

Source: Outputs of statistical analysis using Smart PLS4 software

From the results, we find that all VIF values for model variables are less than 5, which meets the condition below. Therefore, there is

no linear multicollinearity between study model constructs, where:(F & Author, 2021, p. 96)

- $VIF > 5$: means there is a critical problem in linear correlation of study variables if variance coefficient is greater than or equal to 5
- $VIF = 3-5$: means there is no critical problem in linear correlation of study variables if coefficient falls within range 3-5
- $VIF < 3$: means there is no problem in linear correlation of study variables if variance coefficient is less than 3.

b. Evaluation of Determination (Explanation) Coefficient R^2 , Effect Size F^2 , Predictive Relevance Q^2 .

Table 5.values of (R^2 , F^2 , Q^2) in study model

Independent Variable	Dependent Variable	R^2 Adj. R^2	Effect Size (F^2)		Predictive Relevance (Q^2)
Technical Competencies	Digital Transformation in the Institution	0.987	0.518	Strong Effect	$Q^2 > 0$
Administrative Competencies			0.081	Weak Effect	$Q^2 > 0$
Analytical Competencies			0.008	Weak Effect	$Q^2 > 0$
Security Competencies			0.001	Weak Effect	$Q^2 > 0$
Cultural Competencies			0.733	Strong Effect	$Q^2 > 0$

Source: Outputs of statistical analysis using Smart PLS4 software.

From the results, we see that determination coefficient R^2 values explain 98.7% of changes occurring in digital transformation process, which is a high value. Effect size f^2 shows variation in results, where effect size of managerial competencies, analytical competencies, and security competencies on digital transformation process is weak, falling within range $0.02 < F^2 < 0.15$. Both technical competencies and cultural competencies dimensions show substantial and positive effect on digital transformation process because $F^2 > 0.35$. Q^2 expresses the model's ability to predict the dependent variable. Looking at the table results above, we find that all values are greater than 0, indicating that independent variable dimensions of human competency portfolio have suitability or predictive ability for the dependent variable - digital transformation.

3.7.Hypothesis Testing.

Table 6. Hypothesis testing results

Hypothesis	Std. Beta	Std. Error	t-Value	p-Value	Decision
Hypothesis No. 01	0.480	0.046	10.480	0.000	Accept the alternative hypothesis
Hypothesis No. 02	0.034	0.023	1.501	0.133	Accept the null hypothesis
Hypothesis No. 03	-0.021	0.044	0.481	0.631	Accept the null hypothesis
Hypothesis No. 04	0.005	0.041	0.128	0.898	Accept the null hypothesis
Hypothesis No. 05	0.598	0.041	14.696	0.000	Accept the alternative hypothesis

Source: Outputs of statistical analysis using Smart PLS4 software.

From the table we find that:

- Path analysis results for structural model show positive correlation relationship between the first dimension of human competency portfolio and digital transformation activation process, where the value reached $\beta=0.480$, which is positive and strong. We find that calculated $t=10.480$ with probability value $p=0.000$, greater than critical value $t=1.96$ at significance level 0.05, proving that the relationship between the two variables is statistically significant. Therefore, we accept the alternative hypothesis proving the existence of statistically significant relationship at significance level 0.05 between technical competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-.

- Path analysis results for structural model show positive correlation relationship between the second dimension of human competency portfolio and digital transformation activation process, where the value reached $\beta=0.034$, which is positive and weak. We find that calculated $t=1.501$ with probability value $p=0.133$, less than critical value $t=1.96$ at significance level 0.05, proving that the relationship between the two variables is not statistically significant. Therefore, we accept the null hypothesis proving no statistically significant relationship at significance level 0.05 between managerial competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-.

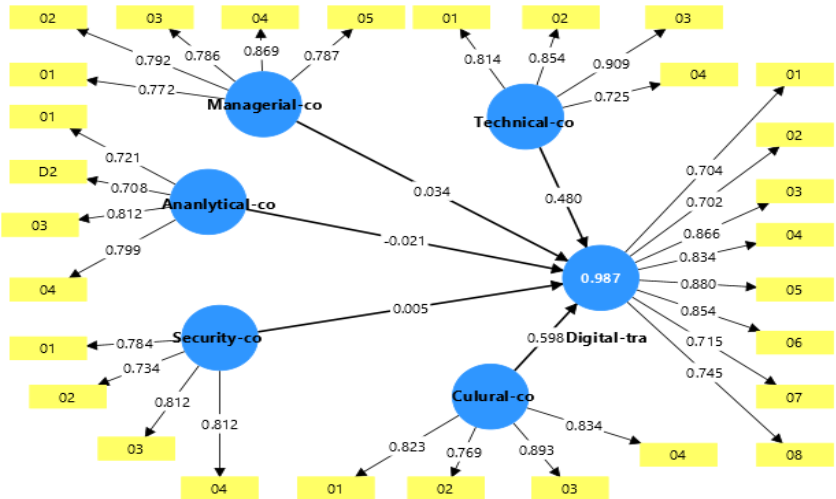
- Path analysis results for structural model show inverse correlation relationship between the third dimension of human competency portfolio and digital transformation activation process, where the value reached $\beta=-0.021$, which is negative and weak. We find that calculated $t=0.481$ is less than critical value $t=1.96$, with probability value $p=0.631$ greater than significance level 0.05, proving that the relationship between the two variables is not

statistically significant. Therefore, we accept the null hypothesis proving no statistically significant relationship at significance level 0.05 between analytical competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-.

- Path analysis results for structural model show positive correlation relationship between the fourth dimension of human competency portfolio and digital transformation activation process, where the value reached $\beta=0.005$, which is positive and weak. We find that calculated $t=0.128$ is less than critical value $t=1.96$, with probability value $p=0.898$ greater than significance level 0.05, proving that the relationship between the two variables is not statistically significant. Therefore, we accept the null hypothesis proving no statistically significant relationship at significance level 0.05 between security competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-.

- Path analysis results for structural model show positive correlation relationship between the fifth dimension of human competency portfolio and digital transformation activation process, where the value reached $\beta=0.598$, which is positive and strong. We find that calculated $t=14.696$ with probability value $p=0.000$, greater than critical value $t=1.96$ at significance level 0.05, proving that the relationship between the two variables is statistically significant. Therefore, we accept the alternative hypothesis proving the existence of statistically significant relationship at significance level 0.05 between cultural competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-.

- Fig 3.The final study model



Source: Outputs of statistical analysis using Smart PLS4 software.

3.8. Study Results and Analysis.

From the obtained results we find:

- There exists a statistically significant relationship at significance level 0.05 between technical competencies and activating digital transformation process in Algeria at Algeria Telecom Khenchela organization with strong and positive effect, reflecting continuous improvement of electronic service quality provided to customers resulting from rapid control of tools and technologies on one hand, and subjecting these competencies to training programs amid the organization's attempt to adapt to digital transformation process.

- The absence of statistically significant relationship at significance level 0.05 between managerial competencies and activating digital transformation process at Algeria Telecom organization-Khenchela- with weak effect reflects the organization's inability to coordinate between administrative levels primarily active in the digital transformation orientation process, in addition to its inability to provide necessary resources and plan to exploit them efficiently.

- The absence of statistically significant relationship at significance level 0.05 between analytical competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-, with weak effect reflects the organization's non-use of analysis as a tool to help predict problems in digital services and make appropriate decisions to develop new analytical methods.

- The absence of statistically significant relationship at significance level 0.05 between security competencies and activating digital transformation process at Algeria Telecom Khenchela organization with weak effect reflects the organization's failure to pay attention to the importance of orientation toward technological learning and working to develop systems to deal with cyber attacks to reduce risks, protect programs, ability to use electronic software according to global security standards including intrusion detection systems (IDS) and multi-factor authentication (MFA), as well as data recovery in case of breach to ensure integrated and sustainable digital transformation amid continuous changes.

The existence of statistically significant relationship at significance level 0.05 between cultural competencies and activating digital transformation process at Algeria Telecom organization-Khenchela-with strong and positive effect reflects possessing communication

skills, cooperation spirit, and organization members' commitment to regulations, laws, and rules, which contributes over time to providing flexible electronic environment enhancing creativity and innovation culture to facilitate digital transformation process

4. Conclusion :

The organization's possession of different competencies capable of dealing with technology and adapting to it with speed and flexibility occurs only through developing its human competencies and investing in them to ensure successful activation of digital transformation process, which passes through several stages requiring competent leadership that positively affects work teams for continued transformation toward digitization process sustainably with required efficiency and effectiveness on one hand, and improving quality of electronic services provided to customers amid the organization's possession of necessary technical and security competencies. However, through proposing and studying a model for research variables to determine the extent of human competency portfolio impact on activating digital transformation process, we found that Algeria Telecom Khenchela organization possesses a set of competencies that were not activated well because it possesses a cultural environment with competencies enabling creativity and work sustainability through working to exploit available material and technological means. In this regard, we present the following recommendations:

- For the organization's success in adopting implementation of clear strategy for digital transformation process ensuring organizational sustainability in work environment, it must invest in managerial competencies to build competencies with strategic vision capable of digital planning.
- The organization can increase customer engagement in completing their transactions through creating analytical competencies in return for efficiency and effectiveness they find through manufacturing analytical competencies.
- The organization should pay greater attention to technical competencies in line with positive advantages achieved in ability to face technological challenges and adapt to them.
- Given the organization's lack of security competencies, it must orient toward benefiting from previous experiences and addressing deficiencies in information and network security field and software development as urgent necessity amid rapid and renewable technological developments.

- Working to directly involve competencies in decision-making process by following brainstorming teams, for example, to enhance organizational culture, contributing to facilitating digital transformation process.

- The organization should work through its human competency portfolio to build decisive decisions regarding communication and learning processes as basic tool to accelerate digital transformation process with required efficiency.

The necessity for the organization to orient toward using piracy detection systems innovatively to reduce loss of important data for the organization and its clients.

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