THE IMPACT OF GENERAL CHALLENGES ON HUMAN RESOURCE EFFICIENCY VIA THE INTERNET IN COMMUNICATION PROJECTS / IRAQ

Adnan Mnati Salih, AL-Bayan University

ABSTRACT

The research aims to explore how challenges affect current and future jobs, diagnose the competencies that employees must possess using the competency model in maintaining a qualified workforce, and diagnose Internet of Things (IoT) tools solutions that human resource management uses to support its operations. The research included two forms, the first (IoT) the sample (10) individuals (5 individuals for each company), and the second (challenges and efficiency) on a sample of (50) individuals from each communications company (Asia Cell and Zain). SPSS (software) for the purpose of statistical analysis of data, and Levene's F test to assess equality of variance for a variable calculated for two or more groups, and Pearson chi-squared test. Its value is (0.795) and (0.847), respectively, for data collection, and the Spearman coefficient was adopted to perform the analysis of the data and examine the correlations. The results showed that using a robot creates problems for human resources, telecom companies focused on the use of some Internet of Things (IoT) tools and solutions, and that the disincentives to implement Industry 4.0 is the fear of organizational resistance, Identifying competency gaps The research recommends developing onboarding strategies in order to fill in the previously identified gaps, and that the competency model promptly provides appropriate employee training, rethink investments and retains top talent, and engages employees in learning. The serious management's mission is to make employees in Communication understand the inevitability of change by using (IoT) tools solutions, so that Industry 4.0 can be able to cope with technology evolutions.

Keywords: General Challenges, Efficiency of (HRM), Via the Internet, Telecommunications Companies / Textile.

INTRODUCTION

New strategic approaches to comprehensive human resource management in telecommunications businesses are required to cope with the knowledge and competence issues associated with new technologies and processes in Industry4.0. As a consequence of the increasing automation of basic industrial processes, the number of work capabilities with a high degree of complexity will grow, necessitating the need for workers with a high level of education. Educating workers to convert their skills into workplaces with more complicated operations and ensuring that jobs be maintained in rapidly changing work settings are the two most difficult challenges to overcome (Fabian & Colleagues, 2016). The current workforce qualification methods that telecom firms are obliged to use. Specifically, it means that workers are better equipped to carry out tasks requiring more strategic thinking, coordination, and creativity. Additionally, altering the social values of employees generates an extra requirement for them to put in more hours at the office. The Internet of Things (IoT) tools solutions are data-driven, according to (Stock-Homburg, 2013). A competitive factor is the manner in which information may be gathered, evaluated, and used in order to make the best choices and grow. As a result, not only will production based on the same or completely new (add-on production) be a source of competitive advantage, but also products with digital

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

services (in the event of a failure, the device itself indicates which replacement part to bring), i.e. how telecommunications networks will be utilised. Information derived from data collected in order to assist in decision-making 609-629 in Stock-Homburg (2013), and that the primary goal of Internet of Things (IoT) technologies is to produce improvements, according to (Stock-Homburg, 2013). Both in terms of operational efficiency and effectiveness (both in terms of automation and efficiency), (Helmrich & colleagues, 2015). Cyber Natural Systems (CPS), tool solutions, the Internet of Things (IoT), the Internet of Services (IoS), and large robots are all included in the Emerging Indusry4.0 idea, which is an umbrella name for a new industrial model that includes a variety of future industrial advancements. Computing in the cloud and augmented reality are two of the most recent technologies to emerge. Among those who have contributed to this work are Neuberger and colleagues (1997). Research methodology, theoretical background, data analysis, and the testing of research hypotheses are all covered in the first four parts of the study, which are followed by findings and suggestions. Employees must have the ability to engage in more strategic, coordinated, and innovative actions in order to effectively address problems, making strategic management of skills important. We have made significant progress in establishing a competence model and shown how telecom firms may utilize it to solve the problems of Industry 4.0. It is necessary to address the following research questions throughout the model creation process:

1. In the Fourth Industrial Revolution, what are the general difficulties that telecom businesses will have to face?
2. What is the impact of these issues on existing and future employment, and how does this impact the work processes connected with them?
3. How do you identify and train workers on the target skills that they will need to execute their jobs in the future?
4. How can a qualified force take use of the competence model and ensure that it is implemented correctly and consistently?
5. What Internet of Things (IoT) solutions do you have to help HR departments do their tasks?

Research Hypothesis

Increasingly, in the age of industrial digitalization, telecommunications companies are investing in tools and solutions that allow their processes and machines, as well as their employees and even the products themselves, to be integrated into a single integrated network for the purposes of collecting data, analyzing data, evaluating company development, and improving performance. According to Porter and colleagues (2015). Despite the fact that Industry 4.0 presents many new opportunities for telecom operators, there are also numerous challenges arising from continuous automation and digitalization. To address these challenges, it is necessary to analyses macro environmental challenges using the PESTEL framework, which takes into account economic and social factors as well as technical, environmental, political, and legal factors. By 2025, seven million jobs in the global economy will be rendered obsolete, according to the International Labour Organization. More than 30% of the repetitive, non-repetitive, and physically demanding activities formerly done by humans are anticipated to be performed by advanced industrial robots in the future. Furthermore, it is estimated that more than 30% of people possess professional abilities that they do not currently possess and that we cannot anticipate with certainty in the future. Seventy percent of all occupations will need some kind of activity to be completed, and 65 percent of our pupils are likely to do tasks for which there is no existing job. High cognitive skills are in more demand than ever before, as shown by the statistics presented above. In order to succeed, students must be intelligent and acquire transferrable abilities. And the illiterate of the twenty-first century will not be those who are unable to read

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

and write, but rather those who are unable to acquire, teach, and relearn the skills necessary for survival. A number of hypotheses were developed to help address the study questions: A positive impact with statistical significance for the dimensions of general challenges (economic, social, technical, environmental, political, and legal) on the competencies of human resource management with the dimensions of general challenges (economic, social, technical, environmental, political, and legal) is the primary hypothesis (technical, methodological, social, and personal).

H_1: *The general difficulties have a favourable and statistically significant effect on technical efficiency.*

H_2: *In terms of methodological efficiency, there is a favourable and statistically significant effect of general difficulties.*

H_3: *hypothesis, the general problems have a positive and statistically significant effect on societal efficiency.*

H_4: *It is hypothesised that the overall difficulties have a favourable and substantial effect on individual efficiency.*

H_5: *The Internet of Things (IoT) technologies and solutions that they employ in human resource management to support their operations have a good and substantial effect on the organization's operations.*

Objectives

1. Identify the broad problems that telecom operators will encounter as a result of the Fourth Industrial Revolution (Industrie 4.0)
2. Examine the ways in which general problems have an impact on employment and employee productivity.
3. Identifying the fundamental skills and abilities that workers must have in order to execute Internet of Things needs
4. Examine the ways in which a competence model may assist a business in maintaining a well-qualified staff.
5. Internet of Things (IoT) technologies utilised by the human resource department to support its operations are being investigated for diagnostic solutions.

Research Sample

It was decided that the study and its methodology would be designed on the basis of measurement to answer seven questions about Internet of Things (IoT) tools, and the questionnaire form attached Figure 1 on the statements, would be used to answer the sample (10 individuals). (40) statements, (50) people were chosen from the employees regarding the general difficulties and the efficiency of management Human resources in telecommunications businesses according to Alpha Crbonbach, and its value was (0.795) and (0.847), respectively. Data were gathered from the 15th of April to the 30th of April in the year 2021 to test theories. It was decided to use SPSS statistics package (software) for the purpose of conducting statistical analyses on the data. The rank correlation coefficient (also known as the Spearman coefficient) was used to conduct the data analysis and to evaluate the correlation relationships between the two variables. Because the information was gathered electronically, from yearly reports, and from scientific sources, it was possible to investigate the overall difficulties and capabilities of human resource management. Expert interviews and a pilot research were also used to gather preliminary information, which was then used to influence the final report. The questions chosen for this research, which included previous experiences of reliability, composite validity, and differentiation validity, were used to create

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

a questionnaire (Fornell & Larcker, 1981). Overall, all items received favourable scores (1 being strongly disagree, 5 being strongly agree, and 3 being in the centre), with mean values higher than 3.0. The following scale was developed to reflect the study variables: No. of the Figure 2.

Variables	Dimensions	Question number
Economical	General challenges Performance of human resources management	1-4
Social		5- 8
Technical		9-12
Environmental		13-16
Political		17-20
Legal		21-24
Technical		25-28
Conceptual		29-32
Social		33-36
Individual		37-40

Figure 1
DISTRIBUTION OF THE SURVEYS CONTENTS

Variables	Internal consistency coefficient	Complex constant	Cronbach's alpha coefficient	Average contrast
Economical	0.78	0.748	0.875	0.833
Social	947.	0.846	0.895	0.748
Technical	0.841	0.854	0.721	0.843
Environmental	0.832	0.871	0.835	0.787
Political	0.857	0.963	0.785	0.741
Legal	0.957	0.874	0.721	0.678
Technical	0.975	0.964	0.794	0.754
Conceptual	0.917	0.876	0.854	0.654
Social	0.957	0.874	0.721	0.678
Individual	0.975	0.964	0.835	0.787
The overall explanation for the variance	91.26%			
latent root	11.872			
Kaiser-Mayer-Olsen test	0.874			
Bartlett test	1291.451			
Degree of freedom	81			
Morale test	0			

Figure 2
CONSTANT TEST FOR SURVEY METRIC

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

A study's sample size and adequacy (KMO), as well as exploratory and confirmatory analyses, factor analysis, and reliability selection, are all discussed in detail. The Kaiser-Mayer-Olsen test had a value of (0.874), and the Bartlett test had a value of (1291.451), and the value of the Kaiser-Mayer-Olsen test had a value of (0.874). As a result, the test had a value of (1291.451), and it was verified that its moral level was (0.000), and it was apparent that the degree of freedom was (81) An adequate sample size test (KMO), exploratory and confirmatory factor analysis, as well as a stability test, were performed. The Kaiser-Mayer-Olsen test resulted in a value of (0.874), with a value of the Bartlett test (1291.451) at the level of significance (0.000) and the degree of freedom (n = 3) being achieved (81). Using the first two resolutions, which had dimensions of ten (10) and forty (40), we were able to obtain a latent root (11.872), and the value of the explanatory total variance was ninety-two percent (91.261). The values of the branches (0.992-0.842) represented the components of the matrix, and the value of the stability of the resolution was high (0.949). Using the half-split factor for the items (40), individual items (24) received Cronbach's Alpha Laboratories (0.874), while paired items (16) received Cronbach's Alpha Laboratories (0.952), while the correlation strength between two halves of the resolution was on A strong correlation coefficient (0.751), with a value of Spearman Brown's Laboratories (0.872), and the Cottman coefficacy was on A strong correlation coefficient (0.751). (2).

Tools and Solutions for Internet of Things (IOT)

The "*Internet of Things (IoT)*" is the technical tools and solutions that enable the production machine and the product to connect to the organization's network and collect and share data. These include RFID devices, sensors, cameras, 3D scanners, etc. in scanning, and the main thing for "*industrial digitization*" is to connect devices to networks. Known as the "*Internet of Things*". An important idea in the Internet of Things is the development of information and communication technology over a long period (Wielki et al., 2017). Build specific perspectives over the long term by using complex methods and analyzes to create better opportunities for planning, producing, and maintaining tools than other (Arnold, 2016).

Big Data

If we don't have a tool to evaluate the data and then put it into a manner that is simple to utilise, all of this information is useless. This is BD, by the way. Big Data analytics, which may be a source of competitive advantage in terms of understanding consumer preferences, changing market circumstances, trends, and boosting production efficiency, is becoming more popular. The World Economic Forum (WEF) (2016), Companies are increasing their expenditures in order to get the most up-to-date data and information. Data mining software, algorithms, and Enterprise Resource Planning (ERP) interfaces must be developed, which is a costly endeavour that requires a large initial investment as well as the recruitment of qualified personnel Judit et al. (2018), Big DataBD (Big Data and Big Data Analytics).

General Challenges

The statement (24) achieved the highest level in the arithmetic mean, standard deviation and standard error (4.38, 0.824, 0.841), respectively, in the "*legal challenges*" the phrase "*we have the technical skills to solve problems in the company*", while statement (6) achieved the lowest level of the first in the mean Arithmetic, standard mean, and standard error (1.41, 0.772, 0.124), respectively, in social challenges, the phrase "*analytical skills are weak in the company*", for the t-test that accepts the hypothesis, and there are no differences between the mean of the statements and the hypothetical mean, a statistically significant t-

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

value=0.000. It was found that the arithmetic mean of all the expressions is greater than the hypothetical mean, except for the statement (9) This does not include a significant statistical function of 0.000 Relevant to technical challenges The phrase "*we lack virtual communication skills in the company*" The minimum number of paragraphs required to access the relevant information Table 1.

Table 1
FREQUENCY, FREQUENCY RATIOS, MEAN, STANDARD DEVIATION, AND STANDARD ERROR FOR GENERAL CHALLENGES

Questions	Productivity gauge										Mean	standard deviation	standard error	t-value
	I think too		I think I think		regular		I don't think		I don't think					
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%				
Q1	16	32	32	64	2	4	0	0	0	0	4.28	0.536	0.076	0
Q2	16	32	33	66	1	2	0	0	0	0	4.3	0.505	0.071	0
Q3	8	16	24	48	18	36	0	0	0	0	3.8	0.7	0.099	0
Q4	17	34	29	58	4	8	0	0	0	0	4.26	0.6	0.085	0
Q5	15	30	35	70	0	0	0	0	0	0	4.3	0.463	0.065	0
Q6	1	2	0	0	3	6	10	20	36	72	1.41	0.772	0.124	0
Q7	22	44	0	0	28	56	0	0	0	0	3.88	1.003	0.142	0
Q8	5	10	45	90	0	0	0	0	0	0	4.1	0.303	0.043	0
Q9	1	2	5	10	25	50	2	4	17	34	2.42	1.126	0.159	0.001
Q10	20	40	13	26	15	30	1	2	1	2	4	0.99	0.14	0
Q11	4	8	14	28	22	44	10	20	0	0	3.24	0.87	0.123	0.057
Q12	2	4	38	76	9	18	1	2	0	0	3.82	0.523	0.074	0
Q13	0	0	14	28	33	66	3	6	0	0	3.22	0.545	0.077	0.006
Q14	2	4	43	86	4	8	1	2	0	0	3.92	0.444	0.063	0
Q15	1	2	6	52	10	20	13	26	0	0	3.3	0.886	0.125	0.021
Q16	0	0	14	28	33	66	3	6	0	0	3.22	0.545	0.077	0.006
Q17	2	4	39	78	9	18	0	0	0	0	3.86	0.452	0.064	0
Q18	25	50	15	30	10	20	0	0	0	0	4.3	0.789	0.112	0
Q19	24	48	9	18	17	34	0	0	0	0	4.14	0.904	0.128	0
Q20	30	60	12	24	8	16	0	0	0	0	4.38	0.824	0.841	0
Q21	15	30	35	70	0	0	0	0	0	0	4.3	0.463	0.065	0
Q22	1	2	0	0	3	6	10	20	36	72	1.41	0.782	0.111	0
Q23	22	44	0	0	28	56	0	0	0	0	3.88	1.003	0.142	0
Q24	5	10	45	90	0	0	0	0	0	0	4.1	0.303	0.043	0

Efficiency of Human Resource Management

Statement (21) achieved the highest level in the arithmetic mean, standard deviation and standard error (0.435, 1.142, 0.065), respectively, in technical efficiency, the statement "*increased Virtual work requires workers to be able to use smart media*" and statement (22) achieved the lowest Level with mean, standard mean and standard error (1.41, 1.157, 0.134) respectively, Table 2 in the statement "*The growth of digital operations innovate need for workers with high coding skills*".

Table 2
FREQUENCY, RECURRENCE RATES, MEAN, STANDARD DEVIATION, AND STANDARD ERROR FOR THE EFFICIENCY OF HUMAN RESOURCES MANAGEMENT

Questions	Productivity gauge										Mean	standard deviation	standard error	t-value
	I think too		I think I think		regular		I don't think		I don't think					
	Freq.	%	Freq.	%	Freq.	Freq.	%	Freq	%	Freq.				
Q25	15	30	35	70	0	0	0	0	0	0	4.35	0.463	0.065	0

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

Q26	1	2	0	0	3	6	10	20	36	72	1.41	1.157	0.134	0
Q27	22	44	0	0	28	56	0	0	0	0	3.88	1.003	0.142	0
Q28	5	10	45	90	0	0	0	0	0	0	4.1	0.303	0.043	0
Q29	1	2	5	10	25	50	2	4	17	34	2.42	1.126	0.159	0.001
Q30	20	40	13	26	15	30	1	2	1	2	4	0.99	0.14	0
Q31	4	8	14	28	22	44	10	20	0	0	3.24	0.87	0.123	0.057
Q32	2	4	38	76	9	18	1	2	0	0	3.82	0.523	0.074	0
Q33	0	0	14	28	33	66	3	6	0	0	3.22	0.545	0.077	0.006
Q34	2	4	43	86	4	8	1	2	0	0	3.92	0.444	0.063	0
Q35	1	2	6	52	10	20	13	26	0	0	3.3	0.886	0.125	0.021
Q36	0	0	14	28	33	66	3	6	0	0	3.22	0.545	0.077	0.006
Q37	2	4	39	78	9	18	0	0	0	0	3.86	0.452	0.064	0
Q38	25	50	15	30	10	20	0	0	0	0	4.34	0.789	0.112	0
Q39	24	48	9	18	17	34	0	0	0	0	4.14	0.904	0.128	0
Q40	16	32	33	66	1	2	0	0	0	0	4.3	0.505	0.071	0

Correlation between the Dimensions of the Variables

Table 3 indicates that the value of the correlation coefficient between (technical challenges and technical efficiency) is a positive (partial) incomplete, statistically significant correlation at a level of significance (0.02) between the two variables, its value is (0.336**), which is significant at (0.02) where it is indicated With one mark (**), the value of the correlation coefficient indicates (social challenges, and methodological efficiency). It is a positive (partial) incomplete correlation that is statistically significant at a level of significance (0.002) between the two variables, its value is (0.328) and it is significant at (0.002) where it is indicated by the two signs (**) and the value of the correlation coefficient between (environmental challenges, and personal efficiency) is The positive (partial) correlation is incomplete and is statistically significant at the level of significance (0.002) between the two variables (communication/response quality, site confidence) with a value of (0.301**), and it is significant at (0.002) where it is indicated by the two marks (**).

Table 3
CORRELATION RELATIONSHIP BETWEEN GENERAL CHALLENGES AND EFFICIENCY OF HUMAN RESOURCE MANAGEMENT CORRELATIONS

Dimensions			Dimensions of general challenges						
			Economical	Social	Technical	Environmental	Political	Legal	variable
Dimensions of the performance of human	Technical	Pearson Correlation	0.174	0.033	0.336**	0.327*	0.216	0.249	
		Sig. (2-tailed)	0.227	0.822	0.002	0.020	0.131	0.082	
		N	50	50	50	50	50	50	Dependent variable
	Concept al	Pearson Correlation	0.220	0.328**	0.228	0.078	0.063	0.028	
		Sig. (2-tailed)	0.125	0.162	0.374	0.590	0.665	0.847	
		N	50	50	50	50	50	50	
	Social	Pearson	0.319**	0.329**	0.239**	0.379**	0.215	0.163	
		Correlation	0.097	0.097	0.097	0.097	0.625	0.662	
		Sig. (2-tailed) N	50	50	50	50	50	50	
	Individu al	Pearson Correlation	0.287	0.207	0.228	0.301**	0.259	0.327*	
		Sig. (2-tailed)	0.052	0.149	0.020	0.462	0.070	0.020	
		N	50	50	50	50	50	50	

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The correlation between the general challenges and the competencies of human resource management: Table 4 indicates the value of the correlation coefficient between (general challenges, competencies of human resource management) is a positive (partial) incomplete, statistically significant correlation at the level of significance (0.010) between them, its value is (0.358), which is D at (0.010) where it is indicated by two single signs (**).

Table 4
CORRELATION BETWEEN GENERAL CHALLENGES, COMPETENCIES OF HUMAN RESOURCE MANAGEMENT

Details		Performance of human resources	General challenges
General challenges	Pearson Correlation	1	0.358**
	Sig. (2-tailed)		0.012
	N	50	50
Performance of human resources	Pearson Correlation	0.358**	
	Sig. (2-tailed)	0.012	
	N	50	

Hypothesis Testing

A simple regression model was developed for each of the five hypotheses in Figure 1 in order to determine whether or not the hypothesis was valid (7).

H: As of the time of the hypothesis's introduction, statistically significant evidence suggests that it has an effect on general problems in the domain of human resource management skills. As a result of the correlation coefficient being 0.62 = R, although the coefficient of determination was 0.38 = R2, and the corrected determination coefficient was 0.33 = R(2-), the correlation coefficient was 0.62 = R. In this study, the explanatory general challenges were able to explain the changes in the competencies of the human resource with a value of (0.33), while the impact degree had a value of (B = 0.472), which means that changing in that general challenges leads to a change in the competencies of the human resource with a value of (B = 0.472), and it confirmed (F) significant, significant change (effect) amount in the competencies of the human resource (2.066). Keep in mind that the acceptable level in this research is 0.00, which is also based on the level's importance (0.05). That is, it is necessary to accept the hypothesis (there is a positive, statistically significant effect of general challenges in the dimension of human resource management efficiency)

H_1: *The hypothesis was based on the expectation of a positive, statistically significant impact on the dimensions of the general challenges in the technical efficiency dimension, where the correlation coefficient was R=0.38, the coefficient of determination was 0.14=R2, and the corrected determination coefficient was 0.11=R2. The correlation coefficient was R=0.38, the coefficient of determination was 0.14=R2, and the corrected determination coefficient was 0.11=R2 (2-), That is to say, the explanatory joint values were able to explain the changes in confidence with a value of (0.14), while the value of the degree of influence was (B = 0.22), indicating that the change in the joint values causes the change in confidence with a value of (0.22), and (F) confirmed the significance of this change (effect) with a value of (7.055), indicating that its value is greater than the table value of (4.15). (0.05). Essentially, this implies acceptance of the first hypothesis, which states (there is a positive impact with statistical significance, the overall difficulties in the technical competence dimension).*

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

H_2: *Starting with the assumption that there is a statistically significant beneficial impact, the hypothesis considered the general difficulties in the methodological efficiency dimension, and the results of the experiment.*

Where, in the language of statistics, the correlation coefficient is 0.46 = R, the coefficient of determination is 0.21 = R2, and the corrected coefficient of determination is 0.20 = R(2-), which means that the explanatory specificity was able to explain the changes in confidence with a value of (0.21), while the value of The degree of influence (B = 0.245), which means that the change in specificity leads to a change in confidence, is 0.46 = R, and the coefficient of determination is 0.21 (0.00) Also, keep in mind that the degree of significance acknowledged in this research is up to (0.05), indicating that the hypothesis has been proven correct. That which comes after the second statement (there is a positive, statistically significant effect of general challenges in the methodological competence dimension)

H_3: *The hypothesis that there is a positive statistically significant impact on general challenges in the dimension of social efficiency was launched Table ( ), where the correlation coefficient is R = 0.60, while the coefficient of determination is 0.36 = R2 and the corrected coefficient of determination is 0.22 = R(2-), which means that the explanatory common values were able to explain the variation in chan , which amounted to (4.011) and had a level of statistical significance (0.00), and also confirmed the statistically significant (T) value of this effect of (3.434), which is greater than its tabular value (2.011) and had a level of significance (0.00), while also keeping in mind that the level of significance accepted in this study is up to.001 (0.05). This implies that we accept the third hypothesis, which is that (there is a positive and statistically significant effect of the general challenges in the social competence dimension).*

H_4: *The hypothesis that there is a positive, statistically significant impact of the general difficulties on the personal competence component was put forth.*

The Benefit of Diffusion of IoT Tools and Solutions

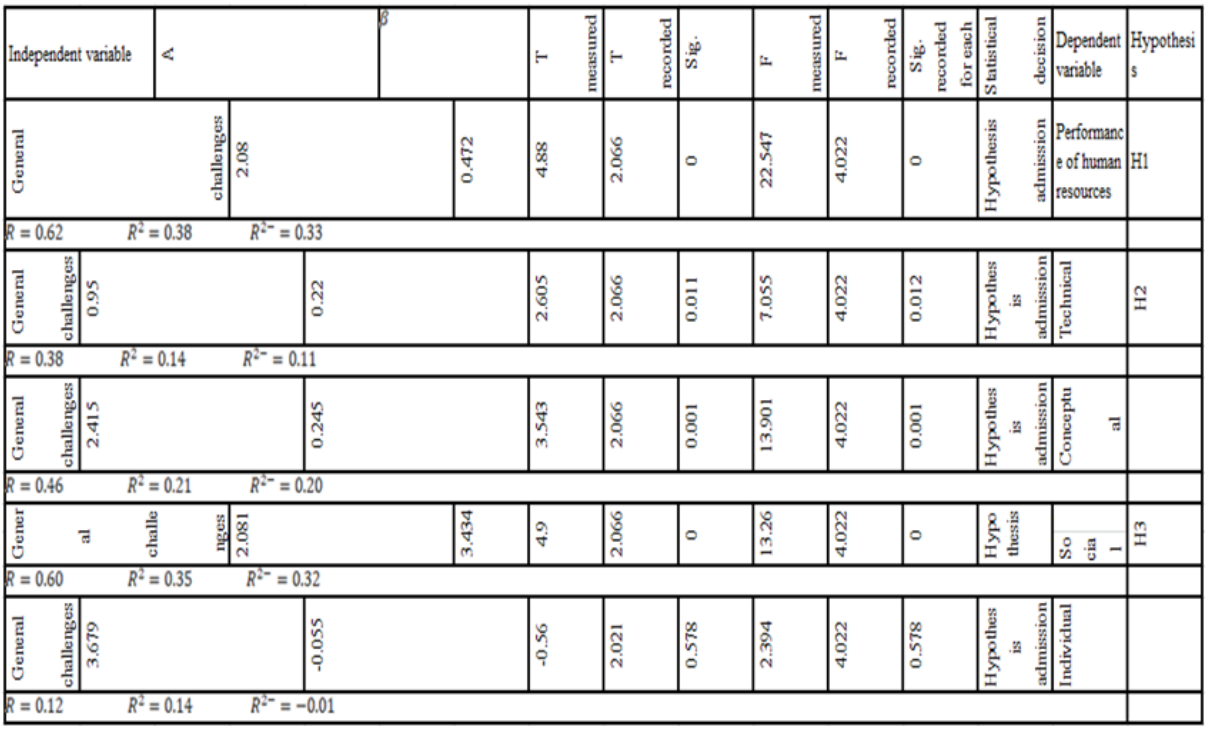
The first question of the questionnaire was answered, "*Does your company use IoT tools and solutions?*" Figure 3 & Table 5 shows that big data analysis BD, CPPS, Cloud computer 80%, and smart devices SD are the most commonly used tools, First came the analysis of big data (70%), and it can rely on cloud storage (80%), and came cybernetic natural production systems (CPPS) (50%) and smart devices (40%). In the questionnaire, in order to identify the benefits of introducing the tools and IoT solutions mentioned in the first question. Seven questions were asked and their usefulness was rated on a scale of (1 to 5). The questions were the following:

1. (Q1). Efficiency of the company's internal logistics operations (a higher level of logistics).
2. (Q2). Efficient operations with the demand partner in the supply chain.
3. (Q3). Efficient operations with the supplier partner in the supply chain.
4. (Q4). Cooperation between the functions of marketing, finance, logistics. etc for the company.
5. (Q5). The company's market performance (guaranteeing an increase in market share).
6. (Q6). The company's financial performance.
7. (Q7). Company's competitiveness

Essentially, sophisticated means are needed to analyze the ways in which we can estimate the utility of IoT tools to increase the level of logistics services, the efficiency of business partner operations, the collaboration between specific logistics functions, market performance, financial performance, and corporate competitiveness. Therefore, independent sample t-tests were used to determine whether the two companies that implement some IoT tools, tend to value their usefulness more than companies that do not use them. Here, as assumed by the methodology (and confirmed by the fifth hypothesis), there is a positive and

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

statistically significant effect of Internet of Things (IoT) tools solutions on the processes used by human resource management.



Independent variable	A	B	T measured	T recorded	Sig.	F measured	F recorded	Sig. recorded for each	Statistical decision	Dependent variable	Hypothesis
General challenges	2.08	0.472	4.88	2.066	0	22.547	4.022	0	Hypothesis admission	Performance of human resources	H1
$R = 0.62$	$R^2 = 0.38$	$R^{2-} = 0.33$									
General challenges	0.95	0.22	2.605	2.066	0.011	7.055	4.022	0.012	Hypothesis admission	Technical	H2
$R = 0.38$	$R^2 = 0.14$	$R^{2-} = 0.11$									
General challenges	2.415	0.245	3.543	2.066	0.001	13.901	4.022	0.001	Hypothesis admission	Conceptual	
$R = 0.46$	$R^2 = 0.21$	$R^{2-} = 0.20$									
General challenges	2.081	3.434	4.9	2.066	0	13.26	4.022	0	Hypothesis	Social	H3
$R = 0.60$	$R^2 = 0.35$	$R^{2-} = 0.32$									
General challenges	3.679	-0.055	-0.56	2.021	0.578	2.394	4.022	0.578	Hypothesis admission	Individual	
$R = 0.12$	$R^2 = 0.14$	$R^{2-} = -0.01$									

Figure 3
SIMPLE REGRESSION OF THE IMPACT OF GENERAL CHALLENGES ON THE DIMENSIONS OF HUMAN RESOURCE MANAGEMENT EFFICIENCY (TECHNICAL, METHODOLOGICAL, SOCIAL, PERSONAL)

Table 6
THE SPREAD OF THE INTERNET OF THINGS (IOT) DEVICES AND SOLUTIONS IN TELECOM COMPANIES

Operations and solutions offered by IOT	% observations	proliferation in the sample
CPS	-	-
Big data analytic	70	7
CPPS	50	5
Cloud	80	8
Sensors	-	-
Robot arms	-	-
RFIDs	-	-
Smart devices	40	4
Smart products	-	-

The Relationship between General Challenges and Human Resource Management Competencies

It appeared that the correlation between (technical challenges, technical efficiency) is a positive (partial) incomplete, statistically significant correlation at a significance level of (0.02) between the two variables, its value is (0.336**) and it is significant at (0.02) where it is indicated by one mark (**). Also, it appeared that the correlation between (demographic challenges, methodological efficiency) is a positive (partial) incomplete, statistically significant correlation at a significance level of (0.02) between the two variables, its value is (0.328**), which is significant at (0.02) where it is indicated by one mark (*). As for the correlation between (legal challenges and personal competence) it is a positive (partial)

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

incomplete, statistically significant correlation at a significance level of (0.02) between the two variables, its value is (0.327 *), which is significant at (0.02) where it is indicated by one mark (*) Table 7.

Table 7
THE CORRELATION BETWEEN THE GENERAL CHALLENGES AND THE COMPETENCIES OF HUMAN RESOURCE MANAGEMENT IN TELECOMMUNICATIONS COMPANIES

Section	Technical efficiencies	Conceptual efficiencies	Social efficiencies	Individual efficiencies
Economic challenges	0.174	0.22	**0.319	0.287
Social challenges	0.33	**0.328	**0.329	0.207
Technical challenges	**0.336	0.228	**0.239	0.228
Environmental challenges	*0.327	0.78	**0.379	**0.301
Political challenges	0.216	0.63	0.215	0.259
Legal challenges	0.249	0.28	0.163	0.327

CONCLUSIONS

1. Involvement in Product 4.0's automation process, as well as the use of robots in the business process, creates a slew of issues for human resources in business Organisations, including the need for training, management conflict, changes to business processes, and layoffs for employees who do not adapt to the changes.
2. Two telecommunications firms concentrated on the use of certain Internet of Things (IoT) tools and solutions, allowing it to be determined that, in the case of big data analysis, BD and CPPS, Cloud computing and SD smart devices, the two businesses that utilised it seem to be assessed. Better competitiveness may be attributed to greater levels of logistics service, more effective operations with its partners, better collaboration between assigned logistical tasks, improved financial and market performance, and improved financial and market performance
3. The fear of governmental opposition, which may stifle a company's growth in terms of utilising its Internet of Things (IoT) capabilities, is a disincentive to adopting Industry 4.0. As a consequence of the introduction of sophisticated robots, employment losses have occurred in the unskilled categories. The insufficiently qualified labour force was thus seen as a hindrance to the development of the industry. It is a barrier, because there are currently no standards, regulations, or certifications in place to guarantee the connectivity of various systems.
4. The introduction of Industry4.0 has resulted in a shift in the attitude of workers toward their employment. When a business chooses to decrease the number of its workers who do not keep up to date with the information needed for the job, such employees are considered to be a part of the reduction in number. Because their feeling of job security will be in doubt in this situation, they will go through the learning process with the specific skills and information needed for the specific position.
5. Examine the competence model to see whether there are any competency gaps, which indicate areas of weakness in the company's operation. Different techniques and technologies, including as training and education, are required to develop particular skills as part of qualification plans, and this shows how well-prepared the business is for its work utilising tools for the Internet of Things (IoT) in Industry is.

Recommendations

1. In order to address the previously identified gaps, onboarding methods should be created that concentrate on the most significant competence gaps, since these are the areas in which employees are most vulnerable when faced with the difficulties of Industry 4.0.
2. Qualification strategies encompass a variety of approaches and procedures, such as training and education, that are used to develop particular skills and competences. The business must specify previous actions for the usage of this model, which will be triggered when an employee does not achieve the necessary level on a scale. Following these principles, a competence model for the employee may be created instantly, allowing for the person to get suitable training.
3. The results of the study may be used to reevaluate investments in Internet of Things tool solutions (smart devices, RFID, big data analytics), as well as the benefits of Industry 4.0. The possibility of doing research on a bigger sample in the ancient era, when we may anticipate significant change and

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.

growth in this area, will be of particular importance in the future. The distribution of assets, as well as the multiplier impact throughout the whole telecom industry, will demonstrate the progress made.

4. Management should consider the issues raised by Product 4.0 and take steps to highlight the issues raised by the human resource function in order to ensure the smooth operation of the business organisation. By diversifying the company, keeping the finest people, and engaging workers in learning, we can achieve our goals faster.

Using Internet of Things (IoT) tool solutions, management has a serious mission: to help employees in the textile industry comprehends the importance of change and the need of change. Governments must invest in training in order to ensure that businesses can grow and generate employment as a result of Industry 4.0. This includes developing a highly trained and digitally competent workforce.

REFERENCES

Arnold, C., Kiel, D., & Voigt, K.I. (2016). How the industrial internet of things changes business models in different manufacturing industries. *International Journal of Innovation Management, 20*, 1640015.

Beaumont, P.B. (1994). Human Resource Management - Key Concepts and Skills. London: Sage Publ; 1993. Neuberger O. Personalentwicklung. 2nd ed. Stuttgart: Ferdinand Enke Verlag.

Becker, M. (2013). Personalentwicklung - Bildung, Förderung und Organisationsentwicklung in Theorie und Praxis. 6th ed. Stuttgart: Schäffer-Poeschel.

Festo. (2016). Endustri 4.0 Sunumu, retrieved 24.05.2017, from http://www.tiad.org/assets/admin/js/plugins/kcfinder/upload/files/Festo_FikretKemalAkyuz.pdf.

Fabian, H., et al. (2016). Holistic approach for human resource management in Industry 4.0.

Graßmann, H. (2005). Qualifikation, Kompetenz und Personalentwicklung - Zum Einfluss der Informations- und Kommunikationstechnik auf Bankmitarbeiter. 1st ed. Mering: Rainer Hampp Verlag.

Helmrich, K. (2015). Digital Enterprise - Fertigungs- und Prozessindustrie auf dem Wagzu Industry 4.0. *Handelsblatt Journal - Sonderveröffentlichung zum Thema*, Industrie 4.0:12.

Hentze, J., & Metzner, J. (1991). Personalwirtschaftslehre 1 - Grundlagen, Personalbedarfsermittlung, - beschaffung, entwicklung und einsatz. 5th ed. Bern: Haupt Verlag.

Neuberger, O. (1997). Personalwesen 1- Grundlagen, Entwicklung, Organisation, Arbeitszeit, Fehlzeiten. Stuttgart: Ferdinand Enke Verlag; 1997 Neuberger O. Personalwesen 1- Grundlagen, Entwicklung, Organisation, Arbeitszeit, Fehlzeiten. Stuttgart: Ferdinand Enke Verlag;

Porter, M.E., & Heppelmann, J.E. (2015). How Smart, Connected Products are Transforming Companies. *Harvard Business Review*, 96-114.

PwC. (1997). Industry 4.0-Building the Digital Enterprise; PricewaterhouseCoopers LLP: Berlin, Germany, 2016;Available online: https://www.google.com/search?q=PwC+%282016%29%3A+Industry+4.0+-+Building+the+digital+enterprise.+PricewaterhouseCoopers+LLP+Hermann%2C+M.%2C+Pentek%2C+T.%2C+Otto%2C+B.+%282016%29%3A+Design+principles+for+industrie+4.0+scenarios.+In+System+Sciences+%28HICSS%29%2C+2016+49th+Hawaii+International+Conference+on+%28p.+392&ie=utf-8&oe=utf-8&client=firefox-b (accessed on 12 March 2018).

Solga, M., & Ryschka, J. (2011). Mattenklott A. Personalentwicklung: Gegenstand, Prozessmodell, Erfolgsfaktoren. In: Ryschka J, Solga M, Mattenklott A, editors. Praxishandbuch Personalentwicklung - Instrumente, Konzepte, Beispiele. 3rd ed. Wiesbaden: Springer Fachmedien, 19-33.

Spath, D., Ganschar, O., Gerlach, S., Hämmerle, M., Krause, T., & Schlund, S. (2013). Industrie 4.0. Stuttgart: Fraunhofer Verlag.

Stewart, J., & Hamlin, B. (2011). What is HRD? - A definitional review and synthesis of the HRD domain. *Journal of European Industrial Training, 35*, 199-220.

Stock-Homburg, R. (2013). Zukunft der Arbeitswelt 2030 als Herausforderung des Personalmanagements. In: Stock-Homburg R, editor. Handbuch Strategisches Personalmanagement. 2nd ed. Wiesbaden: Springer Gabler, 603-629.

Citation Information: Salih, A.M. (2021). The impact of general challenges on the efficiency of human resource management via the internet in accounting communication projects. *Academy of Accounting and Financial Studies Journal, 25*(5), 1-12.