

The impact of technology development on the evolution of the labor market

Gheoghe ZAMAN¹, Giani GRĂDINARU², Emilia ȚIȚAN³,
Daniela MANEA⁴, Mihaela MIHAI⁵, Iulia NEAGOE⁶

Abstract: *In theory, Industry 4.0 represents the radical transformation of industrial production, unifying digital technologies, the Internet and conventional industry. This phenomenon has created many controversies, so the terms of evolution or revolution are not yet specific. The paper presents a quantitative analysis of the impact of technology development on the evolution of the labor market depending on the following aspects: there is a link between the age of the respondents and the investment they are willing to make annually in technology; digitization will bring advantages or disadvantages in various industries and in everyday life; the influence of the field of activity on the opinion about the changes brought by digitalization; the degree of information about the various digital methods and how often they are used.*

Keywords: Industry 4.0, labor market, technology

JEL Classification: Q32, Q43, P28

Introduction

The world is changing and developing at an accelerated pace. Over time, humanity has constantly adapted to the changes that have occurred with the evolution of technology.

¹ Prof. PhD, Institute of National Economy – Romania Academy, gheorghezaman@ien.ro

² Prof. PhD., The Bucharest University of Economic Studies, Institute of National Economy – Romania Academy, giani.gradinaru@csie.ase.ro

³ Prof. PhD., The Bucharest University of Economic Studies, Institute of National Economy – Romania Academy, emilia.titan@csie.ase.ro

⁴ Prof. PhD., The Bucharest University of Economic Studies, Institute of National Economy – Romania Academy, daniela.todose@csie.ase.ro

⁵ Prof. PhD., The Bucharest University of Economic Studies, Institute of National Economy – Romania Academy, mihaela.mihai@csie.ase.ro

⁶ Mast., The Bucharest University of Economic Studies, iulianeagoe@gmail.com

Starting from the first industrial revolution (since 1784) which mechanized production using water and steam, we moved on to the second (since 1870) which contributed to the realization of mass production through the advent of electricity, and we embraced- o the third (since 1969) which used electronics and information technology, which favored the advent of computers and production automation, major impact on the labor market. We are currently facing the fourth in which robotics and artificial intelligence exceed the line between technology and humans. (Ciutacu, 2017)

In the past, it took 86 and 99 years to evolve from one industrial revolution to another, respectively, while in the last 20 years (since 1998), the fourth revolution has been built on the basis of the second. Third, to a very small difference. All this time, our lifestyle has been changed, and the skills and desires of each of us have been reprioritized. (Safta & Andone, 2017)

The fourth revolution heralds the culmination of digital technology, with the risk of dissolving much of today's business models, social organizations and government.

In order to be able to integrate or keep the current job, a large part of the workforce had to specialize or be subjected to digital literacy.

Jobs in which secondary education or physical skills are required have become considerably smaller, being replaced by others that can only be practiced by people capable of using new technologies. Undoubtedly, digital skills have become indispensable. The article aims to provide an overview of the advantages and disadvantages that have emerged and continue to appear on the labor market with the evolution of technology. In this regard, a statistical survey was designed to analyze the extent to which respondents have knowledge about digitization, the extent to which they believe that the work environment will be affected and the extent to which areas of activity will be affected, but also how well they have adapted to the multiple possibilities offered by digitization in their daily activity.

Literature review

We are currently witnessing the emergence of a fourth industrial revolution, under the name of "Industry 4.0". This new form of industrialization aims to transform production by connecting products to the Internet, using sensors, developing robots and intelligent machines, expanding wireless communications and analyzing data in real time. Connecting the physical and virtual worlds through cyber-physical systems will disruptively impact both current technologies and manufacturing processes and people. (Wikipedia, 2018)

In theory, Industry 4.0 represents the radical transformation of industrial production, unifying digital technologies, the Internet and conventional industry. This phenomenon has created many controversies, so the terms of evolution or revolution are not yet specific.

Germany was the one that supported and launched this concept in Europe, through government programs and the top companies Bosch and Siemens. On the other hand, in America it is called "SmartManufacturing" (production intelligence), "Made in China 2025" in China, and in Japan, "Innovation 25". Any of them wants to develop an industry that runs products faster, offers more flexibility and uses resources efficiently through digitization. (Ciutacu, 2017)

Given the last 15 years, we can see that the variety of products has doubled, and the lifespan has decreased by 25%. Definitely, the complexity of the development and manufacturing process has increased, at this time new solutions and new technological models are needed to meet the current needs of customers. We can consider Industry 4.0 as a necessity and as an efficient method in terms of production processes. Expansion to the current level was possible due to processing power, storage capacity and the existence of a large number of applications. (Nae, 2016)

If we synthesize the idea of the fourth revolution, we would get the fusion of technologies that thin the barriers between the physical, digital and biological world. We could reach a "pairing" between man and technology quite quickly (World Economic Forum, 2016).

Economically speaking, Industry 4.0 is the chance to relaunch and refurbish production to the same extent as it represents the visible evolution of business models for products and services.

Also in 2016, in Davos, during the "World Economic Forum Annual Meeting", the main directions that will advance the inevitable and irreversible change brought by the new technological processes were discussed. They regularly interact with the biological world, creating a symbiosis in the microorganisms, our bodies, products or buildings (spaces) in which we live. Through the innovation that underlies it, the fourth revolution has enormous potential for increasing incomes and raising living standards around the globe. (Safta & Andone, 2017)

Looking from a political and social perspective, we can see the desire for reindustrialization, that sustainable development of Europe, an initiative that came after the last two decades in which production was transferred to Asia. Currently, only one company in 10 manufactures in the European Union.

In 2014, the EU level was 14.5%, value added in production, and the European Commission initiated the project "European Industrial Renaissance" (European Industrial Renaissance) in order to increase the share to 20% by 2020. (Comisia Europeana, 2014)

The great industrial revolution can be defined by several small technological revolutions in various fields. The most visible examples are:

- Use of information and communication technology in the digitization of information and integration of systems in the design, development, manufacture and use of products.
- Implementation of new software technologies to model, simulate, visualize and manufacture digital.
- Development of cyber-physical systems in order to monitor and control physical processes.
- Improving 3D printers and additive manufacturing((additive manufacturing) to simplify manufacturing.
- Improving the decisions of human operators through the use of decision supports based on "smart" tools (smart) and augmented reality.

It has become increasingly difficult to avoid replacing human resources with technological developments, but we can be convinced that the human factor is important and that there will be continuous restructuring. For each function replaced by technology, there will be another to take its rightful place for the new requirements. In other words, a child born today will change 5 positions in the workplace throughout his life, and 3 of them have not yet been invented. (World Economic Forum, 2016).

Methodology

The aim of the research is to provide an overview of the advantages and disadvantages that have emerged and continue to appear on the labor market with the evolution of technology. The motivation comes from the interest in the technological potential. It is obvious that in a short period of time, major changes have taken place in technology and in the way people have been distributed in the field of work. Initially they performed manual work, later being directed to office work, and now the trend is to hire an operator to handle a large volume of products and tasks in the shortest possible time through specialized software and mechanisms. In the last two decades, we have witnessed the rapid absorption of any digital innovation by large companies that set the tone in the labor market..

In this regard, a statistical survey was designed to analyze the extent to which respondents have knowledge about digitization, the extent to which they believe that the

work environment will be affected and the extent to which areas of activity will be affected, but also how well -they have adapted to the multiple possibilities offered by digitization in their daily activity.

Four working hypotheses are established:

- (H1) there is a link between the age of the respondents and the investment they are willing to make annually in technology
- (H2) digitization will bring advantages or disadvantages in various industries and in everyday life
- (H3) the influence of the field of activity on the opinion about the changes brought by digitalization
- (H4) the degree of information about the various digital methods and how often they are used

The data were collected indirectly, by posting the questionnaire on a social network in interest groups, among students and employees in various fields of activity. The volume of sample (n) was 334 respondents. The questionnaire was addressed to all persons over 18 years of age, with or without higher education. It contained a set of 17 or 20 questions, depending on the type of respondent (student / employee / entrepreneur / freelancer / unemployed).

The investigation lasted 4 days, and the 334 responses were imported into SPSS, after transformation and coding. (appendix nr.1)

Most questions were designed to obtain a unique answer and the variable to be of the ordinal type. The questions from which the nominal data are extracted are those concerning the field of work (or in which he wants to work) of the respondent.

The typology of the constructed variables is described in table 1.

In order to verify the working hypotheses, the statistical analysis performed aimed:

- Analysis of descriptive statistics for each variable
- Application of the T test for dependent variables
- ANOVA testing

Using the χ^2 test to verify the connection between the nominal variables

Table1. Typology of constructed variables

buun.sav [DataSet1] - IBM SPSS Statistics Data Editor

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	TipR	Numeric	12	0		{1, Student}...	None	12	Right	Nominal	Input
2	DomeniuR	Numeric	12	0		{1, Alimentat...	None	12	Right	Nominal	Input
3	Domeniu_3A	Numeric	12	0		{1, Nu se va...	None	12	Right	Ordinal	Input
4	Program_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
5	Profit_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
6	Responsab...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
7	Salar_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
8	Ang_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
9	Posturi_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
10	Compet_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
11	Agric_Alime...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
12	SenFB_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
13	Construct_I...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
14	Comert_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
15	Farm_Sanat...	Numeric	12	0	Farm_Sanatat...	{0, Nu stiu}...	None	12	Right	Ordinal	Input
16	Industr_Pro...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
17	IT_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
18	CD_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
19	Media_Pub...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
20	Utilit_Energi...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
21	Telecom_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
22	Transp_5A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
23	Alimentatia...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
24	Sanatatea_7A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
25	Educatia_7A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
26	Securitate_7A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
27	Mediu_locui...	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
28	Eco_7A	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input
29	IoT	Numeric	12	0		{0, Nu stiu}...	None	12	Right	Ordinal	Input

Data View Variable View

Discussions - Findings

Analysis of descriptive statistics for each variable

Nominal variables are:

- Type of respondent (student / employee / entrepreneur / freelancer / unemployed).
- Respondent's domain (Agriculture / Food, Banking, Construction / Real Estate, Trade, Pharmaceuticals / Health, Industry / Production, Information Technology (IT), R&D / New Technologies, Media / Advertising, Utilities / Energy, Telecommunications, Transportation, Other Services) - refers to the field in which it carries out or intends to carry out its activity .

Appendix 1 presents number of respondents to the questionnaire, types of respondents and the field of respondents.

All 334 completed an answer, and the most common answer is "Employee" (value 2 for TipR) for TipR and "IT" for DomainR.

The employed persons answered in proportion of 52.7%, and the students in proportion of 42.5%.

Persons working or wishing to work in IT have a share of 59.9%, followed by Agronomy / Food and Other fields, each with 9%, Industry / Production with 7.5% and Banking Financial Services with 6.9%.

Ordinal variables are:

- Domain_3A (Represents the answer to the question "To what extent do you think the industry in which (you want to) operate in the next 3 years will change?", The respondent having the possibility to evaluate on a scale from 1 to 5 -> from "will not change To "To a very large extent")
- Security_7A (Represents the answer to the question "How do you think digitalization will affect your life in the next 7 years? ", The respondent having the possibility to evaluate as follows: " It will be a big disadvantage ", " It will be a small disadvantage ", " It will not affect it ", " It will be a small advantage ", " It will be a big advantage ", " No know".)

Appendix 2 presents: statistics for ordinal variables, frequencies for ordinal variables and statistical description of ordinal variables.

It can be seen that the median value in both cases is 4, for Domniu_3A, on a scale from 1 to 5, representing the fact that the expectations for change are quite high, and for Securitate_7A it represents the value "Great advantage", explaining that the expectations of respondents in regarding security over 7 years, some are optimistic, even if most of the answers were "Very big advantage", in proportion of 47.3%.

Numerical variables are:

- Income ("What income do you have monthly?" -> The initial answers were intervals, 0 -900 lei, 900 - 1200 lei, 1300 - 1800 lei, 1900 - 2700 lei, 2800 - 4000 lei, 4500 - 6500 lei lei, over 6500 lei, and I transformed it, using the middle of the interval)
- Invest ("How much would you be willing to invest annually in digital news products?", 0 -1500 lei, 1500-3000 lei, 3000-6000 lei, 6000-10000 lei, Over 10000 lei)

Appendix 3 presents statistical description of investments and income, frequencies of numerical variables, descriptive statistics of numerical variables.

For **Income**, the average monthly income is 2966.47 lei, most respondents ranged from 1900 to 2700. For **Invest**, the average investment is 3110.78 lei, most respondents ranged from 1500 to 3000. The investment range between 0-1500 was chosen in proportion of 37.7%, being in accordance with the large number of incomes between 0-900 lei (20%) and 900-1200 lei (11.7%), but and reluctant respondents to invest in new technologies, as young people are willing to invest much higher values.

T test for dependent variables

Variables analyzed are genre and invest ("How much would you be willing to invest annually in digital news products?", 0 -1500 lei, 1500-3000 lei, 3000-6000 lei, 6000-10000 lei, Over 10000 lei)

Males who have completed this questionnaire want to invest annually an average of 3215.77 lei, in terms of females, want to invest an average of 2838.71 lei annually.

Because after the Levente test was obtained Sig 0.491 and $F = 0.475$, means that we accept the null hypothesis $H_0: =$, so there are no significant differences between genders in terms of the desire to invest in digital news.

Appendix 4 presents the T test - gender influences investments.

Discussions about variables:

- Income ("What income do you have monthly?" -> The initial answers were intervals, 0 -900 lei, 900 - 1200 lei, 1300 - 1800 lei, 1900 - 2700 lei, 2800 - 4000 lei, 4500 - 6500 of lei, over 6500 lei, and I transformed it, using the middle of the interval)
- Invest ("How much would you be willing to invest annually in digital news products?", 0 -1500 lei, 1500-3000 lei, 3000-6000 lei, 6000-10000 lei, Over 10000 lei)
- Age

- Courses (consider investing in digitization courses)

On average, 27-year-olds, with an income close to 3048.31 lei and say they would invest 3,200 lei a year in gadgets, said they should invest in courses, while 29-year-olds with an income close to 2250 lei and say they would invest 2350 lei annually in gadgets are of the opposite opinion.

Because after the Levente test was obtained. 0.028, means that we reject the null hypothesis $H_0: =$, so there are significant age differences in terms of opinion compared to investing in digitization courses, on the other hand, there are no significant differences if we talk about income or amount invested.

ANOVATest

Variables used are age, frequency of connection to devices via wifi, investment and the desire to be able to unlock the house with biometric data. Appendix 5 presents ANOVATest - Wifi connection and ANOVATest - Biometric data.

Since Sig. = 0.079 > 0.05, we accept the null hypothesis that there are no significant differences between averages. The frequency of using wifi to connect to devices is not influenced by age.

Since Sig. = 0.012 < 0.05, we reject the null hypothesis that there are no significant differences between environments, accepting that people who are willing to invest in current digital systems want to be able to unlock the home using fingerprint or retina.

Using the χ^2 test to verify the connection between the nominal variables

Appendix 6 presents Chi-Square test - digital field and courses, Chi-Square test income and investment and Chi-Square test - IoT knowledge and wifi connection. Check the connection between two nominal variables that represent the number of people in a field that they think should invest in digitization courses. The probability of the Chi-Square coefficient is higher than the threshold $\alpha = 0.05$, which means that this coefficient is not significant. There was thus no statistically significant link between the two variables. Check the connection between two numerical variables that represent the income and what would be the amount they would be willing to invest in digital news devices. There is a weak but statistically significant association between the respondent's income and the amount he is willing to invest.

We analyzed the extent to which there was a link between people's knowledge of IoT and the frequency of connection to devices via Wi-Fi. The probability of the Chi-Square coefficient is higher than the threshold $\alpha = 0.05$, which means that this coefficient is not significant. There was thus no statistically significant link between the two variables.

Conclusions

Following the analyzes we can say that the digital age has transformed not only work processes, the industry itself but also society itself because it brings to the fore one of those resources and it is not the financial segment regardless of the values transposed by this area, not it's about the "time" segment, it's about information. By information we mean the resource that brings a different approach. First of all, the labor market has developed through research and innovation, and the creation of online platforms and e-learning sources bring significant freedom in transmitting information and creating modern channels form new techniques and trends both managerial and more important and behavioral. On the other hand, it is pointed out that the labor market will not be saturated with employees even after automation will be implemented in all its branches and segments because, even if we talk about artificial intelligence, the human mechanism is much too complex and have not been discovered the equations by which to denote the mode of operation.

The age of digitalization has certainly brought layoffs in some states and the formation of new separate mechanisms that lead to fierce competition with the classical area but at the center of any process the whole human brain is a promoter, whether it is to meet global, social needs. production, health, we stipulate that any form of innovation does not completely replace human resources but leads to development on different levels.

Following the above, we can say that technology is constantly expanding, developing both in civilized countries, with a strong economic impact in Europe and in developing countries. Even if many of the current jobs will disappear, new jobs will be immediately felt on the labor market, especially those that include working with massive data, such as data analyst, creator of virtual spaces, but also others, largely in the field of IT&C.

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Appendix 1

Table 1.1. Output SPSS, Number of respondents to the questionnaire

	TipR	DomeniuR
N Valid	334	334
Missing	0	0
Mode	2	7

Table 1.2. Output SPSS, types of respondents

TipR		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	142	42.5	42.5	42.5
	Angajat	176	52.7	52.7	95.2
	Antreprenor	1	.3	.3	95.5
	Freelancer	4	1.2	1.2	96.7
	Somer	11	3.3	3.3	100.0
	Total	334	100.0	100.0	

Table 1.3. Output SPSS, the field of respondents

DomeniuR		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Alimentatie	3	.9	.9	.9
	Serv Financiar bancare	23	6.9	6.9	7.8
	Cnstructii	4	1.2	1.2	9.0
	Comert	5	1.5	1.5	10.5
	Farmaceutica	4	1.2	1.2	11.7
	Industrie	25	7.5	7.5	19.2
	IT	200	59.9	59.9	79.0
	C&D	4	1.2	1.2	80.2
	Media	12	3.6	3.6	83.8
	Utilitati	8	2.4	2.4	86.2
	Telecomunicatii	8	2.4	2.4	88.6
	Transport	8	2.4	2.4	91.0
	Altele	30	9.0	9.0	100.0
	Total	334	100.0	100.0	

Appendix 2

Table 2.1. Output SPSS, ordinal variables

Statistics		Domeniu_3A	Securitate_7A
N	Valid	334	334
	Missing	0	0
Mean		3.58	3.60
Median		4.00	4.00

Table 2.2. Output SPSS, frequency

Domeniu_3A

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Nu se va scimba	21	6.3	6.3	6.3
Foarte mica masura	38	11.4	11.4	17.7
Mica masura	86	25.7	25.7	43.4
Mare masura	105	31.4	31.4	74.9
Foarte mare masura	84	25.1	25.1	100.0
Total	334	100.0	100.0	

Securitate_7A

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Nu stiu	6	1.8	1.8	1.8
Mare dezavantaj	50	15.0	15.0	16.8
Mic dezavantaj	45	13.5	13.5	30.2
Nu o va afecta	26	7.8	7.8	38.0
Mare avantaj	49	14.7	14.7	52.7
Foarte mare avantaj	158	47.3	47.3	100.0
Total	334	100.0	100.0	

Appendix 3**Table 3.1. Output SPSS, frequency****INVEST**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-1500 de lei	126	37.7	37.7	37.7
	1500-3000 de lei	88	26.3	26.3	64.1
	3000-6000 de lei	83	24.9	24.9	88.9
	6000-10000 de lei	26	7.8	7.8	96.7
	peste 10000	11	3.3	3.3	100.0
	Total	334	100.0	100.0	

VENIT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-900 de lei	67	20.1	20.1	20.1
	900-1200 de lei	39	11.7	11.7	31.7
	1300-1800 de lei	31	9.3	9.3	41.0
	1900-2700 de lei	51	15.3	15.3	56.3
	2800-4000 de lei	62	18.6	18.6	74.9
	4500-6000 de lei	47	14.1	14.1	88.9
	peste 6000 de lei	37	11.1	11.1	100.0
	Total	334	100.0	100.0	

Table 3.2. Output SPSS, description of numerical variables

Descriptives			Statistic	Std. Error
VENIT	Mean		2966.47	128.253
	95% Confidence Interval for Mean	Lower Bound	2714.18	
		Upper Bound	3218.76	
	5% Trimmed Mean		2826.63	
	Median		2300.00	
	Variance		5493902.196	
	Std. Deviation		2343.907	
	Minimum		450	
	Maximum		8000	
	Range		7550	
	Interquartile Range		4100	
	Skewness		.910	.133
	Kurtosis		-.163	.266
INVEST	Mean		3110.78	167.058
	95% Confidence Interval for Mean	Lower Bound	2782.16	
		Upper Bound	3439.40	
	5% Trimmed Mean		2714.16	
	Median		2250.00	
	Variance		9321399.993	
	Std. Deviation		3053.097	
	Minimum		750	
	Maximum		15000	
	Range		14250	
	Interquartile Range		3750	
	Skewness		2.127	.133
	Kurtosis		5.380	.266

Appendix 4

Table 4.1. Output SPSS, the T test - gender influences investments

Group Statistics					
GEN	N	Mean	Std. Deviation	Std. Error Mean	
INVEST Masculin	241	3215.77	3069.867	197.748	
Feminin	93	2838.71	3008.513	311.968	

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
INVEST	Equal variances assumed	.475	.491	1.012	332	.312	377.058	372.691	-356.075 1110.191
	Equal variances not assumed			1.021	170.246	.309	377.058	369.362	-352.061 1106.177

Appendix 5

Table 5.1. Output SPSS, ANOVATest - Wifi connection

ANOVA					
CONECTARE_WF					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.433	5	5.687	1.995	.079
Within Groups	934.825	328	2.850		
Total	963.257	333			

Table 5.2. Output SPSS, ANOVATest - Biometric data**ANOVA**

LOCUINTA_AMP_RETIN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.383	4	3.846	3.266	.012
Within Groups	387.387	329	1.177		
Total	402.769	333			

Appendix 6**Table 6.1. Output SPSS, Chi-Square test - digital field and courses****Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.772 ^a	24	.475
Likelihood Ratio	23.165	24	.510
Linear-by-Linear Association	.596	1	.440
N of Valid Cases	334		

a. 29 cells (74.4%) have expected count less than 5. The minimum expected count is .13.

Table 6.2. Output SPSS, Chi-Square test income and investment

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
VENIT * INVEST	334	100.0%	0	0.0%	334	100.0%

VENIT * INVEST Crosstabulation						
Count						
		INVEST				
		0-1500 de lei	1500-3000 de lei	3000-6000 de lei	6000-10000 de lei	peste 10000
VENIT	0-900 de lei	40	12	9	4	2
	900-1200 de lei	19	13	6	0	1
	1300-1800 de lei	11	15	5	0	0
	1900-2700 de lei	18	11	20	2	0
	2800-4000 de lei	23	16	19	3	1
	4500-6000 de lei	9	15	17	5	1
	peste 6000 de lei	6	6	7	12	6
Total		126	88	83	26	11

Symmetric Measures					
		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.290	.045	6.416	.000
	Kendall's tau-c	.283	.044	6.416	.000
N of Valid Cases		334			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table 6.3 .Output SPSS, Chi-Square test - IoT knowledge and wifi connection

Symmetric Measures					
		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.049	.046	1.068	.285
	Kendall's tau-c	.049	.046	1.068	.285
	Spearman Correlation	.059	.055	1.080	.281 ^c
Interval by Interval	Pearson's R	.079	.053	1.452	.147 ^c
N of Valid Cases		334			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.