Digital Ethics In Higher Education From The Perspective Of The Academic Staff At The University Of Tirana

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Abstract-The University of Tirana has been involved in the internationalization process in recent years. This process has confronted him with challenges that need collaborations and indepth studies. One of the challenges he faces is the digitalization process as a result of rapid developments in technology. This digitization process certainly needs to have an ethical compass and in particular university ethics in the digital age. To analyse this, a questionnaire was carried out with the academic staff of six faculties of the University of Tirana to assess the level of use of ICT, the level of knowledge on digital ethics, the university's capacities in dealing with issues related to digital ethics and the needs for increasing the capacities on digital ethics in UT. Four research questions were raised to reveal differences in results by faculty and gender, to test regarding the use of technology, knowledge on digital ethics, reliability on security for data handling in UT, impact of digital ethics on the quality of knowledge. For each raised hypothesis, the Chi-square test is used, while SPSS 21 is used for statistical processing. For the purpose of the study, 315 lecturers were surveyed in six faculties of the University of Tirana, in the period November-December 2022. Academic staffs in UT faculties share different positions regarding the issues raised on digital ethics. The faculties that have the best performance are the faculties that offer ICT and related branches. The academic staffs show the weakness of a digital code of ethics in UT and the need to draft such a code is necessary especially after the increase in digital communication as a result of the rapid development of technology.

Keywords: Digital ethics, ICT, Chi-square, competence, academic staff

I. INTRODUCTION

The University of Tirana is the largest public university in Albania, were with its establishment in Albanian 1957, it marks the beginning of academicism. It constitutes a large humane and institutional community, for the number of students, administrative and academic staff in it, compared to second-level cities in the country. It remains the first in the ranking list of Albanian universities in the world, representing in over 65 years the history of Albanian elitism and academicism. In this special status in front of the Albanians, but not only, he remains the promoter of scientific research and academic knowledge in the country as much as he remains unique in the comprehensive processes for policy-making institutional and internal legal regulators, based on LAW No. 80/2015 "FOR HIGHER **EDUCATION** AND SCIENTIFIC RESEARCH IN THE INSTITUTIONS OF HIGHER EDUCATION IN THE REPUBLIC OF ALBANIA". Based on Article 12 of this Law, the interdisciplinary group of researchers supported by the National Agency for Scientific Research and Innovation (AKKSHI), undertook that through a study identifying specific needs and challenges of university's staff, community (academic students and administrative staff) in the context of digitalization. This includes understanding how and what our community is using digital technologies, what barriers they may face, and what policies and practices can promote digital inclusion for this population; examine the challenges and opportunities associated with protecting the digital rights of the university's community, including issues related to privacy, data protection, and discrimination and to provide recommendations for policy and practice of digital ethics norms in our university based on organizing Humane and Institutional Agora's. Based on the methodology of the study that will be described below, the study took the task of researching whether the digital skill in the university space can have a gender profile, as much as it studied whether we can

talk about "Age discrimination in the digital age". From this study, this paper aims to analyse some qualities of digital competence, knowledge on digital ethics and the risks or challenges that the academic staff of the University of Tirana have faced with digital competence based on Digital Ethics. The paper offers conclusions and recommendations for national and institutional legislation with the aim of increasing the quality of academic knowledge, the normative legal performance of university institutions as well as their impact on university scientific research.

II. LITERATURE REVIEW

In recent years, the unstoppable development of information and communication technologies has led to the development of what is called the digital age or Industry 4.0. These technological advances are dramatically changing most areas of our daily lives, as well as the dynamics of social and economic relationships [1].

According to [2], in today's knowledge society, education plays a crucial role in the transfer of scientific and technological knowledge, as well as analytical and professional skills.

Kinght points out that internationalization in higher education, because of its focus on relations between nations, people and cultures can be taken as a component of globalization [3].Globalization is forcing education leaders to redefine the international dimensions of their institutions. Digitalization, which is characterized by rapid advances in communication technologies, is producing a fast and efficient exchange of knowledge and information that can happen anywhere and anytime. This process also includes the internationalization of the curriculum and syllabus by offering students the opportunity to experience issues through a global perspective, identifying "hot topics" which are being discussed internationally in their respective fields and to achieve an intercultural and multicultural understanding [4]. Traditional moral values are being transformed as the digital space expands rapidly, forcing us to seek universal regulatory tools. At the current stage of development of the digital educational environment, the issue of developing ethical regulatory mechanisms in the digital space, reviewing traditional ethical approaches to assessing the situation and forming new digital educational ethics is important [5]. Technological development and the Internet have fundamentally transformed education and science [6]. The European Commission (2006) proposed digital competence as one of the key competences for lifelong learning and identified it as one of the eight key competences for life.Digital ethics includes using respectful and appropriate language [7]. Respect for the rights of others is a key aspect of digital ethics that has not been adequately explored in the use of e-portfolios, particularly obtaining consent for information use and validation of this consent when

using information in electronics of different contexts [8].

Digital ethics is an essential 21st century skill along with metacognition, adaptability, creative observation and the ability to multitask [9]. Martínez considers digital ethics a fundamental element of the educational system [10].

III. TOOLS AND METHODOLOGY

This study is a descriptive research study using the survey method. The population in this study belongs to the full-time teaching staff in 6 (six) faculties of the University of Tirana (UT): Faculty of Economics (FE), Faculty of Foreign Languages(FFL), Faculty of History and Philosophy(FHP), Faculty of Natural Sciences (FNS), Faculty of Social Sciences (FSS) and Faculty of Law (FL). Relying on the calculation of the sample through the formula suggested by [11], for 746 individuals, with a reliability coefficient of 95%, the determined sample is 315 lecturers. The study used an experimental research design to assess the level of ICT use in UT, the level of knowledge on digital ethics in UT, the capacities of UT in dealing with issues related to digital ethics, the needs for capacity building in UT on digital ethics. The analysis in this part will focus on the differences of the results according to faculties and gender while for each raised hypothesis the Chi-square test is used and for statistical processing SPSS 21 is used. The level of alpha significance in this study is set at 0.05 (5%). According to this significance level, the null hypothesis is rejected if the p-value is less than 5%.

For the purpose of the study, we raised 4 research questions (RQ):

RQ1: Are there differences in the use of technology among UT faculties?

RQ2: Are there differences in knowledge on digital ethics among UT faculties?

RQ3: Are there differences on reliability over security for data handling at UT among UT faculties?

RQ4: Are there differences on the impact of digital ethics on the quality of knowledge among UT faculties?

To answer the research questions, we used the Chisquare test for independence [12], for which the following assumptions must be met:

Assumption 1: Both variables are categorical.

Assumption 2: All observations are independent.

Assumption 3: The cells in the contingency table are incompatible.

Assumption 4: The expected value of the cells must be 5 or greater in at least 80% of the cells.

The formula for the test is given by:

$$X^{2} = \sum \frac{(O_{ij} - E_{ij})^{2}}{E_{ij}}$$
(1)

where O_{ij} are the observed frequencies, E_{ij} the expected frequencies and are found by:

$$E_{ij} = \frac{r_i * c_j}{n} \tag{2}$$

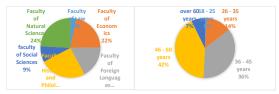
- r_i is the total of the i-th row,
- **c**_{*j*} is the total of the *j*-th column,
- **n** is the number of observations,
- degrees of freedom for the test are (number of rows-1)*(number of columns-1)

IV. EMPIRICAL ANALYSIS

IV.1. General data

The study included 315 lecturers, of which 25% belong to the Faculty of History and Philology, 24% to the Faculty of Natural Sciences, 22% to the Faculty of Economics, 42% are 46-60 years old, 36% are 36-45 years old, only 7% are over 60 years old. Figure 1 shows the distribution of academic staff by faculties and by age group.

Figure 1: Distribution of UT academic staff according to faculties and age group



Source: Author's calculation

IV.2. Analysis of the questionnaire

In this part, we are analyzing the detailed research questions according to the faculties, gender and age group of the academic staff at the University of Tirana, to discover the commonalities and differences that exist on the problems of digital ethics in the six faculties of UT.

RQ1. Are there differences in technology use among UT faculty?

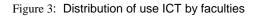
The test results for the three divisions are presented in the table below:

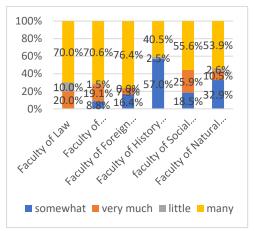
TABLE 2: The results for RQ1

Null hypothesis	Value of Chi- square	p- value	Results
The use of ICT is independent from the faculty		0.000	reject
The use of ICT is independent from the gender		0.000	reject
The use of ICT is independent from the age group		0.003	reject

Source: Author's calculation

Using the Chi square test, it can be seen that the p value is 0.000 (the first row in table 1) less than the 5% significance level and therefore the basic hypothesis is rejected. So among the faculty where the lecturer develops his activity is related to the use of ICT. Moreover, in figure 2 we have the distribution of the use of technology for each faculty.





Source:Author's calculation

From the results, there is no academic staff at UT that does not use technology and less than 2% of them use it a little identified in FNS and FHP. 28.6% of UT academic staff use technology in some way, dominated by 14.3% FHP and 7.9% in FNS. Meanwhile, 58.7% of UT staff use technology a lot, dominated by FE, FFL and FNS with 15.2%, 13.3% and 13% respectively.

Using the Chi square test in relation to gender, it can be seen that the p value is 0.000 (the second row in table 1) less than the 5% significance level and therefore the basic hypothesis is rejected. So the teacher's gender and the use of technology are dependent. Moreover, in table 2 we have the distribution of the use of technology by gender.

	ICT					
	somew hat	very much	little	many		
Female	14.6%	7.9%	1.0%	39.7%		
Male	14.0%	2.9%	1.0%	19.0%		
Total	28.6%	10.8%	1.9%	58.7%		

Source: Author's calculation

It can be seen that women are more inclined to use technology as 47.6% of them use technology a lot or extremely, while men only 21.9%.

Using the Chi square test for age group, it can be seen that the p value is 0.003 (the third row in table 1) less than the 5% significance level and therefore the basic hypothesis is rejected. So the age of the teacher and the use of technology are dependent. Moreover, in the table we have the distribution of the use of technology according to age groups.

	Age group					Total
	18 - 25	26 - 35	36 - 45	46 - 60	mbi 60	
					years	
somewhat		1.9%	7.3%	17.1%	2.2%	28.6%
very much		3.2%	4.1%	2.9%	0.6%	10.8%
little			0.3%	1.3%	0.3%	1.9%
many	1.0%	8.6%	24.4%	20.6%	4.1%	58.7%
Total	1.0%	13.7%	36.2%	41.9%	7.3%	100.0%

Source: Author's calculation

The biggest ICT users are the 36-45 and 46-60 age groups with 28.5% and 23.5% respectively. But we state that 4.7% of teachers over 60 years old (out of the 7.3% they represent) use ICT a lot.

The academic staff at UT uses various electronic platforms, where in the last two years it has developed this approach to significant levels as a result of the Covid-19 pandemic. Various electronic platforms such as: Microsoft teams, Google classroom, E-mail, UT and/or faculty website, e-student system, Zoom; Facebook / Instagram, Whatsapp, etc. are used by all UT faculties, where the Faculty of History and Philology, the Faculty of Natural Sciences and the Faculty of Economics dominate with 25.1%, 24.1% and 21.6% respectively. The Faculty of Law has the lowest level of use of TABLE 3: The results for RQ2

these platforms at 3.2%. The electronic platforms, where according to percentage values, E-mail and Zoom predominate, specifically 19.4%.

The academic staff at UT mainly followed self-taught approaches to learn the use of electronic platforms, followed by training at the university. 26.3% takes self-taught forms of learning in all UT Faculties where FE and FHP dominate with 7.6% and 7.3%. Also in terms of the level of use, in second place are trainings at universities, specifically 13.3%, where FNS dominates with 4.8%, followed by FHP with 3.8%.

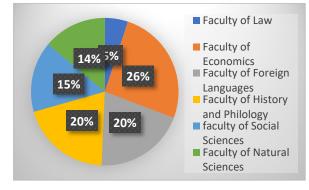
RQ 2. Are there differences in knowledge on digital ethics among UT faculties?

The test results for the three partitions are presented in Table 4.

Null hypothesis	Value of Chi-square	p-value	Results
Knowledge of digital ethics is independent from the faculty	100.71	0.000	reject
Knowledge of digital ethics is independent from the gender	19.243	0.001	reject
Knowledge of digital ethics is independent from the age group	32.522	0.009	reject

Source:Author's calculation

From the results in the first row of table 4, it can be seen that the value of p is 0, less than the 5% significance level and therefore the basic hypothesis is rejected. So there is a dependency between the faculty where the lecturer develops his activity and the knowledge on digital ethics. Moreover, in figure 3 we have the distribution of correct answers according to faculties. Figure 4: The distribution of correct answer by faculties

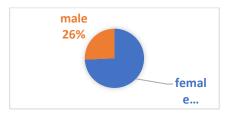


Source: Author's calculation

Only 43.2% of the academic staff of UT has correct knowledge about the definition of digital ethics, where FE stands out with 11.1%, while other faculties stand out 6-8%, but FL stands out with the lowest level with only 2.2% correct answer. If we refer to the

normalized values of correct answers, FE, FHP and FFL dominate with 26% and 20% respectively.

Figure 5: The distribution of correct answer by gender



Source: Author's calculation

If we normalize the values according to the correct answers, it turns out that 74% of the correct answers in relation to digital ethics were given by women.

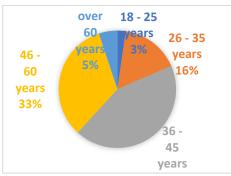
From the results in the third row of table 4, it can be seen that the value of - is 0.009 less than the 5% significance level and therefore the basic hypothesis is rejected. So, the knowledge on digital ethics is dependent on the age group. Moreover, in table 5 we have the distribution of correct or incorrect answers on digital ethics according to age group.

		Total				
	18 - 25	26 - 35	36 - 45	46 - 60	ove r 60 yea rs	
corr ect	1.0 0%	7.0 %	18.7 %	14. 3%	2.2 %	43.2 %
not corr ect	0.0 0%	6.7 %	17.5 %	27. 6%	5.1 %	56.8 %
Tot al	1.0 0%	13. 7%	36.2 %	41. 9%	7.3 %	100. %

Source: Author's calculation

Academic staff of the age group 36-45 and 46-60 years give the most accurate answers with 18.7% and 14.3% respectively. The figure shows the normalized values according to the correct answers for each age group.

Figure 6: The distribution of correct answer (normalized)by age-group



Source: Author's calculation

In the normalized values, it can be seen that 43% of the correct answers about ethics were given by the staff of the age group 36-45 years, there were 33% of the correct answers from the age group 46-60 years.

The academic staff at UT mainly followed self-taught approaches as the main source of information on ethical rules for digital communication with 26.3%, where FE and FHP dominate with 7.6% and 7.3%. Also in terms of the level of use, in second place are trainings at universities, specifically 13.3% where FNS dominates with 4.8%, followed by FHP with 3.8%.

RQ 3. Are there differences on reliability over security for data handling at UT among UT faculties?

The test results for the three partitions are presented in Table 6.

Table 5: The results for RQ3

Null hypothesis	Value of Chi- square	p- value	Results
Reliability on	Square	value	Results
security for data			
handling in UT is			
independent from			
the faculty	48.559	0.000	Reject
Reliability on		0.000	
security for data			
handling in UT is			
independent from			Not
the gender	6.439	0.092	reject
Reliability on			
security for data			
handling in UT is			
independent from			Not
the age group	17.769	0.123	reject

Source: Author's calculation

Referring to the p values in table 6, we note that with a significance level of 5%, reliability on security for data handling in UT is dependent from the faculty, but is independent from gender and age group.

Moreover, in table 7 we have the distribution of reliability on security for data handling at UT for each faculty.

Table 6: The distribution of reliability on security for data handling in UT by faculties

	Faculty of Law	Faculty of Economics	Faculty of Foreign Languages	Faculty of History and Philology	Faculty of Social Sciences	Faculty of Natyral Sciences	Total
a lot of faith	1.90%	13.30%	6.70%	30.50%	8.60%	39.00%	100.00%
	0.60%	4.40%	2.20%	10.20%	2.90%	13.00%	33.30%
enough faith	1.40%	25.40%	26.10%	23.90%	8.50%	14.80%	100.00%
enough faith	0.60%	11.40%	11.70%	10.80%	3.80%	6.70%	45.10%
little faith	7.70%	30.80%	15.40%	15.40%	9.60%	21.20%	100.00%
	1.30%	5.10%	2.50%	2.50%	1.60%	3.50%	16.50%
no faith at all	12.50%	12.50%	18.80%	31.30%	6.30%	18.80%	100.00%
no faith at all	0.60%	0.60%	1.00%	1.60%	0.30%	1.00%	5.10%
Total	3.20%	21.60%	17.50%	25.10%	8.60%	24.10%	100.00%

Source: Author's calculation

For the academic staff, the University of Tirana regarding reliability on security for data handling in UT 45.1% have enough confidence, where FGHJ and FE dominate with 26.1% and 25.4% respectively. While 33.3% of the academic staff have a lot of confidence in which FNS dominates with 39%, followed by FHP and FE with 30.5% and 13.3%. Only 5% have no confidence at all, where FHP dominates with 31.3%.

RQ4. Are there differences on the impact of digital ethics on the quality of knowledge among UT faculties?

The test results for the three partitions are presented in Table 8.

Table 7: The results for RQ4

	Value of Chi-	p-	
Null hypothesis	square	value	Results
Impact of digital			
ethics on the			
quality of			
knowledge is			
independent			
from the faculty	61.407	0.000	reject
Impact of digital			
ethics on the			
quality of			
knowledge is			
independent			
from the gender	11.064	0.011	reject
Impact of digital			
ethics on the			
quality of			
knowledge is			
independent			
from the age			
group	22.747	0.032	reject

Source: Author's calculation

Based on the p values, the raised hypotheses fall down and as a result we have that the opinion regarding the Impact of digital ethics on the quality of knowledge is different in different faculties, according to different genders but also according to the age group of the full-time academic staff.

Moreover, in table 9 we have the opinion regarding this impact for each faculty.

Table 8: The distribution of Impact of digital ethics on the quality of knowledge by faculties

	Very strong impact	Relativel y strong impact	Low impact	No impact	Total
Faculty of Law	3.30%	2.20%	7.10%		3.20%
	1.00%	1.00%	1.30%		3.20%
Faculty of Economic s	24.20 %	25.40%	16.10%	6.70%	21.60%
	7.00%	11.10%	2.90%	0.60%	21.60%
Faculty of Foreign	24.20 %	20.30%	8.90%		17.50%
Language s	7.00%	8.90%	1.60%		17.50%
Faculty of History	9.90%	26.10%	42.90%	33.30%	25.10%
and Philology	2.90%	11.40%	7.60%	3.20%	25.10%
Faculty of	14.30%	8.00%	5.40%		8.60%
Social Sciences	4.10%	3.50%	1.00%		8.60%
Faculty of	24.20%	18.10%	19.60%	60.00%	24.10%
Natural Sciences	7.00%	7.90%	3.50%	5.70%	24.10%
Total	100.00 %	100.00%	100.00 %	100.00 %	100.00 %
10101	28.90%	43.80%	17.80%	9.50%	100.00 %

Source: Author's calculation

43.8% of the staff think that the impact of digital ethics on the quality of knowledge is *relatively strong impact*, where FHP and FE dominate with 26.1% and 25.4% respectively. Meanwhile, 28.9% think very strong impact dominated by FE, FFL and FNS with 24.2%. Only 9.5% of the staff think that digital ethics has no impact on the quality of knowledge.

Table 10 presents the opinions on the impact of digital ethics on the quality of knowledge by gender.

-	Very strong impact	Relatively strong impact	Low impact	No impact	Total
⁻ em ale	68.10%	68.80%	51.80%	43.30%	63.20%
al	19.70%	30.20%	9.20%	4.10%	
Male	31.90%	31.20%	48.20%	56.70%	36.80%
Ě	9.20%	13.70%	8.60%	5.40%	
T ot al	28.90%	43.80%	17.80%	9.50%	100.00%

Table 9: The distribution of Impact of digital ethics on the quality of knowledge by gender

Source: Author's calculation

Among the individuals who think that the impact of digital ethics on the quality of knowledge is Relatively strong impact or Very strong impact, 68.80% and 68.10% respectively are female lecturers. Male academic staff are less optimistic, evaluating with

48.20% and 56.70% (normalized values) Low impact and no impact, respectively.

Table 11 shows the opinions on Impact of digital ethics on the quality of knowledge according to age group.

	Very strong impact	Relatively strong impact	Low impact	No impact	Total
	3.30%				1.00%
18 - 25 years	1.00%				
26 25,0000	17.60%	13.80%	10.70%	6.70%	13.70%
26 - 35years	5.10%	6.00%	1.90%	0.60%	
	36.30%	42.00%	30.40%	20.00%	36.20%
36 - 45 years	10.50%	18.40%	5.40%	1.90%	
46 60 veero	33.00%	39.10%	51.80%	63.30%	41.90%
46 - 60 years	9.50%	17.10%	9.20%	6.00%	
aver 60 veere	9.90%	5.10%	7.10%	10.00%	7.30%
over 60 years	2.90%	2.20%	1.30%	1.00%	
Total	28.90%	43.80%	17.80%	9.50%	100.00%

Table 10: The distribution of Impact of digital ethics on the quality of knowledge ethics by age-group

Source: Author's calculation

Regarding the relatively strong impact is the age group 36-45 years with 42.00% and the age group 46-60 years with 39.10%. In relation to very strong impact is the age group 36-45 years with 36.30% and the age group 46-60 years with 33.00%. Regarding No impact, it is the age group 46-60 years with 63.30% and the age group 36-45 years with 20.00%.

The academic staff was also asked about the training required at UT referring to the increase of knowledge on digital ethics, areas such as technologies, security and protection from cyber attacks as well as familiarity with the electronic platforms used at UT and beyond in education, occupy the largest part with 21.9% of the interest of the academic staff of UT, where FNS and FHP dominate with 9.2% and 7.0%, while FSS with the lowest percentage level with 0.3%. Also, areas such as the governance of the use of data generated by digital interaction as well as the role of information technology in digital ethics are at the level of 9.2%, where FHP dominates with 6.7%. If we consider all areas and their combinations, referring to the increase in knowledge on digital ethics, FHP and FNS dominate with 25.1% and 24.1%, while the lowest value is FL with 3.2%. Like other universities around the world, UT as a higher

education institution needs to improve its digital environment for training [13].

V. CONCLUSIONS

In order to assess the level of use of ICT in UT, the level of knowledge on digital ethics in UT, the capacities of UT in dealing with issues related to digital ethics, the needs for increasing capacities in UT on digital ethics, a questionnaire was carried out for the academic staff at the University of Tirana. The staff of the six faculties at the University of Tirana consists of 746 individuals and 315 lecturers were taken into the study, where the majority belong to the Faculty of History with 25% and Philology, 24% Faculty of Natural Sciences, 22% Faculty of Economics, 42% are 46-60 years old. 4 research questions were raised and Chi-square test was used to detect differences between faculties, gender and age group.

Regarding RQ1: "Are there differences in the use of technology among UT faculties", it turns out that there are differences between UT faculties, academic staff gender and age group, in the use of technology. From the results, 58.7% of UT staff use technology a lot, dominated by FE, FFL and FNS with 15.2%, 13.3% and 13% respectively, this seems to be related to the nature of the faculties, since both of them as FE and FNS are also providers of the branch of Economic Informatics and Informatics, while FFL is in constant contact with foreign language teaching methods. On the other hand, women are greater users of technology where 47.6% of them use technology a lot or extremely. The biggest ICT users are the 36-45 and 46-60 age groups with 28.5% and 23.5% respectively.

Regarding RQ2: "Are there differences in the knowledge of digital ethics among UT faculties?", it turns out that there are differences between the academic staff of the faculties, the gender of the academic staff and the age group, in the knowledge of digital ethics. Only 43.2% of the academic staff of UT has correct knowledge about the definition of digital ethics, where FE, FHP and FFL stand out with 26% and 20% respectively correct answers, this is closely related to the curricula offered in these faculties, in which scientific research subjects are developed from the bachelor level. In the period of the pandemic, the development of online learning also affects the adaptation of the curriculum to the ethical consequences that arise as a result of the use of ICT. On the other hand, it turns out that 74% of the correct answers regarding digital ethics were given by women and 43% of the correct answers about ethics were given by the staff of the age group 36-45 years, there were 33% of the correct answers from the age group 46-60 years.

The academic staff at UT mainly followed self-taught approaches as the main form of information source on ethical rules for digital communication and training in universities.

In relation to RQ3: "Are there differences on the reliability on security for data handling at UT between UT faculties?", it turns out that there are differences between the academic staff of the faculties, but there is no difference between the academic staff's gender and age group, on the reliability on security for data handling at UT. 45.1% of the academic staff have enough confidence, dominated by FGHJ and FE with 26.1% and 25.4% respectively. While 33.3% of the academic staff have a lot of confidence in which FNS dominates with 39%, followed by FHP and FE with 30.5% and 13.3%.

Regarding RQ4: "Are there differences on the impact of digital ethics on the quality of knowledge between UT faculties?", it turns out that there are differences between the academic staff of the faculties, the gender of the academic staff and the age group, on the impact of digital ethics on the quality of knowledge. 43.8% of the staff think that the Impact of digital ethics on the quality of knowledge. Among the individuals who think that the impact of digital ethics on the quality of knowledge is Relatively strong impact. Among the individuals who think that the impact of digital ethics on the quality of knowledge is Relatively strong impact or Very strong impact, 68.80% and 68.10% respectively are female lecturers. Regarding the relatively strong impact is the age group 36-45 years with 42.00% and the age

group 46-60 years with 39.10%. In relation to very strong impact is the age group 36-45 years with 36.30% and the age group 46-60 years with 33.00%.

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