

## THE IMPACT OF THE FINANCIAL CRISIS ON UNIVERSITY STUDENTS IN GREECE

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### Abstract

The ongoing financial crisis in Greece has significant negative impact on almost all aspects of socio-economic life. The paper aims at investigating the impact of the financial crisis on students studying at the Technological Educational Institute of Central Macedonia \*(TEICM), Greece. A research study was conducted and the results revealed the following: on the one hand, increased effect of the financial crisis on a) students' life, in general, and b) students' decision to acquire higher qualifications than the Bachelor's degree from TEICM, and, on the other hand, moderate effect of the financial crisis on issues regarding i) university studies, and ii) students' career prospects.

**JEL Classification:** D12, I20, I23

**Keywords:** Financial crisis, Greece, Education, Students' buying behaviour, Students' career prospects, Students' employment, Educational outcomes

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As of May 2019, the TEI of Central Macedonia, TEI East Macedonia and Thrace, TEI of Thessaloniki and International Hellenic University merged into a single institute under the name 'International Hellenic University'

## Introduction

After joining the Euro zone in 2001, Greece enjoyed a short period of marginal economic growth (Matsaganis, 2011). However, behind the façade of prosperity laid a largely uncompetitive economy (Matsaganis, 2011). That was made evident in October 2009, when the newly elected government announced that earlier fiscal data had been misreported (Matsaganis & Leventi, 2011), as well as in April 2010, when George Papandreou, the then Greek Prime Minister, announced that the country was unable to overcome its financial difficulties and would ask for the support of the IMF (Chrysoschoou, 2013). Thus, Greece entered a long period of financial crisis with significant negative impact on various aspects of daily life (Economou *et al.*, 2011) and social services (Ifanti *et al.*, 2013).

According to a recent research study conducted by GSEVEE (2016) -the Hellenic Confederation of Professionals, Craftsmen and Merchants– more than 37% of Greek households had a very low annual family income (under 10,000 Euro/year), while 16% of Greek households declared that their income was insufficient for meeting their basic needs and in more than 50% of Greek households there was at least one family member unemployed. According to the same research study, long-term unemployment rate was 73.3% of total unemployment and more than 1 out of 5 households (22.4%) had a family member who worked for less than the minimum national wage of €586 (€490.00 net pay). On the basis of the 2010 official Greek poverty level of income as a measure of comparison, about half of the households today would be considered poor (GSEVEE, 2016).

The financial crisis in many countries (including Greece), led respective governments to reduce public expenditure and funds allocated to social sectors (Varghese, 2001). Greek universities belong to the public sector and, thus, have suffered severe reductions of their budgets, especially during the past five to seven years (Centre for the Development of Educational Policy, 2015). More specifically, during the 2009-2013 period, the total amount of national expenditures channelled to Higher Education notched a significant decrease of 31.7% (451 million Euro) from 1,420.9 million Euro in 2009 to 969,9 million Euro in 2013. In particular, during the 2011-2013 three-year period, Greek Technological and Educational Institutes faced the highest reduction in their budgets, from 316 million Euro in 2011 to 252.6 million Euro in 2013 (a total reduction of -20.1% or 63.4 million Euro), while the respective reduction for Greek Universities was lower, from 844.3 million Euro in 2011 to 717.3 million Euro in 2013 (a total reduction of -15% or 127 million Euro) (Centre for the Development of Educational Policy, 2015). According to the Greek educational system, high school graduates are eligible to take national exams that determine their entry into Greek universities and Greek Technological and Educational Institutes (Sianou-Kyrgiou, 2008). When high school students rank their preferences regarding the most desirable institutes, they take into con-

sideration their own personal preferences regarding the desirable field of study, the location of university or TEI, as well as several socioeconomic criteria. Students with similar performance, make different choices depending on their social class background (Sianou-Kyrgiou & Tsiplakides, 2011). Sianou-Kyrgiou (2010) mention characteristically that “*choice has been driven largely by the students’ social class*”. Working-class students in Greece are operating “*within narrow circumscribed margins of choice*” (Sianou-Kyrgiou & Tsiplakides, 2011, p. 102), similar to other countries (Reay *et al.*, 2005). Furthermore, students from lower socio-economic backgrounds are deterred by the costs of Higher Education (Sianou-Kyrgiou & Tsiplakides, 2011; Callender & Jackson 2005). Consequently, many Greek university and TEI departments in rural areas end up with far fewer students than it had originally been planned, while the opposite occurs for metropolitan areas, i.e., Athens and Thessaloniki (Dassiou, 2015). High school students also tend to prefer major fields of study that offer greater job security in the future, like medicine or law. Another interesting fact is that the number of students wishing to enlist in the armed forces increases in tandem with youth unemployment rates (Goulas & Megalokonomou, 2015).

This paper aims at investigating the impact of financial crisis on students of the Technological Educational Institute of Central Macedonia (TEICM), Greece. More specifically, it investigates the role the financial crisis played in four major areas of students’ lives: a) general consequences of the financial crisis for students; b) consequences of the financial crisis for aspects regarding university studies; c) impact of the financial crisis on acquiring higher qualifications than the Bachelor’s degree from TEICM, and d) consequences of the financial crisis for students’ career prospects.

### **The impact of the financial crisis on higher education**

Higher education is considered to be a key-factor in a nation’s effort to create and develop a highly-skilled and competent workforce (York, 2006). Higher education graduates have better employment opportunities, upward mobility, higher salaries and increased savings, along with non-economic benefits, such as greater opportunities for the future, better quality of life and improved health (Long & Adukia, 2009).

In Greece there are a total of 38 public institutes of Higher Education: 22 Universities and 16 Technological and Educational Institutes (Goulas & Megalokonomou, 2015; OECD, 2009). In order to graduate from secondary school and enter universities or TEIs, secondary students sit national entry exams sometime around May during their final secondary school year. Once the results of the national exams are announced by the Greek Ministry of Education, secondary school graduates submit to the Ministry of Education a ranked list with the university and TEI departments that

they wish to attend. Performance at the national entrance exams is the sole criterion for admission to Greek universities or TEIs (Goulas & Megalokonomou, 2015). Past experience has revealed that it is relatively easy for a secondary school student to gain entry into a higher education institution (depending on their preferred field of study) (Dassiou, 2015). However, the overall uncertainty regarding the financial future of Greece has had significant consequences for educational decisions made by young Greeks (Goulas & Megalokonomou, 2015).

Education in Greece is tuition-free at all levels of the system, in that the state provides financial resources and personnel (Koulouris *et al.*, 2014). However, this free higher education is “a very expensive commodity and has become more so after the financial meltdown” (Marseilles, 2014). The annual cost (not subsidised by the state) has been estimated between €3,500 and €4,000 per student and up to €10,000 to €11,000, if the student has to rent accommodation and pay living expenses (Giousmpasoglou *et al.*, 2016). The crisis and the austerity measures have led to an increased number of families unable to finance their children’s education costs (Marseilles, 2014; Giousmpasoglou *et al.*, 2016). Traditionally, before the crisis, university students from poor families had to get a job in order to attend their courses and complete their studies. Nowadays, it is the vast majority of undergraduate students, apart from the richest, who have to do this (Giousmpasoglou *et al.*, 2016), while, over the years, the number of students unable to complete their studies has been steadily growing (Marseilles, 2014).

Recession affects the students’ choices of higher education institutes, according to Koulouris *et al.* (2014), who examined the impact of austerity measures on the academic community. The Technological and Educational Institute of Athens served as their case study, since it is the second largest Higher Education Institute in Greece, and receives students of diverse socio-economic backgrounds. Moreover, the overall economic conditions of the country strongly impact family financial support, pushing students to seek employment in other countries. However, a positive finding, revealed by this specific research, was that the difficulties imposed by the financial crisis have led to an increased use of technology and e-learning.

Tsikalaki & Kladi-Kokkinou (2016) presented evidence that the financial crisis affects all secondary school students’ educational decisions, such as participating in national exams, admission to higher education, students’ aspirations and goals. The financial crisis also affects secondary school students’ choice concerning their field of studies by imposing as criteria not their interests, but the extent to which their studies can provide them with easy access to a more stable professional career. This is why there is increased demand for specific fields, such as military schools, which secure immediate and stable payment. In addition to the aforementioned results, the students’ cost of living in a city different from the family residence is, in several cases, forbidding.

Katsionis & Kalatha (2010) investigated how the financial crisis affected students' behaviour at the Eastern Macedonia and Thrace Institute of Technology, located in Kavala, Greece. They reported that the students' buying behaviour changed (as compared to the near past) and that students significantly reduced leisure time spending. Students live under conditions of great insecurity and uncertainty and do not have a clear picture of the future. However, they are willing to continue their studies even if they have to work or get a loan to cover their basic living costs.

In another study, Stolikidis *et al.* (2014) investigated the impact of the financial crisis on students' attitudes at the Eastern Macedonia and Thrace Institute of Technology. The aim of their research was to investigate consumption habits, students' way of living, vocational status, families' financial and professional conditions, students' future expectations about their studies and job prospects. According to these authors' findings, due to the difficult economic situation in Greece, both students' parents have to work in order to cope economically with their growing obligations. Working while studying is a phenomenon noted worldwide; however, the extent to which students work varies between countries and has shifted over time (Hovdhaugen, 2015). Students work to cover living expenses (Hall 2010; Richardson *et al.*, 2009) to raise their tuition fees (Richardson *et al.*, 2009) and to provide for their everyday needs (Devlin *et al.*, 2008). "Students need to combine work and study to meet the expense of a university degree and, therefore, those with less financial resources are most affected" according to Sanchez-Gelabert *et al.* (2017). According to the research findings by Stolikidis *et al.* (2014), a significant proportion of students believed that they would not find a job related to the subject of their studies and, for this reason, 64.3% of them were willing to work abroad. Students have greatly reduced their personal expenses and are forced to work during their studies. However, a significant percentage of 67% feel they do not need to spend more money during the financial crisis. Students, like the rest of Greek society, have adapted their behaviour to a new way of life, which is simpler and oriented more toward their basic needs.

Pantelis (2014) investigated the impact of the financial crisis on undergraduate students at the National Technical University of Athens (NTUA) during the 2012-13 academic year. His specific research covered several aspects regarding undergraduate students' studies and everyday life (living standards, interpersonal relationships, etc.). A total of 578 undergraduate students attending the NTUA participated in the study. The results of the study showed that: a) 80% of the students that took part in the study stated that their families (as well as themselves) had been affected by the financial crisis; b) 60% considered that the crisis has adversely affected their studies, identifying as main reasons their inability to attend all lectures, due to fact that they have to work, and their inability to buy books or have them printed; c) the financial crisis had a negative impact on the quality of studies at the NTUA, due to lack of

interest from students and teachers, as well as the reduction in student benefits, the reduction in number of laboratories and the reduction in students' health care, and d) the crisis had adverse effect on the relationships between family members and students.

### **Survey design, sampling and data collection instrument**

The research reported here adopted a quantitative method and it is based on a survey conducted on Greek students currently studying at the Technological and Educational Institute of Central Macedonia (TEICM). The current study took place between January and March 2017. The survey was designed in Greek, hosted on Google Forms and students filled it out electronically during a lecture period. A total of 152 students-respondents took part in the study.

The current research study utilised a structured questionnaire in order to collect data on: a) the demographics of the sample; b) the general consequences of the financial crisis for students; c) the consequences of the crisis for aspects regarding university studies; d) the impact of the financial crisis on students' desire to acquire higher qualifications (or job skills) than the Bachelor's degree from TEICM, and e) consequences of the crisis for students' career prospects.

The structured instrument used for the purposes of this specific study consisted of five sections. The items in the first section aimed to collect demographic sample data about the participants. The first section included 8 closed questions (gender, age, department of studies, level of studies, current vocation, vocation of their father and mother). The other four sections were related to: a) some general consequences of the financial crisis for students (eight items); b) the impact of the financial crisis on aspects regarding university studies and academic performance (six items); c) students' intention to obtain more academic qualifications or job skills (six items), and d) some general consequences of the crisis for students' career prospects (six items). In all these four sections, items were scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

In the section concerning the impact of the financial crisis on acquiring higher qualifications (or job skills) than the Bachelor's degree from TEICM, an additional question was included in order for respondents to select one (or more) Master's Courses they wished to attend after they finished their current studies. It is important to underline that all Master's Courses included in the specific question are offered by several TEICM departments.

## Results

### *Sample profile*

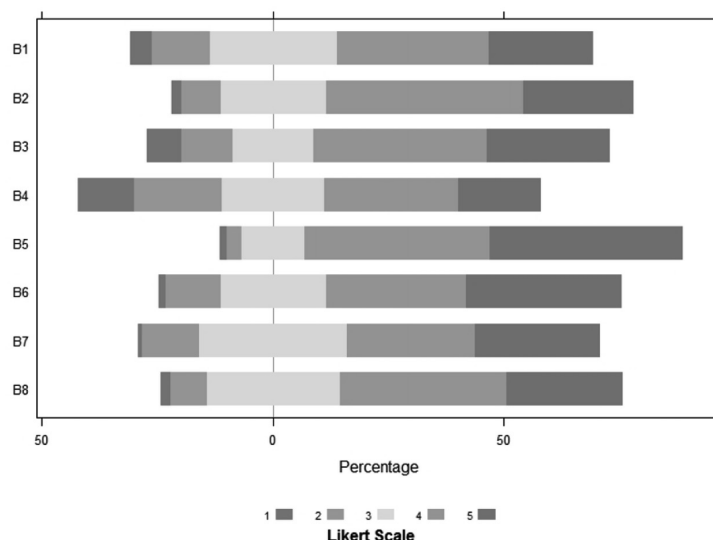
Of the 152 respondents, 53.3% (81) were women and 46.7% (71) were men. If the gender distribution of the sample is compared to information about the gender distribution of the Greek population as a whole (50.8% women and 49.2% men, according to the Hellenic Statistical Authority, 2012), the sample appears to be relatively representative. Participants were all Greek nationals within an age range from 18 to 28+ years. The majority of the respondents were in the age group from 18 to 22 (18-22: 73%, 23-27: 11.8%, 28+: 15.1%), while almost all of them, i.e., 99.3% are students at the Business Administration Department (one student [0.7%] studied at the Department of Mechanical Engineering).

One fifth of the respondents were freshmen, while more than half of them (52.7%) were beyond their 2<sup>nd</sup> year of studies (1<sup>st</sup> year: 20.4%, 2<sup>nd</sup> year: 27%, 3<sup>rd</sup> year: 31.6%, 4<sup>th</sup> year: 6.6%, 5<sup>th</sup>+year: 14.5%). Regarding their income, 53.9% stated that they had an income lower than €500/month, 22.4% had an income of €501-800/month, 11.8% from €801 to €1100/month, and another 11.3% more than €1101/month. With more than half of the students having an income under €500/month, it can be concluded that their buying capacity was rather limited.

Seven out of ten respondents (69.1%) stated that they did not work while studying, 11.8% that they worked as employees in the private sector, 13.8% as employees in the public sector, 4.6% as self-employed and only 0.7% as farmers. In order to investigate the socioeconomic status of their families, the students were asked to state the vocation of their parents. Results revealed that 7.6% of students' fathers were unemployed, 31.9% were employees in the private sector, 13.9% were employees in the public sector, 35.4% were self-employed and 11.1% were farmers, while the respective percentages for respondents' mothers were 34.3% unemployed, 25.9% employees in the private sector, 16.1% employees in the public sector, 16.8% self-employed and 7% farmers.

### *General consequences of the financial crisis for students*

Participants in the survey were asked to rate on a five-point Likert scale, eight general possible consequences of the financial crisis. The score of the Likert scale used ranged from "Totally Disagree", coded as 1, to "Totally Agree", coded as 5. The percentages of responses to each item of the aspect "General consequences of the financial crisis for students" are shown in Figure 1. The high percentages for responses coded 4 (Agree) and 5 (Totally Agree) suggest that students had been heavily impacted by the economic crisis.



**Figure 1.** Likert scale responses to “General consequences of the financial crisis for students”

Responses, (see Table 1) revealed that for almost all of the eight general possible consequences of the financial crisis (with the exception of “B4: I searched for cheaper rent accommodation”) more than half of the respondents feel impacted (or highly impacted ) by the crisis.

More specifically, the students of the sample stated that the strongest general impact of the financial crisis (81.5%) was that they were more careful regarding the price of every product they wished to buy, while expenses were reduced by more than 30% (66.5%), they systematically searched for product offers (63.9%), monthly expenses for entertainment were reduced (63.8%) and less financial help was received from their families (61.2%), all of which seem to have had an important impact. Another interesting finding is that “searching for cheaper rent accommodation” ranked last with 46.7% of the respondents stating that they totally agreed or agreed. This fact could mean that, even though rent costs usually represent a significant percentage of monthly expenses, students were not very willing to spend time and effort in order to find cheaper accommodation if they were satisfied with what they were renting.



**Table 1.** General consequences of the financial crisis for students

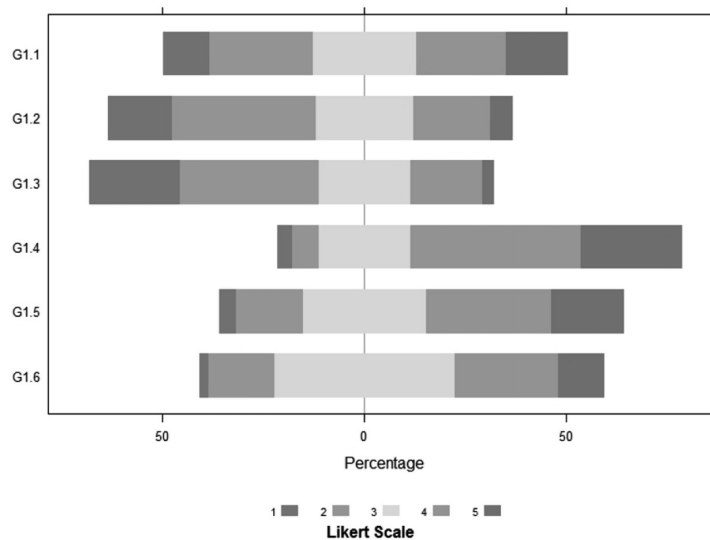
Item	General consequences of the financial crisis (Due to the financial crisis in Greece, during my studies:)	Agree and Totally Agree (Cumulative Percentage)	Mean	Std. Deviation
B1	Income reduced more than 20%	55.3%	3.56	1.108
B2	Expenses reduced more than 30%	66.5%	3.78	0.971
B3	I go out to have fun fewer times/month than I used to	63.8%	3.64	1.193
B4	I searched for cheaper rent accommodation	46.7%	3.22	1.276
B5	I am more careful regarding the price of every product	81.5%	4.17	0.882
B6	I systematically look for product offers	63.9%	3.83	1.066
B7	I wait for the sales discount period in order to buy products I want	54.6%	3.68	1.027
B8	I receive less money from my family	61.2%	3.74	0.987

*N.B.: Minimum and maximum values are 1 and 5, respectively, for all items.*

### **Consequences of the financial crisis for aspects regarding university studies**

The percentages of responses to each item for the statement “*Consequences of the financial crisis for aspects regarding university studies*” are shown in Figure 2.

Based on these responses, it seems that the ongoing financial crisis in Greece has led the majority of students (67.1%) to look for a job in order to have extra income and be able to deal with their expenses more efficiently. Furthermore, results showed that the financial crisis had a positive impact on student’s desire to attend academic lectures more frequently (48.7%), as well as on their academic performance (36.9%). On the other hand, participants stated that the financial crisis did not have a strong impact on their desire to quit their studies (20.4%) and on their choice regarding their field of studies (24.4%). Thus, these two parameters of university studies tend to be unaffected by the strong and ongoing recession in all social and economic fields.



**Figure 2.** Likert scale responses to “Consequences of the financial crisis for aspects regarding university studies”

**Table 2.** Consequences of the financial crisis for aspects regarding university studies

item	Consequences of the financial crisis for aspects regarding university studies (the Crisis has affected:)	Disagree and Totally Disagree (Cumulative Percentage)	Agree and Totally Agree (Cumulative Percentage)	Mean	Std. Deviation
G1.1	My decision to study at TEICM due to its location	36.8%	37.5%	3.05	1.241
G1.2	My choice regarding my field of studies	51.3%	24.4%	2.63	1.121
G1.3	Positively the possibilities of quitting my studies	56.6%	20.4%	2.44	1.102
G1.4	Positively the possibilities of finding a job in order to have extra income	9.9%	67.1%	3.79	1.001
G1.5	My desire to attend academic lectures more frequently	20.4%	48.7%	3.42	1.083
G1.6	Positively my academic performance	18.4%	36.9%	3.28	0.936

*N.B.: Minimum and maximum values are 1 and 5, respectively, for all items.*

**Table 3.** Grouped results for Chi-square tests on “G1.1: decision to study at TEICM due to its location”

	<b>Chi-square value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>
<b>Age</b>	27.224	8	0.001*
<b>Gender</b>	15.916	4	0.003*
<b>Vocation</b>	35.529	16	0.003*
<b>Income</b>	9.479	12	0.662

\*significant at  $\alpha=0.01$  level

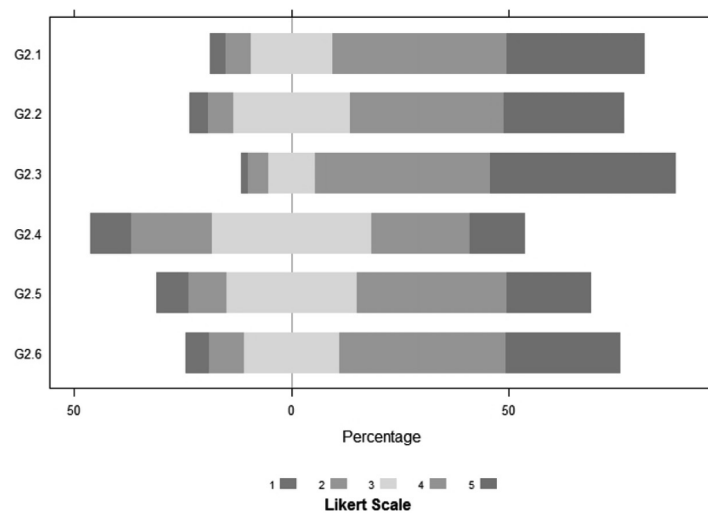
The results on the impact of the financial crisis regarding the “decision to study at TEICM due to its location” seem to be two-sided and balanced, since 36.8% of respondents disagree or totally disagree and another 37.5% agree or totally agree with the aforementioned statement. In order to identify the deeper reasons for this balanced result, a series of crosstabs and Chi-square tests were conducted. The results of the tests revealed that gender, age and vocation have a significant relationship with the “decision to study at TEICM due to its location”, while income is unexpectedly unrelated. More specifically, more women, more public and private employees and more people over the age of 28 seem to have been affected by the financial crisis on their decision to study at TEICM due to its location.

### ***Impact of the financial crisis on acquiring higher qualifications than the Bachelor's degree from TEICM***

Percentages regarding the impact of the financial crisis on acquiring higher qualifications are presented in Figure 3. Results showed that in almost all six suggested aspects impacted by the financial crisis (with the exception of statement “G2.4: Attending international courses, e.g. Erasmus”) more than half of the respondents stated that they intended to acquire higher qualifications than the Bachelor's degree from TEICM.

The impact of the financial crisis on “finishing their current studies as soon as possible” ranked first with a very high percentage of agreement (82.9%) among respondents. This finding is in accordance with what Katsikas (2013) found, i.e., that especially non-working students, coming from poor families, complete their studies earlier than wealthier students. Our findings bring to light an indication of urgency and stress on the part of the students, probably due to the fact that they wish to: a) start their career and create a steady flow of income, and b) continue their

studies to a higher academic level, e.g., by acquiring a Master's degree (64.5%) or continuing with a different field of study (53.3%). Foreign languages and computer-related qualifications seem to be attractive for students, since 71.7% stated that they intended to acquire a foreign language competence certificate and 63.1% a computer use certificate.



**Figure 3.** Likert scale responses to “Impact of the financial crisis on acquiring higher qualifications than the Bachelor's degree from TEICM”

The least important qualification for participants in this specific research study (34.9%) seems to be attendance of an international course for students, like Erasmus or Leonardo da Vinci. This result was somewhat unexpected, since the majority of students worldwide wish to attend international exchange programmes in order to have an opportunity to live in a different country for a short period of time and gain experience through visiting and studying at another university. One possible explanation is that international exchange programmes may delay one's graduation date by a full semester, hence confirming respondents' desire to conclude their studies the soonest possible.

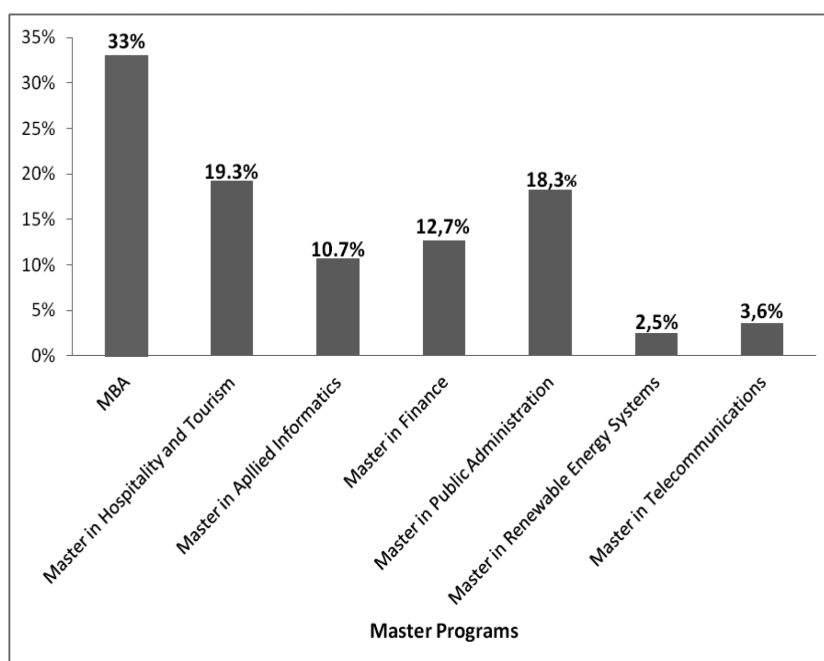
From the 152 participants in the study, 112 (73.7%) stated their intention regarding the Master's course they wished to attend after they finished their studies. From the 112 respondents to the specific question, 33% stated that they wanted to attend an MBA (Master's in Business Administration) Course, 19.3% a Master's Course in Hospitality and Tourism, 18.3% an MPA (Master's in Public Administration), 12.7% a Master's in Finance Course, 10.7% a Master's in Applied Informatics, 3.6% a Master's Course in Telecommunications and 2.5% a Master's Course in Renewable

Energy Systems. One possible reason for the high demand for courses related to Business, Tourism and Finance is that almost all participants in the study (99.3%) were students of the department of Business Administration, so they preferred to attend Master's courses related to their Bachelor's degree.

**Table 4.** Impact of the financial crisis on acquiring higher qualifications than the Bachelor's degree from TEICM

item	Impact of the financial crisis on acquiring higher qualifications	Agree and Totally Agree (Cumulative Percentage)	Mean	Std. Deviation
G2.1	Acquiring a foreign language competence certificate	71.7%	3.91	1.019
G2.2	Acquiring a computer use certificate	63.1%	3.77	1.045
G2.3	Finishing my current studies the soonest possible	82.9%	4.18	0.902
G2.4	Attending international courses, e.g. Erasmus	34.9%	3.11	1.132
G2.5	Acquiring a second Bachelor's degree	53.3%	3.50	1.119
G2.6	Acquiring a masters degree	64.5%	3.72	1.099

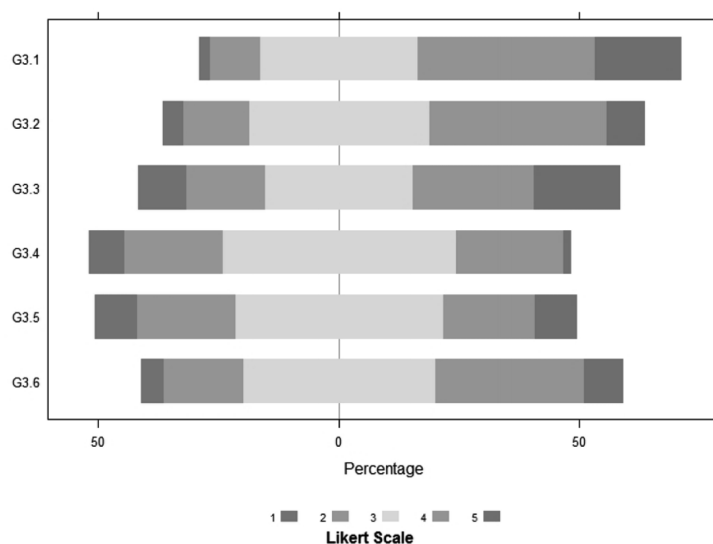
N.B.: Minimum and maximum values are 1 and 5, respectively, for all items.



**Figure 4.** Percentage of selected Master's Courses

### ***Consequences of the financial crisis for students' career prospects***

On the matter of the consequences of the financial crisis for aspects regarding students' career prospects, results were again two-sided and somewhat controversial. On the one hand, it seems that the ongoing recession and high unemployment rates, especially for young people, impacted more than half of the respondents (54.6%) who stated that they would accept any job offer even if it were unrelated to the field of their studies. Furthermore, results showed that 44.7% of the participants thought that, due to the financial crisis, new opportunities would emerge in some business fields, 42.8% were considering working in another country and 38.8% had come up with a good business idea, but it would be hard for them to find financial support in order to implement it.



**Figure 5.** Likert scale responses to “Consequences of the financial crisis for students' career prospects”

Results on the impact of the financial crisis regarding the ‘decision to create my own company’ seem to be two-sided and balanced, since 29% of respondents disagree or totally disagree and another 27.7% agree or totally agree with the aforementioned statement. Almost the same results occurred regarding the decision to “accept only job offers related to my field of studies, regardless of the amount of the monthly pay-check”, since 27.6% of respondents disagree or totally disagree and another 23.7% agree or totally agree with the statement.

**Table 5.** Consequences of the financial crisis for students' career prospects

statement	Consequences of the financial crisis for students' career prospects (Due to financial crisis:)	Disagree and Totally Disagree (Cumulative Percentage)	Agree and Totally Agree (Cumulative Percentage)	Mean	Std. Deviation
G3.1	I will accept any job offer even if it is unrelated to my studies	12.5%	54.6%	3.58	0.967
G3.2	New opportunities will come up in some business fields	17.7%	44.7%	3.31	0.944
G3.3	I am considering working in another country	26.3%	42.8%	3.24	1.212
G3.4	I am considering accepting only job offers related to my field of studies, regardless of the amount of the monthly pay-check	27.6%	23.7%	2.90	0.875
G3.5	I am considering creating my own company	29%	27.7%	2.99	1.042
G3.6	I have come up with a good business idea, but it will be hard to find financial support in order to implement it	21%	38.8%	3.21	0.967

*N.B.:* Minimum and maximum values are 1 and 5, respectively, for all items.

In order to identify the deeper reasons for these balanced results, a series of cross-tabs and Chi-square tests were conducted. Regarding the effect of the financial crisis on the “decision to create my own company”, the results of the tests revealed that age and vocation had significant correlation (people from the 18-22 age group and unemployed students stated that they were considering creating their own company); regarding the impact of the financial crisis on their decision to “accept only job offers in relation to my field of studies, regardless of the amount of the monthly pay-check”, the results of the tests revealed that only vocation appeared to be significantly correlated (mainly unemployed students stated that they were going to “accept only job offers in relation to my field of studies, regardless of the amount of the monthly pay-check”).

**Table 6.** Grouped results for Chi-square tests on “decision to create my own company”

	<b>Chi-square value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>
<b>Age</b>	22.290	8	0.004*
<b>Vocation</b>	33.094	16	0.007*
<b>Gender</b>	5.918	4	0.205
<b>Year of studies</b>	14.667	16	0.549
<b>Income</b>	6.917	12	0.863

*\*significant at  $\alpha=0.01$  level*

**Table 7.** Grouped results for Chi-square tests on the decision to “accept only job offers in relation to my field of studies, regardless of the amount of the monthly pay-check”

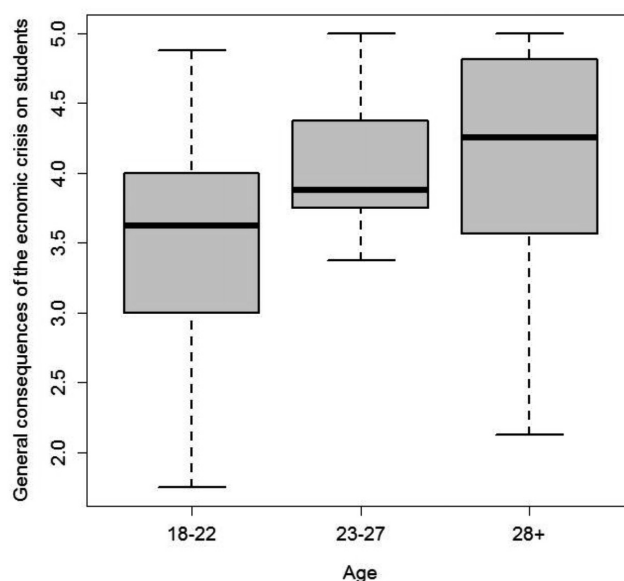
	<b>Chi-square value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>
<b>Vocation</b>	25.771	16	0.050*
<b>Year of studies</b>	22.077	16	0.141
<b>Income</b>	16.504	12	0.169
<b>Gender</b>	4.902	4	0.298
<b>Age</b>	3.515	8	0.898

*\*significant at  $\alpha=0.05$  level*

In order to explore the effect of demographic characteristics on some of the statements of the questionnaire, t, ANOVA and non-parametric statistical tests were conducted. More specifically, possible statistically significant differences between gender, age and income, on what the authors consider the most interesting aspects were examined, namely B: “General consequences of the financial crisis for students” and G2: “Impact of the financial crisis on acquiring higher qualifications than the Bachelor’s degree from TEICM”. The analysis was based on the average scores of the responses to the items of each statement [B and G2].



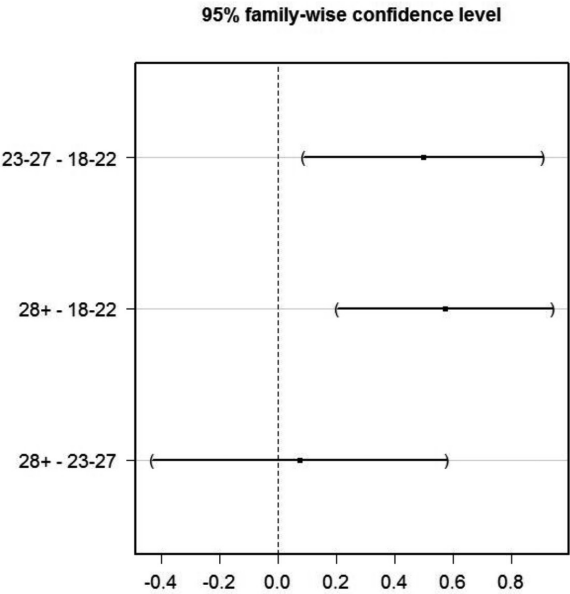
For statement B, the analysis above revealed statistically significant differences only between respondents' age groups. The differences presented graphically in Figure 6, were verified by the ANOVA test (p value: 0.000142).



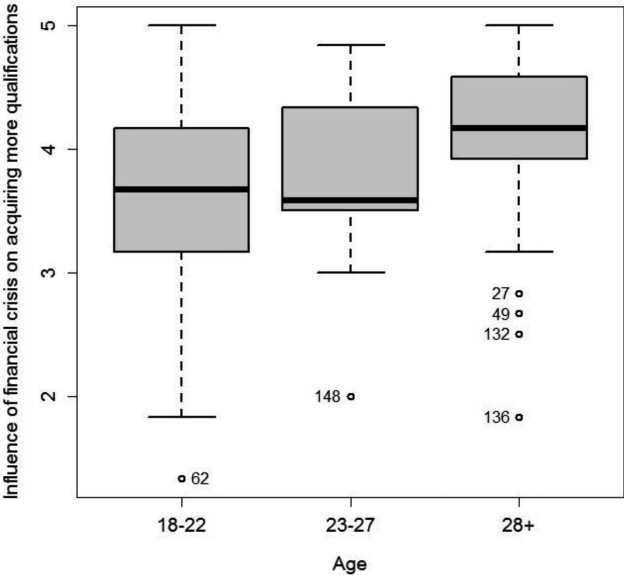
**Figure 6.** Boxplots between statement B and students' age groups

The representation of *post-hoc* Tukey HSD (Honestly Significant Difference) test, indicates pairwise differences between the age groups concerning responses to B statement in Figure 7. Results imply that the consequences of the financial crisis for students are more significant for higher age students when compared to younger ones, under 22 years old. Mean value for students from 18 to 22 years old, i.e., 3.57, is quite lower than the mean values for the other two groups, namely, 4.06 and 4.13, respectively, for the 23-27 and 28+ age groups. A possible explanation is based on the personal or family needs that older people usually have to consider, leading them to take into account the consequences of the economic crisis more seriously.

For statement G2, non-parametric tests were used in order to overcome the lack of normality and some outliers in the data set. The implementation of the Kruskal-Wallis test revealed statistically significant differences between respondents' age and income groups, with p values at 0.01905 and 0.02922, respectively. These differences are graphically depicted in Figures 8 and 9.



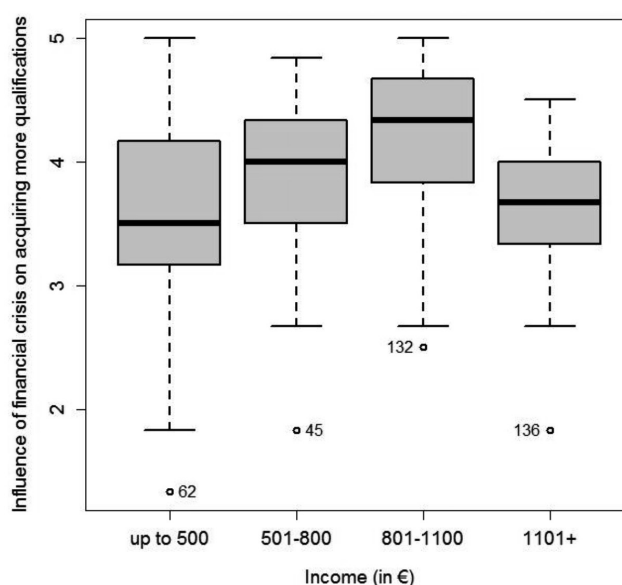
**Figure 7.** Post-hoc Tukey HSD analysis between age group responses to statement B



**Figure 8.** Boxplots between statement G2 and students' age groups

It seems that older students have higher intentions to improve their qualifications than younger ones, with mean values at 3.61, 3.78 and 4.03 for the 18-22, 23-27 and 28+ age groups, respectively.

According to the effect of income on students' intention to study in the future, it is noticed that middle class students (€501-1100) have higher intentions for further qualifications than low income students (up to €500) or very high income ones (over €1100). This result may imply that 'poor' students do not have enough income to continue with their studies and possibly want to find a job, while, on the contrary, 'rich' students lack motivation for further qualifications because of their higher economic status.



**Figure 9.** Boxplots between statement G2 and students' income groups

## Conclusions

This research study has produced a number of findings, which make a double contribution to relevant international literature: a) it sheds light on the effect and consequences of the financial crisis on university students as well as on several dimensions of their academic lives, and b) it expands current literature on the specific matter.

The ongoing recession and high unemployment rates, especially among young people, has impacted almost all aspects of social, political and economic life in Greece. Education, a very important and influential dimension of Greek society, has been highly affected by this crisis, since the amount of money spent on all three existing national educational levels has been significantly reduced. Universities in the country (i.e., tertiary education in Greece), due to their reduced budgets, are forced to curtail several student benefits, thus creating more problems for their academic life.

The overall results of this study are aligned with the aforementioned situation, indicating that the continuous financial crisis has seriously affected students at TEICM. More specifically, on the matter of general consequences of the financial crisis for students, the majority of respondents feel affected (or highly affected) by it. They are more careful regarding the price of every product they wish to buy, they have reduced their expenses by more than 20%, they systematically look for product offers, they go out to have fun fewer times/month than they used to, they receive less money from their families, which means that their income has been reduced by more than 20%, and they wait for sales discount in order to buy the products they want.

On the matter of the consequences of the financial crisis for aspects regarding university studies, results were two-sided and controversial. On the one hand, it seems that the ongoing crisis in Greece has led the majority of students: a) to look for a job in order to have extra income; b) to attend academic lectures more frequently, and c) to achieve a higher level of academic performance; on the other hand, the crisis has not had a strong impact: a) on forcing students to quit their studies, or b) on students' choice of their field of studies. Results on the impact of the financial crisis regarding the "decision to study at TEICM due to its location" seem to be two-sided and balanced.

Regarding the impact of the financial crisis on acquiring higher qualifications, once again, results revealed increased effect on students and their intention to acquire more job skills than the Bachelor's degree from TEICM. In fact, the strongest impact of all items included in this research study, was on students' intention to finish their current studies the soonest possible. Furthermore, the majority of respondents stated that their intention was to acquire both a foreign language competence certificate and a computer use certificate, while the acquisition of a second Bachelor's degree and of a Master's degree also rank high among their goals. The three most popular and desirable Master's courses among the participants of the study were: a) Master's in Business Administration (MBA); b) Master's in Hospitality and Tourism, and c) Master's in Public Administration (MPA).

Finally, on the matter of consequences of the financial crisis for aspects regarding students' career prospects, results were again two-sided. On the one hand, it seems that the crisis has moderately affected students who stated that: a) they would accept any job offer, even if unrelated to their field of studies; b) due to financial crisis new opportunities would come up in some business fields; c) they were considering working in another country, and d) although they had come up with a good business idea, it would be hard for them to find financial support in order to implement it. On the other side, results on the impact of the financial crisis regarding students' "decision to create my own company" and "decision to accept only job offers related to my study field, regardless of the amount of the monthly pay-check" were balanced, with almost the same percentage of respondents either agreeing or disagreeing.

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## **Appendix**

### **Part 1/6**

#### **Impact of the financial crisis on the students of TEI of Central Macedonia**

The specific questionnaire aims on identifying the impact of the financial crisis on the students of TEI of Central Macedonia, regarding two basic matters: a) Their studies and their expectations regarding their professional evolvement, and b) their consumer behaviour in relation to electronic purchases.

E-mail address: .....

### **Part 2/6**

#### **Respondent's Profile**

##### **Gender**

- ☐ Male
- ☐ Female

##### **Age**

- ☐ 18-22
- ☐ 23-27
- ☐ 28+

##### **Department of studies at TEICM**

- ☐ Mechanical Engineering
- ☐ Civil Engineering
- ☐ Computer Engineering
- ☐ Clothing Technology
- ☐ Business Administration
- ☐ Accounting & Finance
- ☐ Logistics Administration
- ☐ Architecture and Decoration

##### **Year of study**

- ☐ 1<sup>st</sup>
- ☐ 2<sup>nd</sup>
- ☐ 3<sup>rd</sup>
- ☐ 4<sup>th</sup>
- ☐ 5<sup>th</sup>+

**Total monthly income**

- ☐ under €500
- ☐ €501-800
- ☐ €801-1100
- ☐ 1101+

**Vocation**

- ☐ Unemployed
- ☐ Private sector employee
- ☐ Public sector employee
- ☐ Self-employed
- ☐ Farmer

**Your father's vocation**

- ☐ Unemployed
- ☐ Private sector employee
- ☐ Public sector employee
- ☐ Self-employed      ☐ Farmer

**Your mother's vocation**

- ☐ Unemployed
- ☐ Private sector employee
- ☐ Public sector employee
- ☐ Self-employed
- ☐ Farmer

**Part 3/6****General consequences of the financial crisis**

Please, state your level of Agreement or Disagreement with the following statements.



**Due to the financial crisis in Greece, during my studies:**

	<b>Totally Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Totally Agree</b>
My income has been reduced by more than 20%.	1	2	3	4	5
My expenses have been reduced by more than 30%.	1	2	3	4	5
I go out to have fun fewer times (per month) than I used to.	1	2	3	4	5
I searched for cheaper rent or shared accommodation	1	2	3	4	5
I pay more attention to the prices of products I buy.	1	2	3	4	5
I systematically search for product offers.	1	2	3	4	5
I wait for discounts in order to buy my favourite products.	1	2	3	4	5
The level of the monthly allowance that my family provides for me has been affected.	1	2	3	4	5

**Part 4/6****Consequences of the financial crisis for several aspects regarding studies at TEICM**

Please, state your level of Agreement or Disagreement with the following statements.

**Due to the financial crisis in Greece, during my studies:**

	<b>Totally Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Totally Agree</b>
My selection to study at TEICM was affected by its location.	1	2	3	4	5
My selection of the field of studies at TEICM was affected.	1	2	3	4	5
The probability of stopping my studies has increased.	1	2	3	4	5
I am considering searching for a job offer in order to increase my income.	1	2	3	4	5
My desire to follow the courses offered has been enhanced.	1	2	3	4	5
My academic performance has been improved.	1	2	3	4	5

**Part 5/6****Consequences of the financial crisis for students' desire to acquire higher qualifications in addition to the qualifications acquired based on their studies at TEICM.**

Please, state your level of Agreement or Disagreement with the following statements.

**Due to the financial crisis in Greece, during my studies there has been a positive impact on my desire to:**

	Totally Disagree	Disagree	Neither Agree nor Disagree	Agree	Totally Agree
Acquire an acknowledged foreign language competence certificate.	1	2	3	4	5
Acquire an acknowledged use of computers certificate.	1	2	3	4	5
End my studies successfully the soonest possible.	1	2	3	4	5
Participate in several educational programs (e.g. Erasmus+).	1	2	3	4	5
Acquire a second Bachelor's degree in the future.	1	2	3	4	5
Attend a Master's course (e.g., MBA).	1	2	3	4	5

**Regarding the last statement (“*Desire to attend a Master’s course*”), if your answer was “Agree” or “Totally Agree”, please, state which of the following Master’s courses seems to be most attractive for your interests (you can tick up to 3 options).**

- ☐ Applied Informatics
- ☐ Renewable Energy Systems: Design, Development and Optimisation
- ☐ Public Administration (MPA)
- ☐ Business Administration (MBA)
- ☐ Accounting and Finance
- ☐ Hospitality & Tourism
- ☐ Telecommunications
- ☐ Prevention and Management of Natural Disasters
- ☐ Logistics
- ☐ None of the above