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**THE FUTURE OF INDUSTRIAL MANAGEMENT  
STUDENTS AT CENTRIA UNIVERSITY OF APPLIED  
SCIENCES**

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## Abstract

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<p>The degree program in Industrial Management at Centria University of Applied Sciences has already existed for 8 years. Students came to study, some finished the study and left, some transferred to other schools, some just left for personal reasons. However, a research that investigates the post-graduation life of former Industrial Management students in Centria has never been carried out. The school does not have records of those students' current locations, their occupations as well as their level of satisfaction of their experiences in Centria.</p> <p>This thesis was a research-based work with the purpose of finding out the present status of graduated students from Industrial Management; gathering their thoughts on how their experiences with Centria could have been improved, and combining their ideas with those of the current students, and therefore offers suggestions which can be implemented at university for students' benefits.</p> <p>The research methods used in this thesis were surveys and interviews. The responses were later summarized and further analyzed.</p>		
<p><b>Key words</b> Future, international students, Industrial Management, Centria, satisfaction, working life, improvements, forecasting.</p>		

## TABLE OF CONTENTS

1	INTRODUCTION .....	1
2	RESEARCHING, STATISTICS, METHODS .....	3
2.1	The role of statistics .....	3
2.2	Doing research right.....	5
2.3	Expectation and reality .....	6
2.4	Research methods.....	7
2.5	Methods applied in the research.....	8
3	PERSONAL DEVELOPMENT .....	12
3.1	Choices that influence one's life .....	12
3.2	Right educational institution .....	13
3.3	Post education life.....	15
3.4	Job satisfaction.....	17
4	GENERAL STATISTICS OF FOREIGN STUDENTS IN FINLAND .....	19
4.1	The number of students coming to Finland .....	19
4.2	The main countries the students come from.....	20
4.3	Degree programs .....	20
4.4	International students working in Finland.....	21
5	CENTRIA - YLIVIESKA.....	25
5.1	English Degree Programs at Centria.....	25
5.1.1	Environmental Chemistry and Technology .....	25
5.1.2	Information Technology .....	26
5.1.3	Business Management .....	27
5.1.4	Nursing .....	27
5.1.5	International Business.....	28
5.2	Industrial Management .....	28
5.2.1	The number of students coming and staying .....	29
5.2.2	The main countries the students come from.....	29
5.2.3	Reasons to come and study in Ylivieska.....	30
6	ANALYSIS OF DATA COLLECTED FROM STUDENTS .....	32
6.1	The reasons behind choosing Finland and Industrial Management .....	32
6.1.1	Finland.....	33
6.1.2	Industrial Management .....	34
6.2	Expectations vs. experience .....	35
6.2.1	Current students' plans after graduation .....	35
6.2.2	The graduates' status at present.....	37
6.3	Interviews.....	40

7	CONCLUSION .....	44
7.1	Changes to be made in Centria .....	44
7.2	Actions to be taken by the authorities .....	46
7.3	Maintaining Industrial Management.....	48
7.4	Forecasting .....	48
	REFERENCES .....	50
	APPENDICES	

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## 1 INTRODUCTION

It is important for a university to care not only about the well-being of its current students, but also that of the graduated students. The latter has often been proven more important because from the perspective of a person who has certainly made an effort to implement the knowledge of Industrial Management in real life situations, it is easier to tell whether that knowledge is sufficient and applicable. Besides, the graduated students can be perceived as a “business card” of the university, as their performance can directly reflect the quality of their previous education.

Centria University of Applied Science does not have official records of its own graduated students’ future actions. Without such information, the school is unaware of the outcome of its education, whether the certificate has helped the graduates in finding a job or pursuing further study, and if not, what would need to be done to change that.

This thesis work is meant to be a turning point towards improving the situation. In the thesis, facts about some of Industrial Management’s graduated students’ current life were gathered, as well as their experiences after studying in Centria, and how, in their point of view, could Centria be improved. Moreover, we also collected opinions from students who are presently studying in Industrial Management, and what they anticipate from this degree program. In addition, a simple “application” with excel was created, with which the information concerning the level of attendance of international students in Industrial Management can be sorted by their country of origin. With constant update, such an application is expected to give an idea of which countries deliver the most or the least students to Industrial Management and therefore improve the future marketing plan.

Given the fact that two people have authored this thesis work, the thesis was partially written together, and partially separately. The introduction and the fourth chapter were fully authored by Jifan Xu, whereas the second (apart from chapter

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2.5), third and the fifth chapter were authored by Jan Wojciechowski. The last two chapters were written by both of the authors together during meeting hours.

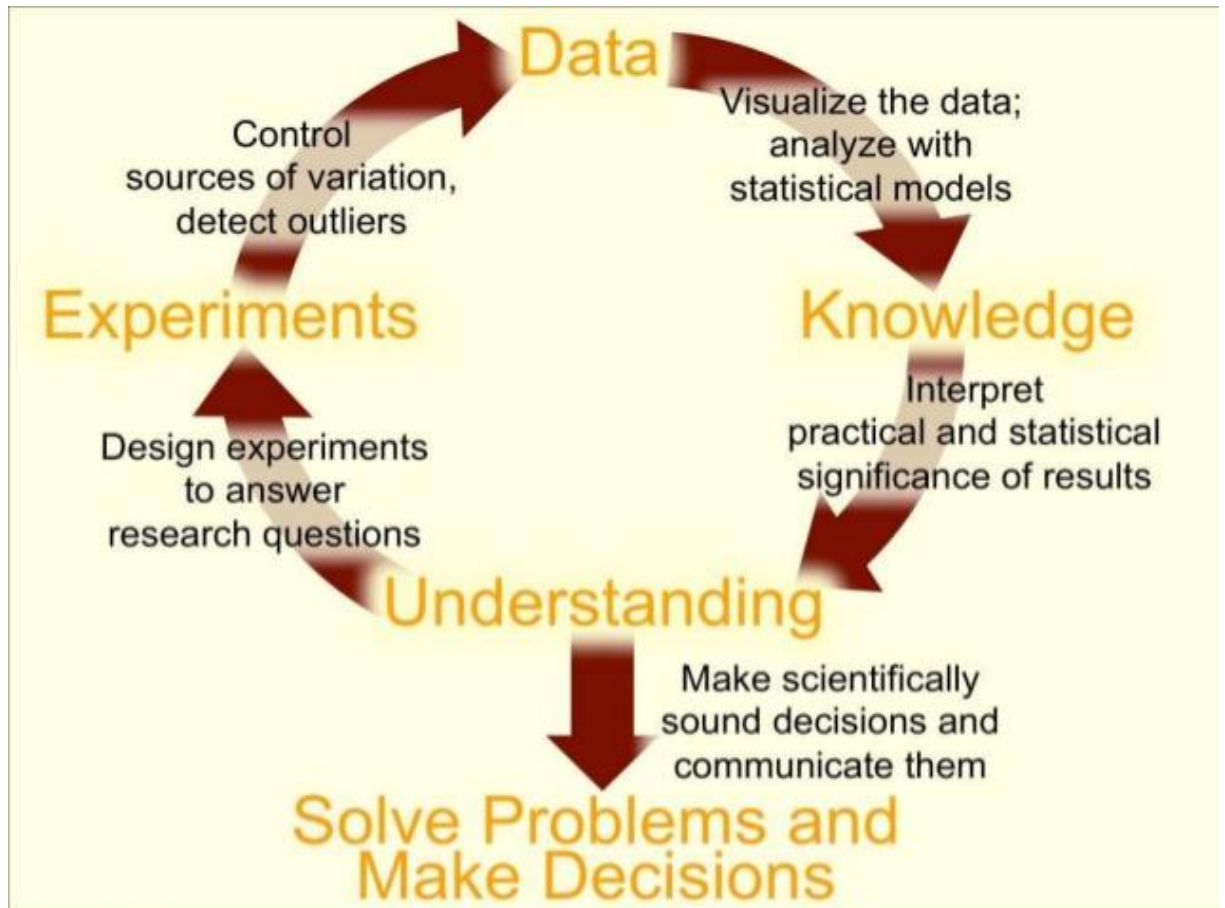
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## **2 RESEARCHING, STATISTICS, METHODS**

Statistics is the science that focuses on methods used to collect, present, and what is the most important, to analyze data gained from a specific area of interest. That “area” can refer to many daily situations, such as the presence during voting, the satisfaction towards the health care services, or the consumption of cheese over five years. The more specific problems can be examined as well: the impact of greenhouse gases on the environment, the comparison of the variable costs over a few years in one’s company, or the likelihood of buying a Volkswagen car in next years. Statistics makes the situation look clearer either for an entrepreneur or anybody who seeks for more informative sources on certain matter.

### **2.1 The role of statistics**

Statistical methods are used to illustrate research findings, to support hypotheses, and to make research methodology and conclusion more reliable. It is recommended to comprehend that kind of science either for researchers or consumers, so that good decisions can be made. The most important purpose of statistics is to help us get the most appropriate conclusions and thoughts about a certain situation, area of interest, or a problem in general. (Role of Statistics 2015.)



GRAPH 1. The steps of statistical research (adapted from Kodituwakku & Perera, 2015)

The graph 1 shows the processes of the statistical research. The outcome should be a good decision or/and a solved problem. However, in order to reach the end of the circle, a few appropriate steps should be taken. First of all, it is needed to collect data, by examining an example, the consumption of butter in Finland for instance, may clarify the case. Asking people on the streets of various cities, and a survey online could be research methods. After a while, when the data is ready, the next step is the visualization by making for example tables or graphs. Later, following the graph, there comes the knowledge, in other words the outcome gained from the data interpretation. Here, a problem may be seen, let's say 20% of the respondents prefer to eat more salty butter, or with the increased amount of fat. In respect to the results, a company decides to start a new production line, and that represents the decision making, the last step which is experimenting, is the actual production designed to make a new butter. In other words, a new way is

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found to attract more customers. Here the circle of statistical research closes, however it can be done again with new questions and challenges.

## **2.2 Doing research right**

Researching usually analyzes both organizations and people. However, if organizations are built up by people and for people, then researching can be described as a branch of social sciences. Studying people, i.e. gaining insight into their relationships should be done using scientific methods that have been tested over some period of time.

The researching methods require control in order to be sure everything is relevant and correct. The importance of the controls sometimes may be vital. For instance, companies from time to time make a survey among a small group of people that work for the certain company. In this situation, that group of people expresses their opinion on behalf of all the workers. Thus, the importance of the control should be visible here; if is put correctly, the outcome of the research done is more relevant. Evaluating data gained from uncontrolled sources may have a bad influence.

Even good controls may not be enough, and well organized researches may be wrong. There are many reasons why the results are incorrect. However, usually all comes down to the process of gathering data, and in particular, problems associated with research validity and reliability.

Research validity is connected with the problem of whether a research measures what it claims to measure. If a person conducting a survey is not sure about the outcome of the research, the results might be questioned. It could be simply check by answering a question: Am I measuring what I want to measure?

Research reliability is about the possibility to apply the results of a research conducted in a small group of people to a wider group. The data collected should be relevant if thinking about one organization. However if there are a few

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respondents from a different organization, the results and further actions taken might not be good for all of them. (knowthis 2015)

### **2.3 Expectation and reality**

This thesis work is not the first research based thesis that has been made. The website [www.theseus.fi](http://www.theseus.fi) contains around 92 000 final projects from all Universities of Applied Sciences in Finland. There are different topics, and different forms, but the projects similar to the current thesis are very few. After reading through the previous works, a conclusion has been made that the idea of conducting a research is basically the same. Similar or the same references and methods have been used, the only difference is the topic. A very good example would be a piece of excellent work written by Vanninen Jenny in 2013. It is a research based thesis, and similarities such as the use of research methods can be found. It is a good example and guide to be based on, while making one's own research.

The informative power of the Internet is enormous. To find materials that could be a good basis for one's own projects may be easy yet time-consuming. Different sources can provide with useful information; perhaps, it is rather hard to find just one reference and base the whole new work on that specific one, but searching for a few, and use each one for different part of the work, is relatively a good idea. While exploring the world of the Internet, a great study on the same idea was found, but research has been done on a larger scale. (Shumilova, Cai & Pekkola 2010)

To be more certain that the outcome of the research done is relevant, questions were created in correlation with two important terms: experience and reality. Definition of the first one, modified to our case can be "a belief, feeling about how successful someone has been", meaning what one has accomplished in the past. The reality however, is "the actual, real situation that occurred", so putting to the proof one's accomplishments to the present.

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The matter can be explained as such: this research points out what the Centria students have experienced, and how it refers to their current situation. That is why, when the questions were being constructed, one crucial rule to be followed was that they must reflect the reality in the best possible way. Obviously, expectations are connected with the students who still study as they are in the process of gaining knowledge, how they will use it, is up to them. They expect to do something particular in the future. The graduated students are experiencing the “future”, and their decisions, and knowledge have lead them where they are now.

## **2.4 Research methods**

It is important not only to know the topic of a research, but also to get necessary data to be analyzed. Choosing the right method to receive information is essential, provided that everyone wants to have good results that rely on reliable source. The method should be adjusted to the needs, if one wants to know what happens. If somebody pours acid on a piece of gold, the best way is to do an experiment unlike to make a survey among a group of people asking the question “What happens?”. If one wanted to find out how many people use the Internet, then perhaps the most rational way is to ask from a certain number of random people and take note of their answers. Using an online survey may provide with wrong data, simply because filling a questionnaire online requires the access to the Internet. That way the result could be: 100% of people use the Internet.

Which research method is the best to use? It must be decided by the surveyor. As it was mentioned, it all comes down to the topic. Below there are several examples:

- Qualitative research. Detailed recognition, perceiving and noting things as they appear. It is important to think about the word “quality”, what is wanted is the insight about a current matter, it is not focusing on numerical data. The means of that research could be for example interviews or observations.
- Quantitative research. Getting numeric data. Answering questions such as “How much?”, “How often?”, “How many?”, and similar. In this example, the word “quantity” should be ahead of all the other words.

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- Experimental research. Finding a solution to a problem by doing various, or one necessary experiment. It is about manipulating one or more variables with the idea to determine the effect or effects on a dependent variable. This method is best used in sciences.
  - Quasi-experimental. Selecting a group of people randomly, and testing a variable. For instance, in a company the boss selects workers alphabetically by their family names, and tests how the groups solve the same problem.
  - Meta-analysis. Easy and not so time-consuming. It is about comparing studies of the same case from different sources, and what follows, building one solution. One choosing that specific type of research should mind to find good and appropriate studies, as some may have wrong results.
  - Correlation/regression analysis. Analyzing the impact of the relationship between two or more variables, for example, finding out whether students' achievements correlate with their teachers' knowledge. (Serve Center 2015)

## **2.5 Methods applied in the research**

Survey was the prior method of this research. Survey is one of the most common used methods in quantitative research. It gives predetermined categories and involves a more structured scientific approach. Therefore it is easier to later systematically analyze the collected data.

Questionnaires are ideally suited for respondents who can read, measuring people's attitudes and opinions, and when we want to get a very large number of respondents too difficult to observe with qualitative methods.(Nadir 2005, 17.)

Two surveys were conducted separately to current students and graduated students (see APPENDIX 1 and 2). They were carried out using online survey and analysis software "Webropol", which provides an online platform for customizing one's own surveys which either features a fully self-designed layout or a ready-made template. After the surveys were made, a unique link was automatically

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created by Webropol for each survey. The links were then sent to the students by school email as well as Facebook posts. If one completes a survey, Webropol saves the answered survey to its database for a later analysis. It has made the later process of collecting the answers much more convenient.

During the process of selecting the questions for the surveys, the first problem to be solved was the type of questions to be used. Normally, questions provided in a survey can be categorized under two general types: open-ended questions and closed-ended questions. An open-ended question usually gives the survey participant freedom to express their opinion in regard of the question. Such questions do not offer any set of answers from which the respondent can choose from, and cannot be answered with a simple “yes” or “no”. Closed-ended questions, on the other hand, provide a certain set of multiple choice answers for the respondents and restrict them from giving answers outside the set. (Outsource2india 2015.)

Past experiences have proved that if a voluntary questionnaire takes too much time to fill-in, it is likely to be ignored by the potential respondents. Given this fact, closed-ended questions took the main frame in the surveys. However, closed-ended questions have the drawback of being too brief in expressing the participants’ real thoughts. To help those who would like to say more in the survey, some open spaces were added in each question for a longer statement. This way, the respondents were able to complete the survey in less than five minutes if they lack the patience of writing, and those who do want to say more have the chance to do so.

In the surveys, four of the questions were the same and the rest of the questions were selected depending on the nature of the group. The first question used in the surveys was about the student’s nationality. This helped later in the making of the excel program, which was mentioned in chapter 1 and described in details in chapter 7. Following that, their reasons of choosing Finland and Industrial Management were asked. This gives understanding of students’ motivation and initial expectations of coming to study here. The participants were also asked what

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improvements should be made, since they have already experienced the study life in Centria.

The questions targeted to the current students focused on their expectations for the outcome of the IM studies, whereas to the graduated students the questions were aimed to know their life status as well as their level of satisfaction towards it. Since the purpose of this thesis work was to help create a better future for IM students, it is of critical importance to compare their expectations with the reality and find the differences. By doing that it is then possible to define problems and offer solutions.

After collecting the responses, the data was sorted and corresponding charts were made to give a more direct and clear view of the statistics. Explanations and interpretations of these charts can be found in chapter 6 and 7.

The number of graduated IM students who took part in the study was smaller than the number of current students. Among those graduates, there was only a limited number of them whom can still be reached, and not all of those whom were reached responded to the survey. To help the possible lack of information from the survey results, as well as to take a deeper look into the previous IM students' post graduate life, qualitative methods were taken into consideration.

Trying to understand with more depth and sensitivity people's subjective understandings while acting in their social situations is the main goal for qualitative research. (Nadir 2005, 16.)

Previous studies have also pointed out the importance of combining quantitative and qualitative methods. Neither one of them is sufficient to capture the details of situations, but integrating them helps to build well-validated and substantiated findings (Shumilova, Cai & Pekkola 2010).

Open-ended interviews with three of our graduated students were conducted. Open-ended interview is a common type of qualitative research methods (Nadir 2005, 15). In this kind of an interview, although the questions can be scripted, the interviewer usually does not know what the contents of the respond will be (Thibodeaux 2015). Due to time schedule conflicts, it was not possible to have a

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face to face conversation with the participants via online video calls. The questions were written in a Microsoft Word file which was later sent to them on the Internet. In order to achieve the purpose of the interview, the participants were told to answer the questions with freewill but specified statements. The result turned out to be helpful as some useful thoughts were gathered to compensate the limitations of the surveys. The interviews are directly quoted to this thesis in chapter 5.4, with minor changes in spelling, word formats, etc.

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### **3 PERSONAL DEVELOPMENT**

This chapter takes a closer look at one's actions that influence life, what can be expected from decisions, and how they shape people. Guidelines to choose the right institution is described in the second subchapter, and what can be expected after graduation is the topic for the next one.

#### **3.1 Choices that influence one's life**

On a daily basis some situations or problems are met, either smaller or bigger ones, that need to be solved. Depending on the nature of the problem, help is sought in family, friends, experts, or even random people. The complexity of the matter to be solved, varies from very simple, such as choosing a type of ham in a shop, to very complicated, for example accepting one job offer of two good options. Life consist of choices.

The decision making process involves many factors, and the outcome of one's actions quite often is unknown. People being afraid of what may happen, may decide in rush, or on the contrary, may hesitate to answer. Having enough time to consider all options, and then make a good decision should be one's basis.

From time to time, everyone needs to make a choice among not so many possibilities. Such situations bring the feeling of uncertainty, especially if it is a lifestyle decision. Thus, how to be assured that the right action has been taken? Hopefully, humans have a free will. If there shows up a problem, the best possible solution comes to one's head. However, the results are not always as expected. That is good in a way, as wrong decisions also shape personalities, and what is important, make people more experienced. Next time, it is known what the right answer should be, or at least what consequences one situation may bring.

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Good decision making is easier for some than for others. When making a choice, a few aspects should always be considered, depending on the nature of a problem. Here is a small guidance to help:

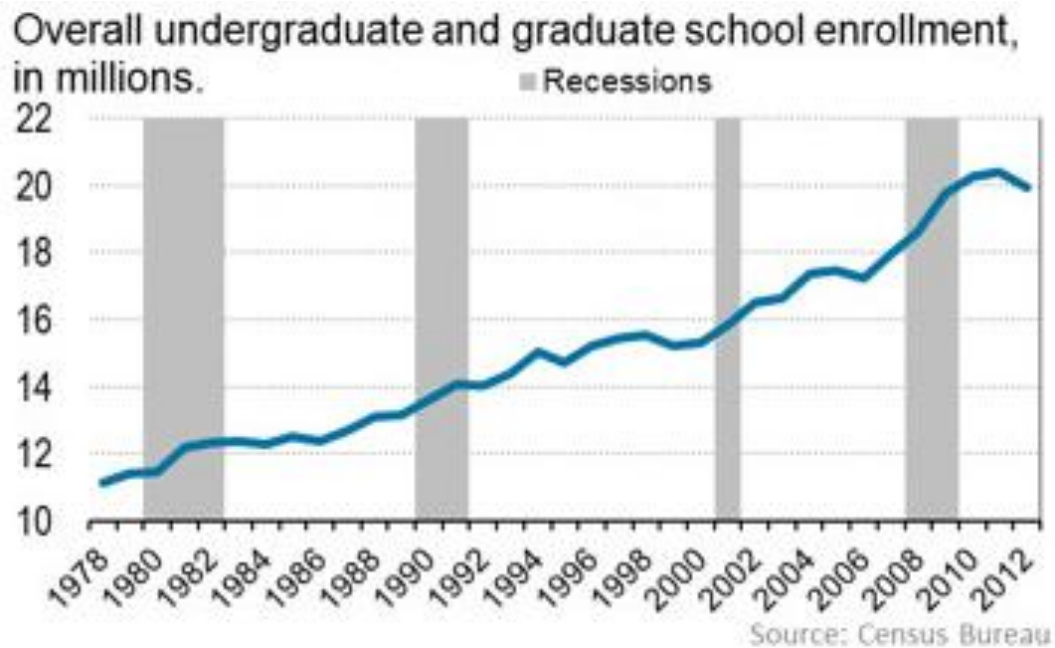
- Think of what is important and valuable to you.
- Remember to be focused on your future. Some of the actions have their effects later, not necessarily straight after a choice is made.
- Consider different alternatives and scenarios. At first glance you may not see, if you are focused enough you may notice a different, more beneficial solution.
- Think of the impact of the decision, how it may influence your life.
- Sometimes it is good to rely on your intuition.

(James Van Praagh 2013)

### **3.2 Right educational institution**

In everybody's life, there comes a time to make two very important choices, one is choosing a partner, and the second one that needs to be focused on, based on the nature of the thesis, is answering the question "What do I want to do in the future?" and taking appropriate actions.

Shaping one's life happens in youth. Children go to schools to get knowledge, and that is the time of developing hobbies, interests, and often based on them, a specific path that is followed is chosen. Some people are better in physics, and decide to work in that area, whereas some prefer history and learn about it, etc. However, there are different ways for people to make a living. There are entrepreneurs who did not finish any studies, and there are politicians who did not complete high schools. Being a writer not necessarily demands to complete any university.



GRAPH 2. Overall number of school enrollment. (adapted from Portlock 2013)

Looking at the statistics, it is clearly seen that from the seventies, the number of students has started increasing. There have been four recessions since, yet the tendency is increasing. Higher salaries, better access to tertiary education, and the demand for specialists caused more and more people to consider studying. Based on the forecast, the number of students is about to greatly increase by 2025. (Geoff Maslen 2012)

People hoping to have a good future, i.e. a good job with a high salary, seek for tertiary education. Being well educated in one area allows them to get a specific type of a job. Unfortunately, the increased number of students causes that in one field there are more specialists, and at the end not all of them get their dream job. The ones who did not get the possibility to work in their area, start doubting their life choices. It is a significant problem, each year one degree program attracts more young people than others. That is why choosing a tertiary education program is quite a challenge.

There are hundreds of universities all over the world, and it is up to a young person to apply to the right one. Selecting an educational institution, whether it is a polytechnic, university or university of applied sciences, is a process that needs

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attention. Usually people consider a degree program based on their interests, but a little research is always good. Nowadays, it is much easier to choose a place to study, as the information is easily available, either on the Internet or at educational fairs. Thus, reading about studies can make up one's mind. Students may find out that the university they wanted to study at, is actually not as good as they expected.

On the Internet, there are many reviews and general opinions about certain degree programs, and it is worth reading them. The schools vary, and running Mechatronics at one polytechnic may be quite different than at another. Based on that, a student may decide to study in a different city located even a thousand kilometers away. It is good to find out whether there is a possibility to continue education at certain a place, some people prefer to be Masters in one field, and the opportunity to get such title at one institution may be very beneficial.

It is important to have a plan for own future, for some people getting a higher education title may not be the main goal. Hopefully there are alternatives such as vocational schools or post-secondary school. There one can learn to be a chef, welder, jeweler, etc.

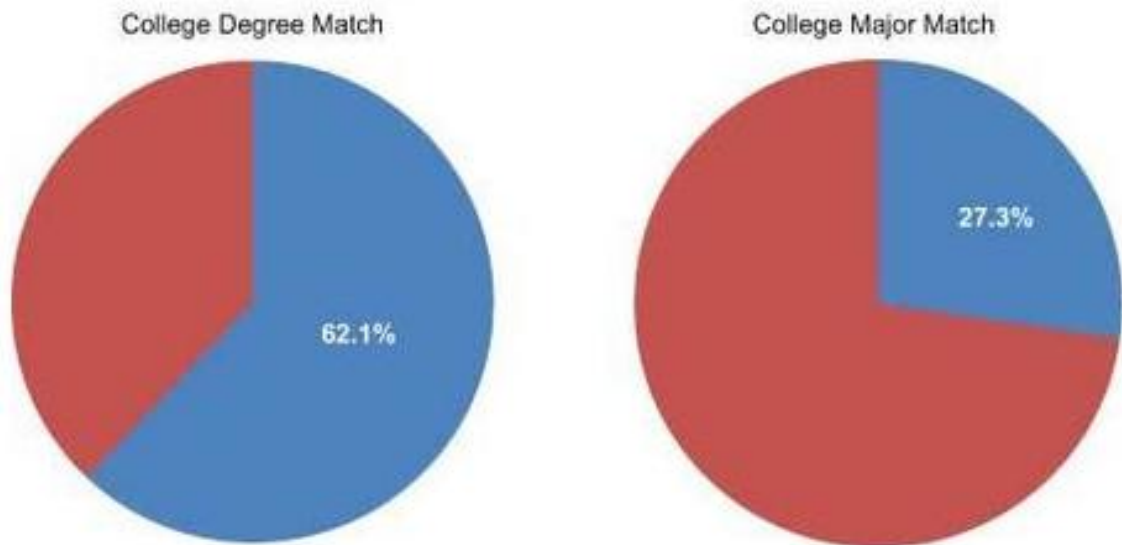
Many people perceive vocational schools as bad, and for people who are not smart. Students do not choose such schools because of that, and it may be a great mistake. Learning a certain profession may be a gold mine, since there is a demand for some of them.

### **3.3 Post education life**

After graduation, it is time to become an "adult". This is the time to think about one's family, and career. For a young person entering a job market, the knowledge gained over all the years spent on education, is the base to get a job. First of all, people try to find a job in their own field. However the statistics is not promising for fresh post-graduates.

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### Share of College Graduates Working in a Job Requiring a College Degree or Related to Their College Major



GRAPH 3. Work related with education. (adapted from Plumer 2013)

The first graph shows the number of people with jobs requiring a higher education, and the second one shows the number of people with a job closely related to their college major. The truth, unfortunate for many, is that there are jobs that nobody wants but somebody needs to do. If everybody does what he/she wants, nobody would collect trashes every day, work in production lines, clean cities, etc. This is how economics works. Perhaps someday it will be changed if technology allows it.

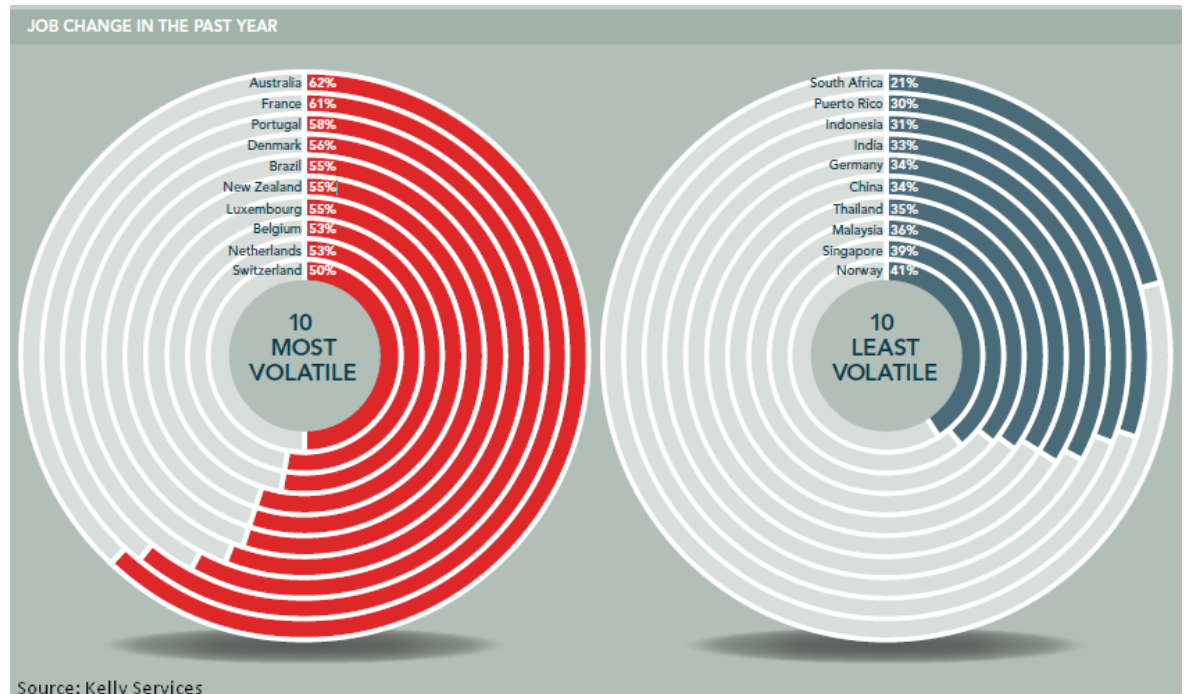
Yet everyone has a chance to conduct one's own life, and it all depends on one's actions. Working hard and never giving up may be rewarded one day with a good position, and general satisfaction. Good educational background gives better chances.

Each year there are degree programs that attract more students than others, causing a certain job market to be saturated with people seeking for the same job. Many of them decide in such a situation to either change their point of interest and find a related position in a company or work in a totally different field. That happens to many post graduates with no professional background.

In order to apply one's knowledge practically, many post graduates go abroad, seeking either for a job or higher salaries. For example in Poland, there are many really good engineers, but they prefer to go to Germany to have better work conditions. Job market is also influenced by the government, creating possibilities and better conditions is what should be done to attract more people.

### 3.4 Job satisfaction

Being satisfied with a job is a repeating topic in the media. In some countries, hearing about bad treatment of employees, absurd work conditions or a salary inadequate to job, happens on a daily basis. Unfortunately, as mentioned already, people sometimes are forced to make a living by working in companies that do not treat workers well. It is usually caused by the lack of demanded positions, and a great number of applicants. Not having one's dream job does not necessarily means being unhappy.



Graph 4. Employee contentment. (adapted from Harjani 2013)

The graph 4 shows the willingness of 120 000 respondents to change their job if a better possibility appears. In fact, almost half of the respondent have already

changed their employers. A certain pattern can be noticed here, as people are mostly dissatisfied in highly developed countries. Strong economics does not necessarily mean that people are more satisfied with their current status. If the standards of living increase people get used to them, and want to earn more to lead a more comfortable life. In countries with poor economics, life conditions are worse. It often comes with unemployment, so people accept any job they can and are happy that they can earn something.

Changing jobs is also a concern of immigrants. They decide to move to another country seeking for a better future. Usually, at the beginning they get not so demanding a job, but as time goes by, they get more experience and are more assimilated with that specific country, and finally decide to try to get a good position in a company. This of course results in what can be seen in the graphs.

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## **4 GENERAL STATISTICS OF FOREIGN STUDENTS IN FINLAND**

When it comes to studying abroad, few would think of Finland as their destination. It is not because Finland is not good for studying or living, in fact on the contrary, it is one of the best in the world. However, Finland as a nation is too subtle on the big stage, leading to the fact that people living in different parts of the world know Finland by the name they have heard of occasionally. Based on that fact, naturally, only a limited number of young students would have the courage to move to this land of unknown for months, if not for years.

### **4.1 The number of students coming to Finland**

By the year of 2013, the number of foreign degree students in Finnish higher education, that is, in universities and University of Applied Sciences (later referred in this thesis as UAS) together, reached 19,886 (Statistics Finland 2014.). Additionally, 9,739 exchange students from all over the world came to Finland to study for more than three months in 2013 (CIMO 2014.). In comparison, the number of Chinese students alone in US universities in 2013 was almost 275,000 (Lorin 2014.). This might be an unfair competition given the fact that US is almost 30 times bigger than Finland and people still have not got over the big “American Dream”, but if viewed from the angle of education system, Finland would deserve a better performance than this. In the year 2014, Finland ranked 5<sup>th</sup> place in the world in education whereas the US ranked 14<sup>th</sup>, and back in the year 2012, Finland was No.1 in the world (adapted from Lepi 2014.).

## 4.2 The main countries the students come from

Who are the people willing to discover something new, leaving their homes behind and search for their own paths to the future in one of the Scandinavian countries? Statistics shows that in the year of 2013, 2,816 students from Russia came to Finland as international degree students, making Russia the No.1 students exporting country to Finland of the year. Not so far behind, China delivered 2,147 international degree students. All in all, Finland seems to be particularly attractive to the people of Far East since Vietnam and Nepal took the 3<sup>rd</sup> and 4<sup>th</sup> place on the list. The beauty of Finland is yet to be explored by its fellow Europeans. (adapted from Statistics Finland 2014.)

## 4.3 Degree programs

The international student mobility concerning field of study is as shown in the tables below:

TABLE 1. Student mobility by field of study, universities in 2012 (adapted from Garam 2013.)

Biggest fields of incoming mobility	Students	Smallest fields of incoming mobility	Students
Technology and Engineering	1299	Drama and Dance	6
Economics and Business	1202	Theology	11
Humanities	777	Dentistry	16
Most active fields of incoming mobility	Share of incoming students relative to newly-enrolled students, %	Most passive fields of incoming mobility	Share of incoming students relative to newly-enrolled students, %
Fine Arts	56.5	Theology	3.9
Psychology	51.8	Drama and Dance	9.8
Law	50.1	Health Science	12.7

TABLE 2. Student mobility by field of study, UAS in 2012 (adapted from Garam 2013.)

Biggest fields of incoming mobility	Students	Smallest fields of incoming mobility	Students
Social Sciences, Business and Administration	1472	Humanities and Education	36
Technology, Communication and Transport	796	Natural Resources and the Environment	103
Social Services, Health and Sport	596	Natural Sciences	108
Most active fields of incoming mobility	Share of incoming students relative to newly-enrolled students, %	Most passive fields of incoming mobility	Share of incoming students relative to newly-enrolled students, %
Social Sciences, Business and Administration	20.8	Social Services, Health and Sport	6.3
Tourism, Catering and Domestic Services	15.1	Humanities and Education	7.9
Culture	14.9	Natural Sciences	8.1

In the tables, it can be seen that in both universities and UASs, Technology and Business are the most selected fields of study for incoming international degree students. This is caused by the fact that Finland has been a strong economy in the past few decades, and the technological advance of this country was brought to notice to the rest of the world.

#### 4.4 International students working in Finland

What happens after the international degree students graduate from their educations in Finland? Do they find a job? Do they continue their studies? The key question here is the location. Finland had the charm to attract many international students. Even the ones who came from different nations, the Finnish government has guaranteed tuition-free education system. However, if the foreign students only want to take advantage of this system, come to Finland to study for free and then go back to contribute to their own countries with the knowledge they

gained in Finland, is it beneficial for the Finnish government to continue offering free education to foreign students?

Fortunately, at the moment, such problem seems to be unlikely to occur, because according to statistics, 45.5% of foreign students who got a higher education degree from Finland in 2011 were employed in Finland by the year 2012. Moreover, about 5% of them continued their studies here and roughly 20% remained in Finland under other status. (CIMO 2014.) That is to say, over 70% of international students who graduated in 2011 were still living in Finland after a year. With this outcome, it is safe for us to say that most of the foreign students did not come to Finland to take the advantage of its free education, but had truly planned to return the favor. A more detailed table of statistics can be seen on the next page:

TABLE 3. The situation in 2012 of international students who completed a higher education degree in Finland in 2011 (from CIMO 2014.)

	Degrees 2011, number	Not in Finland 2012, %	Employed in Finland 2012, %	Student in Finland 2012, %	In Finland, other 2012, %
University of applied sciences, Bachelor's degree	1036	25,9	49,4	7,3	17,4
Traditional university, Bachelor's degree	93	22,6	46,2	23,7	7,5
University of applied sciences, Master's degree	54	24,1	59,3	1,9	14,8
Traditional university, Master's degree	1006	35,7	41,8	3,5	19,0
Doctoral degree	236	41,1	36,9	0,8	21,2
Other (licentiate, specialisation in medicine)	19	10,5	78,9	0,0	5,3
Total	2444	31,1	45,5	5,6	17,9

The situation in 2012 of international students who completed a higher education degree in Finland in 2011, by education level.

	Degrees 2011, number	Not in Finland 2012, %	Employed in Finland 2012, %	Student in Finland 2012, %	In Finland, other 2012, %
Humanities and Education	142	38,7	43,7	7,0	10,6
Culture	168	37,5	32,7	4,8	25,0
Social Sciences, Business and Administration	670	31,2	41,5	6,4	20,9
Natural Sciences	294	33,3	48,6	6,5	11,6
Technology, Communications and Transport	724	31,1	42,8	6,4	19,8
Natural Resources and the Environment	66	39,4	36,4	3,0	21,2
Social Services, Health and Sports	278	16,5	68,0	1,8	13,7
Tourism, Catering and Domestic Services	100	36,0	50,0	3,0	11,0
Other	2	100,0	0,0	0,0	0,0
Total	2444	31,1	45,5	5,6	17,9

The situation in 2012 of international students who completed a higher education degree in Finland in 2011, by education field.

	Degrees 2011, number	Not in Finland 2012, %	Employed in Finland 2012, %	Student in Finland 2012, %	In Finland, other 2012, %
Europe, total	1016	38,8	43,1	4,7	13,4
EU/EEA countries	615	36,7	42,3	5,7	15,3
Non-EU/EEA countries	401	41,9	44,4	3,2	10,5
Northern America	72	47,2	33,3	4,2	15,3
Latin American and the Caribbean countries	72	33,3	50,0	2,8	13,9
Africa	395	10,4	63,8	7,1	18,7
Asia	867	29,6	40,8	6,3	23,2
Oceania	15	40,0	40,0	0,0	20,0
Other or unknown	7	57,1	-	-	-
Total	2444	31,1	45,5	5,6	17,9

The situation in 2012 of international students who completed a higher education degree in Finland in 2011, by nationality.

In Table 3 it can be seen, that a Master's Degree from an UAS guarantees a better chance to find a job in Finland, whereas surprisingly, a Doctoral degree gives the lowest chance. If one graduated from social services, health and sports, one has at least 18% better a chance to find a job in Finland than any others. Finally, people from Africa are more likely to be employed in Finland after studies because

of the strong will to stay in Europe caused by the general low life standard in their home continent.

## 5 CENTRIA - YLIVIESKA

In this chapter, the focus is on a narrower area which is Centria and Ylivieska, the city where the degree program in Industrial Management itself is arranged. Firstly, presented are all the degree programs taught in English. IM is described in another chapter since the thesis is about it; more details are given concerning new students coming to study, as well as information about the reasons to apply to the Ylivieska unit.

### 5.1 English Degree Programs at Centria

Centria offers a few degree programs taught in English. The main Centria campus is located in Kokkola, where most of the degree programs are taught. Below is the list containing all possibilities for new applicants from all around the world. One can find information such as the length of the studies, number of available spots, specialization options, etc.

#### 5.1.1 Environmental Chemistry and Technology

- Examination: Bachelor of Engineering
- Length and duration: 4 years, 240 credits, full-time studies
- Specialization option studies:
  - Environmental chemistry and technology
  - New and traditional fuel production
- Places 15
- Campus: Talonpojankatu 2, Kokkola  
(adapted from Centria 2015)

Thanks to that degree program, the students are provided with a wide knowledge in Chemical Engineering and Chemistry. One is prepared for life-cycle thinking and gets a comprehensive view on materials flows in different fields of society. Generally speaking, after the graduation the student knows how plants should be planned, and organized for the environment – the focus is on minimizing the

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impact of pollution, waste, in other words, preparing a plant to be eco-friendly.

The student may choose between two specialization options, becoming an expert in making renewable fuels, and refining oil or to be an expert in recycling, production of energy, cleaning of air, environmental management, process planning, and related. (Centria 2015)

### 5.1.2 Information Technology

- Examination: Bachelor of Engineering
- Length and duration: 4 years, 240 credits, full-time studies
- Specialization option studies:
  - Software engineering
  - Communication technologies
- Places 20
- Campus: Talonpojankatu 2, Kokkola  
(adapted from Centria 2015)

The students get familiar with professional and personal competences in software engineering and communication technology. The first specialization option, Software Engineering, gives a student a number of skills needed to create and develop high quality applications that are used for instance, in creating the embedded software in video cameras. The knowledge may be also used to create software to control different devices such as mobile phones, tablets, and so on. The second specialization, Communication Technologies, is about creating network connecting people, companies or devices.

IT engineers are the most important members in teams designing and developing IT-based products and services. There is a great demand for such people globally, that is why students who graduated may find it easier to get a job. (Centria 2015)

### 5.1.3 Business Management

- Examination: Bachelor of Business Administration
- Length and duration: 3,5 years, 210 credits, full-time studies
- Places 30
- Campus: Talonpojankatu 2, Kokkola  
(adapted from Centria 2015)

Degree program is about learning skills and qualifications needed to support SMEs in the internationalization process, and basically to be aware of the processes and connections in international markets. The degree program in Business Management prepares students to be effective in running an international business. The presence of students from different countries, and what is more, the presence of guest lecturers, gives even a wider view on international matters.

Throughout the studies, students go through processes of starting up a business to a fully operational international company. In order to be successful, the degree program focuses on entrepreneurship – students learn how to run a company – and international markets – students know how to behave in different environments. (Centria 2015)

### 5.1.4 Nursing

- Examination: Bachelor of Health Care
- Length and duration: 3,5 years, 210 credits, full-time studies
- Places 15
- Campus: Terveystie 1, Kokkola  
(adapted from Centria 2015)

The degree program for students who exceptionally care for others and want to improve their skill so they can help even more and do it for living. The candidates should be diligent and caring. It is all about human being, so ensuring safety is important.

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The students gain interpersonal, communication and management skills, as well as decision-making ability. Nursing also includes languages, IT, welfare entrepreneurship and other basics. At the end of the studies, nurses have strengthened knowledge and skills in different areas. (Centria 2015)

### **5.1.5 International Business**

- Qualification: Bachelor of Business Administration
- Specialization options of studies:
  - Business
  - Fur design & marketing
- Length and duration: 3,5 years, 210 credits, part-time studies
- Places 40
- Campus: Campus Allegro, Pietrarsaari  
(adapted from Centria 2015)

The graduates are great experts in sales and marketing, and have the knowledge in terms of entrepreneurship. The main objective of the program is to train students so they get necessary skills to operate in an international business.

The possibility to choose among the specializations gives the students an option of becoming experts in marketing, global business, tourism and event management – Business – or becoming experts in designing and marketing – Fur design & marketing. (Centria 2015)

### **5.2 Industrial Management**

- Examination: Bachelor of Engineering
- Length and duration: 4 years, 240 credits, full-time studies
- Specialization option studies:
  - Supply chain management
  - Global marketing and management
- Places 25
- Campus: Ylivieska  
(adapted from Centria 2015)

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The program prepares students to become qualified experts for international companies or general managers for small and start-up companies. The basic knowledge gives young managers a fundamental concept of an international engineering; while the professional studies teach how to handle a number of different tasks in an international industrial company.

The examples of the courses included in the curriculum, give a hint of what a student is prepared for after the studies: Innovation Management, Management Accounting, Automation Technology Applications, Risk Management, Leadership and Human Resource Development, International Marketing Management & CRM, and so on. (Centria 2015)

### **5.2.1 The number of students coming and staying**

Each year, there are approximately 25 to 27 new students coming to Centria Ylivieska Unit. Due to different reasons, around 10 students leave after a certain period of time. To sum up, each year at Centria University, there are around 15 students who pursue their studies, and graduate at the end.

### **5.2.2 The main countries the students come from**

Based on the statistics and personal analysis, the main countries the students come from and study at Centria University are the following:

- Russia
- Poland
- China

There are also students in larger numbers from certain countries for instance, Hungary or Bangladesh, but the number is still smaller comparing to the three mentioned before countries. By a simple analysis, one can notice that new applicants, in terms of Europe, come rather from the eastern part.

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### **5.2.3 Reasons to come and study in Ylivieska**

#### **Exchange students**

Each year, at Centria University, exchange students come in number of approximately five. Obviously, it varies, once only two came, but also happened that thirteen decided to visit Ylivieska. Unlike to regular students, the exchange ones usually come from the western part of Europe, most likely from The Netherlands, Spain or Germany.

Taking exchange students is also a way of promoting the university. Youngsters coming to Finland can experience the Finnish education, teaching methods, atmosphere and the culture itself. One case reveals that programs like Erasmus may positively influence one's mind, a student after the exchange program has decided to stay and study in Ylivieska.

#### **School trips**

Another way of promoting the Centria complex is to invite groups from high schools. Youngsters coming for a visit are about to determine their future, and visiting and promoting Centria may help them to decide.

The most common groups are obviously from Finnish high schools, due to the fact that at Ylivieska campus most degree programs are in Finnish. The successful promotion of Industrial Management abroad has brought students mostly from two countries, Poland and Russia.

#### **Family**

A topic worth mentioning is the family; by this term it is meant that some of the students (the number is small and might be even limited to one) deciding to study in Ylivieska thanks to a family member who studies or studied and recommended the university. The relative had not necessarily must have studied Industrial Management. From time to time, the university is visited by lecturers from different

countries. They do not only teach, but they are also parents who based on the experience and good feedback may want to send their kids to Finland,.

### **Marketing**

Last but not least, the most obvious way of getting new students is marketing, so promoting Centria in other countries, has the greatest impact. The most informative way of doing so is presenting the university at different fairs. This way, everything can be clearly explained, and the delegates sent by the school are also ready to answer all the questions that may come up.

Advertising is also done, but it focuses mostly on Finland only. Nevertheless, when students search for universities on their own, they might find one of Centria ads, either in newspapers or on the Internet.

## 6 ANALYSIS OF DATA COLLECTED FROM STUDENTS

In total 38 replies were received from the current students and 15 from the ones that had graduated (TABLE 4). To demonstrate the results of the surveys, the answers were converted into numeric data using the form of graphs. These graphs are presented in the following sub-chapters together with their analysis. However, the number of replies received was not as great as was anticipated. Therefore, to get a more detailed and credible opinion, we conducted an interview was conducted with three graduated students from Centria, one of whom is living and working in Finland, and two in Poland. Their responses are discussed in the last sub-chapter. The persons who were interviewed stay anonymous.

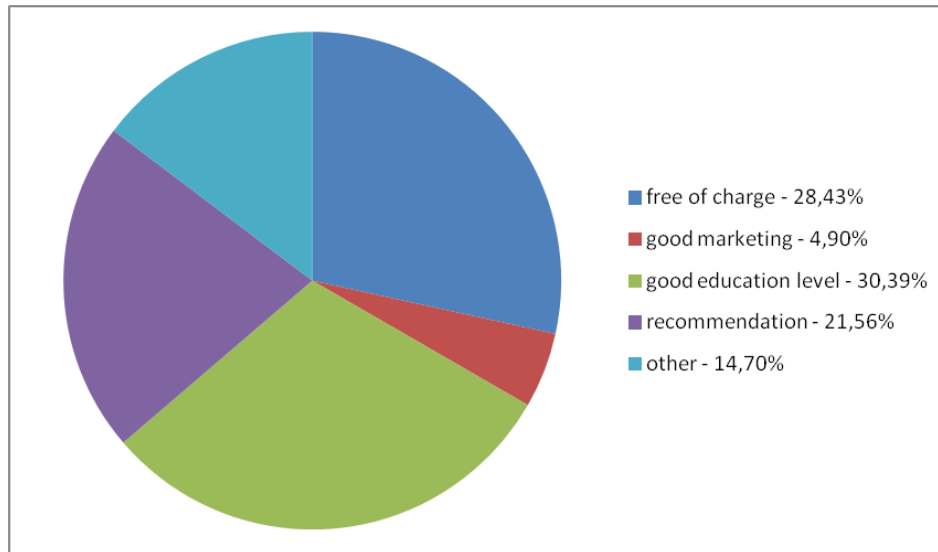
TABLE 4. Feedback from the surveys

	number in total	number of answers expected	number of answers received
current students	78	78	38
graduated students	40	25	15

### 6.1 The reasons behind choosing Finland and Industrial Management

In this chapter, as the title states, the focus is on discussing what were the incentives for the students who came to Finland and joined Industrial Management program at Centria UAS.

### 6.1.1 Finland



GRAPH 5. The reason of choosing Finland

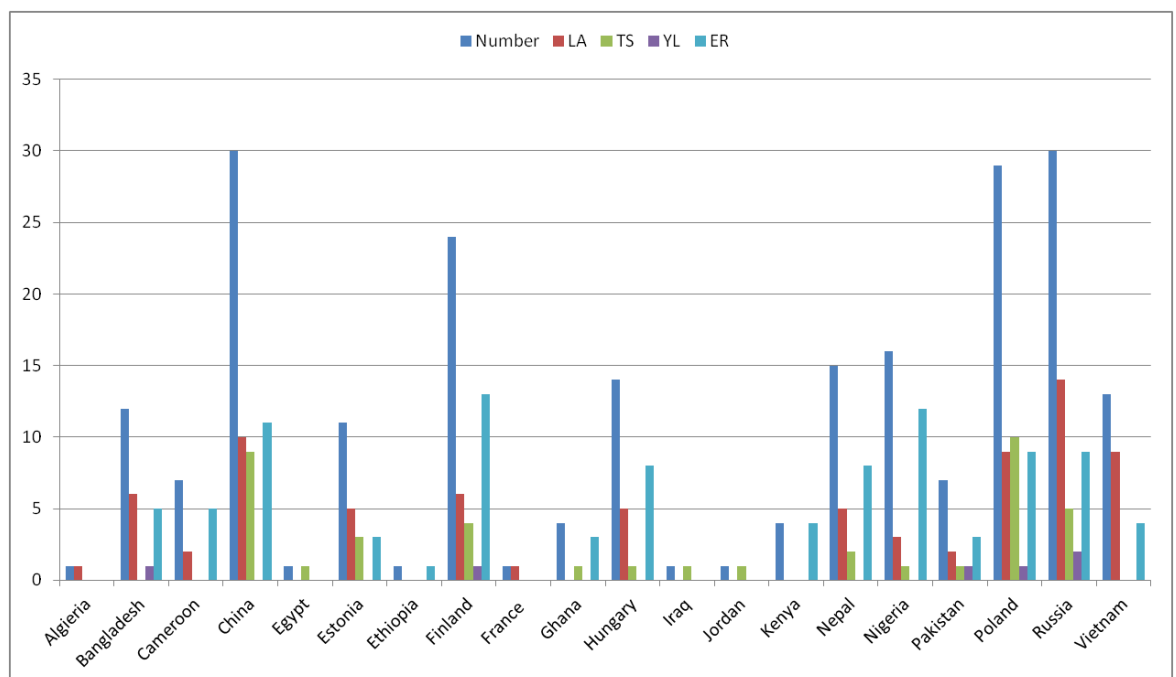
As it can be clearly seen in Graph 5, most of the students chose Finland because of the well reputed education level and/or the fact that studying is free of charge. Recommendation brings as well a fair number of students. However, only 4,9% of the students came to Finland because of the marketing. It suggests that the promotion of Finland as a destination of study should be strengthened by the government as well as the institutions.

The results of the survey also showed that almost 15% of the students were driven to Finland by factors other than those already mentioned. They can be concluded as the following three:

- Previous experience – part of the students had already been to Finland before they decided to study there, some to work, some to visit relatives. They enjoyed the time spent and therefore chose Finland as the place to study in.
- Culture – little is known to the world about the Finnish culture. It is the frozen land up in the North, where people live a calm and peaceful life. Such life style, along with many other fascinating cultural elements, brought many students to Finland for their studies.
- Just to go abroad and explore what is unknown.

## 6.1.2 Industrial Management

Industrial Management was chosen by the ones that are interested in this field of study as well as those who think that the program will grant them a better future. These two reasons were the most frequently given by the respondents. Other than these, recommendation from former students also brought new applicants to Ylivieska. This phenomenon shows positive feedback of the students' satisfaction of the faculty and learning outcome. If utilized properly, this fact could be of significant help in promoting Centria UAS internationally.



GRAPH 6. The student flow in IM (Industrial Management)

The columns present:

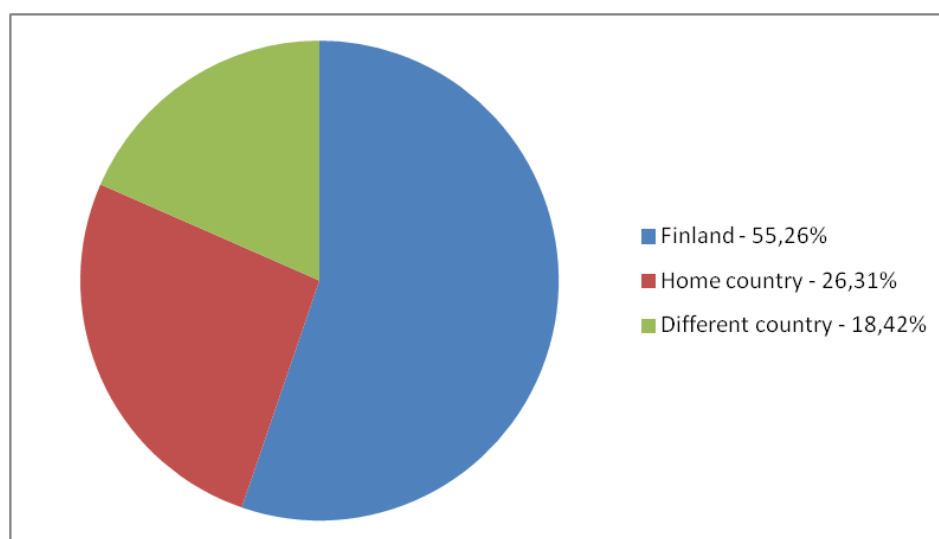
- Blue – the number of students who got admitted to IM
- Red (LA) – the number of students currently studying
- Green (TS) – the number of students who graduated
- Purple (YL) – the number of students who extended their studying process to more than 5 years
- Cyan (ER) – the number of students who either never showed up, or showed up and left after a certain period of time

Unfortunately, it does appear that a part of students did not choose IM for what the degree program itself provides, but to use it as a “window” opportunity to come to Finland for it is rather easy to get admitted into this program. The behavior pattern of this group is that they would search for a different program or a workplace when studying IM, and just leave when succeeded. The approximate number can be found in graph 6 (mind that the number is given together with the students who got admitted but did not come). The next two reasons concern most likely Finns living nearby Ylivieska. When they look for higher education program in English, IM is the only option in the area. Perhaps, more study options would attract a greater number of potential applications from local Finns.

## 6.2 Expectations vs. experience

The following part is an illustrated and written comparison between the student’s vision of the future and the actual future they met. Their plans for the next years are presented, as well as the reality for people who already graduated. The text below presents whether they managed and succeeded.

### 6.2.1 Current students’ plans after graduation

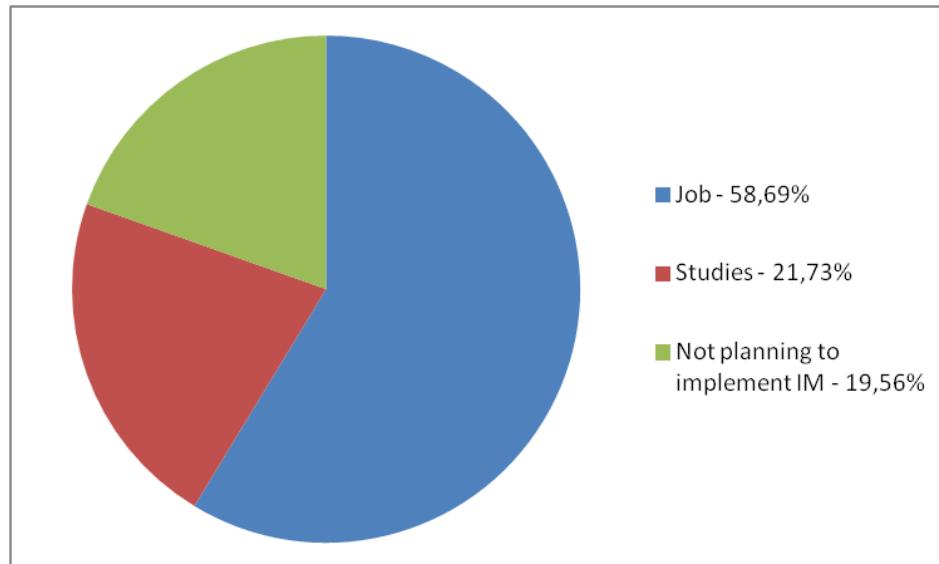


GRAPH 7. The country the students want to stay in

Graph 7 shows that a total of 55.26% of the respondents hope to stay in Finland after graduation. The main reason is, despite the fact that Finnish economy has been experiencing some struggles from the worldwide economic crisis, that it remains one of the strongest in Europe, and therefore provides relatively better living and working conditions than the majority of the countries where the students come from. It explains why Finland is an ideal place for their further development.

Altogether 26.31% of the students aim to settle themselves back in their home country after graduation. This could be the result of patriotism and the attachment to one's home town. Moreover, it is not to be forgotten that it is always easier to find a job in one's own country, where there is no language barrier and cultural differences.

Apart from the stated above, the rest of the respondents want to leave Finland, yet they do not wish to return to their home country. They could be seeking for a better future, pursuing their dreams, or simply looking for a warmer place to stay.



GRAPH 8. Students' plans to implement IM

As for the plans of implementing the knowledge of Industrial Management to their future, 58.69% of the respondents would like to devote their career into the field of IM, and of those approximately 25% consider to establish a new business as an

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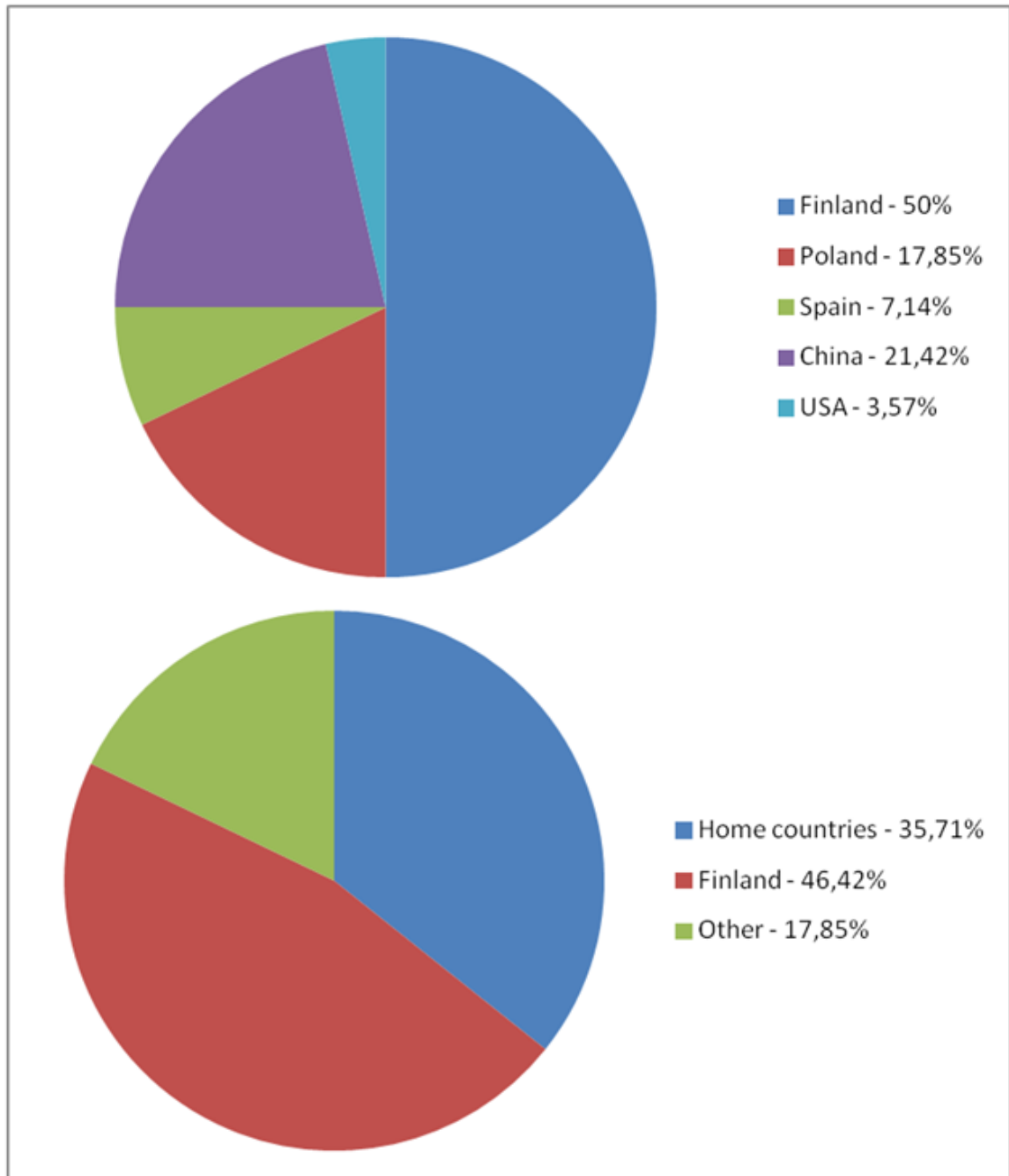
entrepreneur. The rest are happy with a managerial position in a company, such as Marketing manager, Production line manager, Purchasing manager, etc.

Other than building a career, 21.73% of the respondents plan to broaden their knowledge by doing a master's degree in a related field on the basis of their studies of IM. The selected fields are, for instance Marketing, System Design, Mechanical Engineering and Production Engineering.

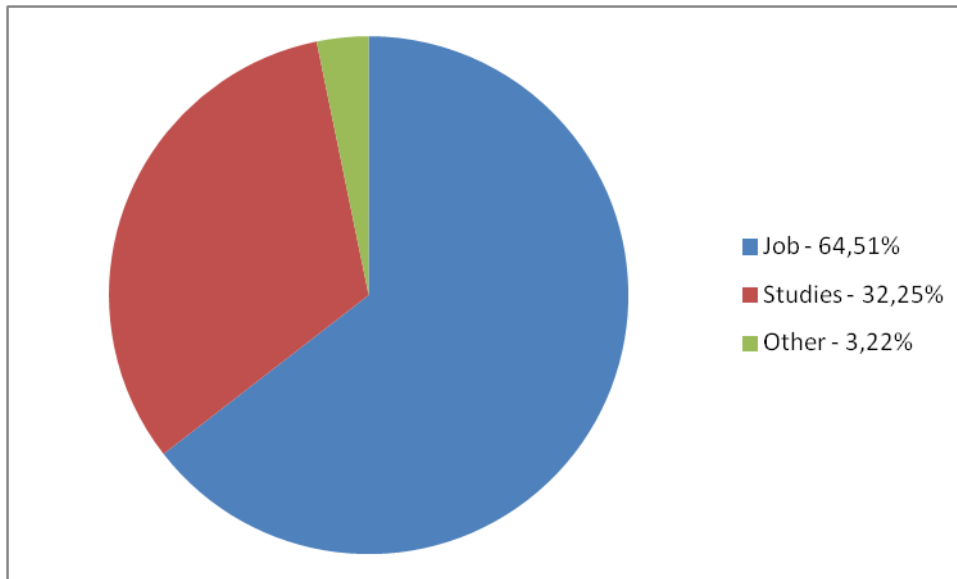
Nearly 20% of the respondents showed no intentions of implementing IM in any way. These replies are likely from the people mentioned previously, who use IM as a "window" to proceed to the field of study they are really interested in.

### **6.2.2 The graduates' status at present**

Now that the expectations of the students have been discussed, it is time to see the outcome of their actions. Graphs 9 and 10 present the current status of the graduates. In the first pie chart in graph 9, it can be seen that half of the respondents found an opportunity to stay in Finland. Polish and Chinese students have the tendency to return to their home countries after graduation, hence the high percentage shown. Some of the students decided to try their luck in different countries, and it seems that 17.85% of the respondents succeeded in that matter according to the second pie chart in graph 9. Examples of these countries are Spain and the USA as it can be seen in the first pie chart.

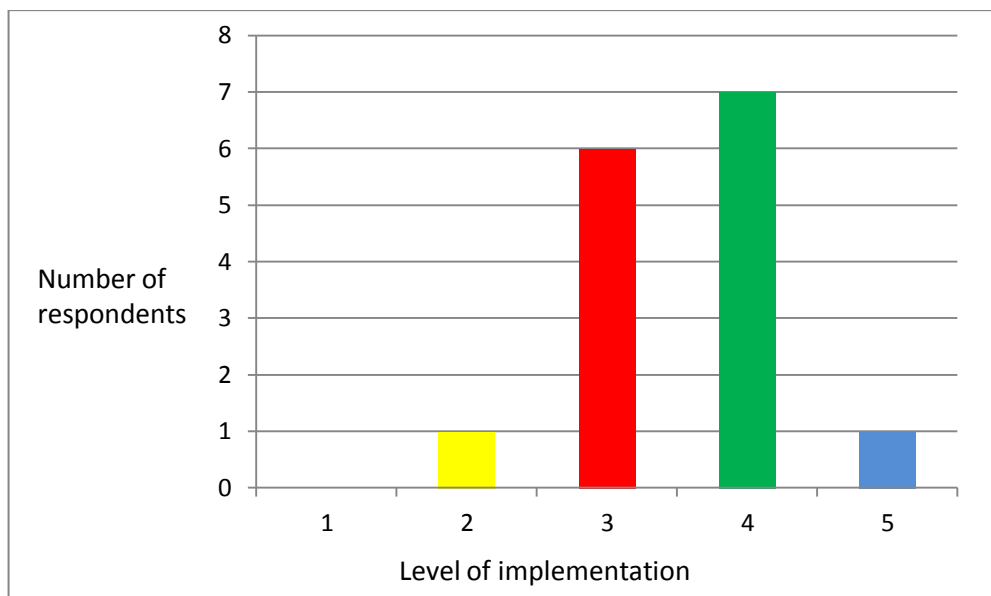


GRAPH 9. The countries the graduates live in



GRAPH 10. The current occupation of graduated students

Based on the data in graph 10, two thirds of the respondents work in different fields, Industrial Management related (SAP Basis Consultant, Buyer in Purchasing Department, Engineering Manager, etc.) or not (Hospitality, International Relations Office, etc.). On the other hand, 32.25% of the respondents decided to improve their education level before entering in the working life, by doing a master's degree in fields such as Enterprise Management, Corporate Management and Quality Management, so that they would be better prepared for the upcoming future.



GRAPH 11. The level of implementation of IM in the graduated students' current life

When asked to what extent they think that the studies in IM have helped in their current life, most respondents gave positive feedback as it can be seen in graph 11. The choice was between 1 (very small or no contribution), and 5 (IM knowledge greatly used). The average score of 3.53 demonstrates that the knowledge gained from the degree program has contributed well in the graduates' life.

### **6.3 Interviews**

As it was mentioned before, an interview was conducted with three graduated students of IM concerning their personal experiences on finding a solution for their future, as well as their opinions toward the IM program. To present a result covering all possible perspectives of a graduated student, three interviewees with different nationalities and different statuses were selected. One of the interviewees stayed in Finland after graduation, one went back to the home country, and one resided in a third country. The interviewees remain anonymous in this thesis.

#### **1 Person A – living and working in Finland.**

**Q1. Are you satisfied with your choice to stay in Finland (after graduation)?**

**Did you meet any problems during your stay?**

Not quite. The natural environment of Finland is delightful, but only in the summer-to-fall time, in the winter the weather can be very depressing, as well as the people here in Finland, they are sometimes too quiet, almost boring. If I have to say there is any problem I have met, it is mainly when I deal with the people. Many times I tried to reach out, but got no response. Or better yet, one day they chat happily with you, the next day they look at you like a stranger. I like the social care system in Finland, that makes living here very easy, however sometimes, frustrations are inevitable.

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**Q2. How do you think what you have learned from IM has helped you in your career?**

I would not say that IM has helped me significantly in my career. My current work relies more on my studies prior to IM. Of course I can't say that it's completely unrelated, IM has, at a certain level, deepened my knowledge regarding what I am doing now, but like I said, not significantly. In my opinion, the practical knowledge one gets while actually working in the front line is what really matters to the quality of one's outcome from the work. What we learn in school from the books is merely the entrance ticket, a career should never be depending on that.

**Q3. Do you think it is worth keeping IM?**

Why not? After all I think people do learn from it. The program focuses on enabling the students to handle management positions in companies. It has a very specific purpose and yet covers an incredibly broad range of knowledge. However, I must suggest the replacement of a few teachers we currently have. It is a common agreement among the students that some of our teachers really do not know what they are doing. If we want IM to benefit the students as well as Finland, the school needs to pay more attentions on the personnel selection.

**2 Person B – living and working in Poland as a home country.**

**Q1. What could have been done to make you stay in Finland? From government, school, and student point of view?**

What made me leave Finland was the current situation with work. Quite many big companies were having hard time and either going bankrupt or letting a lot of people go i.e. Nokia. The market was full with people in our profession and it is always more preferable for Finnish companies to hire Finns first.

Government couldn't do much for this situation.

School, not so directly, but we always missed the cooperation with local companies in form of projects, student practices etc. Those could have helped us to build a network that would make it easier for us to get a job later on. For Finns it is a bit easier as they will always have some network through parents, friends, or own practices. Foreign student might have harder problem fitting exactly in and it could be helpful to widen the local cooperation with companies. Such system is strong in i.e. Germany where students spend quite a lot of their time during studies working in the industry. That either gives them work directly either on or helps to build necessary experience. I got my current work due to earlier students practices in the company AND I got these thanks to network and connections I had in Poland.

**Q2. How did Industrial Management help you? Examples?**

SAP course was very helpful. More practical view on processes in company, not only theory helped a lot as well. Finnish language sometimes helps me at work but I am on a specific project where I get a chance to use it. IM gave me a good overview on the whole idea how industry works. After we finish the degree we are more or less jacks of all trades. Depending on preferences and skills we might work in almost all departments in a company. We are not strictly engineers but we would manage there as well. We were prepared for different areas and that makes our work easier as we understand more and see the big picture.

**Q3. Do you think it is worth keeping IM?**

Surely it is. It is a good degree for students that could be very good if some areas were improved. Like the earlier mentioned students practices and involvement with local/Finnish companies. There were some of these but not enough. Some lectures could be improved as well - the style they are in, but the same goes for student behavior. Not all of understood that the culture is different and that it is us who should adjust.

**3 Person C – living and working in Poland as a foreign country.**

**Q1. What could have been done to make you stay in Finland? From government, school, and student point of view?**

I would definitely have stayed in Finland if I had a chance of finding a job related to my education. I like the country and I hope to come back, but since neither me nor my husband were able to find a suitable position for over a year, it seems we have to gain experience somewhere else. Pity. Some programs of supporting employers to hire new graduates, or governmental programs of allocating jobs would be super cool.

**Q2. How did Industrial Management help you? Examples?**

Language, experience of studying abroad, overlook of engineering and management.

**Q3. Do you think it is worth keeping IM?**

Definitely. But changes are to be made as well. Maybe it should become more practical, like Finnish program? And definitely more Finnish language and integration not to international culture, but to

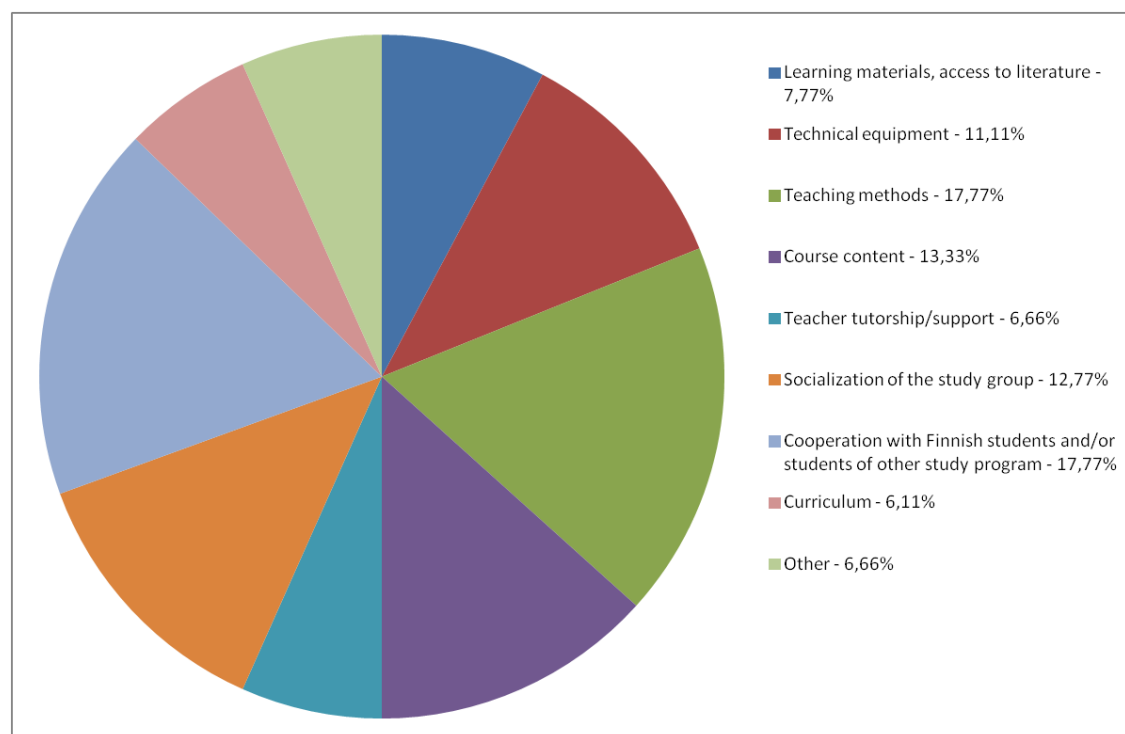
Finnish. Program is very isolated, barely any contact to Finnish students is made.

## 7 CONCLUSION

This chapter is divided into a few sub-chapters, the point is to get a clearer view of things that need to be changed or enhanced, in order to make students' future more fruitful. Moreover and important question of whether it is worth maintaining Industrial Management as a degree program will be discussed.

### 7.1 Changes to be made in Centria

The content of the following graph was abstracted from the surveys conducted to both, current IM students and graduated IM students.



GRAPH 12. The aspects from which IM could be improved

The outcome given by the respondents clearly states that what students want to be changed or improved the most are course related issues, this was chosen by 50% of the total respondents. Changes can be done by implementing

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improvements in the following areas: Learning materials, Technical equipment, Teaching methods and Course content.

Altogether 30,55% of the votes stand behind the interaction between study groups. It appears that foreign students would like to enhance socialization within their own group as well as with Finnish groups.

The remaining 20% of the votes, was equally distributed onto Teacher tutorship/support, Curriculum, and Other. Several suggestions were given in the “Other” option:

- Raising the bar to enter IM – as such it is too easy to get accepted to IM, this leads to the fact that many students use Centria merely as a “window”, and never intended to stay and complete the program. Therefore to improve the students’ quality as well as their determination towards IM, more serious administration process should be implemented;
- Raising the level of difficulty of the studies – it was claimed that the studies are not demanding enough, making them more difficult could motivate students to work harder;
- Possibility of doing Master at Centria – some of the respondents stated that they would be willing to do a Master’s degree at Centria if it was possible. Introducing this option could make bachelor students stay and continue studying, and could as well bring new students willing to get a higher education;
- More entrepreneurial education – self perception as an entrepreneur in the future, is the answer given by many, so the corresponding reaction could be introducing more courses related to running one’s own business, that would certainly be fruitful for those who actually become self employed;
- More projects in local companies – the surveyed students complained about a poor set of possibilities of working in local companies. Making new connections, or strengthening cooperation would positively affect students who are already eager to find themselves a job or doing projects in the mentioned companies. This would definitely develop their skills and self confidence;

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- More school rules – the “free will”, meaning a student’s willingness whether to participate a lecture or not, may sometimes be extraordinary bad. Hard-working students who see others not attending courses or not handing assignments, and what is more important, see teachers who do nothing about that, may lose their motivation and care less;
  - More professional studies – courses from different areas which are not much connected to each other caused the respondents to give as a suggestion to introduce more professional courses that are related to each other;
  - Better staff – unfortunately a part of the respondents perceive some of the lecturers as incompetent and not serious. However, this does not concern all of them, positive feedback was given as well;
  - Intensive Finnish course – in order to create a better possibility for students to stay and work in Finland, the mentioned course is vital. What is implemented at university is not enough for some;
  - Move IM to a bigger city – obviously it would take an effort to do this, however Industrial Management in a bigger city may attract more students. A simple fact is that a big city is seen as a place with many companies, many activities, and the university would be taken more seriously.

## **7.2 Actions to be taken by the authorities**

After discussing what Centria could do to improve the well-being of foreign degree students during and after studies as well as the quality of the program, it is time to think about what can be done on a larger scale, that is, by the Finnish government and employers, to create a more international-friendly nation of Finland.

The very foundation of the statement “improve life of foreign students” is the fact that there are foreign students residing in this country. Finland certainly has a fair amount of them, however, as it was discussed at the beginning of this thesis, not as much as it deserves. Therefore the first suggestion for the Finnish government is to promote living in Finland more extensively to the rest of the world. By

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organizing a campaign in countries where there is Finnish Embassy, finding Finnish schools to participate in promotional fairs overseas, life in Finland can be more than just a phrase to people so far away, and it can and will drive more foreign talents to Finland.

When one comes to a brand new environment, it is always the local people who have the most influence on a person's opinion towards this new environment; and it is only through the communication with the natives that one can understand and therefore embrace the new life in a new culture. Unfortunately, a common idea is that Finns are not good at communications at all. Often some Finnish behaviors can almost be misinterpreted as discrimination against a foreigner, especially when it comes to Finnish people living in a smaller town, with very few opportunities to meet a foreigner. To avoid misunderstandings, it is up to the government to support in large-scaled events on bringing the locals and the foreigners together, create a circumstance so that they get to know each other good enough to change their opinions about having each other around.

To comprehend the value of foreign minds in the domestic society is known to be a key element to the success of many great nations. The world has become a smaller place and the term "Autarky" does not really exist anymore. "Made in China" used to be something only existing in China, but today, good luck trying to name one country that doesn't have any product with that information. The problem with Finnish employers is that they often fail to see the options they have around them. It is not that they would not have business with foreign customers or buyers, but they just seem to believe that simply Finnish people themselves can already manage to get the most out of the international trades. The fact is they cannot. To use someone who knows the culture and language as well as one's business partners to do business with them is a significant advantage against one's competitors who do not. That being said, it is highly recommendable for the Finnish government to push this idea to the local employers, and for the employers to understand and except it.

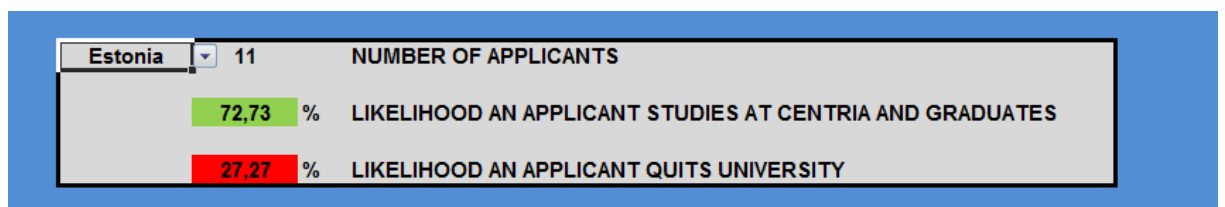
### 7.3 Maintaining Industrial Management

The question of whether the IM degree program is worth running comes together with our project. Do the students of IM have a future? The answer is explicit: not if everything remains as it is now. Nevertheless, looking at the interviewees' responses or the replies of the survey participants, it is likely that if changes are made, IM will prove to be more than capable of bringing some talented and well-educated foreign forces to help build a better Finland.

### 7.4 Forecasting

Finally, we would like to present a simple excel-based program. It is the juxtaposition of applications received by Centria. Graph 6 given in the chapter 6, basically contains all of the data needed to make the program. It shows the probability of both, the likelihood of studying at Centria and graduating, and the likelihood of quitting university studies.

As it was mentioned, the program is based on applications, and depending on the number of applications, the probability varies. One should note that some of the students come from countries, where the number of applicants is one; in this situation, if the person has already graduated, the likelihood of graduating for another applicant from the same country equals 100%. That is why the number of applications is additionally given.



GRAPH 13. The excel based program.

Now, there is the a question, why? The purpose of the program lies in marketing. Utilizing the date gained from the excel, gives a hint for Centria, what country to focus on when promoting the university. Obviously, this is a statistical

representation, and the reality may be totally different. The program should be updated each year, since there are new students coming.

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**The future of IM students - students**

1. Where are you from?

- Algeria
- Bangladesh
- Cameroon
- China
- Egypt
- Estonia
- Finland
- France
- Ghana
- Hungary
- Iraq
- Jordan
- Kenya
- Nepal
- Nigeria
- Pakistan
- Poland
- Russia
- Vietnam
- Other

2. Why did you choose Finland?

- Free of charge
- Good marketing
- Good education level
- Recommendation
- Other .....

3. Why did you choose Industrial Management as your field of study?

.....

4. Where are you planning to stay?

- Finland, why?  
.....
- Home country, what country? Why?  
.....
- Different country, what country? Why?  
.....

5. How are you planning to implement your knowledge of IM in the future life?

- Job? What kind of?  
.....
- Studies? Degree program?  
.....
- Other?  
.....
- I am not planning to implement IM anyhow

6. How do you think, IM could be improved?

- Learning materials, access to literature
- Technical equipment
- Teaching methods
- Course content
- Teacher tutorship/support
- Socialization of the study group
- Cooperation with Finnish students and/or students of other study program
- Curriculum
- Other – specify?

.....

**The future of IM students – graduates**

1. Where are you from?

- Algeria
- Bangladesh
- Cameroon
- China
- Egypt
- Estonia
- Finland
- France
- Ghana
- Hungary
- Iraq
- Jordan
- Kenya
- Nepal
- Nigeria
- Pakistan
- Poland
- Russia
- Vietnam
- Other

2. Why did you choose Finland?

- Free of charge
- Good marketing
- Good education level
- Recommendation
- Other .....
- .....

3. Why did you choose Industrial Management as your field of study?

.....

4. What do you do?

- Job? What kind of? What country?  
.....
- Studies? What degree program? What country?  
.....
- Other? What? What country?  
.....

5. To what extent do you think your studies in IM have helped you in your current life?

- 1
- 2
- 3
- 4
- 5

6. How do you think, IM could be improved?

- Learning materials, access to literature
- Technical equipment
- Teaching methods
- Course content
- Teacher tutorship/support
- Socialization of the study group
- Cooperation with Finnish students and/or students of other study program
- Curriculum
- Other – specify?

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