

Alignment of Critical Business Competencies and MBA Programs: A Master's Thesis Study for Novia University of Applied Sciences

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Abstract

This Master's thesis project was ordered by Novia University of Applied Sciences. The research project aimed to understand what competencies in employees are important to the companies in the Ostrobothnia region in Finland. By understanding the competence requirements, the researcher was able to map those against the current Master in Business Administration, Digital Business and Leadership program provided by Novia University of Applied Sciences and identify gaps in the program.

The study was conducted as qualitative interviews with company representatives during March and April of 2024. The answers from the interviews were analyzed, and as a result, the current most in-demand competencies in employees were identified. Gaps between those competencies and the current course program at Novia were then found and suggestions for improvements and changes were made.

The research showed that leadership, data, artificial intelligence, and project management are the most in-demand competencies. Gaps in the current MBA program in digital business and leadership at Novia University of Applied Sciences were within the topics of communication, leadership, and marketing, and suggestions were made on how to update the current curriculum to better match the needs of the labor market.

Language: English

Key Words: Competences, MBA, leadership, project management

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1 Introduction

This chapter explains the background of the study, the justification for the project, the objectives and research questions, the research method, and the delimitation of this study.

1.1 Background of the study

In a time with rapid technology development and changing economic landscapes, the need for educational institutions to align with company needs for different skills in their employees becomes more central. When the business industries are continuously changing, must our educational institutions be ready to adapt these changes into their programs to make sure the students possess the skills needed and are in demand for the competitive labor market?

This master's thesis was ordered by Novia University of Applied Sciences at the beginning of 2024. Novia University of Applied Sciences will in this thesis be referred to as the "commissioner".

The commissioner wanted to understand what skills are needed from MBA-level employees in the labor market, especially in the Ostrobothnia region in Finland. The commissioner will need this information to be able to plan not only new educational programs but also to further develop and adapt current programs to better fit the needs of the labor market in the region.

This master's thesis begins research aimed at identifying the current competencies and skills that are in demand in the business world. The results of this study aim to contribute to the strategic planning of the commissioner's assortment of educational programs, ensuring compliance with the growing need for skilled people.

1.2 Justification for the project

The global economy is constantly changing, influenced by technological breakthroughs, globalization, and changing consumer behavior. Therefore, the skills required by employers are also continuously evolving. Understanding companies' need for these skills is critical for universities striving to remain at the forefront of educational excellence and relevance.

The arrival of artificial intelligence (AI) has not only impacted the skills required but has also introduced new dimensions to the workplace. The wider adoption of remote working has also played a significant role in shaping the working life, alternating traditional work dynamics and collaboration styles.

The insights gathered from the research of this master thesis, are expected to provide valuable information for the commissioner when strategically planning the educational programs, and courses, and prioritizing the development of these. Meanwhile, companies can also use this research to better understand and plan the continuously changing demand for skills in their workforce. The research can help companies in understanding and planning the need for further education of their employees making sure they stay competitive.

1.3 Objectives and research questions of the thesis

The primary intention of this research is to understand the current competence requirements in business life in Ostrobothnia. The objectives are:

- Objective: Identify the most in-demand skills and competencies for roles working in MBA-suitable positions.
 - Research question: What are the most sought-after competencies in the field of MBA today and in the future?
- Objective: Assess the alignment between the competencies offered by Novia in their existing educational program and those demanded by employers.
 - Research question: What are the significant gaps between the competencies taught in the Novias Master in Business Administration, Digital Business, and Leadership program and those sought after by employers?

- Objective: Provide recommendations for improvements to the current educational program to better meet the needs of the contemporary workforce.
 - Research question: What specific changes can be made to existing educational programs to better align with industry demands?

1.4 Research method

To be able to identify and analyze current skills needed in the labor market and contribute to the planning of the commissioner's education program, a qualitative interviewing methodology is adopted. This method is necessary to obtain a deeper understanding of the requirements.

Qualitative interviews will take place with an appropriate number of companies within the sectors that employ people expected to have an MBA educational level. The research will aim to provide insights into companies' views of competence requirements. The focus will be on both technical and soft skills required and focus on how the different skills are prioritized.

Data collection and analysis will be conducted concerning ethical principles, including confidentiality and informed consent. Participating companies will be informed of the purpose of the research and how their data will be used, and only aggregated and anonymized results will be presented to protect privacy.

1.5 Delimitations of study

To be able to focus on the objectives and research questions developed, this master thesis will not handle the topics listed below.

- This master's thesis will not focus on other MBA study programs than the one in digital business and leadership at Novia University of Applied Sciences.
- This master thesis will not focus on other regions than Ostrobothnia.
- This master's thesis will not analyze gaps in skills sought after by companies and other educational institutions other than Novia.

2 Theoretical framework

The theoretical framework of this thesis will look at three main topics. The first topic will focus on how the school system in Finland is set up and how it works. It is beneficial to understand the study path for an MBA degree and what is expected from the student before attending MBA studies. After this, the theory will focus specifically on MBA programs and universities.

The second main topic of the theoretical framework will have a view of what skills are required in the business world today. The theory will look at both soft skills and technical skills.

As a third topic for the theory, the thesis will inspect the Ostrobothnia area, the companies operating there, and the overall economic situation in Ostrobothnia. Considering that the goal of the research in this thesis is to align the competence through the MBA program at Novia University of Applied Sciences with the companies' needs in Ostrobothnia it is important to understand the Ostrobothnia area and the main areas of businesses there.

2.1 The educational system in Finland

As seen from the picture below, Finland's education system includes different stages, such as early childhood education, pre-primary education, primary and lower secondary education, secondary education, higher education, and adult education (Opetus ja kulttuuriministeriö, 2023).

EDUCATION SYSTEM IN FINLAND

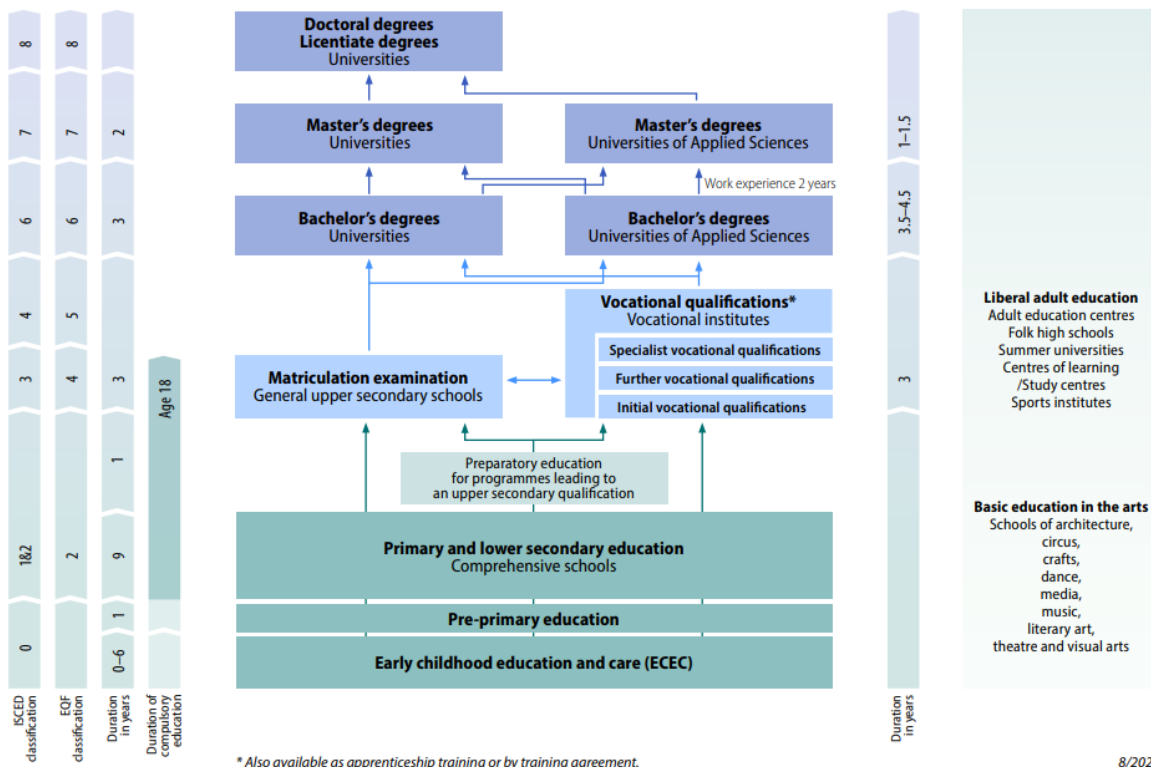


Figure 1: the educational system in Finland (Opetus ja kulttuuriministeriö, 2023)

Compulsory schooling, which begins at the age of seven, applies to everyone living in Finland and continues until the end of primary school or ten years from the start of compulsory schooling (Opetus, 2023).

Early childhood education is a fundamental part of the system and supports the child's development and welfare through planned and goal-oriented education, teaching, and care (Opetus ja kulttuuriministeriö, 2023). Pre-school education, mandatory since 2015, aims to strengthen the children's learning and development abilities as an integrated part of early childhood education and primary education (Opetus, 2023).

Primary school, compulsory for 7–17-year-olds, ends with applicants for second-stage education. It covers grades 1–9 and is mainly provided by municipalities and other education providers (Opetus ja kulttuuriministeriö, 2023).

Second-stage education includes both general upper secondary education and vocational education. The upper secondary education is three years long and leads to the nationwide

matriculation exam, while the vocational education results in basic vocational exams and enables qualifications in different industries (Opetus, 2023).

The higher education system in Finland includes universities and Universities of applied sciences. The universities focus on scientific research and teaching, with opportunities to complete bachelor's and master's university degrees as well as additional doctoral degrees. Universities of applied sciences offer practical training adapted to the needs of working life and issue bachelor's degrees and master's degrees (Opetus, 2023).

Free educational work and basic art education are also important elements of the Finnish education system. These are offered by various institutions such as community colleges, civic institutes, and study centers. Basic art education, available at various art schools, enables a systematic progression and prepares students for vocational training and higher artistic education (Opetus, 2023).

Finland's education system is based on the principles of equal access to education, free education, and a holistic view of the child's development. The rules and instructions from the National Board of Education are the foundation for both early childhood education and other education. (Opetus, 2023).

2.1.1 Universities and universities of applied sciences

The operation of the Universities of Applied Sciences in Finland is regulated by both the University of Applied Sciences Act and the Government's Decree on the University of Applied Sciences. Together with the universities, the universities of applied sciences form the higher education system (Finlex, 14.11.2014/932, 2014, s. §2).

The Government's Decree on University of Applied Sciences. (Finlex, 18.12.2014/1129, 2014) aims to establish frameworks and guidelines for the University of Applied Sciences in Finland. It structures and regulates the examination and study plans to ensure that students get comprehensive and relevant knowledge and skills. The regulation aims to create a structured and efficient framework for vocational education, which in turn prepares students for work in their respective industries through a combination of theoretical knowledge and practical skills (Finlex, 18.12.2014/1129, 2014).

The universities' purposes are regulated by the Universities Act (Finlex, 24.7.2009/558, 2009, p. §2). According to this law, the main tasks of the universities are to promote free research, and scientific and artistic education, and to conduct the highest education based on research. They must also nurture students to serve the motherland and humanity and promote lifelong learning. Collaboration with society and promoting the impact of research results and artistic activities in society are also part of the universities' duties. In Finland, there are a total of 14 universities within the administrative area of the Ministry of Education and Culture, and in addition, there is the University of Defense which is part of the Armed Forces

The University of Applied Sciences Act (Finlex, 14.11.2014/932, 2014) is the purpose of the universities of applied sciences regulated in section 4. According to this law, the main task of the universities of applied sciences is to offer university education for vocationally oriented expert tasks. This teaching must be based on the demands and development of working life and the development of working life, as well as on research, artistic, and cultural perspectives. In addition to teaching, Universities of Applied Sciences are required to conduct applied research, development, and innovation activities to promote appropriate teaching, working life, regional development, and renewal of the business structure in the region. In addition, they are responsible for artistic activity and promoting lifelong learning. In Finland, there are a total of 22 Universities of Applied Sciences within the administrative area of the Ministry of Education and Culture, as well as the University of Åland and the Police Academy, which is subordinate to the Ministry of the Interior (Opetus ja kulttuuriministeriö, 2023).

At the University of Applied Sciences, you can graduate and get either a bachelor's degree or a higher master's degree. When you have completed a degree at a University of Applied Sciences, the name of the field of study you have studied, the degree title, and the abbreviation YH if it is a University of Applied Sciences degree, or the abbreviation higher YH if it is a higher University of Applied Sciences degree, will be added to your degree (Finlex, 18.12.2014/1129, 2014, s. §11)

The structure and dimensioning of the studies are determined in the government Decree on Universities of Applied Sciences, paragraphs 3 and 11.

According to the government decree, the scope of the studies leading to a bachelor's degree at a university of applied sciences is 180, 210, 240, or 270 credits. The scope of the studies leading to a higher master's degree at a University of Applied Sciences degree is 60 or 90 credits.

The studies leading to the bachelor's degree include:

- basic studies and professional studies
- optional studies
- practice that promotes professional skills
- a bachelor's thesis

The aim of the studies leading to a University of Applied Sciences degree is for the person who completes the degree to have:

- Deep and practical basic knowledge and basic skills in their field to be able to participate in working life and perform expert tasks.
- Ability to stay up-to-date and promote developments within one's industry.
- Conditions for developing one's professional skills and opportunities for lifelong learning.
- Adequate communication skills and language skills within the specific field as well as for international operations and collaboration (Finlex, 18.12.2014/1129, 2014, s. §4).

Included in the studies leading to a master's degree include:

- advanced vocational studies
- optional studies

- a master thesis

The aim of the studies leading to a higher university of applied sciences degree is for the person who completes the degree to have:

- Deep and extensive knowledge and the necessary theoretical insights to be able to contribute to working life in responsible expert and management roles.
- An in-depth understanding of the specific industry, its role in working life and society, as well as the ability to follow and analyze developments in research data and professional practice in the field.
- Ability to lifelong learning and continuous development of one's professional skills.
- Good communication skills and language skills within the specific area as well as for international operations and collaboration

(Finlex, 18.12.2014/1129, 2014, s. §5)

In 2023, Tradenomiliitto conducted research on the common perception about higher university of applied sciences degrees compared to a master's degree from a university. The results showed that a master's degree within the same field was ranked higher by the employer if it was from a university (green + yellow 91%) than from a university of applied sciences (green + yellow 75%).

How well do you think the skills produced by the following degrees meet the needs of working life?

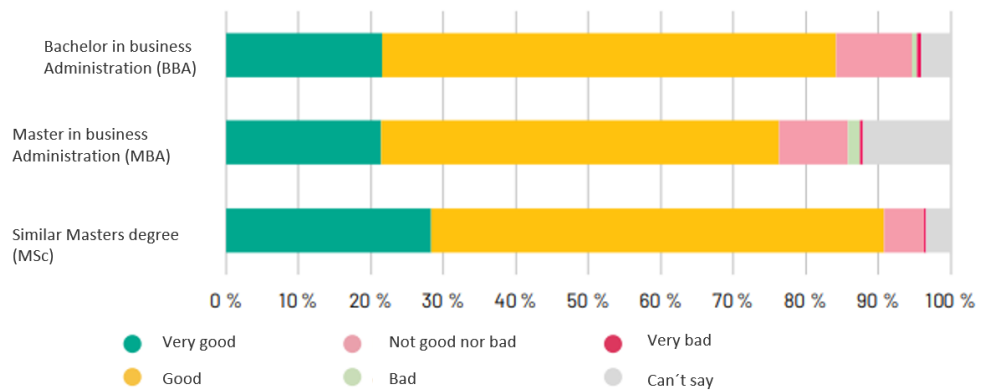


Figure 2: How well does the competence produced by the following degrees meet the needs of the working life? (Tradenomiliitto, 2023)

Employers also stated in 47% of the answers that a master’s degree from a university of applied sciences did either not provide enough additional value (18%), the competence of the degree was not familiar (16%), or that the degree was not competitive enough (13%) (Tradenomiliitto, 2023).

Why are there not people with a MBA degree working in your organization?

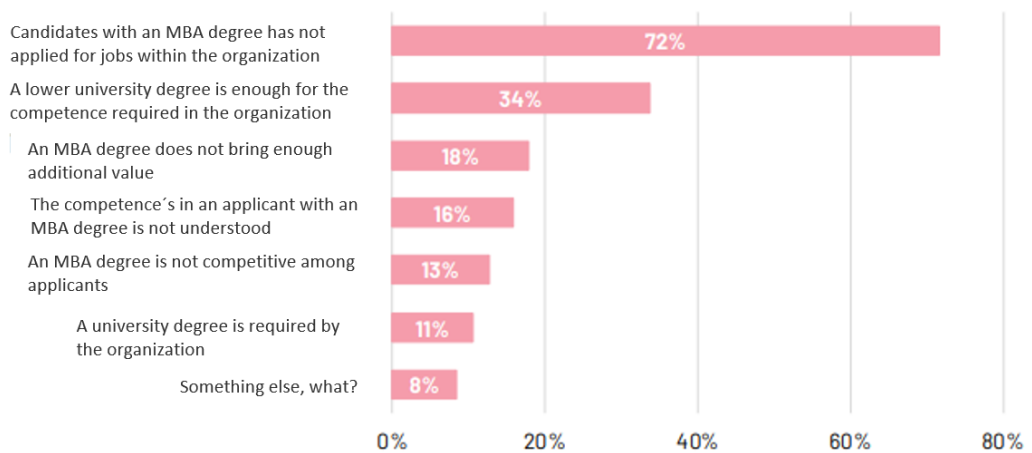


Figure 3: Why are there not people with an MBA degree working in your organization? (Tradenomiliitto, 2023)

2.2 Overview of the current MBA programs at Novia University of Applied Sciences

As of December 2023, Novia University of Applied Sciences offers two different degree programs Master of Business Administration; Digital Business and Management, and Service Design.

2.2.1 Digital Business and Management

The program, called Digital Business and Management (90 ECTS), is aimed at those who wish to deepen their skills in management, business operations, and digitization. The profile of the program focuses on a combination of leadership, business, and communication skills to meet the demands of the new digital world. (Novia university of applied sciences, Master of business administration, MBA, digital business and management, 2023).

The structure of the studies includes advanced studies, a master's thesis, and optional studies, divided into the following blocks:

- Leadership studies, 13 ECTS
- Financial Analysis and Financial Decision Making, 8 ECTS
- Digital Tools in Business, 12 ECTS
- Digital Business Communication, 10 ECTS
- Business Management, 10 ECTS
- Academic Reading and Writing, 2 ECTS
- Research Methodology, 5 ECTS
- Master's Thesis, 30 ECTS

The program can be completed as full-time or part-time studies and includes contact and distance learning. For full-time studies, contact studies take place every two weeks, while part-time studies mean contact studies once a month. Contact studies take place in Vasa. Students are allowed to integrate their courses with development tasks or projects linked to working life or their workplace (Novia university of applied sciences, Master of business administration, MBA, digital business and management, 2023).

The generic competencies within the program include knowledge, skills, and attitudes, as well as learning, ethical, and work community competencies, including international perspectives. Innovation competence, with dimensions such as critical thinking, initiative, creativity, teamwork, and networking, is in focus (Novia university of applied sciences, Master of business administration, MBA, digital business and management, 2023).

For students with a previous bachelor's degree, the program consists of 90 ECTS, and the pace of study is flexible to enable individual study plans based on previous knowledge and individual needs (Novia university of applied sciences, Master of business administration, MBA, digital business and management, 2023).

2.2.2 Service Design

The master's program in Service Design at Novia University of Applied Sciences aims to offer a comprehensive and specialized education that can be completed either full-time (1.5 years) or part-time (2 years).

The studies within the program are structured with an average of two to four contact days per month, usually on Fridays and Saturdays, with the main online study. The contact studies take place in Turku. In addition to individual tasks, group work, and problem-based learning are emphasized, which form an essential part of the studies (Novia university of applied sciences, Master of business administration, service design, 2023)

The advanced studies include:

- **Service Design (30 ECTS):** Focuses on applying design thinking and developing services for different organizations. The projects are linked to the student's existing tasks, which enables a practical application of the discussed theories.

- Research and Development (10 ECTS): Focused on research and development within service design.
- Leadership and Financial Studies (10 ECTS): Covers topics related to leadership and financial understanding in service design.
- Master's Thesis (30 ECTS): A concluding independent work in which the student applies his knowledge and skills to a research project in service design.
- Elective Studies (10 ECTS): Allows students to immerse themselves in areas of interest.

The program is strongly oriented toward working life, and students are guided to apply theories in practice, with particular emphasis on idea generation and service development. The projects are directly linked to the student's existing duties, allowing them to develop their existing roles and benefit their current employers. In addition, students are given insight into starting or developing their own companies (Novia university of applied sciences, Master of business administration, service design, 2023).

The goal of the master's degree Program in Service Design is to meet the ever-growing skill requirements and needs in service design, business, and working life. The program profile focuses on the combination of design thinking, business, and society, with specific emphasis on the area of service design. The program aims to develop the ability to design, develop, and implement tasks by sharing information and communicating in collaboration with customers and stakeholders (Novia university of applied sciences, Master of business administration, service design, 2023).

The generic competencies include knowledge, skills, and attitudes, while the program-specific competencies enable students to implement design thinking principles, create ideas and solutions using a service design approach, analyze and develop services through critical thinking, develop teamwork skills, and manage various projects nationally and internationally, understand the aspects of cultural, social, economic and sustainable activities in service design as well as implement ethical and work community competencies (Novia university of applied sciences, Master of business administration, service design, 2023).

To be eligible for the program, an appropriate bachelor's degree from a University of Applied Sciences or other relevant university degree and at least two years of subsequent

work experience in a relevant field are required (Novia university of applied sciences, Master of business administration, service design, 2023).

2.3 Relevance of skills for company success

In today's rapidly changing economy, there is a growing need for professionals with the knowledge and skills to contribute to important business discussions and drive strategic decision-making. (Dewar, 2023)

According to research carried out by McKinsey company, important skills in the business world include critical thinking, problem-solving, decision-making, and time management. These skills are fundamental to almost all jobs and are considered difficult to automate according to McKinsey research. This means that workers who have these skills might have higher wages and increased job stability. (Chui;Manyika;& Miremadi, 2016)

A study carried out by the Finnish National Agency for Education (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019) mentioned many of the same generical skills as being even more important in the future. Problem solving, creativity, ability to manage large entities, work autonomy, and the ability for continuous learning. The research emphasizes the need to develop competence and skills for new challenges and requirements and points out how increased productivity and structural changes in the business and administration sector require constant updating and development of skills among employees. According to the Finnish National Agency for Education, it is important to make sure education and training are accessible at all levels to ensure a smooth transition to new roles and responsibilities. (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019, ss. 115-118)

2.4 Hard skills

Working life competence areas can be divided into two: soft skills and hard skills. Both hard and soft skills can be learned and developed over time. Hard skills are about an employee's ability to perform a role-specific task. They include specialized knowledge and technical skills that enable someone to complete their work. For example, software developers may need to be competent in cloud computing, SQL, and Java (Dewar, 2023).

Hard Skills are objective and measurable skills acquired through training, school, or work experience. Hard skills can be learned, and they are easy to prove. Certificates, degrees, and licenses can demonstrate certain hard skills. Hard skills include for example technical skills, analytical skills, marketing skills, communication skills, and business, financial, and management skills. They are essential in many jobs, and therefore most companies value them when hiring employees. Soft skills such as teamwork and adaptability are also important, but hard skills are easier to measure and prove (Girardin, 2023).

Hard skills can be divided into these categories:

- Technical skills
- Analytical skills
- Marketing skills
- Communication skills
- Business, finance, and management

(Girardin, 2023).

2.5 Soft skills

If hard skills focus on practical abilities and skills, according to Connett (Connett, 2023) soft skills focus more on behaviors and personal characteristics. Soft skills are not necessarily learned in a course, but are often developed through life experiences and can influence how an individual performs their work. They are usually transferable to any type of job, although certain soft skills may make a person more suitable for a specific type of work. For example, creative individuals may be better suited for a design role than for a position in law (Dewar, 2023).

Soft skills reflect your communication style, work ethic, and work habits. They are interpersonal skills that describe the way you work and interact with other people. These skills are important in all kinds of jobs and careers.

Soft skills are usually divided into a few different categories:

- Communication skills
- Leadership skills
- Teamwork skills
- Problem-solving skills
- Critical thinking
- Time management

(Kaplan, 2023)

2.6 Skills in demand for future business needs

Research carried out by LinkedIn for the most in-demand skills for 2024 highlights the high need for people with skills in communication, and leadership, and with high adaptability across various industries. The survey also shows how quickly the need for different skills changes, in the same survey carried out in 2023 out of a total of 20 competence areas, only 2 were on the same list of the most sought-after skills that was made three years earlier. Most of the topics are the same in both research, and most of them have climbed the list. Skills in marketing have fallen off the list completely. Below is a summary of the results for 2023 and 2024 (Dewar, 2023).

| The most in-demand competencies according to the research 2023: | | The most in-demand competencies according to the research 2024: | Change |
|---|------------------|---|--------|
| 1 | Management | Communication | +1 |
| 2 | Communication | Customer service | +1 |
| 3 | Customer service | Leadership | +1 |
| 4 | Leadership | Project management | +2 |

| | | | |
|----|--------------------|-------------------|-----|
| 5 | Sales | Management | -4 |
| 6 | Project management | Analytical skills | +2 |
| 7 | Research | Teamwork | +3 |
| 8 | Analytical skills | Sales | -3 |
| 9 | Marketing | Problem-solving | New |
| 10 | Teamwork | Research | -3 |

Figure 4: Comparison of the results from LinkedIn research

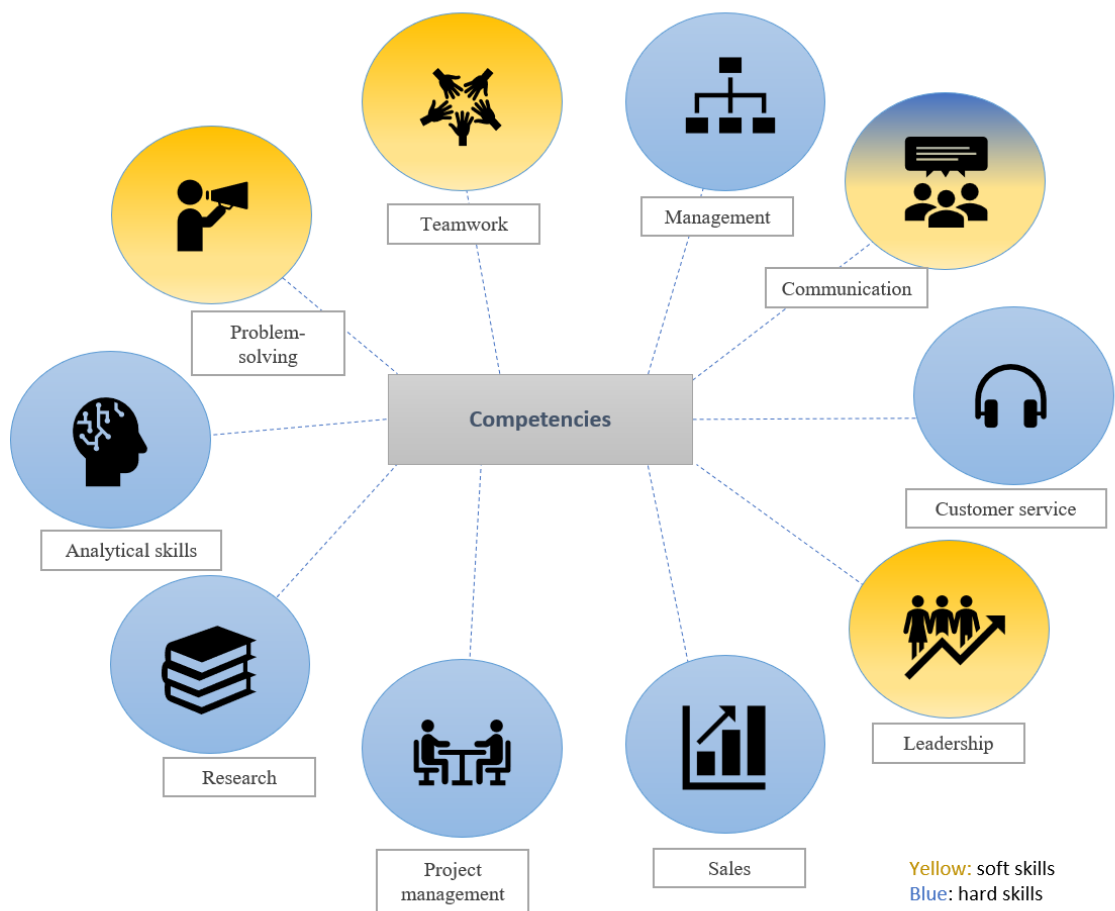


Figure 5: Visualization of in-demand competencies for the future

The Finnish National Agency for Education states in their research that in the digital era, competence in digital technology and technology management is critical to success in the business and management sectors. These are the main digital competencies that they listed as important:

- Competencies in how to utilize digital platforms or digital solutions
- Knowledge of how to manage and control digital operations
- Knowledge of how to manage remote and virtual services
- Knowledge in robotics

The research points out that the development of digital skills must be integrated at all levels of education and emphasized as an important part of the education system. With increased digitization in all sectors, workers must have the skills necessary to navigate and take advantage of digital tools and platforms (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019, ss. 118-119)

Other skills that were identified in the study as important were:

- How to develop customer-oriented services
- Innovational skills
- Customer service
- Networking skills
- Leadership skills

The research points also out that to meet the changing demands of the labor market, lifelong learning is a key factor. In the future, it is important to enable different environments and solutions for learning so that students can acquire skills that suit the changing needs of working life. In addition, opportunities must be created for those who

are already in working life to supplement and develop their skills. (Leveälahti;Nieminen;Nyssölä;Suominen;& Kotipelto, 2019, s. 116)

It is also important to promote entrepreneurship and financial skills throughout the education system, from primary school to higher education. By integrating entrepreneurship education into the curriculum, young people can be encouraged to develop innovative mindsets and business ideas. By focusing on these areas and implementing strategic measures, Finland can strengthen its position as a leading player in the business and administration sector and ensure sustainable and successful development in the long term. (Leveälahti;Nieminen;Nyssölä;Suominen;& Kotipelto, 2019, ss. 117-118)

The research showed that the following skills will not be as important in the future:

- How to use different appliances and machines
- Physical strength
- Manual skills

2.7 Ostrobothnia business landscape

2.7.1 Overview of the region

Ostrobothnia, located on the west coast of Finland, functions as a diverse place in Finland's economic and cultural environment. Ostrobothnia has 14 municipalities and three sub-regions, the region covers approximately 176,000 inhabitants, where Vaasa serves as the central connection. With people coming from various cultural backgrounds and possessing multilingual skills, companies can gain several benefits. (Österbottens förbund, 2023)

The Ostrobothnia region is connected to Central Ostrobothnia in the north, South Ostrobothnia in the east, and Satakunta in the south. Ostrobothnia stands out with its urban centers such as Vaasa, Seinäjoki, and Kokkola, which form a dynamic mix of traditional industries and pioneering companies. The geographical importance of this area, close to the Baltic Sea, has always influenced the area's economic importance (Österbottens förbund, 2023)

Economically, Ostrobothnia is Finland's most industrialized region, with the largest number of companies per capita on the continent. The manufacturing industry produces the highest added value per capita, and its export rate is 68% - this is a record number in Finland. (Ostrobothnia Chamber of Commerce, 2023). Supported by technology and expertise, the industrial landscape of the region emphasizes sustainability, strong manufacturing, and a growing technology sector. Digitization, a high level of automation, and resource efficiency are the key elements in maintaining competitiveness (Österbottens förbund, 2023)

The Ostrobothnia region is gaining global recognition for its energy technology cluster, innovative solutions on smart power grids, marine industry, renewable energy production, and energy efficiency. Ostrobothnia is home to 90% of Finland's electricity and automation research and acts as a center for innovation in energy technology. It is estimated that about 25% of all employees working in the Finnish energy sector are living in the Ostrobothnia region (Österbottens förbund, 2023)

According to the (Österbottens förbund, 2023) website, the municipalities of Ostrobothnia are Jakobstad, Kaskinen, Korsholm, Korsnäs, Kristinestad, Kronoby, Laihila, Larsmo, Malax, Nykarleby, Närpes, Pedersöre, Vasa and Vörå.

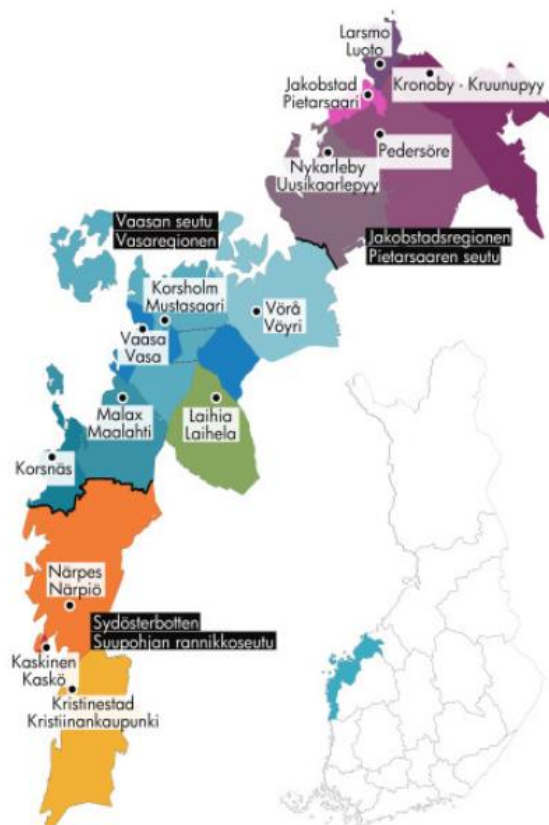


Figure 6: Map of Ostrobothnia (Österbottens förbund, 2023)

2.7.2 Main industries in Ostrobothnia

Both in turnover and number of employees, four main industries are driving economic growth in the Ostrobothnia region. Those industries are forest and primary production, manufacturing, construction, and trade. Almost a quarter of the workplaces in Ostrobothnia are in the manufacturing industry. This makes Ostrobothnia the most industrialized region in Finland. Almost half of the workplaces in Ostrobothnia are in Vaasa (Nori, 2023).

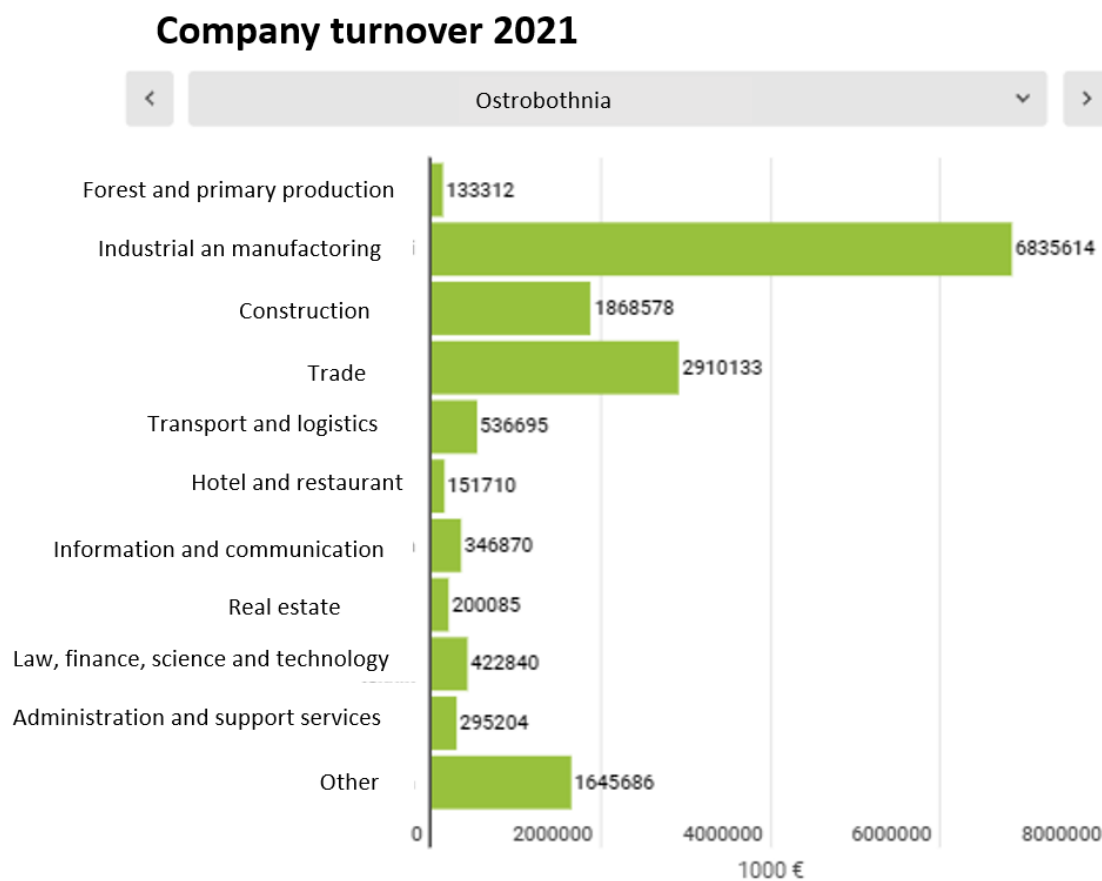


Figure 7: Industries ranked by turnover (Nori, 2023)

Company employees 2021

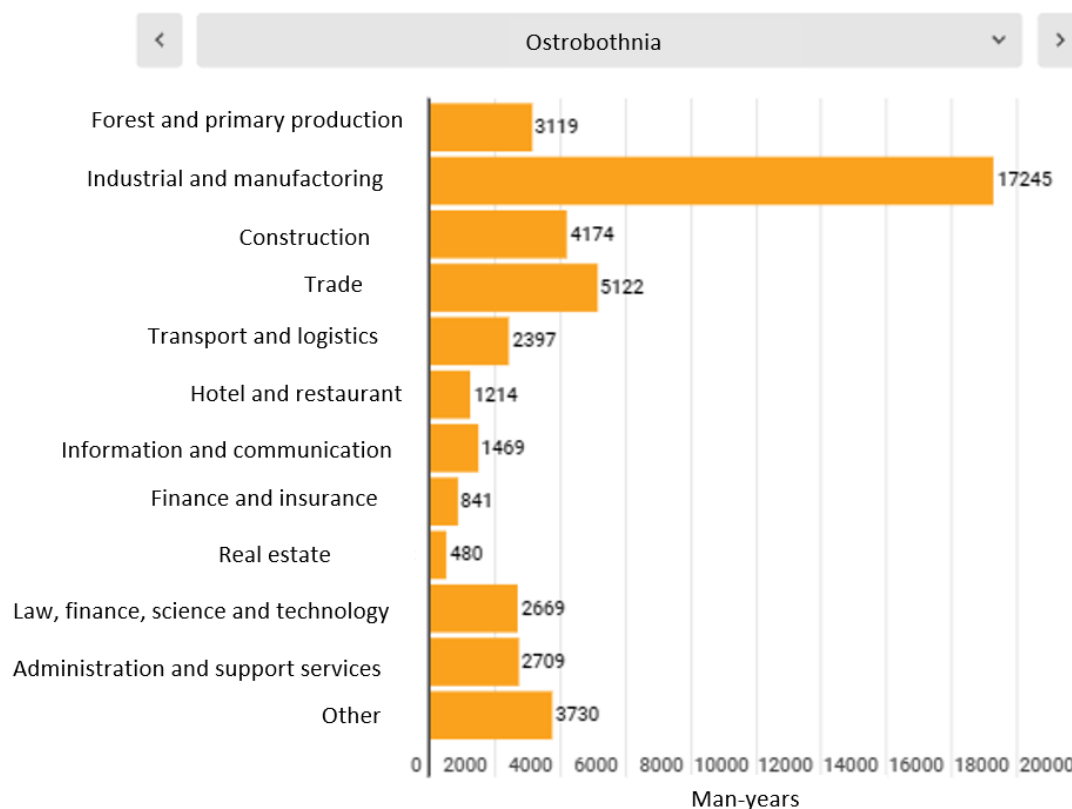


Figure 8: Industries ranked by number of employees (Nori, 2023)

2.7.2.1 Forest and primary production

Ostrobothnia's forest industry and primary production have been important factors that have strongly influenced the region's economic vitality. The primary production has the most jobs in terms of number of companies (Österbottens förbund, 2023)

About 80 percent of the raw materials used by the food industry are produced in Finland. That's a lot when compared to the rest of Europe. In recent years, Finland has had a self-sufficiency rate of 100 percent for milk products and eggs and about 90 percent for meat products. There are 46,500 agricultural companies in Finland, and of these, approx. 3,900 are in Ostrobothnia. Most of the agricultural companies have the cultivation of grain or other crops as the largest and most important production focus but specific for Ostrobothnia is the large number of greenhouse farms. The greenhouse area in the area exceeds 120 hectares, which is about a third of Finland's entire greenhouse area. About 70 percent of all tomatoes in Finland are produced in the Närpes region, and a lot of food potatoes are also grown in the area. Milk production is also a significant production focus

in Ostrobothnia. In 2021, the farms had an average area of 47 hectares, and it is growing by about one hectare per year (Närings- trafik och , 2022).

Finnish agriculture is at a structural breaking point. The number of farms decreases by a few percent per year and at the same time the average size of the farms increases. Although the number of farms is decreasing, the agricultural land thus remains in production. A controlled restructuring in agriculture, the development of production, and the maintenance and improvement of competitiveness require many large investments by the farms. Despite the difficulties, agriculture in Ostrobothnia makes quite active investments, especially energy investments. To maintain continuity in agriculture, start-up support is granted to young farmers. During the Rural Development Fund's program period 2014–2020, 150 farms took advantage of this opportunity in the Ostrobothnia NTM center (Närings- trafik och , 2022).

2.7.2.2 Industrial and manufacturing

In addition to the forest and primary production industries, a significant impact on the economic growth of the area of Ostrobothnia is rooted in a diverse industrial landscape, with manufacturing as the main sector. Both in terms of the number of employees and turnover, the manufacturing industry accounts for a significant share. Over a third of the company staff in Ostrobothnia work in this industry. This exceeds the national average and highlights the importance of the sector in the region (Nori, 2023).

Traditionally strong in energy production, especially with renewable sources, the region has pioneering energy companies such as Vaasan Sähkö and Wärtsilä (Österbottens förbund, 2023). Almost half of the industrial turnover in Ostrobothnia is generated within the energy technology cluster's most important industries, which are machinery and appliances as well as electricity and base metal. (Nori, 2023)

In terms of exports, Ostrobothnia stands strong with an export share of 67.9% of the turnover of industrial companies in 2021. This places the region as the fourth highest among all Finnish regions, which further underlines its importance in the national and international economy (Nori, 2023).

Export of industrial companies 2021

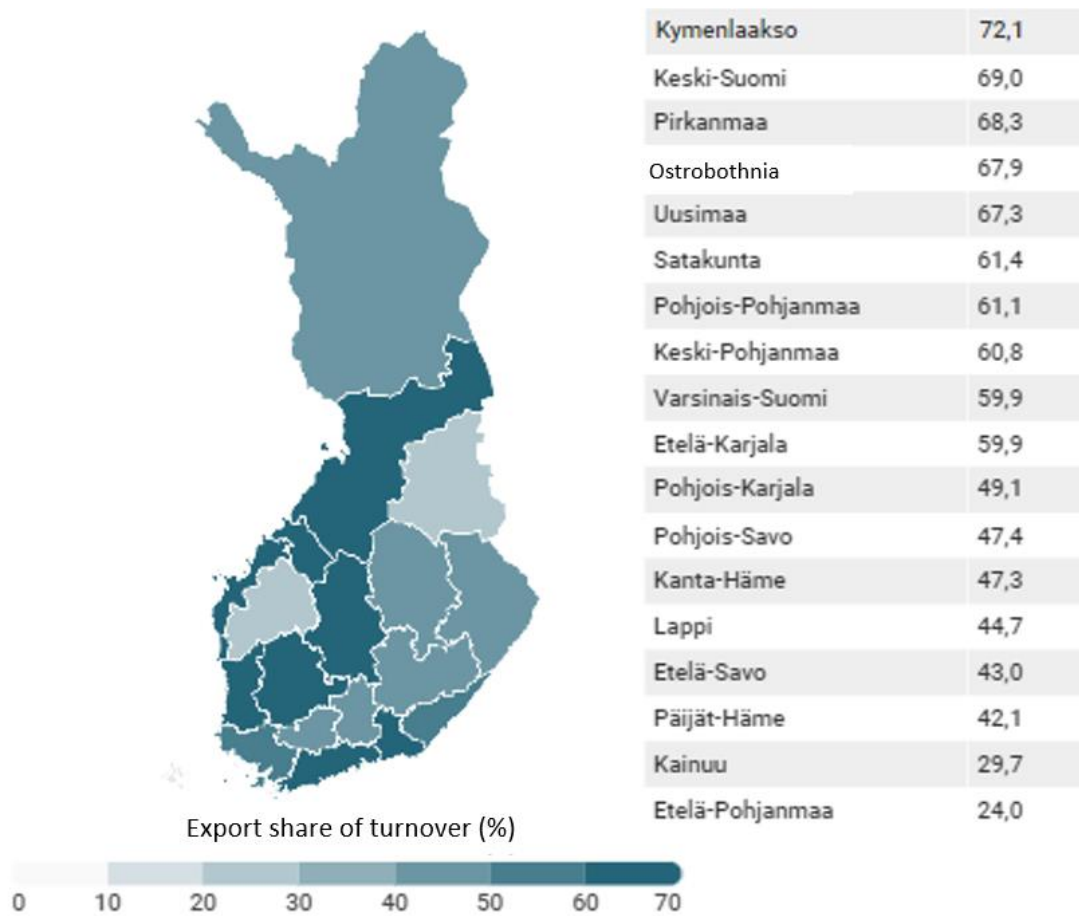


Figure 9: Industrial companies export share of turnover (Nori, 2023)

2.7.2.3 Trade

In 2021, the trade sector in Ostrobothnia had a total of 1,675 workplaces, employing 5,122 individuals. Over the period from 2015 to 2021, there was a decline in both the number of employees and work establishments, with reductions of 1,065 employees and 195 workplaces, respectively. It is expected that the COVID-19 pandemic played a significant role in this downturn (Nori, 2023).

The trade industry has an annual turnover of 2,910,133,000€, making it the fourth-largest sector in Ostrobothnia views on turnover only. The largest Company within the trade sector in Ostrobothnia is the trade association KPO, with a turnover of €629 million (Jansson, 2014).

2.7.2.4 Construction

In Ostrobothnia, the construction industry ranks as the third-largest sector based on the number of workplaces, having 1,368 companies, and employing 4,174 individuals. In 2021, the construction industry reported a turnover of 1,868 578 000€. There was a significant increase of 127.4% in turnover within the construction sector from 2015 to 2021.

Vasa serves as the headquarters for one of the biggest players in the construction industry, the KWG Group, which reported a turnover of 395M€ in 2017. (Nori, 2023)

3 Research

For the research purpose of understanding how well the current MBA program is aligned with the company's needs an appropriate research method was chosen. In the following chapter, I will describe the chosen method.

3.1 Desk research

Desk research, also called secondary research, is when the researcher uses existing secondary data originally collected for other purposes or projects. The benefits of doing desk research are that you gain a better understanding of the topic you are researching. You gain a better context of the topic that helps you focus on the primary research (Vijayamohan, 2023).

In the desk research of this master thesis, internal research from a large company operating within the financial sector was used. The company has 10,000+ employees and provides services within private and corporate finance as well as insurance. The research conducted within the company focused on the competencies required from employees. The research was carried out during the fall of 2023. The results were presented on the company's intranet page under the topic "Continuous change requires proactive competence development. Discover the skills of the future of X." (Personal communication, May 2024)

The company found that current skills needed can be grouped into 6 main categories: substance competence, customer experience, data and technology, compliance and regulation, leadership, and common work-life skills. Since the substance competencies, compliance and regulation and the customer experience are specific to this company's industries, they are not relevant to look at. The other topics are more general and bring additional information to the research.

Reviewing the results of the leadership topic skills such as coaching leadership, ability to show direction and create meaning, competence management, managing challenging situations, managing well-being at work, understanding, and utilizing diversity, and the managers' self-reflection are found as important.

Within the area of data and technologies, 4 main topics were found as important: Knowledge of data collection analysis and utilization, information retrieval skills, knowing how to utilize the current technologies, and use of artificial intelligence.

The following general working life skills were highlighted: self—knowledge, resilience, continuous learning, problem-solving, time management, emotional intelligence, collaboration skills, and the ability to work in a diverse environment. Many of these skills were also discussed in the theory since they were listed in the research done by LinkedIn (Dewar, 2023). The research done by the Finnish National Agency for Education also highlights the importance of lifelong learning. (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019)

3.2 Semi-structured interview

Semi-structured interviews are a research method that combines predetermined questions with open-ended exploration to gain deeper insights into participants' perspectives and experiences. This method is often used in social science research, market research, and other areas where a deeper understanding of people's behavior, attitudes, and beliefs is important (Interaction design foundation, 2017).

What sets semi-structured interviews apart from other types of interviews is their flexibility and focus on the participants' perspectives and experiences. When structured interviews, follow a strict set of questions, semi-structured interviews allow for more open discussion with the interviewee. This means that the researcher can follow up on interesting traces that appear during the interview and thus discover unexpected insights. This type of interview technique is often used to generate new ideas or theories, rather than to test existing hypotheses. By allowing participants to speak freely about their experiences and thoughts, the researcher can better understand the social and cultural contexts that influence them (Interaction design foundation, 2017).

To conduct semi-structured interviews successfully, the researcher needs to prepare carefully. The research questions and objectives must be clear so that the interviews are directed toward achieving these objectives. It is necessary to develop an interview guide, which serves as a template for the interview (Interaction design foundation, 2017).

For the goal of this research, three interviews were carried out with companies from three different sectors, during March and April of 2024. The companies that were interviewed were picked out by the commissioner as the most interesting from their perspective to understand the current and future needs in competencies. The interviews were 60-90 minutes, and they were done online via Microsoft Teams. The interviews were recorded with the consent of the respondent and then transcribed.

An interview guide (Appendix 1) was created according to the following themes: Competence development or current employees within the company, difficulties when recruiting new employees, current skills needed, changes and upcoming needs in skills, and cooperation with educational institutions. The interview guide was tested before the actual interviews. The interview focused on persons within the company working in positions where the person would benefit from having an MBA degree.

Company A is a company operating in the field of logistics, with approximately 30-50 of the company's employees working in MBA-suitable positions.

Company B is a company operating in the marine and energy market with approximately 2000 employees working in MBA-suitable positions. In addition, they have around 800 external consultants in similar roles.

Company C is an organization within the public sector in Ostrobothnia with less than 100 persons working in MBA-suitable positions. Even though this respondent is a city, in the results it will be referred to as "Company C".

4 Results

The results of the interviews are presented through five main themes:

- Competence development of current employees within the company
- Difficulties when recruiting new employees
- Current needs in competencies
- Changes and Upcoming Needs in competences
- Co-operation with educational institutions

The results are presented both verbally, and visually in hexagons containing words. The size of the hexagon and the boldness of the word indicate the importance of the word within that specific category. A bolded word in a larger-sized hexagon indicates that the theme was raised by several or mentioned as very important in the interviews.

4.1 Competence development of current employees within the company

The first theme of questions in the interview revolved around what competence development within the company looks like today.

In company A, the competence development of the employees was handled as part of the employee's competence discussions on an annual basis. Also, when role changes emerge or changes to the organizations where done, competence development needs are identified. Company A did see a benefit from developing current employees' skills further, rather than recruiting new employees. But Company A also acknowledges that it is hard to find qualified new employees who possess all the skills needed.

Company A had identified specific areas within the company where there is a need for competence development among a wider range of employees. One specific area is leadership. Competence development within this area is currently mainly handled by the company itself.

Company B strives to have a personal competence development plan for all its employees. The company offers continuous learning, work rotation, mentorships, and coaching as part of their way of working.

Company B had identified what key skills they need for the upcoming years and current knowledge gaps among their current employees. The company has set out a strategic goal for the upcoming years to focus specifically on these areas in the employee's competence development plans. Skills needed can also be strengthened by external workers or partnering up with companies offering the knowledge needed.

Company C does not have a personal development plan for each employee as part of the company's processes. Instead, based on an annual survey among the employees, company C identifies the main gaps and focus areas for knowledge development within the organization. They then offer centralized online training around these topics in their online training portal that is available for all employees. The topics identified in the last survey were customer service, leadership, and digital competencies and the training in the training portal now focuses on these topics. Language skills are a reoccurring topic in the survey. In addition to this training offered centralized, substance training is handled by the specific department owning that substance.

Company C also offers other forms of competence development, such as work management or job shadowing, where the employee can attend the daily work at another organization.

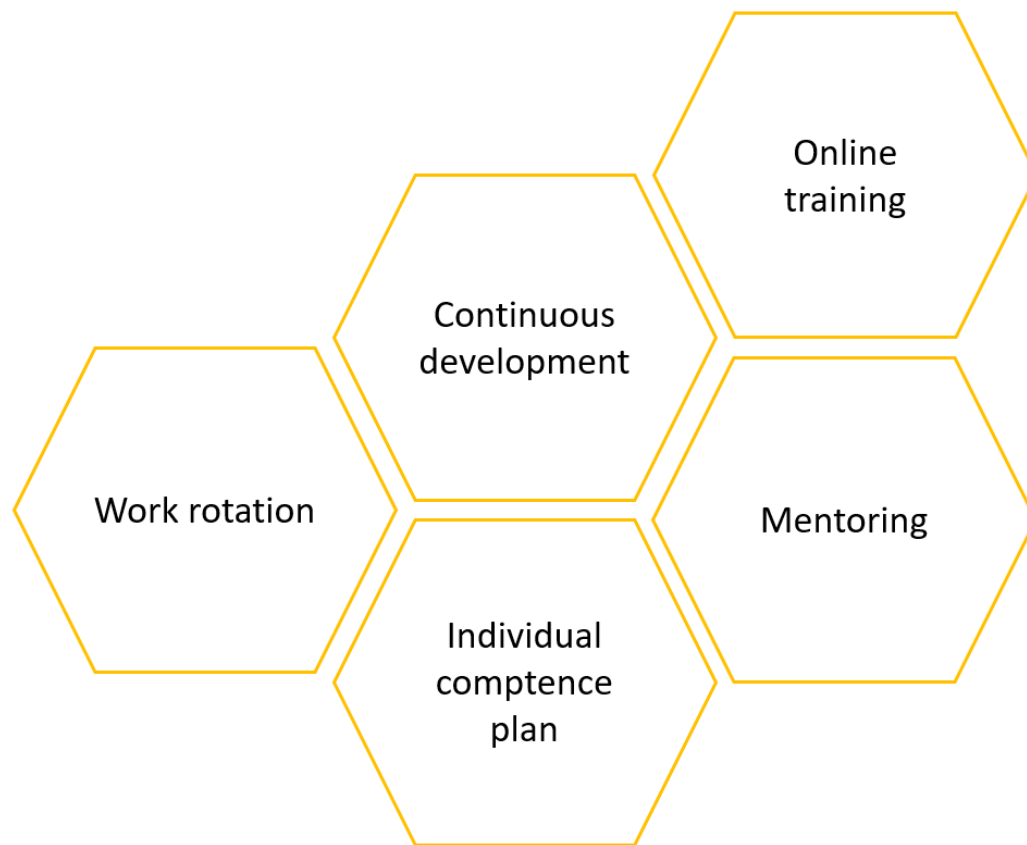


Figure 10: Results, competence development of current employees within the company

4.2 Difficulties when recruiting new employees

The second theme of questions focused on understanding challenges that occur when doing new recruitments.

Both companies A and B struggled with finding skilled candidates for open positions, and there are generally just a few applicants per open job position. Junior-type positions might get more applicants, but for senior-type positions with more demanding competence requirements, the companies struggle to find suitable candidates. Company B mentioned that this situation sets even more pressure on keeping the current employees within the company and developing their skills. Especially skilled people within data and project management are hard to find, also finance and HR are areas where there are fewer candidates.

Due to this struggle in recruitment situations, with few candidates, one company mentioned that they have started using headhunting companies to find possible candidates. This solution has proven to be successful.

Company A mentioned that in situations where they are hiring, they focus a lot on the candidate's personality and their ability to take in new information and develop themselves. They are interested in how the candidate has kept their skills up to date and relevant to current needs. They highly value a candidate's ability to further develop and educate themselves. Company A mentioned that in many cases the candidate's personality and ability to learn new things are valued higher than current skills when hiring since they can offer appropriate training to new employees.

Company B highlighted that the knowledge immigration to Finland, and Ostrobothnia specifically could be higher. Also, students often move away from Ostrobothnia to find work, and it would be beneficial for the companies if the students would move back to Ostrobothnia or stay there to work after finishing their studies.

Company C identified some challenges in finding suitable candidates for open positions, this is mainly because they compete with the private sector for candidates. Often company C must train their new employees in public administration. This is because it is challenging to find candidates who have both experience within the specific area of the open position and knowledge of public administration practices. Another challenge company C has noticed in recruitment is language skills. The public sector generally demands a good knowledge of both Finnish and Swedish from the employees. The company has made a strategic decision to lower the requirements for language skills, and later offer language training to the employees. This has proven to be successful.

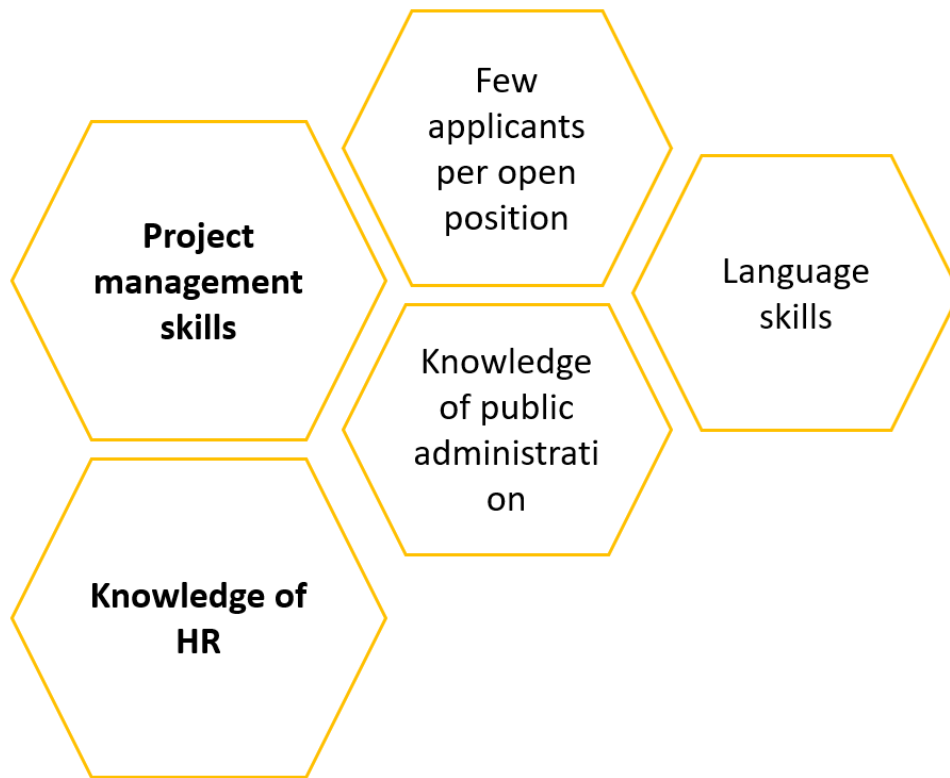


Figure 11: Results, observations from recruitment

4.3 Current needs in competencies

This chapter will present the interview results regarding current needs in competencies. The different competencies were divided into sub-groups: Business management, financial management, technical skills, data, and personal characteristics.

4.3.1 Business management

All companies mentioned substance knowledge within their business area as very beneficial and important, the answers presented here will however only focus on general business management skills.

Within the area of business management, companies A and B mentioned project management skills as a core competence today that is a must-have. Company C also mentioned project management skills but did not highlight them as much. The level of skillset differs from basic understanding to managing complex projects, but it was clear that all companies required some level some knowledge around project management.

Other skills needed within business management where data data-driven management and data-driven development, communication, and risk management. This was identified especially by company B.

Other areas that were mentioned in the interviews, but with lower priority were marketing, sales, and human resource knowledge.

Company B mentioned agile mindset and agile working methods as skills that are valued.

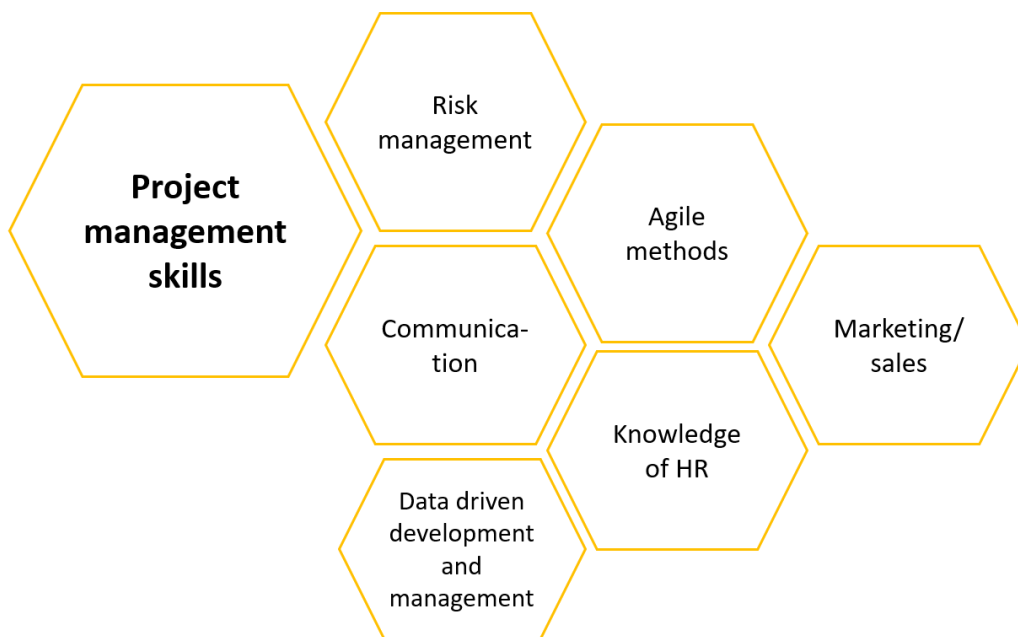


Figure 12: Results, business management

4.3.2 Financial management

All companies interviewed have separate financial departments with people working with accounting, budgeting, and other financial-specific tasks. In addition to these, some levels of financial knowledge and financial management were raised by all companies as important to have for employees in MBA-suitable positions. Monitoring key performance indicators and understanding financial metrics to assess the organization's performance were raised as skills that are good to have.

Within the area of financial management, two companies mentioned that they are strategically hiring junior candidates for these positions and letting them grow into more senior roles within the company, this has been proven to be a good solution.

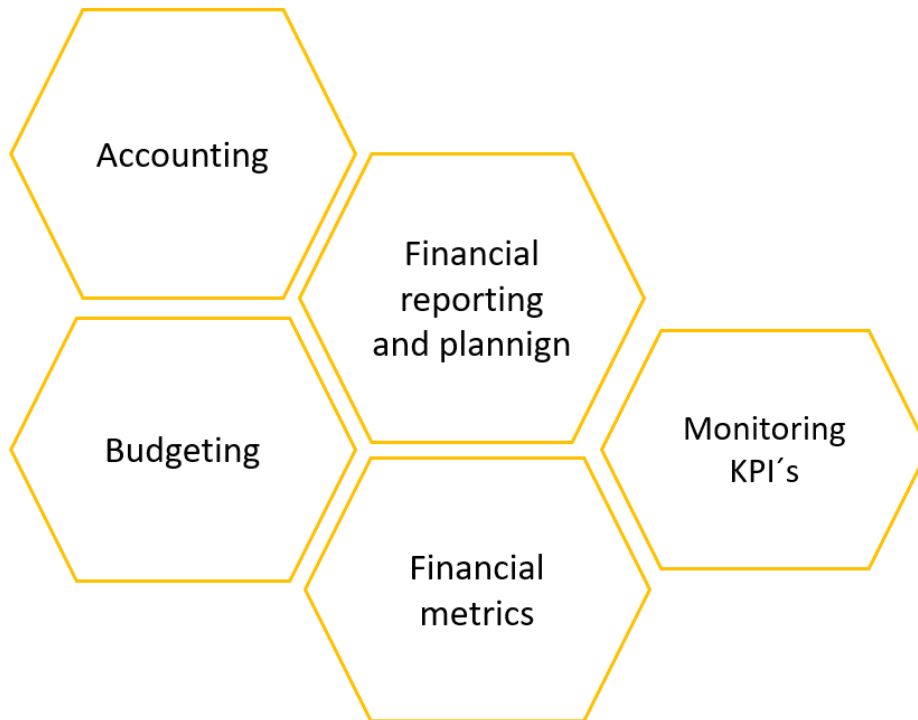


Figure 13: Results, financial management

4.3.3 Technical skills

Company A mentioned that on a general level, good computer skills and understanding are crucial for them. The ability to search for and collect information.

Company B mentioned especially the understanding of how to incorporate AI into their business and daily work as important. They also see a combination of technical skills with business management skills as important. Knowledge of how to utilize the current technologies in the business was also highlighted by these companies.

All companies use Microsoft Office 365 in their daily work. Robotics was raised to some extent by all the companies.

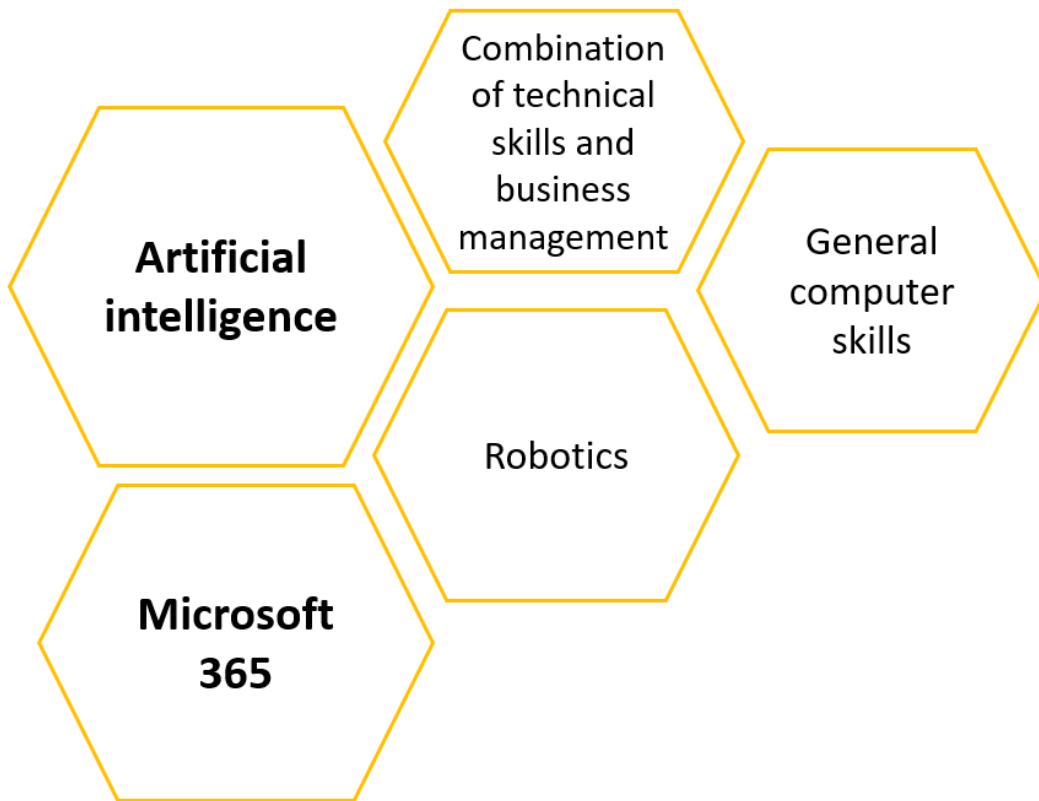


Figure 14: Results, technical skills

4.3.4 Data

All companies interviewed raised the topic of data as important or crucial for the future business, several also identified that this is an area where they could improve and where their employees would benefit from more training. Understanding data, being able to analyze it, and decision-making based on data was mentioned in the interviews. The interviewed companies also identified that the topic of data will be increasingly important in the future.

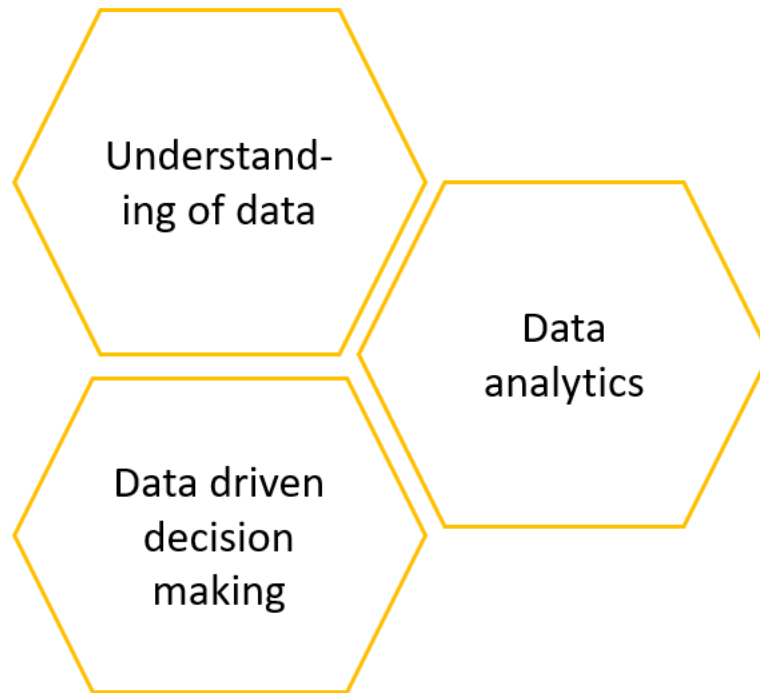


Figure 15: Results, data skills

4.3.5 Personal Characteristics

Looking at what soft skills companies appreciate in their employees, all interviewed raised leadership as the number one most important soft skill people need to have today. Some specifically mentioned modern leadership methods such as coaching leadership as important. Being able to lead a team, resolve conflicts, and have emotional intelligence were the following top skills mentioned. General work-life skills that are expected from employees in MBA-suitable positions are decision-making, the ability to adapt and be flexible, good communication skills, critical thinking, and good time management. Different types of communication skills were mentioned based on the roles the person is working on, some might need negotiation skills, while others need public speaking skills.

All the companies, in one way or another, mentioned the ability to stay up to date with new information and new solutions as important, as well as being eager to continuously learn new things.

All companies also mentioned language skills as important; Finnish, and English but also Swedish.



Figure 16: Results, Personal characteristics, and skills

4.4 Upcoming and changing needs in competences

Company A had identified digitalization as an area that will require more knowledge in the future, their field has not yet transitioned so strongly into digital solutions. The upcoming digitalization will require extensive development of their current employees.

Companies A and B mentioned that both data and leadership are areas that will require more skilled people in the future.

Company C highlighted the importance of general working life soft skills in the future, such as time management skills, problem-solving, and critical thinking.

When it comes to language skills, English will continue to be an important language within the corporate world, but since Swedish and Finnish both are strong languages in Ostrobothnia, these are also important.

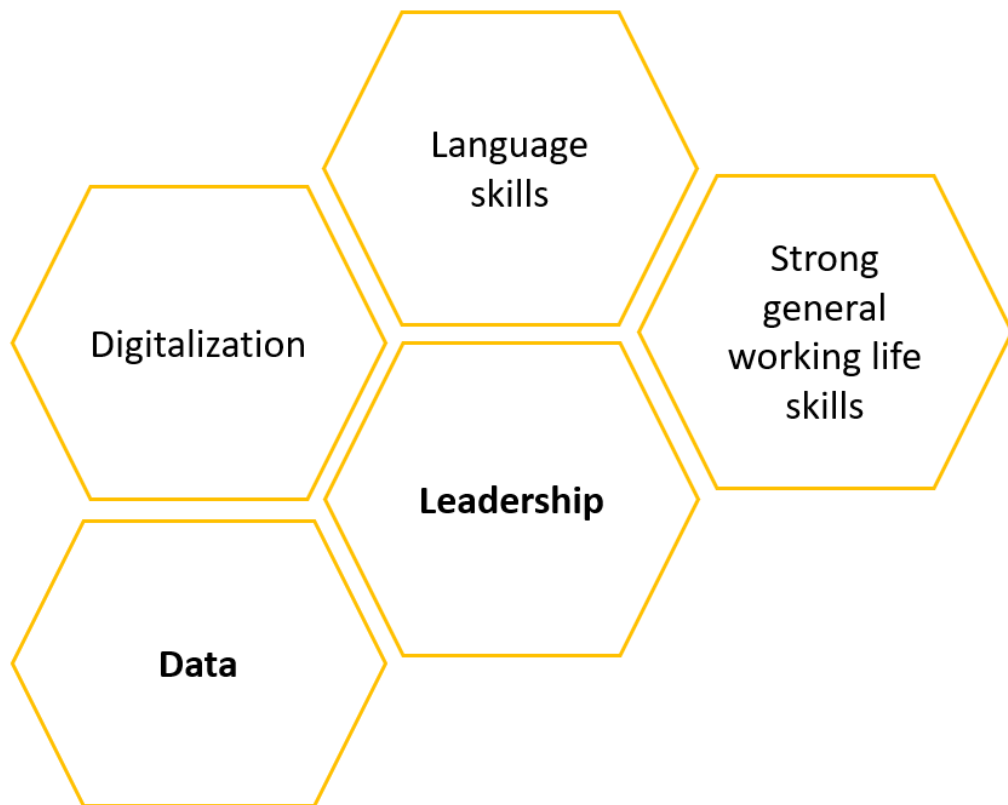


Figure 17: Results, upcoming and changing needs in competencies.

4.5 Co-operation with educational institutions

At the end of the interviews, I asked the companies about their collaboration with educational institutions. Company A mentioned that they would value shorter and more specific educational solutions.

Company B has an ongoing collaboration with several educational institutions that work well, it could however be a little bit more coordinated.

Company C mentioned they have had several master's and bachelor's theses written in cooperation with them.

5 Discussion

The aim of this research through research question one was to understand what skills are the most sought after by employees in the Ostrobothnia area. The information presented from the interviews with companies highlights the practical skills and competencies that are highly valued in today's business environments. By analyzing these findings through the theoretical framework, we can better understand how the Novia University of Applied Sciences MBA program in digital business and management aligns with industry needs and where gaps may exist.

5.1 Competence development or current employees within the company

In the first part of the interview, companies were asked questions about developing the skills of their current employees. The interview results show a strong emphasis on competence development among existing employees. Company A highlighted the need for continuous skills development, particularly in leadership, which reflects the emphasis on lifelong learning and continuous improvement discussed in the theoretical framework about the relevance of skills to company success (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019). The same section in the theory emphasizes the need to develop competence and skills for new challenges and requirements and points out how increased productivity and structural changes in the business and administration sector require constant updating and development of skills among employees. Employees with the latest knowledge and updated competencies are a valuable competitive advantage for most companies.

Company B has a structured approach to employee competence development, with personal skills development plans and allocation of time for personal development. Company C's central online learning platform also reflects the modern approach to skills development, which emphasizes accessibility and flexibility in learning that is highlighted in the research of the Finnish National Agency for Education (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019).

5.2 Difficulties when recruiting new employees

The recruitment challenges faced by companies A and B highlight a wider trend of shortages in certain skills, such as data and project management. The difficulty in finding qualified candidates with competencies within these areas reflects results in the research done by McKinsey company on skills that are difficult to automate (Chui;Manyika;& Miremadi, 2016). Company A's focus on candidates' ability to learn and adapt is consistent with the theoretical concept of lifelong learning and continuous skill improvement, where personal characteristics often take precedence over immediate hard skills.

The companies also raised a geographical challenge, with students moving away from Ostrobothnia, emphasizing the need for local strategies to retain talent. The theory discusses that Finland could strengthen its position as a leading player in the business and administration sector and ensure sustainable and successful development in the long term (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019). These difficulties also highlight the importance of developing the competencies of the company's current employees, since the geographical area brings further challenges to finding skilled people.

5.3 Current skills needed and upcoming needs in skills

The interview findings showed that project management, data-driven decision-making, and communication skills are important competencies. Company B's mention of data analytics and AI integration resonates with the theory's focus on digital competencies and the need for companies to adapt to technological advances (Leveälahti;Nieminen;Nyyssölä;Suominen;& Kotipelto, 2019). Novias current study program in digital business and leadership offers a range of courses focusing on these topics: digital project management in practice, financial decision-making, digital tools in business: data analytics and business intelligence, and Digital tools in business: communication. It could be beneficial to add additional studies around the topic of communication since the course digital tools in business: communication according to the topic, mostly focuses on the tools used for communicating, not the communication style itself. Leadership skills were raised in the interviews by all companies, one suggestion for improvement could be to add studies around communicating as a leader in difficult situations, or communication as part of coaching leadership.

The topic of artificial intelligence, AI, is missing from the current study program. The research showed that a general understanding of how to incorporate AI solutions into the companies' businesses would be beneficial. AI could also be used in analyzing data or helping out with certain tasks.

Studies around the topic of data are incorporated into digital tools in business: data analytics and business intelligence, research methodology, and financial decision-making. These courses give the student a wide range of insights into how data can be used, analyzed, and interpreted which is suitable for the MBA program. One idea though could be to slim down on the course research methodology, since it is set up from a research perspective and instead add something that would be more beneficial in an MBA student's daily work. A suggestion could be something around the topic of artificial intelligence, maybe how to use it when analyzing data or other content.

Leadership skills were the topic that was highlighted as most important for all companies interviewed in the research. They all mention the criticality of having competent employees leading other people, and that leadership skills are crucial in almost all positions. The importance of leadership and personal qualities such as emotional intelligence, adaptability, and teamwork that were shown in the research reflects the theory's emphasis on modern leadership practices and the value of soft skills in business environments (Dewar, 2023). This supports the idea that while hard skills are important, it is often the personal qualities that drive success and facilitate ongoing skill development (Connett, 2023).

The current MBA program in digital business and leadership offers courses in sustainable leadership as well as self-leadership and personal development. It is highly important to know and understand yourself to be able to lead others successfully, so the studies in self-leadership and personal development are important, but it still raises the question of whether should the program have more leadership-focused courses. Modern leadership methods such as coaching leadership are missing from the current study program, and this specifically was a topic raised by the interviewed companies.

5.4 Co-operation with educational institutions

The University of Applied Sciences Act (Finlex, 14.11.2014/932, 2014) is the purpose of the universities of applied sciences regulated in section 4. According to this law, the main task of the universities of applied sciences is to offer university education for vocationally oriented expert tasks. This teaching must be based on the demands and development of working life and the development of working life, as well as on research, artistic, and cultural perspectives. To be able to meet the demands of this law, the educational institution needs to uphold an active collaboration with companies from different businesses. This could happen in several ways; continuous dialog with representatives from working life, speakers from working life attending the courses, students doing project-related assignments for real companies, or students doing thesis works for companies of the educational institution. However, a vast variety of collaboration is needed to maintain knowledge of the upcoming needs of the different business areas.

5.5 Other reflections

Out of the top 10 competencies mentioned in the 2024 research of in-demand competencies in the theory (Dewar, 2023), 3 stood out in the interviews as very important, those where:

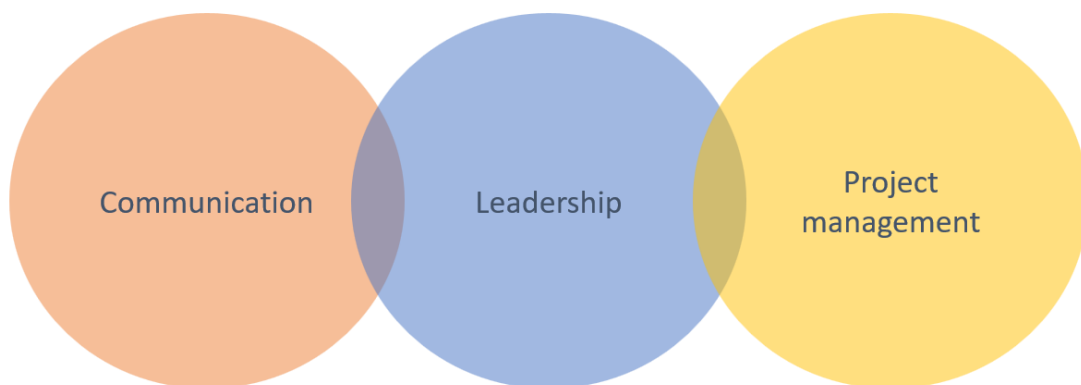


Figure 18: Alignment one on theory and research skills

Further on, 3 competencies mentioned in the 2024 research of in-demand competencies in the theory (Dewar, 2023), were mentioned as important:



Figure 19, Alignment two on theory and research skills

This is also consistent with findings in the McKinsey research, where the results showed that important skills in the business world include critical thinking, problem-solving, decision-making, and time management (Chui;Manyika;& Miremadi, 2016).

Amongst the top 10 competencies listed in the theory, customer service, research, sales, and management were not raised as important in the interviews.

Marketing skills were not on the top 10 list of competencies for 2024 presented in the theory section. One year before, in 2023, skills within this area were number 9 on the list. Of the companies interviewed, not one mentioned marketing skills as critical for them today or in the future. Novias MBA program in digital business and leadership offers the course Exploring the World of digital marketing communication, and Digital Tools in Business: marketing and graphic design. Since the research shows that marketing skills are not a critical competence for companies, a suggestion would be to re-think if these courses build on the competencies needed, or if the study credits could be used on some more in-demand topics.

Novias MBA program in digital business and leadership has 2 ECTS in the course academic reading and writing. Although this course only adds little or nothing of value from a work-life perspective, it is most likely to be a necessary course for the student to be able to carry out their studies.

The student can develop and improve their teamwork skills in the MBA program of digital business and leadership since it is set up in such a way that many of the course's assignments are done as group work. This type of working method also develops the

student's ability to work with people from other cultures, since many of the students come from outside of Finland.

During the discussions in the interview, it became clear that companies value employees who have a mix of both technical skills and soft skills, not to mention the substance knowledge for the specific area the company is operating. Understanding current and upcoming technology brings an advantage that improves the employee's possibility to succeed in a role.

5.6 Limitations and reliability of the study

The research was carried out as semi-structured qualitative interviews, providing a good level of reliability to the answers. During the interviews, the interviewer where able to change focus, or dig deeper into specific topics, depending on the answers of the respondents. This is one of the main benefits of semi-structured interviews (Interaction design foundation, 2017)

The research is limited however in the sense that only the topics discussed in the interviews are noticed. That does not necessarily mean that if the respondent did not mention a certain competence, it would not be important. It might be that the respondent has considered some competencies to be obvious for today's employees.

The reliability of the quality of the research is high. The responses to the interview questions were clear and the researcher where able to interpret them. The research provided answers to the research questions and all in all the result of the research is in line with the objectives and the commissioner's request.

6 Conclusion

This research aimed to understand the specific competencies valued by businesses and how these requirements align with the MBA program in digital business and leadership at Novia University of Applied Sciences. The insights gained from interviews with various companies provide a good understanding of the current skills landscape. As a conclusion, the thesis will look at the results from the perspective of the research questions.

Research question 1: What are the most sought-after skills and competencies in the field of MBA today and in the future?

The research presented a complete list of the most sought-after competencies grouped into different sub-categories. These are, to mention only some; project management, communication, HR, accounting, Microsoft 365, Artificial intelligence, general computer skills, data analytics, data understanding, leadership, language skills, conflict resolution, and emotional intelligence. The most important themes from the research are project management, artificial intelligence, data, and leadership.

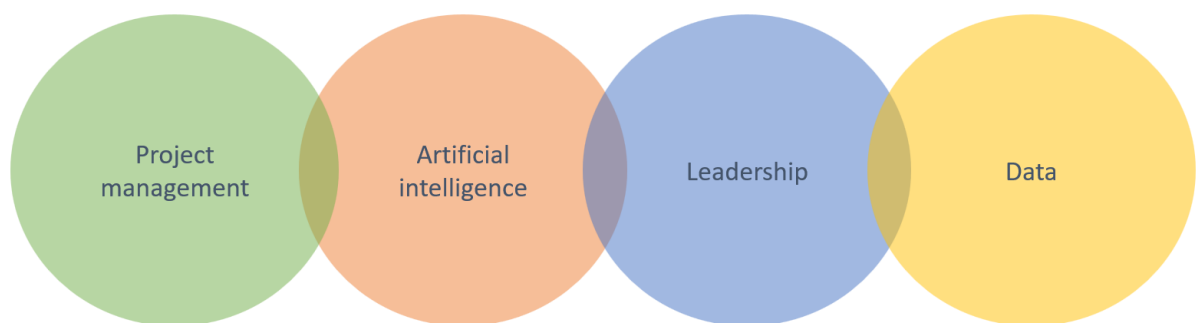


Figure 20, Answers to research question 1

Research question 2: What are the significant gaps between the skills taught in Novias educational programs and those sought after by employers?

After mapping the competence requirements against the current curricula of the MBA program in digital business and leadership, offered at Novia University of Applied Sciences, four gap areas were found: Communication, leadership, AI, and marketing.

- Gap 1: Communication, the current courses in communication focus mainly on the tools used in communication. The interviews showed a requirement for understanding how to communicate in different situations, especially as a leader.
- Gap 2: Leadership, the research showed that vast leadership skills are important and courses within this topic could be even wider in the study program. The current study program is to some extent missing the most modern leadership theories.
- Gap 3: Artificial intelligence, common understanding of AI, and how to incorporate it into business processes were raised as important skills. Current study programs have no courses on this topic.
- Gap 4: Marketing, the research showed that marketing was not a competence that the companies interviewed raised as critical for their future success. The current study program has some courses focusing on marketing.

Research question 3: What specific changes can be made to existing, or new, educational programs to better align with industry demands?

This research question was also answered and the main suggestions for changes were:

1. Add additional studies around the topic of communication since the course Digital Tools in Business: communication according to the topic, mostly focuses on the tools used for communicating, not the communication style itself. Add courses around communicating as a leader in difficult situations, or communication as part of coaching leadership.
2. Add courses on artificial intelligence and how to incorporate AI solutions in business processes
3. Add modern leadership methods such as coaching leadership.
4. Remove courses around marketing and graphic design, since the research shows that marketing skills are not a critical competence for the companies.
5. If possible, slim down on the course research methodology, and add something more beneficial for an MBA student's daily work. A suggestion could be something

around the topic of artificial intelligence, maybe how to use it when analyzing data or other content.

All research questions were answered, and the conclusions drawn from this research show that Novia University's MBA program addresses many of the required skills of today's business world. There is however room for some enhancement to meet the evolving demands of businesses. By incorporating a more comprehensive approach to communication and leadership, the program can better equip students to succeed in their careers while meeting the demands for competencies of the companies.

References

- Chui, M., Manyika, J., & Miremadi, M. (2016). *Where machines could replace humans - and where they can't (yet)*. McKinsey & Company. Retrieved 2024, from <https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/where%20machines%20could%20replace%20humans%20and%20where%20they%20cant/where-machines-could-replace-humans-and-where-they-cant-yet.pdf>
- Connett, W. (2023, 12 21). *Hard Skills: Definition, Examples, and Comparison to Soft Skills*. (D. Kindness, Editor) Retrieved 02 11, 2024, from Investopedia: <https://www.investopedia.com/terms/h/hard-skills.asp>
- Dewar, J. (2023, 06 16). *The Most In-Demand Skills for 2023*. Retrieved 01 12, 2024, from LinkedIn data insights: <https://www.linkedin.com/business/talent/blog/talent-strategy/linkedin-most-in-demand-hard-and-soft-skills>
- Erkkilä, P. (2023, 03 10). <https://www.coastline.fi/sustainability-drives-success/>. Retrieved 12 27, 2023, from <https://www.coastline.fi/sustainability-drives-success/>
- Finlex. (2009, 7 24). *24.7.2009/558*. Retrieved 12 29, 2023, from Finlex: <https://www.finlex.fi/sv/laki/ajantasa/2009/20090558>
- Finlex. (2014, 11 14). *14.11.2014/932*. Retrieved 12 29, 2023, from Finlex: <https://www.finlex.fi/sv/laki/ajantasa/2014/20140932?search%5Btype%5D=pika&search%5Bpika%5D=Yrkesh%C3%B6gskolelag>
- Finlex. (2014, 12 18). *18.12.2014/1129*. Retrieved 12 29, 2023, from Finlex: <https://www.finlex.fi/sv/laki/ajantasa/2014/20141129>
- Girardin, M. (2023, 06 29). *What Are Hard Skills? Definition and Examples*. (J. Skowronski, Editor) Retrieved 02 11, 2024, from The Forge: <https://www.theforage.com/blog/basics/hard-skills>
- Interaction design foundation*. (2017, 12). Retrieved 05 04, 2024, from Semi-Structured Interviews: <https://www.interaction-design.org/literature/topics/semi-structured-interviews>
- Jansson, M. (2014, 06 133). *Lista: De här är regionens största företag*. Retrieved 02 11, 2024, from Vasabladet: <https://www.vasabladet.fi/Artikel/Visa/147061>
- Kaplan, Z. (2023, 06 23). *What Are Soft Skills? Definition and Examples*. Retrieved 02 10, 2024, from The forage: <https://www.theforage.com/blog/basics/what-are-soft-skills-definition-and-examples>
- Leveälahti, S., Nieminen, J., Nyyssölä, K., Suominen, V., & Kotipelto, S. (2019). *Osaamisrakenne 2035 Alakohtaiset tulevaisuuden osaamistarpeet ja koulutuksen kehittämishaasteet -Osaamisen ennakointifoorumin ennakointituloksia*. Opetushallitus. Helsinki: Opetushallitus. Retrieved 02 16, 2024, from Opetushallitus: https://www.oph.fi/sites/default/files/documents/osaamisrakenne_2035.pdf

- Nori, I. (2023, 09 18). *Regionekonomi*. Retrieved 01 13, 2024, from Österbotten i siffror: <https://www.pohjanmaalukuina.fi/regionekonomi/foretag/>
- Novia university of applied sciences. (2023). *Master of business administration, MBA, digital business and management*. Retrieved from Novia university of applied sciences: <https://www.novia.fi/en/study/study/business/master-of-business-administration-digital-business-and-management/>
- Novia university of applied sciences. (2023). *Master of business administration, service design*. Retrieved from Novia university of applied sciences: <https://www.novia.fi/en/study/study/business/master-of-business-administration-service-design>
- Närings- trafik och , m. (2022, 10 4). *Närings- trafik och , miljöcentralen*. (m. Närings- trafik och , Producer) Retrieved 02 10, 2024, from Närings- trafik och , miljöcentralen: <https://www.ely-keskus.fi/sv/-/seitsema%3%A4n-faktaa-maataloudesta>
- Opetus ja kulttuuriministeriö. (2023, 12 28). *Finlands utbildningssystem*. Retrieved from Opetus ja kulttuuriministeriö: <https://okm.fi/sv/utbildningssystemet#H%C3%B6gskolesystemet>
- Ostrobothnia Chamber of Commerce. (2023, 12 27). *Coastline*. (O. C. Commerce, Producer) Retrieved 2023, from Coastline: <https://www.coastline.fi/this-is-coastline/>
- This is service design doing*. (n.d.). Retrieved 05 04, 2024, from Desk research: secondary research: <https://www.thisisservicedesigndoing.com/methods/secondary-research>
- Tradenomiliitto. (2023). *Työnantajien näkemykset Tradenomi (YAMK)-tutkinnosta 2023*. Helsinki: Tradenomiliitto. Retrieved 02 16, 2024, from https://www.tradenomi.fi/site/assets/files/20286/tradenomit_yamk_tutkimus_2023.pdf
- Vijayamohan, P. (2023, 03 02). *Survey sparrow*. Retrieved 05 04, 2024, from Desk Research 101: Definition, Methods, and Examples: <https://surveysparrow.com/blog/desk-research/>
- Österbottens förbund. (2023, 12 27). *Österbottens förbund - pohjanmaan liitto*. Retrieved 2023, from Österbottens förbund - pohjanmaan liitto: <https://www.obotnia.fi/en/>

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Appendices

Appendix 1: interview guide

Thank you for taking the time to discuss your company's competence requirements for people working in MBA-suitable positions with me today. The reason for our conversation is to gather information for my master's thesis that aims to understand how well Novia University of Applied Sciences's current MBA program in digital business and leadership is aligned with companies in Ostrobothnia's needs. After finishing an MBA program, one might work in roles related to company business development, project management, finance, manager roles, and so on. Everything we discuss is confidential and you will remain anonymous. Before we start, may I have your permission to record our conversation?

Company staff situation

- Approximately how many employees does your company have in MBA-suitable positions?
- What is the allocation of your staff in MBA-suitable positions? (External/internal, offshore/onshore)
- Are your people in MBA-suitable positions able to work remotely? If so, how often?

Competence development or current employees within the company

- Describe what the competence development of current employees looks like at your company.
 - *Internal training, external training, none, opportunity for employees to study in a self-chosen manner during work hours*
- How often is skill development for your employees conducted?
 - *Continuously as part of the work (using the 70-20-10 method), once a year or more often, every other year, more than every other year, never*
- How do you view the balance between external recruitment and developing existing employees to fill open positions?

Challenges in recruitment:

- Can you share examples of situations where you have had difficulty finding candidates with the desired skills? What were the challenges?
 - *Difficult to find candidates with appropriate qualifications, difficult to find candidates with up-to-date qualifications, difficult to find candidates with the right technical skills, difficult to find candidates with the right soft skills. Difficult to find candidates with the right attitude and motivation.*
 - *Are there specific skills that you consider lacking in today's workforce?*
- What specific skills and knowledge do you usually look for in potential employees with an MBA education?

- How do you view the ability to adapt and learn new skills and technologies compared to already possessing specific skills?
- How do you value experience versus education when considering candidates?
 - *Are there specific experience levels or educational backgrounds that you prioritize?*

Current competence needs:

- What skills and competencies are important to you when recruiting to open MBA-suitable positions?
 - **Business management**
 - *Digitalizing business/Digital adaptability*
 - *Project management skills*
 - *Agile working methods*
 - *Marketing*
 - *Sales*
 - *E-commerce, online transactions*
 - *User experience/service design*
 - *Human resource knowledge*
 - *Risk management*
 - *Communication*
 - **Technical skills**
 - *Coding or programming*
 - *Cyber security knowledge*
 - *Cloud services (AWS, Microsoft Azure, Google Cloud)*
 - *API development*
 - *CRM systems*
 - *User interface development*
 - *Microsoft Office 365*
 - *Collaboration tools (Slack, Teams, zoom)*
 - *Quality assurance*
 - **Data skills**
 - *Data analysis*
 - *Database management (tietokanta)*
 - *Data model knowledge (tietomalli)*
 - *Data protection (tietoturva)*
 - *Information security (Tietosuoja)*
 - *Business intelligence tools (Power BI, Tableau)*
 - *Machine learning methods/AI*
 - **Business and Financial management**
 - *Budgeting*
 - *Accounting*
 - *Financial planning, analysis, reporting*
 - *Financial decision making*

- *Performance management (monitor key performance indicators (KPIs) and financial metrics to assess the organization's performance against strategic objectives.)*
- *Cost management and analysis*
- **Personal characteristics and skills**
 - *Leadership*
 - *Coaching leadership*
 - *Decision making*
 - *Ability to adapt and be flexible*
 - *Communication*
 - *Public speaking*
 - *Negotiation skills*
 - *Networking skills*
 - *Teamwork*
 - *Emotional intelligence/empathy*
 - *Conflict resolution*
 - *Problem-solving*
 - *Critical thinking*
 - *Time management*

Changes in competence requirements

- Are you expecting changes to these requirements during the upcoming 5+ years?
- How do you view the current and future importance of soft skills (e.g. communication, collaboration, problem solving) compared to strictly technical skills?
- How important is it to you that candidates have experience working in different cultural or global contexts?
- Do you see any trends or technological advances that will affect your skills needs? Do you see an increased demand for specific technical skills?

Cooperation with educational institutions:

- Do you cooperate with universities or other educational institutions to shape educational programs according to your need for specific skills? Describe that cooperation.
- Do you see a need for increased collaboration between business and the education sector?
 - Tell us how you would like a possible collaboration to look like

Other comments:

- Is there anything else you would like to discuss, share, or comment on?