

## PREPARING BUSINESS ANALYSTS FOR THE MODERN JOB MARKET: A COMPARATIVE ANALYSIS OF SKILLS AND EDUCATION

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**Purpose:** To analyse and compare business analytics specializations in bachelor's and engineering programs across selected Polish universities, focusing on the skill sets these programs emphasize to meet market demands.

**Design/methodology/approach:** The study employed a comparative analysis of curricula across various institutions, organizing courses by primary skill categories: analytical, technical, communication, and project management skills.

**Findings:** The research highlights distinct differences in focus between bachelor's and engineering programs, with bachelor's programs providing a broader skill base, including essential interpersonal and communication skills, while engineering programs emphasize technical and analytical expertise.

**Originality/value:** This article provides insights into how business analytics education can be better aligned with market demands, offering a clear breakdown of specialization competencies that may guide curriculum development to address skill gaps in the profession.

**Keywords:** Business Analytics, Business Analyst Education, Skills Development.

**Category of the paper:** Research paper.

### 1. Introduction

In today's rapidly evolving business landscape, the role of a business analyst has become crucial in ensuring that organisations can efficiently adapt to technological advancements and market changes (Min, 2016). Business analysts are responsible for analysing and interpreting data to provide valuable insights, supporting informed decision-making that drives strategic goals. With the growing emphasis on digitalization and data-driven operations, employers increasingly seek skilled professionals capable of navigating complex data environments, anticipating market trends, and optimizing business processes (Bayrak, 2015; Liu et al., 2023).

The business analyst profession has evolved significantly over the past few decades. Traditionally, business analysts were seen as facilitators who helped companies align their technology investments with their business strategies. Their responsibilities included gathering and documenting business requirements, creating process models, and working closely with IT teams to implement technical solutions that addressed specific business challenges (Richards, Marrone, 2014). However, the role of the business analyst has expanded in response to the growing complexity of business environments and the increasing reliance on technology and data to achieve organizational goals.

Studies, such as those by Vashist et al. (2011), highlight how employers are not only looking for professionals who can perform traditional business analysis tasks, such as requirements gathering and process modelling, but are also seeking individuals with advanced technical skills, including proficiency in data visualization tools, programming languages, and predictive analytics. According to Meredith et al. (2019), business analysts have moved beyond their traditional role as intermediaries between business and IT departments and are now expected to contribute to broader strategic initiatives, particularly in areas related to data-driven decision-making and process optimization.

Recent research indicates that business analysts are now seen as strategic partners who can help organizations navigate digital transformation efforts, improve operational efficiency, and gain a competitive advantage through data analysis (Aleryani, 2020). The rising importance of the business analyst in today's market is reflected in employers' growing expectations, which now encompass a wide range of technical, analytical, and soft skills.

This is closely related to digital transformation, which is fundamentally changing the way companies operate. According to Vial (2019), digital transformation refers to the integration of digital technologies into all areas of a business, resulting in fundamental changes to how organizations deliver value to customers. As businesses increasingly adopt digital technologies such as artificial intelligence (AI), machine learning (ML), and the Internet of Things (IoT), the role of the business analyst is evolving to include responsibilities related to the management and implementation of these technologies.

Business analysts are now expected to play a key role in digital transformation initiatives by identifying opportunities for innovation, ensuring that technology implementations align with business objectives, and managing the organizational changes that result from the adoption of new technologies (Mergel et al., 2019). This shift in responsibilities requires business analysts to have a deep understanding of both business processes and digital technologies, as well as the ability to manage change and lead cross-functional teams. According to Richards and Marrone (2014), business analysts who can successfully navigate the challenges of digital transformation are highly valued by employers and are seen as critical to the long-term success of their organizations.

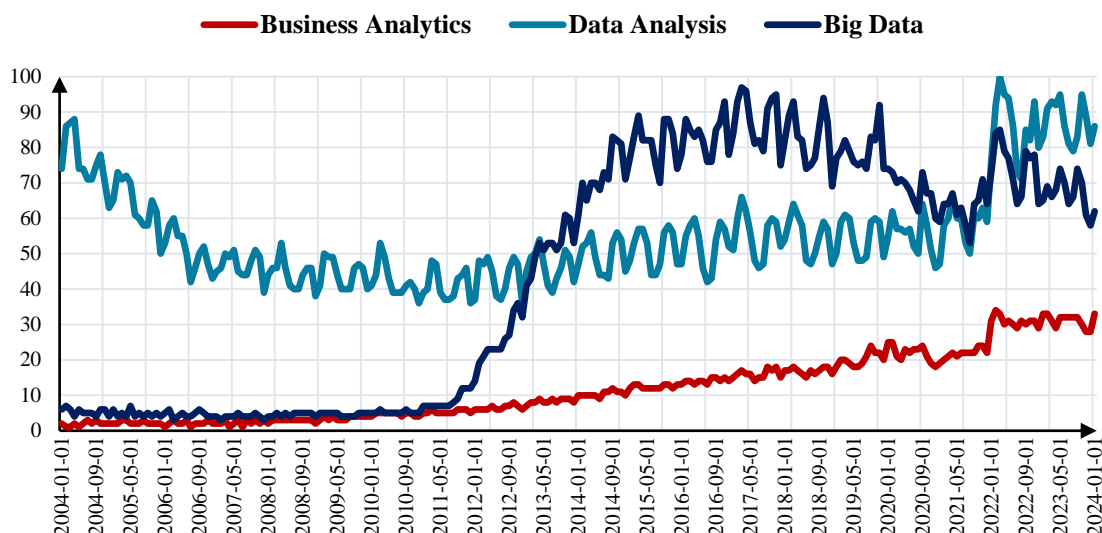
This article conducts a comparative analysis of business analytics specializations within selected bachelor's and engineering programs across Polish universities. It examines the variety and focus of courses within these specializations, categorizing them by the types of skills they aim to develop: analytical, technical, communication, and project management skills. By analyzing data from curricula, the study highlights differences in educational approaches between bachelor's and engineering programs, noting that bachelor's programs generally offer a broader skill set, including interpersonal skills crucial for teamwork. In contrast, engineering programs primarily emphasize technical and analytical competencies. This analysis helps clarify how current educational offerings align with the market demands for business analyst roles.

The research connects educational outcomes to job market demands, such as the growing importance of digital transformation, making it practical and application-oriented. This linkage ensures that educational programs are evaluated not just theoretically but also for their employability outcomes. Another new feature is the division of subjects taught in specializations according to competencies that students can acquire in them. By focusing on the interplay between educational programs and labour market demands in Poland, this article stands out for its localized insights and actionable recommendations.

## **2. Business Analyst in the Modern Job Market (Example of the Polish Market)**

Numerous definitions describe the role of business analytics in shaping organisational value across various industries. However, the most widely accepted neutral definition describes it as a systematic process of transforming raw data into valuable insights (Schniederjans et al., 2014). This is achieved through the application of appropriate techniques, including statistical and quantitative analyses, as well as predictive, mathematical, and optimisation models, all of which can greatly inform sound business decision-making. Business analytics also encompasses the exploration, examination, interpretation, and visualisation of data from diverse sources to identify trends, patterns, and correlations that can drive strategic planning and operational improvements (Wolniak, Grebski, 2023).

Over the years, interest in data analysis has been growing, with new areas emerging, such as Big Data and business analytics, as shown in Figure 1.



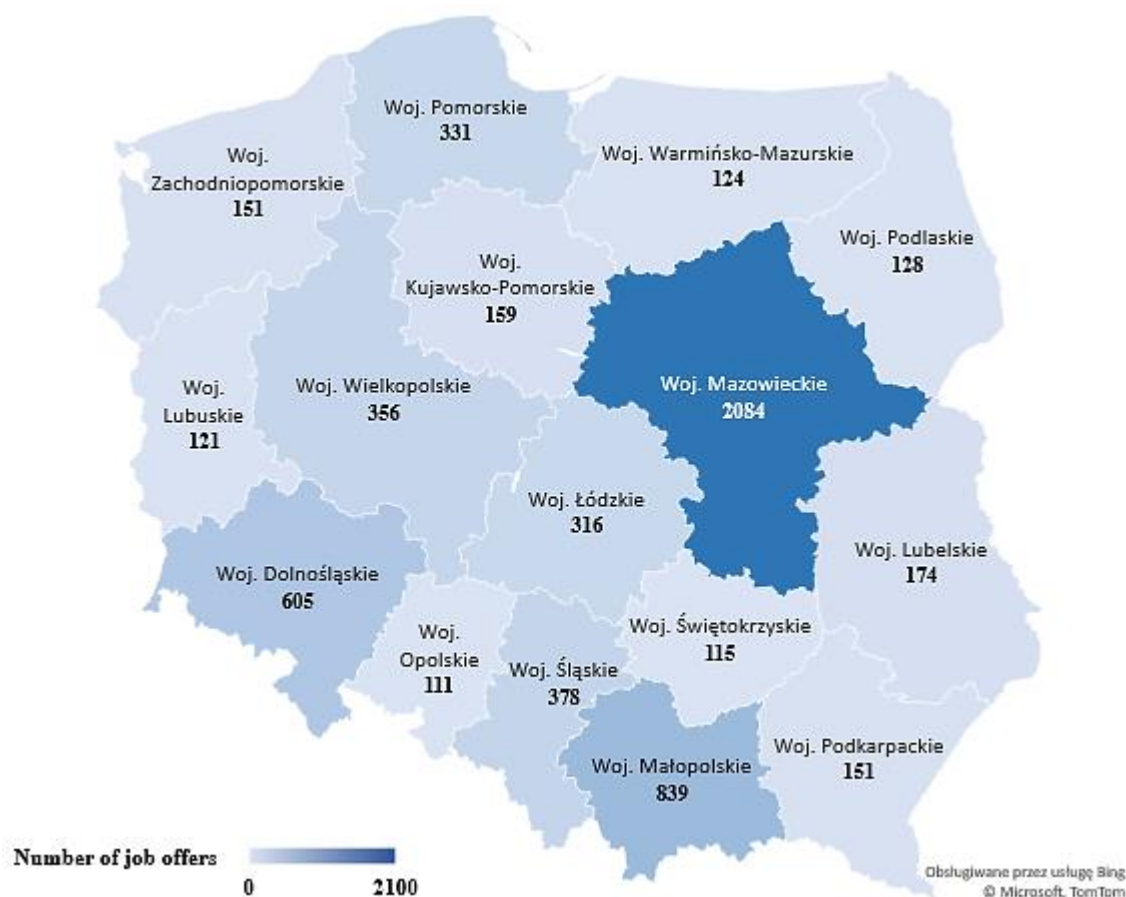
**Figure 1.** Interest in key terms related to business analytics from 2004 to 2024.

Source: own study based on the Google Trends platform (2024).

Employers are increasingly investing in the development of analytical teams in their companies, which leads to the employment of more and more business analysts. According to research conducted by the U.S. Bureau of Labor Statistics (2024), the demand for these specialists is growing yearly. It is expected to increase by 11% from 2023 to 2033, much faster than the average for all professions. Similar trends are observed in Poland. Similar trends are observed in Poland. Just Join IT analysis indicates that in 2022, business analysts (especially in the IT industry) could count on 2.5 times more job offers in 2022 than a year earlier and on pay rises of around 17% (Marszycki, 2023).

This data is also confirmed by the latest report 'The Future of Education. Scenarios 2046', which was developed by the Infuture Institute and Collegium da Vinci (The Future of Education. Scenarios 2046, 2021). It indicates that data analysis is one of the five key competences of the future, which will enjoy growing interest in the coming years.

In addition, according to research conducted by Coders Lab (2021), which aimed to check the popularity of other professions not related to programming in the IT industry, the profession of business analyst came first. Among the job advertisements that appeared from January to June 2021 on the Pracuj.pl website, 6,143 concerned the position of business analyst. The exact distribution of these offers by voivodeship is presented in Figure 2. As can be seen in Figure 2, the vast majority of offers belong to companies located in the Mazowieckie Voivodeship.



**Figure 2.** Number of job offers for business analysts in Poland, broken down by voivodeship, from January to June 2021.

Source: own study based on Coders Lab (2021)

It should also be noted that the popularity of the business analyst profession is also associated with high earnings, as shown in Table 1. The data was obtained from the wynagrodzenia.pl website, which was last updated in January 2024 (Wynagrodzenia.pl, 2024).

**Table 1.**  
*Gross salary distribution by job level for business analyst*

	Amounts in Polish zloty		
	Q <sub>1</sub>	Me	Q <sub>3</sub>
<b>Junior Specialist</b>	5 680	6 760	8 010
<b>Specialist</b>	7 770	9 570	12 000
<b>Senior Specialist</b>	9 750	12 610	16 110

Source: own study based on wynagrodzenia.pl website <https://wynagrodzenia.pl/moja-placa/ile-zarabia-analytyk-biznesowy>

An analysis of data from the National Salary Survey (Table 1) reveals that salaries for analyst positions vary significantly based on competencies and level of professional experience. Notably, for specialist roles, the first quartile exceeds the average gross salary set by the President of the Central Statistical Office, which was PLN 715,548 in 2023. Additionally, 25% of junior specialists earn at least PLN 8010, highlighting the high profitability and financial attractiveness of this profession.

To better understand the role of a business analyst, it is essential to define their function within an organisation's operations and outline the competencies and skills required for success in this field. According to the authors of the PMI Guide to Business Analysis from the Project Management Institute, a business analyst acts as a bridge between stakeholders, responsible for gathering and examining data derived from business performance assessments. This role also involves refining and shaping expectations related to products and other information necessary for building a shared understanding of the product's applications across the entire team (The PMI Guide to Business Analysis, 2018). Such a professional makes decisions based on factual data, which consistently feeds into the company's knowledge base. The actions of a business analyst significantly impact various business areas, reinforcing their operations. Therefore, a business analyst must possess both technical and soft skills that enable them to fulfil their duties effectively.

As Shah (2017) emphasizes, one of the most important tasks of a business analyst is to ensure the appropriate flow of information between business and project teams and teams dealing with IT tasks. The key role of a business analyst in IT and business processes, who often acts as a link between business and technology departments in organizations, is also noted by Paul (2018). His main tasks include: collecting and analysing requirements, designing solutions, supporting the testing and implementation process of new systems and solutions, and analysing and optimizing processes in the organization. Each of these tasks requires a business analyst to have a wide range of skills, including communication skills, the ability to work with diverse teams, and a solid understanding of both the business and technology context, making him or her an important player in the implementation of organizational projects and initiatives. In performing their duties, analysts very often use various tools and programs for data analysis and visualization. Their use helps in better communication between business analysts and stakeholders. According to the annual survey conducted by Bulldogjob Think IT (2024), the most commonly used tools by analysts include programs such as Microsoft Excel, Python, Microsoft Power BI, Tableau, Oracle, Microsoft SQL Server, Enterprise Architect.

In summary, it can be concluded that business analysts should possess competencies and skills that can be categorized into the following main areas:

- **Analytical skills** (logical thinking, problem analysis, identifying patterns and trends in data, understanding statistical models, forecasting, and modelling techniques that help predict future events based on historical data).
- **Communication skills** (teamwork, time management, adaptability to rapidly changing conditions, the ability to communicate complex analysis results understandable, and the skill of creating clear reports and presentations).
- **Technical skills** (data management and analysis capabilities, proficiency with tools that enable the processing of large datasets and deriving valuable insights).
- **Project management skills** (overseeing the lifecycle of an analytical project, from problem identification through data collection and analysis to implementing recommendations).

### 3. Research Methods

The article employs a comparative analysis methodology to evaluate business analytics educational programs in bachelor's and engineering degrees across selected Polish universities. This method was chosen because it enables a systematic examination of differences and similarities in curricula and their alignment with labour market demands. Moreover, it facilitates identifying trends, strengths, and weaknesses in educational approaches to prepare business analysts. This approach is consistent with the article's goal of examining how educational offerings match market needs.

The data sources were the syllabi from official university websites and course catalogues. These are primary sources of information, ensuring accuracy and relevance in the analysis of educational content. Each subject included in the study programmes was assigned skills that students could acquire by completing these courses. Since the study programs contain a huge number of subjects (several dozen), the research was narrowed down to subjects taught within the specializations related to data analysis.

Skills were grouped into four categories—analytical, technical, communication, and project management. This classification reflects the competencies expected of modern business analysts, as identified in industry reports and literature (e.g., PMI Guide to Business Analysis). It ensures the study's findings are directly applicable to workforce requirements. Five bachelor's degree programs and five engineering degree programs from leading Polish universities were selected for the analysis, including Silesian University of Technology, Warsaw School of Economics, University of Economics in Katowice, University of Szczecin, Adam Mickiewicz University in Poznań, Wrocław University of Science and Technology, Cracow University of Technology, Lodz University of Technology and Kielce University of Technology.

In addition, the analysis results were correlated with labour market data (e.g., wage reports and labour demand statistics). The source of this data were platforms such as [wynagrodzenia.pl](http://wynagrodzenia.pl) and Google Trends, as well as IT market reports. This ensures that the analysis is based on real-world relevance, linking education to industry.

### 4. Results and Discussion

In light of the mentioned forecasts and the current job market situation, significant changes have also taken place in Polish universities in recent years. Many institutions have expanded their educational offerings, creating new programs focused on data analysis or updating existing study tracks to better align students' skills with current market needs. As a result, an increasing number of individuals now have the opportunity to gain the qualifications necessary to pursue careers as business analysts.

According to information available on the Forbes portal, obtaining employment as a business analyst generally requires at least a bachelor's degree (Tompkins, 2023). In Poland, this level of higher education includes both bachelor's and engineering studies, which differ in duration and the degree awarded. A bachelor's program typically spans at least six semesters and concludes with a bachelor's degree. In contrast, engineering programs are slightly longer, lasting at least seven semesters, or approximately three and a half years, and lead to a professional title with engineering competencies.

The study programs offered by Polish higher education institutions that provide education in business analytics at both the bachelor's and engineering levels were analysed. Given the extensive number of courses within these programs, the analysis focused specifically on courses offered in data analysis-related specializations. Table 2 outlines the courses available in these specializations at selected universities and within bachelor's degree programs. These courses were aligned with specific competencies and skills that can be acquired through their completion, according to the categories identified in the previous chapter: AS - analytical skills, TS - technical skills, CK - communication skills, and PMS - project management skills.

**Table 2.**

*Courses taught within specializations for selected bachelor's degree programs, categorized by competency areas*

University Name	Subject Name	Skill Type
<b>Silesian University of Technology(PS)</b>  <b>Field of Study:</b> <b>Business Analytics</b>  <b>Specialisation: Data and Business Process Analysis</b>	Time Series Analysis and Forecasting	AS
	Market Data Analysis	AS
	Project Management in Economic Data Analysis	AS, PMS
	Market and Competition Theories	AS
	Financial Reporting of Enterprises	AS, TS
	Business Process Analytics	AS, TS
	Financial Investment Design	AS
	Public Sector Financial Management	AS, PMS
	Socioeconomic Process Simulation	AS, TS
	Enterprise Risk Management Systems	AS
	Derivatives Market	AS
	Basics of Sustainable Development	AS
	Knowledge Engineering and Expert Systems	TS
	Corruption Risk Prevention in Organizations	AS
	Game Theory	AS
	Intercultural Communication and Elements of Business Psychology	CK
Technological Process Control	TS	
<b>University of Economics in Katowice (UE Katowice)</b>  <b>Field of Study: Informatics and Econometrics</b>  <b>Specialisation: Data Analytics</b>	Decision Support Systems	AS
	Data Processing, Analysis, and Visualization in SAS	TS
	Data Integration and Processing in Analytical Systems	TS
	Structural Data Analysis	AS
	Regression Models	AS
	Risk Analysis and Management	AS
	Business Data Visualization	CK
	Business Intelligence Engineering	TS
	Data Warehouse Engineering	TS
	Knowledge Discovery Process Engineering	AS, TS



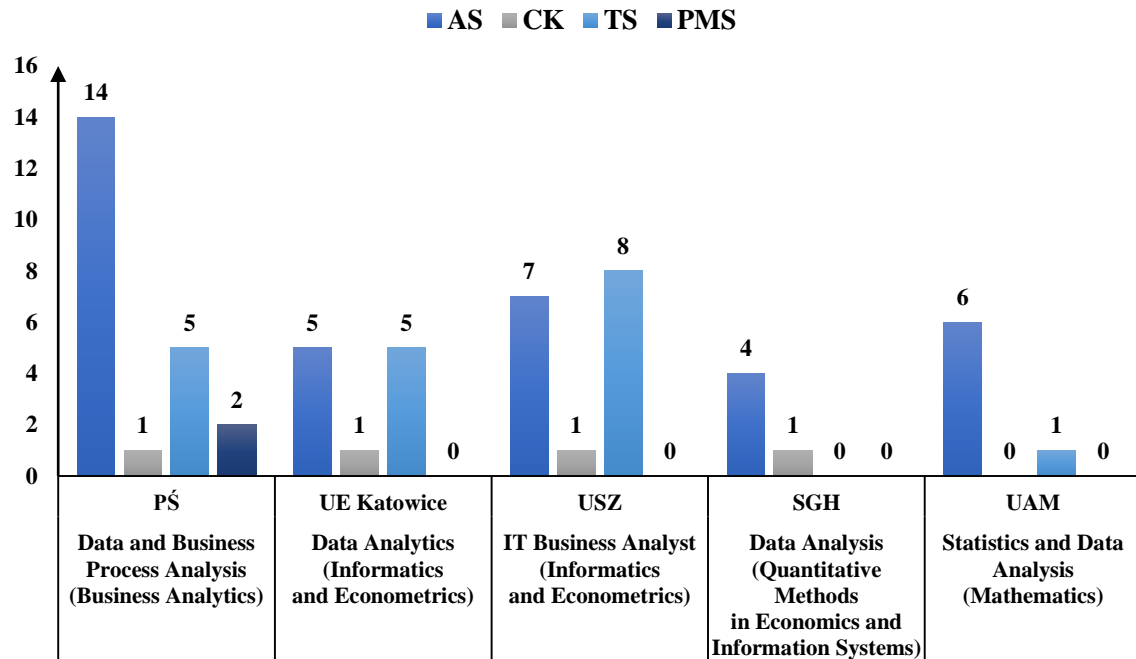
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<b>University of Szczecin (USZ)</b>  <b>Field of Study: Informatics and Econometrics</b>  <b>Specialisation: IT Business Analyst</b>	Data Warehouses	TS
	User Requirements Engineering	TS, CK
	Business Analytics Methods	AS
	Data Mining Methods in Behavioural Economics	AS
	Artificial Intelligence Methods in Business Analysis	TS
	Machine Learning Methods	TS, AS
	Process Modelling in Business Analysis	AS
	Business Intelligence Systems	TS
	IT Systems in Economic Records	TS
	Business Decision Support Systems	AS
	Database Management Systems	TS
	Advanced-Data Analysis Methods	AS
	IT Security Management	AS
	Knowledge Resources in IT Systems	TS
<b>Warsaw School of Economics (SGH)</b>  <b>Field of Study: Quantitative Methods in Economics and Information Systems</b>  <b>Specialisation: Data Analysis</b>	Labor Market Research and Analysis Methods	AS
	Microdata in Demographic and Economic Process Analysis	AS
	Statistics in Business	AS
	Visualisation and Reporting of Statistical Analyses	CK
	Introduction to Actuarial Statistics	AS
<b>Adam Mickiewicz University in Poznań (UAM)</b>  <b>Field of Study: Mathematics</b>  <b>Specialisation: Statistics and Data Analysis</b>	Probability Calculus	AS
	Data Processing and Visualization	TS
	Mathematical Statistics	AS
	Algebra	AS
	Discrete Mathematics	AS
	Measure and Integral Theory	AS
	Topology and its Applications	AS

Source: own study.

The data presented in Table 2 indicates that the highest number of courses is offered within the Data and Business Process Analysis specialization of the Business Analytics program at the Silesian University of Technology, totalling 17 courses. In contrast, the lowest number of courses (5) is found in the Data Analysis specialization within the Quantitative Methods in Economics and Information Systems program at the Warsaw School of Economics. It is important to note that these courses are exclusive to each specialization, meaning the overall number of courses for each program is significantly higher. Courses related to thesis seminars and internships are not included in Table 2.

Based on the data in Table 2, Figure 3 was created to provide a more comprehensive view of the number of courses within each specialization that develop the highlighted competencies and skills. The data presented in Figure 3 show that the most diverse educational offer in terms of subjects taught is the specialization in Data and Business Process Analysis in the Business Analytics major (Silesian University of Technology). It is the only one that offers classes that allow you to gain skills and competencies in all the distinguished areas (AS - analytical skills, TS - technical skills, CK - communication skills, and PMS - project management skills).



**Figure 3.** Courses in specializations for selected universities and bachelor's programs by skill type.

Source: own study.

In the case of the Computer Science and Econometrics major, where the specializations Data Analytics (University of Economics in Katowice) and IT Business Analyst (University of Szczecin) are available, it can be seen that both universities focus on developing similar competencies in their students and through a similar number of courses, taking into account both analytical, technical and communication competences (Fig. 3). On the other hand, the majors offered by SGH and UAM have the fewest courses in specializations and focus mainly on analytical competences.

An analysis of the skills students can acquire through their studies was also conducted for engineering programs. Data for selected engineering study programs are presented in Table 3.

**Table 3.**

*Courses taught within specializations for selected engineering degree programs, categorized by competency areas*

University Name	Subject Name	Skill Type
Wrocław University of Science and Technology (PWR) Field of Study: Mathematics Specialisation: Machine Learning and Data Engineering	Survival Analysis	AS
	Regression Models and Their Applications	AS
	Survey Data Analysis	AS
	Time Series Analysis	AS
	Financial Market Modelling	AS
	Monte Carlo Methods	AS, TS
	Representation Methods	AS
	Nonparametric Methods	AS

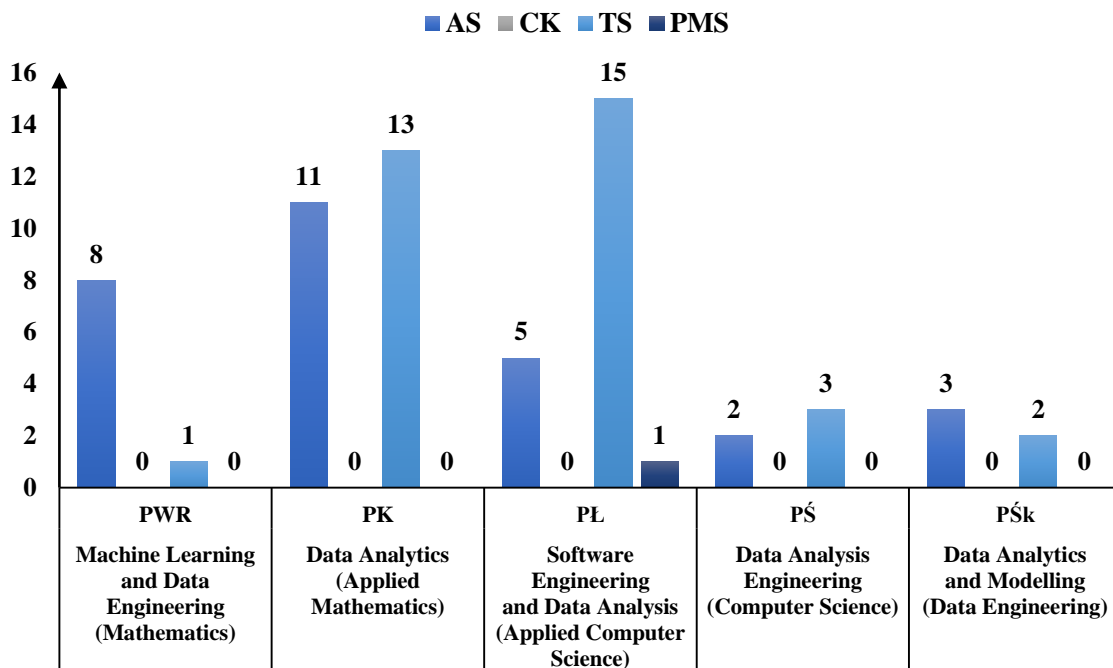
Cont. table 3.

<b>Cracow University of Technology (PK)</b>  <b>Field of Study:</b> <b>Applied Mathematics</b>  <b>Specialisation:</b> <b>Data Analytics</b>	Applied Algebra	AS
	Data Analysis	AS
	Physics Laboratory	TS
	Algorithms and Computational Complexity	AS, TS
	Databases	TS
	Introduction to Artificial Intelligence	TS
	Regression and Analysis of Variance	AS
	Advanced Numerical Methods	TS
	Machine Learning	AS, TS
	Large Data Set Processing	TS
	Discrete Dynamic Systems	AS
	Optimisation Theory	AS, TS
	Signal Analysis	TS
	Algebraic Coding	TS
	Mathematics in Computer Graphics	TS
	Information Theory	AS
	Geometry	AS
	Basics of Cryptography and Cryptanalysis	TS
	Introduction to Quantum Computing	AS, TS
Knot Theory	AS	
<b>Lodz University of Technology (PL)</b>  <b>Field of Study:</b> <b>Applied Computer Science</b>  <b>Specialisation: Software Engineering and Data Analysis</b>	Database Administration and Programming	TS
	Applications in Interpreted Languages	TS
	Metaheuristics and Their Applications	AS
	Cloud Computing Systems	TS
	Spatial Data Analysis	AS
	Introduction to Mobile Systems	TS
	Programming in Python	TS
	Project-Oriented Programming	TS
	Software Engineering	TS
	Computer Recognition Systems	AS, TS
	Problem Workshop in Software Engineering	PMS
	Intelligent Data Analysis Techniques	AS, TS
	Business Intelligence Tool Design	TS
	Network Database Systems	TS
	Advanced Java Programming	TS
	Quality in Software Production Processes	TS
	Internet Marketing	TS
	Optimisation Methods in Economics	AS
	Digital Signal Processing	TS
<b>Silesian University of Technology (PŚ)</b>  <b>Field of Study:</b> <b>Computer Science</b>  <b>Specialisation: Data Analysis Engineering</b>	Data Visualisation and Processing	TS
	Statistical Data Analysis	AS
	Data Mining Algorithms	AS, TS
	Cloud Computing, Big Data, and Social Media	TS
<b>Kielce University of Technology (PŚk)</b>  <b>Field of Study:</b> <b>Data Engineering</b>  <b>Specialisation: Data Analytics and Modelling</b>	Fundamentals of Programming in a Computer-Based Analytical Environment	TS
	Discovering Relationships in Multidimensional Data	AS
	Selected Models of Classification and Regression	AS
	Unstructured Data Analysis	AS, TS

Source: own study.

Based on the data in Table 2, the specializations of Data Analytics in Applied Mathematics at the Cracow University of Technology and Software Engineering and Data Analysis in Applied Computer Science at the Lodz University of Technology have the highest number of courses, with 20 courses offered in each. In contrast, the lowest number of courses is found in the Data Analysis Engineering specialization within Computer Science at the Silesian University of Technology and the Data Analytics specialization in Data Engineering at the Kielce University of Technology, each offering only 4 courses. As mentioned earlier, these are only courses offered within the specialization, not the entire degree program.

Using the data from Table 3, Figure 4 was created to provide a more comprehensive view of the number of courses within each specialization, categorized by the competencies acquired. The information presented above (Fig. 4) indicates that, among the specializations for selected engineering programs and universities, there is less variation in teaching methods compared to bachelor's level programs. These specializations primarily focus on developing technical and analytical skills. Communication skills are not developed in any of the analysed specialisations, and project management skills are only offered by the Lodz University of Technology in the specialisation of Software Engineering and Data Analysis.

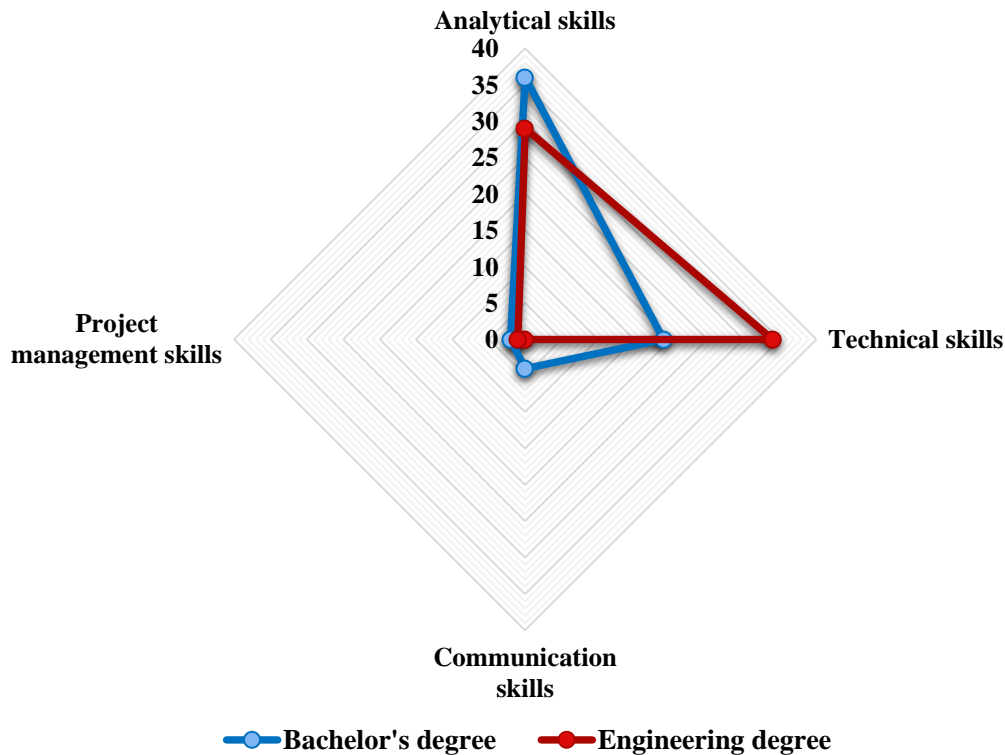


**Figure 4.** Courses in specializations for selected engineering degree programs by skill type.

Source: own study.

The information regarding the analysed skills for the selected specializations in both bachelor's and engineering programs is consolidated in Figure 5. Analysing the data in Figure 5 reveals clear differences between the curricula of bachelor's and engineering programs. Bachelor's programs tend to focus on providing a comprehensive skill set, encompassing both foundational data analysis skills using advanced analytical tools and essential social competencies that are crucial for effective collaboration with other teams.

Engineering programs, on the other hand, are primarily focused on developing technical skills among students, complemented by courses that also build analytical abilities. However, there may be a noticeable gap due to the limited number of courses aimed at enhancing interpersonal competencies.



**Figure 5.** Comparative analysis of business analytics specializations by skill groups for selected bachelor's and engineering study programs.

Source: own study.

The findings of this study provide significant insights into the current state of business analytics education in Poland, bridging the gap between academic offerings and labour market demands. Below, we discuss the implications of our results, the novelty of our analyses, and their broader significance.

Our research highlights clear distinctions between bachelor's and engineering programs in preparing business analysts for the job market. Bachelor's programs tend to offer a more comprehensive skill set, encompassing both technical and interpersonal competencies, whereas engineering programs are more focused on technical and analytical skills. This delineation reflects how these programs align with different professional expectations: bachelor's graduates are better equipped for roles requiring collaboration and communication, while engineering graduates are more suited for technically demanding positions.

These results underscore the importance of tailoring educational strategies to meet evolving industry requirements. As businesses increasingly integrate advanced technologies such as artificial intelligence, machine learning, and big data, the need for a diversified skill set among

business analysts becomes critical (Liu et al., 2023). Our analysis suggests that curricula should strive for a balance between technical expertise and interpersonal skills to meet these demands effectively, while previous studies have highlighted mainly the importance of technical and analytical skills in business analytics (Popoola et al., 2024; Farayola et al., 2023).

Our research categorizes and compares specific courses offered by Polish universities. This provides a granular understanding of how educational programs contribute to the development of specific competencies.

By correlating educational outcomes with labour market trends, our study emphasizes the direct applicability of skills taught in business analytics programs. Previous research has often focused solely on labour market needs (Kumar, 2019; Meredith et al., 2019; Hilarowicz et al., 2023). We don't find research on curriculum specific to business analysts. our approach integrates both approaches, we analyse study programs and market needs in the field of business analysts.

## 5. Conclusion

In this study, we have examined the educational pathways and skill requirements for business analysts, with a specific focus on business analytics programs at Polish universities. The findings highlight notable differences in how bachelor's and engineering programs prepare students for the demands of the business analyst role. Bachelor's programs generally emphasize a well-rounded skill set, including analytical, communication, and project management skills, which are critical for effective teamwork and stakeholder interaction. In contrast, engineering programs focus more intensively on technical and analytical skills, aligning with the specialized needs of technical roles in the industry.

Our analysis underscores that business analysts today are expected to possess a diverse range of competencies, from logical and statistical analysis to advanced technical proficiency and interpersonal skills, which is also emphasized by Farayola et al. (2023) and Popoola et al. (2024). These requirements reflect the role's evolution from a support function to a strategic position instrumental in guiding organizations through digital transformation and data-driven decision-making. As businesses increasingly integrate technologies like artificial intelligence and machine learning, the ability to bridge technical understanding with business objectives becomes paramount. This blend of skills enables analysts not only to interpret complex data but also to drive insights that support organizational growth and competitiveness.

This article can serve as a valuable guide for universities looking to align their curricula with the evolving needs of the business analytics market. By highlighting the specific competencies sought by employers, this study provides insights into how academic programs can adapt to the needs of the labour market.

The study focuses exclusively on Polish universities. The analyses conducted concerned curricula and secondary data from the labour market but did not include direct employer input. Therefore, our future plans include investigating how the skills acquired by graduates translate into professional success and long-term adaptation to the labour market. We also plan to compare the Polish educational offer with that in other Central and Eastern European countries to identify regional trends and opportunities for improvement and also analyse job offers for business analysts.

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