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How gender and personality traits influence job preferences among students in Norway and Poland

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ABSTRACT

The article explores job preferences among business students through the lens of the Big Five personality traits, which have implications for students' attitudes. This investigation is conducted within the contexts of Norway and Poland, facilitating a comparative analysis of students from these two nations. Empirical evidence comprises responses to questionnaires gathered from 178 Polish students and 147 Norwegian students. By juxtaposing mean values and employing regression models, we scrutinized the link between personality traits and job preferences in both countries. The findings revealed that personality traits exhibit correlations with students' job preferences, with a particularly notable impact observed in the domain of agreeableness. This trait demonstrates a positive association with job security, work-life balance, teamwork and societal contribution. Moreover, the effect varies between Norwegian and Polish students, with discernible gender discrepancies. Through this comparative examination, the study highlights the mediating influence of society on the relationship between personality traits and job preferences among business students. It emphasizes the imperative for future investigations to integrate cultural and societal factors into their analyses when exploring the impact of personality traits on job preferences.

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Introduction

There are numerous job options available to today's youth. With a quality education and impressive achievements, they have access to a wide range of opportunities that can help them realize a dream career (Murwani & Caesar, 2016). The decision-making process for career choices should be based on accurate information, essential knowledge, sound advice, reliable future forecasts and, importantly, the individual's interests, qualifications and personal characteristics (Afaq Ahmed et al., 2017). Choosing a career path can be challenging. In Norway, individuals with a master's degree in business administration often find themselves engaged in a wide array of professions. The most common job is accountant at 8% (Utdanning, 2022). In Poland there are more than 30,000 vacancies in the areas of management and finance (source). Knowledge about how personal characteristics affect job choices can help businesses and governments understand how to attract students to apply to much needed positions.

The gender gap in career choices is well documented (Enache et al., 2011; Tabassum & Nayak, 2021). It is possible that the gender difference has decreased due to greater gender equality (Bertrand, 2020), and it is of interest to compare the outcomes in Poland and Norway.

A significant number of young people opt for higher education, with business administration being one to offer a wide range of careers after the educational track (Sierra, 2023). This study seeks to

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analyse business students' career preferences in Poland and Norway and to examine whether there are differences in attitudes towards careers and job choices for students between these two countries. When businesses seek to attract students, they are not only searching for individuals with outstanding academic achievements but also for candidates possessing personality traits that enable them to excel in a specific career (Hogan et al., 2013; John et al., 2020; Semeijn et al., 2020). This study will inform businesses what types of personality traits affects business students to apply for specific jobs. By looking at two different countries this study also offers the added value of illustrating how culture and society affect career preferences between Big Five personality traits (extraversion, agreeableness, emotional stability, consciousness and openness).

The importance of personality traits when opting for a career is Students' choices can be divided into two categories: social and psychological factors (Yener, 2011). Psychological factors consist of intellectual interests, ideas, beliefs, perceptions and personality traits. Subject interest and personality types play a significant role in business students' career choices, whereas future employment and financial rewards are less relevant (Ahmed et al., 2017). Students' evaluations and choices are culturally influenced (Brown et al., 2017; Stillman & Stillman, 2017). An example of the importance of culture is found by Abrahams et al. (2015). They compared two African countries with distinct cultures (Kenya and South Africa) and found that the main factors for Kenyan students were personality types and subject interest, while South African students prioritized financial rewards.

Even though this study addresses a relevant topic, we are not aware of any published article addressing it by comparing countries like Norway and Poland. Hopefully, this article will contribute to knowledge in this field.

This article is structured as follows. The first part goes through theory, literature and presents hypotheses with focusing on gender and Big Five personality traits. This is succeeded by the method and results, which are subsequently followed by a discussion and analysis. The article concludes with a summary and suggestions for future research.

Theory, literature review and development of hypotheses

Differences between Poland and Norway

There is a cultural gap between Norway and Poland. Norway has a well-developed welfare state and a high standard of living. The country is characterized by good cohesion and high trust in the public sector. In several articles, it is documented that Norwegians have greater trust in the public sector than the countries in other parts of Europe (Ruzitš, 2021; Sivesind et al., 2013). This affects students' attitudes and career choices. Poland is much more family-oriented than Norway. There are more traditional values. Catholicism has a significant influence. Hence, religion and the church have a more substantial influence in Poland than in Norway (Botvar et al., 2019). The distinction between women and men is more pronounced than in Norway (Valved et al., 2021). Furthermore, it bears the marks of many years of communism and a relatively low standard of living. There has been significant engagement in creating and contributing to higher prosperity and strengthening the private sector. Isotalo (2014) suggests empowerment is a crucial feature in the workplace in Norway; employees are expected to take responsibility and demonstrate initiative. Trust is broadly important in Norwegian society, including the workplace, where there is often a flat organizational structure based on democratic principles. Performance in Norway tends to be evaluated on an individual basis, whereas in Poland, one's family background can significantly influence one's career. In Poland, the culture places a high value on ascription, meaning that the use of titles is very important. Within the context of motivation, acquiring a new title in Poland might have a more positive impact than receiving higher wages.

According to the World Bank (2024), there is a significant difference in GDP per capita between Norway and Poland. Norway has traditionally had a high GDP per capita due to its rich oil and gas resources, as well as a generally high standard of living and well-developed welfare system. Although the gap has somewhat decreased, GDP per capita is still many times higher in Norway than in Poland. This difference can also influence students' job expectations in the two countries. In Norway, students can expect higher wages and better working conditions due to the generally high standard of living and

well-developed welfare system. On the other hand, higher economic growth in Poland compared to Norway will create optimism and opportunities for students.

It is uncertain how the economic and cultural differences between Norway and Poland affect students' job preferences.

The Big Five personality traits and job preferences

The Big Five personality taxonomy has been widely used worldwide among researchers (Mayfield et al., 2008), and it is the most common method for measure personality traits. The design contains five factors: emotional stability, extraversion, openness, agreeableness and conscientiousness (see Table 1).

The Big Five have been shown to have validity across national borders (McCrae & Costa Jr, 1994; Badura et al., 2018), but several researchers have pointed out that cultural differences and attitudes influence the estimates (Grajzel et al., 2023). Although some tendencies are quite universal and cross-national borders, this explain why there are national differences (Leung, 2008).

There is an extensive body of literature about career and job choices among business and management students. Generally, interests guide students towards a career path, and further engagement in related activities reinforces this choice (Lent et al., 1994). Other factors, such as employment availability and earnings, also influence students' career decisions. Differences in nationality and environmental factors affect business students' attitudes towards pursuing careers in fields such as insurance (Acharyya & Secchi, 2015). Research on students in Austria has found that career advancement and salary are the two most crucial predictors for job pursuit intentions (Petry et al., 2022). Boakye et al. (2023) suggested that work-life balance is a good predictor for job satisfaction and a good personal life. Numerous authors have reported cultural differences among students concerning career decisions. Mau (2000) identified a significant gap between the attitudes of Taiwanese and American students. In addition to physical and social factors, students' attitudes towards career choices are influenced by labour market conditions and the economic situation (Vondracek & Porfeli, 2008).

In their comparative analysis of business students from Germany, China and the United States, Hofstede and McCrae (2004) identified commonalities in career decisiveness and personality traits across the three countries. However, they observed variations in the significance and impact of these traits, with some factors proving insignificant in certain contexts. This suggests a correlation between personality traits and national culture, leading to differences in career planning among students across borders. Leung (2008) has emphasized the importance of recognizing cultural distinctions through the lens of personality traits and has advocated for the application of the Big Five personality traits for this purpose. This approach allows for a deeper understanding of how cultural factors influence individual behaviours and preferences, particularly in the realm of career decision-making. Furthermore, Kuśnierz et al. (2020) documented differing academic orientations among students in Poland and Ukraine, shedding light on these distinctions through the application of the Big Five personality traits. Their research highlights the utility of personality trait analysis in discerning variations in educational approaches and attitudes within different cultural contexts.

By comparing business students from Germany, China and the United States, Hofstede and McCrae (2004) identified similarities between career decisiveness and personality traits for all three countries, but with variations in impact and level of significance. Some factors were not significant in all three countries, which indicates a connection between personality traits and national culture. Consequently, career planning among students differs across national borders. Leung (2008) has suggested that identifying

Table 1. Big Five personality traits.

Personality trait	Description
Emotional stability (opposite of Neuroticism)	Does not experience anxiety, depression, etc.
Extraversion	Persons who are talkative, comfortable with large groups and prefer social activities
Openness	Individuals who are open to new ideas, creative and curious
Agreeableness	Persons who are sympathetic and like to help others
Conscientiousness	Individuals who like order and self-discipline, and are dutiful and target oriented

Source: Costa and McCrea (1992).

cultural differences using personality traits is essential and recommended applying the Big Five personality traits for this purpose. Kuśnierz et al. (2020) document that there are different academic presentations among students in Poland and Ukraine, illuminated by the use of Big Five personality traits.

Big five personality traits and personal development

The Big Five taxonomy appears to be a useful instrument for predicting personal development (Preetha & Deepa, 2017). However, variations in the findings may be attributed to other explanatory variables, such as structure, study field, subjects, assessments, learning behaviour, region, country and culture, all of which can affect the results. Previous findings have suggested that conscientiousness is a reliable predictor of job development (Kranefeld & Blickle, 2021). Individuals with high conscientiousness scores are well-organized, responsible and hard-working. Lingappa et al. (2020) reported a positive association between employees' motivation to learn and conscientiousness.

The relationship between openness and development varies (Connelly et al., 2014). Openness is a valuable trait for jobs requiring creativity and development skills (Opstad, 2021a).

The analysis indicates following hypotheses:

H1a: There is a positive relationship between conscientiousness and personal development.

H1b: There is a positive relationship between openness and personal development.

Big Five personality traits and benefit for society

Agreeableness is closely related to socially oriented jobs and the social aspect of leadership (Cogliser et al., 2012). The qualities of agreeableness fit well in work teams that emphasize good cooperation and trust.

Research by Weinschenk (2014) shows a positive correlation between agreeableness and civic responsibility. Individuals exhibiting high levels of this trait typically display a pro-social or communal outlook, characterized by altruism, trust and a propensity for cooperation.

Hypothesis H2: There is a positive association between high scores on agreeableness and benefit for society.

Big Five personality traits and prestige and salaries

Extraverted individuals are sociable and talkative, which is advantageous for doing business (Sahinidis et al., 2020; Sui et al., 2021). Seibert and Kraimer (2001) suggested that extraversion there is a positive connection between extraverted individuals and factors like promotion and salaries (Wilmot et al., 2019). This is in line with the mega-analysis of Alderotti et al. (2023). These authors studied 63 published articles about the link between personality traits and salary, following conclusions were drawn: There is strong evidence of a positive correlation between salary and the factors conscientiousness, openness, emotional stability and a negative correlation with agreeableness. Individuals who score high on conscientiousness are goal-oriented and invest in education, which positively impacts their salary. Openness is associated with intellect, providing many opportunities within the job market, potentially leading to high salaries. Individuals with a high degree of openness may find conventional jobs boring and demotivating (Schwaba et al., 2018). This could explain the negative correlation between openness and promotion (Ng et al., 2005). However, high openness may be a factor linked to students who prefer pursuing careers in more challenging and demanding areas (Kabir et al., 2014). Teng (2008) documents a positive association between the dimension of Extraversion and expectations for favourable working conditions (salary, work environment, career opportunities, etc.) among students aspiring to work in hospitals. Also, individuals with high scores on emotional stability can expect to achieve good salaries. There might be a negative correlation with agreeableness because individuals with such traits prioritize factors other than salary. However, the authors also point out that there is variation in link between the variables depending on the profession. Nevertheless, the following hypotheses are postulated:

H3a: Conscientiousness is positively correlated with prestige and salaries.

H3b: Extraversion is positively correlated with prestige and salaries.

H3c: Openness is positively correlated with prestige and salaries.

H3d: Emotional stability is positively correlated with prestige and salaries.

H3e: Agreeableness is negatively correlated with prestige and salaries.

Big Five personality traits and suits skills

The research presents a mixed picture regarding potential correlations. Several authors report a positive link between conscientiousness and thriving at work (Ahmed et al., 2017; Hennekam, 2017; Liu et al., 2021). For Openness, neither Hennekam nor Liu et al. found any connection with this factor. Furnham et al. (2005) took a different approach, examining various aspects that capture the use of skills at work. By running a regression model, they concluded that only openness was related to this dimension. Choi and Lee (2014) focused on work happiness and found it to be positively correlated with emotional stability and extraversion. None of the mentioned authors have demonstrated any effect related to the agreeableness factor. Since the research does not show any systematic pattern regarding this dimension, we have not posited any hypotheses.

Big Five personality traits and teamwork

It may not come as a surprise that one factor stands out concerning teamwork. Several authors highlight the clear connection between teamwork and agreeableness (Jolić Marjanović et al., 2023; Tasa et al., 2011). The same pattern emerges concerning project work (Tang, 2021). Tang emphasizes that extroverted students enjoy engaging in projects and group work. However, it's also emphasized that the dimension of conscientiousness is positively associated with working together in teams (Jolić Marjanović et al., 2023; Kickul & Neuman, 2000). Individuals with such qualities positively contribute to effective teamwork, whether it's during studies or in the workplace. Another factor that may also be positively related to this type of work is emotional stability (Brown et al., 2017). Based on the literature review, the following hypothesis is proposed:

H4a: There is a positive relationship between agreeableness and teamwork.

H4b: There is a positive link between extraversion and teamwork.

Big Five personality traits and job variation

Individuals scoring high on openness are naturally curious and thrive on experimentation. This inclination manifests in their career choices, where they seek roles that offer stimulation and diversity. Consequently, there exists a positive correlation between openness and work drive (Lounsbury et al., 2003). They are eager to explore new fields and engage in a variety of activities (Wille et al., 2014). This propensity often leads to less job stability, prompting frequent job changes as they seek novel and engaging experiences (Nieß & Zacher, 2015). Consequently, such individuals typically seek diversity in their work tasks (Bipp, 2010).

For the other elements of the Big Five, research shows no clear correlations. Hence,

H5: There is a positive association between openness and job variation.

Big Five personality traits and job security

According to Wu et al. (2020), job insecurity is negatively related to conscientiousness, neuroticism and agreeableness. For people with high scores in agreeableness, neuroticism and conscientiousness, having

a secure job is crucial, which leads to higher motivation and less uncertainty. Job security can influence engagement and motivation. It can make it easier to plan and achieve goals, which will only have a positive effect on individuals with high levels of conscientiousness. Furthermore, it can create a better social climate and lead to less effort among individuals who score high on agreeableness. A secure job reduces stress and contributes to lower levels of nervousness, implying a positive impact on emotional stability. However, it's not clear how higher job security affects openness and extroversion. Many indicators suggest that individuals focusing on factors other than job security might not show a significant correlation, or even a negative one, with job security. Based on the analysis, three hypotheses are presented:

H6a: Conscientiousness is positively related to job security.

H6b: Agreeableness is positively related to job security.

H6c: Emotional stability is positively related to job security.

Big Five personality traits and work-life balance

Several articles have examined the link between personality traits and work-life balance. Akanni and Oduaran (2017) concluded that individuals with high scores on agreeableness, conscientiousness and openness to experience also placed great importance on work-life balance. People with such traits prioritize finding solutions that ensure a good balance between work and leisure time. These findings were confirmed by others (Naeem et al., 2022; Wickrانياaratchi & Perera, 2016). These authors also suggested that extraversion and emotional stability are positively related to this dimension. According to these publications, all factors in the Big Five personality traits may be positively related to a good balance of work and leisure time. However, empirical results provide a clearer picture. Devi and Rani (2012) found a significant correlation only between agreeableness and work-life balance. Based on these results, this study is limited to examining only the factor that appears to have the greatest effect:

H7: Agreeableness is positively associated with work-life balance.

Gender and careers

Previous research suggests that there are gender differences among business students. Haski-Leventhal et al. (2017) proposed that female students have higher ethical standards, are more socially responsible and are more willing to help others. Women tend to prefer working with people and tend to be motivated by altruism (Su et al., 2009). Opstad (2021b) suggested that female students, to a greater extent than male students, prefer higher job security in exchange for lower wages. This trade-off may be due to women having a lower willingness to take risks (Yukongdi & Lopa, 2017). External factors, such as family capital assimilation, also influence the choice of study and career pursuits for both genders.

Women and men tend to apply for different jobs, with women leaning more towards managerial roles over finance and consulting positions (Petrongolo & Ronchi, 2020). A possible explanation for this finding is that women value work-life balance more and have a lower identification with traditionally masculine jobs (Barbulescu & Bidwell, 2013). Roche (2013) found similar implications when examining the earnings and returns to education in self-employment between genders, discovering that women earn less than men and have lower returns to education; however, this difference is driven by women earning less in traditionally female occupations, while women who choose to work in male-dominated fields have returns similar to those of men. This suggests that social and environmental factors that influence women's choices to pursue traditional female occupations are the primary drivers of gender differences. When examining business students, a traditionally male-dominated educational path, one would expect women who have already self-selected away from traditional female choices to have career expectations like those of men.

This results in the following hypothesis.

H8: Female students prioritize job security, work-life balance and contribution to society to a greater extent compared to male students.

It is well-documented with many published articles concluding that there is a significant gender difference in the workplace. Women place more emphasis on contributing to society, job security and being able to balance work and leisure (Toffoletti & Starr, 2016; Sharabi & Harpaz, 2013).

Methodology and data

The purpose of the article is to compare how students in Norway and Poland assess various aspects of career and job choices. The analysis is primarily based on a linear regression model where job preference is the endogenous variable, and gender and personality traits are the explanatory variables.

Participants. A total of 325 business students from Poland ($N = 178$) and Norway ($N = 147$) participated in this study. Three universities were chosen, one from Poland (Krakow) and two from Norway (from the west and middle parts of the country). Two large and central universities in Norway and Poland were selected. Since there were more observations from Poland than from Norway, we also chose to include a smaller university from Norway. This study is limited to examining an education programme that is similar across borders and is popular. This makes the comparison easier.

The data from Norway were collected during 2021 and in Poland during 2022. Students were asked to answer a questionnaire distributed on paper in compulsory subjects at the two business schools. Due to COVID-19, fewer students were present on campus, so the response rate was quite low (around 50%) and was not a random selection. Answering the questions was voluntary. Potential data bias might influence the findings. We note, among other things, that there were more male students in the sample (58%) than in the cohort population (about 50%). It is uncertain how this has affected the result. Nevertheless, we believe that the data collected provide a picture of the attitudes among Norwegian business students.

Methods. The questions were inspired by previously published articles (Easterling & Smith, 2008; Granitz et al., 2014; Redmond & McGuinness, 2019; Sui et al., 2021).

While this has been a reliable source of inspiration, we have also chosen to formulate some of our own questions. The dependent variables were the different dimensions related to choice of future job. Exploratory factor analysis was applied. The creation of the factor analysis was founded on the following principles (Adelson & McCoach, 2011): (1) The coefficient for each item was .4 or more; (2) The coefficient for non-relevant items was not higher than .3; (3) The difference between relevant and non-relevant factors was higher than $t .2$; (4) The value of Cronbach's alpha is at least .70. The results of the factor analysis are presented in Table 2.

A total of six dimensions were included in the factor analysis, with the number of items ranging from two to six. Although one item had a loading lower than .4 associated with the dimension benefit society, we have chosen to include it, because it is a key factor (workplace is characterized by a high degree of idealism). The reliability analyses have acceptable values (Cronbach's alpha). The analysis also included two factors with only one item, namely, work-life balance and job security. Table 3 presents the factors included in the regression analysis. Note that there are quite high values for some factors, such as agreeableness, which has an average value of 5.29 (out of a maximum of 7). A short version of the Big Five was used, which has been translated into the national language (Engvik & Clausen, 2011). Because this method is well established, a separate factor analysis is not provided.

This categorization of job preferences is employed to examine all hypotheses. To address the impact of personality traits, a linear regression model is utilized (Tables 6a–6d). To analyse the gender effect, a comparison of means and T-tests (Table 5) has also been employed.

Findings

Table 4 shows that there are differences between the countries regarding some factors. Norway receives a significantly higher value for benefit for society and significantly lower for job security and work-life balance. This overlooks the fact that there is a higher percentage of women included in the sample for Poland compared to Norway. If this were considered, the effect on the benefit for society would be greater, albeit lower for the other two factors (see Table 5).

Table 2. Factor analysis.

Dimension	Items	Loading	Cronbach's Alpha
Personal development	Opportunity for promotion	1.04	.725
	Contributes to personal development	.488	
Prestige and salaries	high salary	.440	.729
	Higher salary than averaged for my fellow students	.586	
	Jobs that have prestige	.720	
	Social status	.715	
	Attractive job	.436	
Suits skills	Can use my abilities	.733	.784
	Fits my abilities	.643	
	Where I thrive	.618	
	personal satisfaction	.436	
Benefit for society	Contributing to sustainable development	.738	.798
	The workplace is characterized by a high degree of idealism	.352	
	Provides the opportunity to help others	.644	
	Emphasis more sustainability than profitability	.513	
	Opportunity to benefit society	.769	
	Want to work in teams	.503	
Team (work and dealing with people)	Dealing with people	.862	.811
	Working with other people	.872	
	Varied work tasks	.643	
Variation (in work tasks)	Varied tasks that reflect my education	.513	.674

Note: A 7-point Likert scale was applied, where strongly agree is 7 and strongly disagree is 1.

Table 3. Independent variables in the regression models (7-point Likert Scale).

Variable	Mean	Standard deviation
Gender (1: Male, 0:Female)	.47 (.58: Norway, .38: Poland)	
Extraversion	4.64	1.33
Agreeableness	5.29	.89
Emotional stability	4.10	1.19
Conscientiousness	4.75	1.06
Openness	4.62	.86

Table 5 shows the gender differences (males-females) in student attitudes in Norway and Poland. The attitude levels according to gender are presented in the appendix. In both countries, women prioritized job security (difference $-.97$ for Norway and $-.50$ for Poland) and benefit for society (difference $-.41$ for Norway and $-.34$ for Poland) to a significantly higher degree than men. When it comes to the factors personal development, prestige and salaries and skills, female students scored higher than male students in Poland (with effects of $-.36$, $-.30$ and $-.46$, respectively). In Norway, there were no significant gender differences for these variables, but for the good work-leisure balance factor, women received the highest value in Norway (difference $-.38$). The regression analysis confirmed that there is a gender effect (Tables 6a–6d), and this applied to benefit society and job security (Tables 6a and 6d with B values of $-.238$ and $-.363$, for Norway and -1.91 and $-.216$ for Poland, respectively). Notice the impacts are higher in Poland than Norway. Many of the regression models only had a significant impact on female students in Poland, which applied to personal development ($B = -.223$), prestige and salaries ($B = -.165$) and suits skills ($B = -.331$), while balance of work-leisure provided such an effect only for Norwegian students ($B = -.188$). The results from the regression model were consistent with the partial analysis by comparing mean values. Hypothesis H8 is confirmed.

The regression models (6a–d) unveiled significant correlations between personality traits and career choices among both Norwegian and Polish students. Surprisingly, agreeableness positively correlated with societal benefit solely among Polish students ($B = .182$), affirming H2 for this group but not for Norwegian students. Conscientiousness was notably positively linked to personal development ($B = .168$) for Polish students. This partly confirms H1a. The relationship between openness and personal

Table 4. Mean values for Norway and Poland (independent sample T-test, equal variances assumed).

Dimension	Norway	Poland	Difference
Personal development	5.54 (.93)	5.59 (.90)	-.04 (.10)
Benefit society	4.50 (.95)	4.00 (.95)	.50*** (.11)
Prestige and salaries	4.90 (1.04)	5.06 (.99)	-.16 (.11)
Skills	6.04 (.70)	5.96 (.77)	.22 (.14)
Team	4.66 (1.21)	4.44 (1.27)	.22 (.14)
Job variation	5.36 (.97)	5.27 (1.06)	.09 (.11)
Work-life balance	5.40 (1.31)	6.03 (1.12)	-.63*** (.13)
Job-security	5.21 (1.20)	5.49 (1.17)	-.28** (.13)

** $p < .05$; *** $p < .01$ (bilateral test).

Table 5. Comparing gender differences (males-females) in Norway and Poland (independent sample T-test, equal variances assumed).

Dimension	Norway	Poland
Personal development	.19 (.16)	-.36*** (.14)
Benefit society	-.41*** (.16)	-.34** (.16)
Prestige and salaries	.07 (.17)	-.30** (.15)
Skills	-.04 (.12)	-.46*** (.15)
Team	-.10 (.21)	-.13 (.20)
Variation	.11 (.16)	.14 (.16)
Work-life balance	-.38** (.21)	-.05 (.17)
Job-security	-.97*** (.18)	-.50*** (.18)

** $p < .05$; *** $p < .01$ (bilateral test).

development is positive, but not significant. H1b is not verified. This analysis reveals varying results regarding the link between prestige and salaries and personality traits. For both countries, there is a significant positive correlation between openness and this dimension ($B = .212$ for Norway and $.283$ for Poland), confirming H3c. For conscientiousness, there is only a significant outcome for Poland ($B = .154$). Hence, H3a is partly verified. For the other dimensions of the Big Five, there are no significant correlations. Therefore, neither H3b, H3d, nor H3e can be confirmed. Notably, agreeableness exhibited a strong positive correlation with teamwork ($B = .249$ for Norway and $.196$ for Poland), and between extraversion and teamwork ($B = .255$ for Norway and $B = .296$ for Poland, confirming H4a and H4b). Openness was positively related to job variation for Polish undergraduates ($B = .190$) confirming H5 solely for Polish students. When considering work-life balance, agreeableness showed significant positive relationships solely among Norwegian students ($B = .186$ and $.272$, respectively), verifying H6b exclusively for this cohort and not for Polish students. Conversely, H6a and H6c were not substantiated. Somewhat surprisingly, it is only for Norwegian students that the Big Five influence work-life balance. The effect is strongest for agreeableness ($B = .272$), affirming H7 for this group. Also note the positive correlation with openness for these candidates ($B = .161$). Notice, extraversion exhibited a significant negative correlation with practical skills among Polish students ($B = -.233$).

Despite the somewhat differing effects of personality traits between Norwegian and Polish students, mean value comparisons across factors in both countries revealed minor disparities (see Table 4).

Table 6a. Regression models comparing Norway and Poland (standardized coefficient B, acceptable variance inflation factor (VIF), values (between 1.0 and 1.3)).

	Personal development				Benefit for society			
	Norway		Poland		Norway		Poland	
	B	T-value	B	T-value	B	T-value	B	T-value
Gender	-.033	-.334	-.223	-2.583**	-.238	-2.375**	-1.91	-2.076**
Extraversion	.085	.933	-.148	-1.747	-.032	-.355	-.010	-.111
Agreeableness	-.047	-.494	.046	.577	.152	1.603	.182	2.188**
Conscientiousness	.139	1.518	.168	2.058**	-.043	-.471	.029	.339
Emotional stability	.143	1.469	.051	.597	.096	.990	.070	.776
Openness	.118	1.238	.120	1.492	.016	.164	-.008	-.089
	N = 134		N = 153		N = 132		N = 144	
	Adj.R ² = .018		Adj.R ² = .083		Adj.R ² = .028		Adj.R ² = .036	

***p* < .05; (bilateral test).**Table 6b.** Regression models comparing Norway and Poland (standardized coefficient B, acceptable VIF values (between 1.0 and 1.3)).

	Prestige and salaries				Suit skills			
	Norway		Poland		Norway		Poland	
	B	T-value	B	T-value	B	T-value	B	T-value
Gender	-.062	-.614	-.165	-1.878*	-.047	-.468	-.331	-3.941***
Extraversion	.104	1.143	-.037	-.430	.042	.453	-.233	-2.836***
Agreeableness	.025	.260	-.077	-.946	.111	1.143	.060	.778
Conscientiousness	-.101	-1.100	.154	1.848*	.086	.925	.034	.426
Emotional stability	.011	.115	-.070	-.808	.016	.161	.041	.496
Openness	.212	2.208**	.183	2.228**	.041	.419	-.032	-.410
	N = 125		N = 150		N = 133		N = 153	
	Adj.R ² = .057		Adj.R ² = .059		Adj.R ² = -.120		Adj.R ² = .134	

p* < .1; *p* < .05; ****p* < .01 (bilateral test).**Table 6c.** Regression models comparing Norway and Poland (standardized coefficient B, acceptable VIF values (between 1.0 and 1.3)).

	Team				Job variation			
	Norway		Poland		Norway		Poland	
	B	T-value	B	T-value	B	T-value	B	T-value
Gender	-.089	-.914	-.048	-.544	-.061	-.603	-.105	-1.177
Extraversion	.155	1.751*	.225	2.582**	.047	.507	-.126	-1.444
Agreeableness	.249	2.680***	.196	2.411**	.057	.586	-.072	-.879
Conscientiousness	-.065	-.733	-.010	-.122	.042	.450	.104	1.238
Emotional stability	.065	.684	.002	.027	.070	.706	.127	1.445
Openness	-.010	-.104	.062	.746	-.043	-.438	.190	2.292**
	N = 134		N = 148		N = 135		N = 151	
	Adj.R ² = .065		Adj.R ² = .064		Adj.R ² = -.026		Adj.R ² = .031	

p* < .1; *p* < .05; ****p* < .01 (bilateral test).**Table 6d.** Regression models comparing Norway and Poland (standardized coefficient B, acceptable VIF values (between 1.0 and 1.3)).

	Job security				Work-life balance			
	Norway		Poland		Norway		Poland	
	B	T-value	B	T-value	B	T-value	B	T-value
Gender	-.363	-3.842***	-.216	-2.301**	-.188	-1.938*	-.038	-.415
Extraversion	-.008	-.090	-.174	-2.055**	-.007	-.081	-.016	-.184
Agreeableness	.186	2.081**	-.013	.163	.272	2.947***	.129	1.586
Conscientiousness	-.067	-.548	.102	1.282	-.102	-1.156	-.031	-.358
Emotional stability	-.050	.548	-.066	-.760	-.082	-.868	-.051	-.566
Openness	.036	.398	.018	.229	.161	1.739*	-.050	-.592
	N = 136		N = 153		N = 136		N = 147	
	Adj.R ² = .121		Adj.R ² = .081		Adj.R ² = .107		Adj.R ² = -.016	

p* < .1; *p* < .05; ****p* < .01 (bilateral test).

Discussion

Personality and job preferences

This study found that personality traits are related to students' preferences both in Poland and in Norway, and there is a noticeably strong link. Personality traits have different impacts on Polish and Norwegian students. Many researchers have pointed out that how personality traits are correlated with job selection depends on cultural and social conditions (Leung, 2008), and the present findings may be in line with this approach.

Many point out that conscientiousness is strongly linked to success in business (Nießen et al., 2020). Individuals with such characteristics are systematic and highly goal oriented. This research produced – somewhat surprisingly – little correlation between personality traits and prestige and salary while the literature suggested there would be a positive correlation between high wages and dimension conscientiousness and extraversion (Alderotti et al., 2023). Here we found a positive link only with the factor conscientiousness for the Polish students. Openness is associated with skilled and creative individuals. A consequence of this is that many with such characteristics get well-paid jobs that require good qualifications (Alderotti et al., 2023). This study confirms this assumption for both Norwegian and Polish students. For the dimensions of extraversion, agreeableness and emotional stability, this research suggests no effects even though previous literature demonstrates associations. Students with high scores on agreeableness have clear wishes for their future jobs. They prioritize teamwork, working with people and benefiting society. This is in line with the findings from other researchers (Bradley et al., 2013; Sui et al., 2021). Peeters et al. (2006) report that people with such qualities work best in teams, so there is a positive relationship between agreeableness and performance in teamwork. These people do not perform well if they must work alone (Hurtz & Donovan, 2000). In line with the report of Peeters et al. (2006), we did not find any correlation between team and the factors conscientiousness, emotional stability and openness. Not surprisingly, we conclude with a positive correlation between extraversion and team (Table 6c), because individuals with such characteristics are outgoing, social and can help teams work better (Mohammed & Angell, 2003).

Extraverted persons are less likely to spend more time solving difficult problems (Baker & Bichsel, 2006), so there might be a negative correlation between extraversion and cognitive abilities (Curtis et al., 2015). This may explain why there is a negative correlation between skills and extraversion for the Polish samples. Openness involves a high degree of creativity and new ideas, which may lead work tasks with little variation to be perceived as boring. Therefore, there is a strong positive correlation between job characteristics and openness (De Jong et al., 2001). This is consistent with the findings from the Polish students, who showed a positive link between openness and job variation.

Wu et al. (2020) reported that several of the factors in the Big Five are correlated with job (in)security. The findings from Norway show any such effect for only the dimension agreeableness. The reason may be because it is easy for Norwegian business graduates to find work, so the likelihood that they will become unemployed is small. It can also explain small deviations for Polish students (only a negative significant correlation for extraversion). According to DeYoung (2015), there is a mixed correlation between extraversion and job security. Extraverts are outgoing and sociable and can, therefore, easily get another job, so a secure job does not mean as much when these types of people choose a career.

The gender impact

When it comes to wages, the gender gap in most European countries has decreased over the past 10 years, but there is still considerable variation from country to country (Boll & Lagemann, 2019; Christofides et al., 2013). However, substantial gender differences in job preferences remain (Redmond & McGuinness, 2019). Job security, proximity to family and a good work-life balance play a more important role for women than for men. Women also tend to focus more on getting a job that fits their skills, while men are more concerned about salary and career advancement (see also the tables presented in the Appendix).

This study concentrated on business students. Women who apply to this type of education may stand out compared to other women, and Opstad (2021b) pointed out that there is a difference between

traditional female business students and women with a health background who take management education. This may explain why there is no gender difference for Norwegian business students for the variables prestige and salary and personal development, although based on the literature, one would expect higher points for men. It can also explain why Polish female business students are more concerned about salary than their male counterparts, even though there is greater gender disparity in Poland, and one might expect the opposite. Women who choose to study in this field are focused on their own careers.

However, for the factors benefit for society, work-life balance and job security, there is a significant gender difference in favour of women. This is identical to the findings of Redmond and McGuinness (2019). Note that this effect is greatest for the Norwegian students. Since Poland is a more masculine-oriented society compared to Norway, one might expect the opposite result. Clearly, there are other explanatory factors at play here.

In line with the results of Redmond and McGuinness (2019), women also in Poland prefer work that provides that suits their skills.

Although many studies have indicated that men are more likely to have leadership roles, which are associated with greater prestige and rewards, it appears that both women and men aspire to these roles equally. The largest role in this context can be attributed to personality traits, which indicates that they are responsible for how an individual behaves in a work situation (Badura et al., 2018). Recent studies of female students in Poland indicated that they have a high level of self-confidence, competence, assertiveness and need for professional fulfilment. At the same time, research also confirmed a significant level of doubt among female students about whether they will have the same start as men (Gajda, 2020). According to the cited research, only 43% of the female students surveyed do not express such doubts and consequently, they are making efforts to obtain the best possible qualifications and experiences to build their CVs to compete effectively in the labour market. It is therefore likely that their declarations would differ from those of Norwegian female students, who have a greater guarantee of equal opportunities in employment. One may also be drawn to attempt a cultural explanation for the correlations obtained, pointing to the dimension that, according to Hofstede and McCrae (2004), Norway and Poland differ significantly in the masculinity-femininity dimension (Norway 8, Poland 64). The high masculinity dimension of Polish culture may cause Polish female students to have a higher attitude towards achievement, competition and authority.

Comparing Polish and Norwegian business students

Apart from the gender difference, the remaining differences between Polish and Norwegian students are relatively: they have largely the same preferences and desires.

Norwegian students are more likely to prefer jobs where they can benefit society, which can also be linked to the cultural dimension of femininity. Norwegian society, as highlighted earlier, is (like other Scandinavian societies) considered to be feminine – that is, focused on quality of life and caring for others, which is also indicated by a desire to serve society. Hence, respondents are more inclined to demonstrate pro-social values. One reason for the different results between Norway and Poland is that in Norwegian society, the focus is on communal solutions, and it is expected that everyone contributes to good arrangements for the society. In Poland, like many other European countries, there is more focus on the family and less emphasis on good communal solutions that include everyone.

The preliminary analysis (Table 4) indicates a slight disparity between Polish and Norwegian students concerning perceptions of prestige and salaries. Nonetheless, the regression model continues to unveil distinctions between Norway and Poland. Polish individuals who are conscientiousness and openness are more positively linked to this dimension than the Norwegians. One explanation for this could be that there are less inequalities in Norway and the standard of living is significantly higher than in Poland.

Polish students, meanwhile, focus to a greater extent on future jobs that are secure and provide a good work-life balance. This explains the results in Table 4. Job security remains a priority value among employees in different countries and a desirable feature of employment, which is often valued more highly than, for example, the salary received (Probst & Jiang, 2017). This is particularly true for the younger generation, who are generally more risk-averse than previous generations and for whom job

security is at the top of their priorities (Stillman & Stillman, 2017). At the same time, one can observe a growing polarization in the level of labour market security in EU countries today (Marx, 2014). This polarization has clearly deepened after 2004 – that is, after the successive enlargements of the European Union with countries having lower levels of social security and those in which the labour market is rather based on flexibility. The change in the employment formula, requiring frequent career changes linked to the need for retraining, has led to a situation in which a significant proportion of Polish workers are not sure whether they will find another job without much difficulty when they lose theirs (Męcina, 2009). At the same time, it is worth noting that the idea of flexicurity, which was supposed to be a response to the need to increase employment flexibility and work-life balance while maintaining stability (Standing, 2014), has not been sufficiently implemented in Poland compared to the so-called ‘old EU’ countries. Moreover, as the PWC 2021 report indicates, half of the surveyed students and recent graduates believe that the COVID-19 pandemic has had a negative impact on their chances in the labour market. One may therefore assume that this result reflects students’ individual fears regarding their long-term prospects on the Polish labour market.

On the other hand, the relatively low flexibility of employment generates concerns about the ability to maintain work-life balance in a stable full-time job. Research has indicated that, for the younger generation, work-life balance elements such as flexible working hours, more holidays and the possibility of remote working are something they expect from their employers (Sánchez-Hernández et al., 2019). CEBOS research has shown that the ability to reconcile work and private life is very important to Poles, and for up to 82% of them, family happiness is the most important value. The younger generation is also distinguished by its adherence to the principle that work life and private life are supposed to form a whole in which one can be oneself, realize one’s plans and be guided by the same values (Piecuch & Szczygieł, 2019).

A review of the existing literature suggests that comprehensive research on work-life balance issues in Poland is lacking (Thilagavathy & Geetha, 2021). Despite this, reports have indicated that most Polish employees face limited opportunities to autonomously manage their work schedules. A 2018 CSO survey of individuals with caregiving responsibilities revealed that a mere 26.6% of respondents claimed they could choose flexible work arrangements, such as deciding their start or finish times. Moreover, only 23.3% had the option to take a day off without utilizing their holiday allowance. Concerningly, about half of the respondents lacked any such flexibility. These options were more accessible to those not working full-time.

The significance of flexible working hours is corroborated by various reports, such as the PWC 2021 study, in which 40% of the participating students ranked it as their second most valued benefit (the top one being the opportunity to receive training). Consequently, it is reasonable to infer that the high importance placed on work-life balance among Polish students stems from a pragmatic assessment of their labour market conditions, coupled with the understanding that job security and maintaining a work-life balance can be mutually exclusive in many workplaces. This significant need of the younger generation is currently under-addressed in the Polish labour market. It is, therefore, crucial that these issues receive the attention of both policymakers and upper management.

Limitations

This study has some limitations. First, it was based on data from only three schools. It was also limited to a comparison of two countries. It is not certain that the questions were interpreted in the same way in both countries, and there may be many other factors that influence career choices that were not included in this study. The analysis does not include explanatory variables that capture the cultural dimension. There are several other variables that could have been included in the regression model. This analysis largely relies on the same regression model for both Norway and Poland. Alternatively, a separate model could have been considered that focused more on the differences between these two countries. Furthermore, the data is collected within the business student population, hence its validity may be somewhat restricted. However, hopefully, it provides it gives an indicator of the situation.

Conclusion

This article focused on the influences on career choices for business students in Norway and Poland, using the Big Five personality traits. For some of the factors, the same effects were found for both countries, such as a positive connection between openness and prestige and salaries, between extraversion and teamwork and between agreeableness and teamwork. However, there were examples in which there was a significant correlation for students in only one country. For instance, Poland had a negative correlation between openness and job variation, extraversion and job security and agreeableness and benefit for society, while Norwegian students reported a positive link between agreeableness and job security. There may be various reasons for the different results when comparing the connection to the Big Five across national borders, as well as cultural, historical and social differences, including different conditions in the labour market. This study confirmed that there are still gender differences, which is in line with previous results. For example, this article showed that women place greater emphasis on benefit for society and job security. The results of this study would be of interest in terms of the design and planning of the future labour market for business students in a European context. This study shows that there are geographical differences concerning job preferences and the impact of gender and personality traits. Few such studies have been conducted in Norway. Further research is needed to find reasons why in Norway, a weaker link was found between job preferences and personality traits than what is presented in the international literature. Further research should delve deeper into explaining how cultural factors come into play. There is every reason to study further why Polish female business students are more concerned about salary than their male counterparts.

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Data availability statement

The data are unfortunately not available to other.

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Appendix

Gender, Norway

Dimension	Males	Females	Difference
Personal development	5.60 (.94)	5.42 (.92)	.19 (.16)
Benefit Society	4.32 (.93)	4.73 (.94)	-.41*** (.16)
Prestige	4.91 (1.00)	4.84 (1.08)	.07 (.17)
Skills	6.01 (.69)	6.05 (.72)	-.04 (.12)
Team	4.61 (1.22)	4.71 (1.24)	-.10 (.21)
Variation	5.29 (1.08)	5.40 (.81)	.11 (.16)
Good work-life/leisure balance	5.24 (1.37)	5.61 (1.15)	-.38** (.21)
Job-security	4.79 (1.25)	5.76 (.86)	-97*** (.18)

** $p < .05$; *** $p < .01$.

Gender, Poland

Dimension	Males	Females	Difference
Personal development	5.37 (.95)	5.72 (.86)	-.36*** (.14)
Benefit Society	3.80 (1.04)	4.14 (.95)	-.34** (.16)
Prestige	4.86 (.97)	5.17 (.98)	-.30** (.15)
Skills	5.68 (.80)	6.14 (.71)	-.46*** (.15)
Team	4.36 (1.26)	4.49 (1.28)	-.13 (.20)
Variation	5.18 (1.08)	5.32 (1.05)	.14 (.16)
Good work-life/leisure balance	6.00 (1.17)	6.05 (1.09)	-.045 (.17)
Job-security	5.18 (1.28)	5.68 (1.06)	-.50*** (.18)

** $p < .05$; *** $p < .01$.