



The ethical judgments of Polish accounting students regarding earnings management

MAŁGORZATA CYGAŃSKA *,
NELLI ARTIENWICZ **, *RENATA BURCHART* ***

Abstract

Behavioural accounting is a branch of accounting that deals with human attitudes and behaviours to accounting phenomena, which determines decision-making behaviour. The most important ethical issue facing the accounting profession is earnings management. The aim of this study was to assess the prevailing attitudes of Polish accounting students towards earnings management. The impact of individual variables (gender, age and work experience) on ethical judgments regarding earnings management was assessed. The study revealed that the students' judgements were affected by the field of manipulation in earnings management. The manipulated accounting method was far less ethically acceptable than manipulated operating decisions. Perceptions of ethicality in accounting practices did not differ significantly between students working in accounting, students working in other fields and unemployed respondents. With regard to age, younger participants were more likely to regard earnings management practices as less ethical than older respondents, but the observed differences were not statistically significant. The differences between genders were not statistically significant either. The research makes a useful contribution to the scientific debate as it is the first research of that type in Poland, shedding light on behavioural aspects of earnings management.

Keywords: behavioural accounting, earnings management, ethical behaviour, manipulation.

Streszczenie

Osądy etyczne polskich studentów rachunkowości w zakresie zarządzania zyskami

Rachunkowość behawioralna zajmuje się zachowaniami księgowych i innych osób zaangażowanych w system rachunkowości. Zarówno zawód księgowego, jak i menedżera wiąże się z podejmowaniem licznych decyzji, które mogą być przedmiotem oceny zarówno merytorycznej, jak i etycznej. Celem niniejszych badań była ocena postaw etycznych studentów rachunkowości w odniesieniu do zarządzania zyskami. Analizie poddano wpływ płci, wieku i doświadczenia zawodowego na ocenę postaw etycznych menedżerów w zakresie zarządzania zyskami. W toku badań wykazano, że ocena postaw etycznych uwarunkowana była manipulacjami w zakresie zarządzania zyskami w obszarze rachunkowości i decyzji operacyjnych. Manipulacje w obszarze rachunkowości oceniane były bardziej krytycznie, aniżeli manipulacje w obszarze decyzji operacyjnych. Ocena postaw etycznych menedżerów przez studentów nie była uwarunkowana płcią, statusem zawodowym ani wiekiem. Niniejsze badanie stanowi użyteczny wkład w debatę naukową, ponieważ jest to pierwsze tego typu badanie w Polsce, rzucające światło na behawioralne aspekty zarządzania zyskami.

Słowa kluczowe: rachunkowość behawioralna, zarządzanie zyskami, postawy etyczne, manipulacje.

* Małgorzata Cygańska, dr. hab., associate professor, University of Warmia and Mazury in Olsztyn, Faculty of Economics, Department of Accounting, ORCID: 0000-0003-4548-2915, m.cyganska@uwm.edu.pl

** Nelli Artienwicz, PhD, assistant professor, University of Gdańsk, Faculty of Management, Department of Accounting, ORCID: 0000-0002-6323-5646, nelli.artienwicz@ug.edu.pl

*** Renata Burchart, PhD, assistant professor, University of Warmia and Mazury in Olsztyn, Faculty of Economics, Department of Accounting, ORCID: 0000-0003-1382-6517, rena@uwm.edu.pl



Introduction

Behavioural accounting is a branch of accounting that deals with human attitudes and behaviours to accounting phenomena, which determines decision-making behaviour (Kutluk, 2017). Ethical attitudes and professionalism are manifestations of behavioural aspects in accounting (Karmańska, 2009; Arnold, Sutton, 1997). There are three types of factors that explain the unethical conduct of accounting professionals: opportunity, motive/pressure and justification/rationalisation. These factors can be analysed by auditors to estimate the risk of fraud (Wąsowski, 2010, p. 167). In the literature, those factors are known as the fraud triangle (Pickett, Pickett, 2002, pp. 11–12). Opportunity refers to a situation that enables unethical behaviour to occur, for example, when internal controls are weak, when perpetrators are not penalised, when access to information is limited, or when fraud is ignored or cannot be detected (Dellaportas, 2003, p. 31; Ramamoorti, 2008, p. 526). Motive or pressure is the need to commit fraud. Unethical conduct can be motivated by financial pressure, or addiction or dependency in the workplace (Albrecht et al., 2012, pp. 36–39; Brody et al., 2012, p. 516). Rationalisation is the mindset of the fraudster that justifies unethical behaviour and attitudes. The perpetrators confess their guilt, but do not regard their actions as unethical (Brody et al., 2012, p. 515; Dellaportas, 2013, p. 31).

Accounting manipulation is not a new phenomenon. However, it has never posed such a threat to the stability of the global financial system as it does now. The above can be attributed to the progressive liberalisation of the flow of capital and labour between different regions and countries. As a result, there is growing uncertainty about survival in an increasingly competitive market (Kutera et al., 2006, p. 9). The risk of manipulation can be minimised by increasing ethical awareness. Ethical attitudes seem to be an important variable in the decision-making process, especially when decisions have social consequences (Borowik and Borowik, 2006). Therefore, accounting should focus not only on accounting knowledge but also on the behaviour and attitudes of the people taking part in accounting processes. Unethical behaviour, manipulation and abuse pose significant problems in many organisations. Business fraud has been documented by numerous reports, including *Analysis of business fraud in Poland* (2011) by PricewaterhouseCoopers and *Abuse and corruption in business*. Ethical issues are a highly valid concern in contemporary accounting. The accounting profession needs ethical professionals who are characterised by high levels of ethical awareness and sensitivity and who are capable of considering numerous variables in decision-making (Kutluk, 2017). When selecting managers, accountants, auditors, members of management boards or supervisory boards, it is therefore important to carefully consider not only their professional qualifications but also their personality traits, including ethical attitudes (Tokarski, 2010, p. 184).

A sense of security (social responsibility) is a pillar of modern business, and it necessitates the implementation of various instruments, such as legal acts and codes of ethics. Codes of ethics and professional conduct emphasise the importance of personal

responsibility and the awareness of the social implications of unethical behaviour in business (Karmańska, 2007, p. 398). The Polish Code of Ethics for Professional Accountants was published in 2007 by the Committee for Professional Responsibility and Ethics in Accounting of the Research Council of the Accountants Association in Poland. In 2009, the Code of Ethics for Professional Accountants of the International Federation of Accountants (IFAC) was translated into Polish and adopted as the standard of behaviour expected of professional accountants (Buczowska, 2011, pp. 46–48). The code sets detailed guidelines and standards of conduct for professional accountants, without making a distinction between financial and managerial accounting. However, the conceptual framework established by the code of ethics does not guarantee the observance of fundamental ethical principles.

The aim of this study was to assess the prevailing attitudes of Polish accounting students towards earnings management. Data was collected by means of a questionnaire administered to the accounting students. They were asked to rate the ethical acceptability of the actions. We used Principle-Components Analysis to decompose the variables into normalised factors and analysed the impact of individual variables (gender, age and work experience) on these factors (ethical judgments regarding earnings management).

The research makes a useful contribution to the scientific debate on the importance of behavioural themes in accounting. This is the first research of this type in Poland which sheds light on earnings management from a behavioural perspective. Knowing students' attitudes toward earnings management will be helpful in updating the Polish accounting education system. Attempts should be made to raise future accounting professionals' awareness of behavioural and ethical issues. It will also be useful for professional associations to develop ethical standards regarding earnings management.

The remainder of this paper is organised as follows. The first section is a review of the relevant literature, and it is followed by a description of the applied methodology and research design. The results of the survey are then described and discussed.

1. Prior research

Earnings management is “probably the most important ethical issue facing the accounting profession” (Merchant, Rockness, 1994, p. 92). It is a purposeful intervention in the external reporting process with the intent of obtaining some private gain (Riahi-Belkaoui, 2004). Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Healy, Wahlen, 1999). Earnings management can be regarded as abuse or fraud. Abuse and fraud are concepts that are defined not only in the literature but also in legal acts, including the penal code, fiscal penal code, corporate tax law and the accounting law.

Earnings management raises concerns about accountants' and managers' integrity (Fisher, Rosenzweig, 1995). Earnings management includes accounting-based activities (the choice of accounting policies, judgements or their timing) and operating-based activities (the selection of operating decisions). An example of an accounting-based activity is the unsupported manipulation of allowance for doubtful accounts or depreciation amounts, which leads to changes in a company's earnings. Operating-based activities may involve the postponement of discretionary expenses to increase current income. Earnings management has been the subject of Polish research papers. Wójtowicz (2010), Piosik (2016) and Grabiński (2016) dealt with issues related to active management of earnings in enterprises. According to Wójtowicz (2010), earnings management is a natural and inevitable element of financial statements as long as accrual accounting is used. Piosik (2016) identified the determinants of adjusting the net financial result by Polish entities while Grabiński (2016) used an adopted Dechow model to investigate the occurrence of earnings management during crisis and non-crisis periods.

Perceptions of ethicalness in earnings management constitute a broad field of empirical research in the literature. This line of research was initiated by Bruns and Merchant (1989, 1990) who developed a 13-action questionnaire investigating practices relating to short-term earnings management. The readers of *Harvard Business Review* were asked to rate the acceptability of those practices. The 13-action questionnaire has since been used by numerous researchers (Merchant, Rockness, 1994; Fisher, Rosenzweig, 1995; Clikeman et al., 2001; Cuzdriorean, 2013; Vladu, 2015). In subsequent studies, the respondents were both students and managers. Merchant and Rockness (1994) investigated the attitudes of general managers, staff managers, operation-unit controllers and internal auditors. Fischer and Rosenzweig (1995) surveyed undergraduate students, MBA students and practising accountants. Clikeman et al. (2001), Cuzdriorean (2013) and Vladu (2015) investigated accounting students. The cited studies produced similar results, which will be discussed in greater detail in part 3 of this paper.

To measure perceptions of specific earnings management practices, Giacomino and Akers (2006) modified the Bruns and Merchant questionnaire by adding seven actions, which produced a total of 20 actions relating to 10 earnings management practices. They surveyed both students and business managers. There were no significant differences observed between students and business managers, nor between genders. Jooste (2010) also relied on the 20-question version of the survey. He did not report significant differences between genders but found that business managers rated the analysed practices as less ethical than the students did.

The results of a study surveying university students' and accountants' attitudes towards unethical behaviour (Stronczek, Sawicka, 2017) indicate that the effectiveness of ethics education should be improved and that ethics education curricula should be better structured to enable young people to avoid ethical traps in the future. Rzepka and Wójtowicz (2018) demonstrated that knowledge of the Polish Code of Ethics for Professional Accountants was relatively low among practising accountants.

In Poland, the majority of behavioural studies were conducted in the field of personality research. Holland identified six types of vocational personalities that flourish in different work environments, and his theory was used in the research conducted by Cewińska et al. (2017). A study investigating vocational personality types among Polish accounting students (Cewińska et al., 2016) revealed that the conventional type was predominant. However, according to the authors, the conventional personality does not meet the requirements of modern accounting.

In a study analysing the employees of an accounting service centre, Kabalski and Przygodzka (2017) validated Holland's claim that the mismatch between vocational personality and work environment contributes to job dissatisfaction. Tobór-Osadnik et al. (2012, p. 95) reviewed the existing literature and confirmed the presence of correlations between vocational personality, work behaviour and productivity. According to the authors, the conformist personality (*homo sovieticus*) is still prevalent in Polish society, and it stands in vivid contrast to the qualities and attitudes advocated by the International Financial Reporting Standards (IFRS).

Kołodziej and Maruszewska (2016) surveyed ethical behaviours in accounting and found that unethical conduct was correlated with lower levels of moral reasoning, which is consistent with Kohlberg's theory of moral development. Behavioural researchers also evaluated the impact of gender on decision-making in corporate accounting. According to Birnberg (2011), despite the fact that gender issues continue to attract growing interest in behavioural accounting research, the influence of gender on accounting decisions has not been fully explored and requires further study. The impact of gender on decision-making in accounting has been explored by Barua et al. (2010) and Dyreng et al. (2010) in the international arena, and by Grzesiak and Kabalski (2016) and Kupczyk (2013) in Poland. According to Kamela-Sowińska (2006), the main causes of fraud in accounting include poor work ethics, fear of losing the job, a rat race culture, pressure from competitors and the inability to admit lack of expertise.

2. Methodology

To analyse ethical judgments regarding earnings management, the questionnaire used in this study involved scenarios of realistic earnings management activities. The questionnaire was adapted from the one developed by Bruns and Merchant (1989). It was translated into Polish. The complete questionnaire, including each question and alternative, was published in *Harvard Business Review* (Bruns, Merchant, 1989). The presented scenarios addressed different types of earnings management practices, including the choice and timing of operating events and the choice and timing of the recognition of specific revenues and expenses. Therefore, they covered both operating and accounting manipulations. Both in the original questionnaire and the translation used in this survey, neutral wording was used, which means that the behaviour of the manager was not described with words that could suggest an opinion or cause an unconscious or deliberate bias among respondents.

Data was collected by means of the questionnaire administered to accounting students of the University of Warmia and Mazury in Olsztyn and the University of Gdansk. They were asked to rate the ethical acceptability of each action on a five-point Likert scale, where 1 denoted a completely ethical action, and 5 represented a totally unethical practice:

- 1 = ethical practice,
- 2 = questionable practice,
- 3 = moderately ethical practice,
- 4 = seriously unethical practice,
- 5 = totally unethical practice.

We analysed the mean acceptability ratings for operating decisions and accounting manipulation regarding individual earnings management variables. The variables were analysed utilizing Principal Component Analysis with Varimax Rotation and five factors which had eigenvalues greater than one were extracted. Five normalised factor scores were calculated by STATISTICA (2011), version 13.3. The data are shown with means, standard deviations, medians and interquartile ranges; differences were calculated with the Mann-Whitney test and Wilcoxon signed-rank test. A p -value of less than 0.05 was considered statistically significant.

The sample consisted of 219 accounting students from the University of Warmia and Mazury in Olsztyn ($n = 160$) and the University of Gdansk ($n = 59$). The mean age was approximately 24.7 years, and students aged 19 to 25 years were the predominant group (89%). The majority of the respondents were female (85%). In terms of work experience, most of the students (61%) did not work (NW), 33 respondents claimed to be working in the accounting profession (WA), and 53 – in other professions (WO).

3. Results and discussion

From the 13 dependent variables subjected to Principal Component Analysis with Varimax Rotation, five factors with eigenvalues greater than 1 were extracted. The rotated factor matrix is presented in Table 1.

Five factors accounted for approximately 85% of the variance of dependent variables. These factors seem to represent the dimensions discussed by Bruns and Merchant (1989) and Fischer and Rosenzweig (1995). Bruns and Merchant (1989) referred to the first two factors (OPEREXP and OPERREV) as manipulation of operating decisions. In this group of factors, OPEREXP loaded heavily on operating decisions that changed expenses, while OPERREV loaded heavily on operating decisions that changed revenues. The remaining three factors – MISAPPLIC, ALTREC and MISPRES – loaded heavily on the variables which were regarded as accounting-related by Bruns and Merchant (1989). In the group of accounting manipulation factors, MISAPPLIC loaded heavily on the intentional misapplication of accounting principles relating to amounts,

Table 1. Rotated factor matrix

Number	Variable	OPEREXP	OPERREV	MISAPPLIC	ALTREC	MISPRES
1	Activities ahead of schedule	0.988594	0.004362	0.033585	-0.037888	0.047969
2	Expenditures postponed to next month	0.981066	0.003468	0.207817	-0.028942	0.024618
3	Expenditures postponed to next year	0.987874	0.002295	0.008107	-0.035566	0.031220
4	Supplies recorded next year	0.055601	0.016924	0.239478	0.020485	-0.835306
5	Liberal payment terms	0.006251	0.991044	0.258871	0.061581	0.012708
6	Overtime work	0.018022	0.987499	-0.398953	0.080840	0.027664
7	Sale of excess assets	-0.003475	0.988511	0.021991	0.072656	0.025894
8	Prepayment of expenses	-0.077935	-0.103785	0.212779	0.238910	-0.762925
9	Write-down of inventory	-0.047951	0.095367	0.389568	0.543844	-0.371885
10	Write-down of backup – product development	-0.004933	0.036535	0.188810	0.801865	-0.225664
11	Write-down of inventory backup – profit targets	-0.016377	0.082978	0.064545	0.866503	0.099728
12	Misapplication of invoices – low value	0.158620	0.009802	0.991799	0.000443	-0.012335
13	Misapplication of invoices – high value	0.124148	0.008233	0.990376	0.000848	-0.041369
Explained variance		0.2316	0.2279	0.1445	0.1358	0.1143

OPEREXP – operating expenses; OPERREV – operating revenue; MISAPPLIC – misapplication; ALTEREC – alteration of record; MISPRES – misrepresentation.

Source: authors' own elaboration.

classification, manner of presentation or disclosures; ALTREC loaded heavily on the alteration of accounting records or supporting documents; and MISPRES loaded heavily on the misrepresentation or intentional omission of events, transactions or other significant information. Twelve of the dependent variables loaded heavily (were strongly correlated) on one of the five factors. The majority of strong correlations were positive, which indicates that the factors had the same directionality as the original variables (high values denoted an ethical rating, and low values denoted an unethical rating). One factor (MISPRES) was bound by a negative correlation, which suggests that its directionality was opposite to the original variables. Raw factor scores are a linear combination of the original 13 dependent variables based on the respective coefficients in Table 1. Raw factor scores were normalised by subtracting the mean and dividing the result by the standard deviation of raw factor scores. The resultant normalised factor scores had a mean of zero and a standard deviation of one. In the next step, the normalised factor scores were used as dependent variables by replacing the original 13 dependent variables.

The dependent variables bound by the strongest correlations with one of the five factors were regrouped according to the results from Table 1.

The mean acceptability ratings for the manipulation of operating decisions (OPEREXP, OPERREV) and accounting-related manipulation (MISAPPLIC, ALTREC and MISPRES) are presented in Table 2. Each of the five factors and the corresponding variables were analysed separately.

The results in Table 2 indicate that the manipulated accounting method is far less ethically acceptable than manipulation by operating decisions. The students' mean response to the six accounting manipulation scenarios was 3.06, and the response to the six operating manipulation scenarios was 2.56. The median response was 3.10 and 2.60, respectively ($p < 0.05$). In comparison with other studies, the mean acceptability of operating decision manipulation was different among Polish students. The acceptability of operating decision manipulation was higher, and the judgements of accounting manipulation were harsher in the work of Fisher and Rosenzweig (1995) than in our study. On average, accounting manipulation was perceived by Polish students as much more ethical. In a study by Merchant and Rockness (1994), the mean acceptability of accounting manipulation was determined at 3.61.

In our study, the most acceptable behaviours were those regarding operating expenses. The least acceptable behaviours were related to the misapplication of invoices and misrepresentation. An analysis of individual variables indicates that conducting business activities ahead of schedule was the most acceptable behaviour. Similar to the cited studies (excluding Vladu, 2015), this variable was characterised by the lowest value of less than 2, which indicates that it is perceived as the most ethically acceptable behaviour. Postponed accounting for supplies was regarded as the most unethical behaviour in our research. This result is not consistent with previous studies, where practice 13 (a request for deferred billing from suppliers) was the least ethically acceptable on average.

Table 2. Mean acceptability ratings for operating decisions and accounting manipulation

Field of manipulation	Factor	Variable number	Mean* (SD) Median* [Q1-Q3]	
Operating decision	OPREXP	1	1.66 (0.97) 1.00 [1.00-2.00]	2.56 (0.65) 2.60** [2.20-3.00]
		2	2.74 (1.02) 3.00 [2.00-3.00]	
		3	2.81 (1.06) 3.00 [2.00-3.00]	
	OPERREV	5	2.52 (1.08) 3.00 [2.00-3.00]	
		6	3.08 (1.18) 3.00 [2.00-4.00]	
		7	2.12 (1.09) 2.00 [1.00-3.00]	
		12	3.10 (1.18) 3.00 [2.00-4.00]	
Accounting	MISAPPLIC	13	3.56 (1.28) 4.00 [3.00-5.00]	
		10	2.92 (1.05) 3.00 [2.00-4.00]	
		11	3.07 (1.09) 3.00 [2.00-4.00]	
	ALTREC	4	3.68 (1.20) 4.00 [3.00-5.00]	
		8	2.95 (1.18) 3.00 [2.00-4.00]	

*1 – ethical, 5 – unethical; ** p < 0.05 Statistical significance in median differences calculated with Wilcoxon signed-rank test.

Source: authors' own elaboration.

In prior research, operating and accounting activities were not divided into five factors; therefore, the mean values noted in this study cannot be broadly compared with other authors' findings. Fisher and Rosenzweig (1995) used four factors in the rotated factor matrix. Our results can be compared only in the area of operating decisions, where the variables are grouped identically. The most ethically acceptable group of practices was OPERREV in the study by Fisher and Rosenzweig (1995) and OPEREXP in our research.

In the next step of our research, the ethical acceptability of the evaluated practices was analysed based on work experience, and the results are presented in Table 3. The responses given by students working in accounting (WA), working in other fields (WO) and not working (NW) did not differ significantly, excluding the responses in the OPERREV category, where significant differences were noted between groups. On average, students working in accounting and unemployed students regarded the manipulation of operating revenues as significantly more ethical than students working in other fields. These results could be attributed to the fact that people with an accounting focus (working in accounting and studying accounting) have different perceptions of business activities. Accountants see business entities through numbers and documents. They may have a rule-based view of ethics, and they could be less inclined to consider the ethical implications of business decisions for stakeholders. They do not participate in the day-to-day struggles of companies where revenues play a very important role. Therefore, revenue-related practices might be a more sensitive topic for people who are concerned with operating activities.

Table 3. Mean acceptability ratings by work experience

Variable	WA n = 33	WO n = 53	NW n = 133	P-value ****
	Mean **** (SD) Median **** [Q1–Q3]			
ACC	2.98 (0.63) 3.10 [2.60–3.40]	3.08 (0.70) 3.20 [2.80–3.50]	3.07 (0.62) 3.10 [2.70–3.50]	p* = 0.3769 p** = 0.4953 p*** = 0.4953
DO	2.47 (0.64) 2.40 [2.00–2.80]	2.65 (0.76) 2.60 [2.20–3.20]	2.55 (0.61) 2.60 [2.20–3.00]	p* = 0.8658 p** = 0.5821 p*** = 8.8651
OPEREXP	2.38 (0.86) 2.33 [1.67–2.67]	2.45 (0.86) 2.33 [1.67–3.00]	2.39 (0.68) 2.33 [2.00–2.67]	p* = 0.6510 p** = 0.8675 p*** = 0.6939
MISAPPLIC	3.35 (1.12) 3.50 [2.50–4.00]	3.10 (1.19) 3.50 [2.00–4.00]	3.41 (1.12) 3.50 [3.00–4.00]	p* = 0.3473 p** = 0.8254 p*** = 0.1467

Table 3. (cont.)

Variable	WA n = 33	WO n = 53	NW n = 133	P-value****
	Mean**** (SD) Median**** [Q1–Q3]			
OPERREV	2.39 (0.77) 2.33 [1.67–3.00]	2.75 (0.79) 3.00 [2.00–3.33]	2.56 (0.71) 2.66 [2.00–3.00]	p* = 0.0395 p** = 0.2215 p*** = 0.0812
ALTREC	2.89 (0.88) 3.00 [2.00–3.50]	2.99 (0.87) 3.00 [2.50–4.00]	3.02 (0.96) 3.00 [2.50–3.50]	p* = 0.7005 p** = 0.4549 p*** = 0.7506
MISPRES	3.28 (0.85) 3.50 [2.50–4.00]	3.38 (1.01) 3.50 [3.00–4.00]	3.29 (1.02) 3.50 [2.50–4.00]	p* = 0.5078 p** = 0.8537 p*** = 0.5688

p* WA – WO; p** WA – NW; p*** WO–NW; **** 1 – ethical, 5 – unethical.

**** Statistical significance in median differences calculated with the Mann-Whitney test.

Source: authors' own elaboration.

With regard to age, the younger participants regarded earnings management practices as less ethical than the older respondents (Table 4). The above applies to both accounting-based and operation-based activities as well as all five factors. However, significant differences between age groups were noted only in ACC, MISAPPLIC and OPERREV variable groups. These findings could be explained by the fact that older people are more likely to turn a blind eye to some aspects of earnings management. In our study, younger people appeared to be more sensitive, and it could be argued that their integrity had not yet been compromised by life experience.

Table 4. Mean acceptability ratings by age

Variable	19-25 years old n = 195	26-45 years old n = 24	P-value**
	Mean* (SD) Median* [Q1–Q3]		
ACC	3.09 (0.63) 3.10 [2.70–3.50]	2.77 (0.65) 2.85 [2.15–3.25]	0.0071
DO	2.59 (0.63) 2.60 [2.20–3.00]	2.31 (0.77) 2.30 [1.70–2.60]	0.4872
OPEREXP	2.42 (0.73) 2.33 [1.67–3.00]	2.28 (0.95) 2.00 [1.67–2.67]	0.1739
MISAPPLIC	3.41 (1.09) 2.50 [3.00–4.00]	2.65 (1.30) 3.00 [1.25–4.00]	0.0062
OPERREV	2.62 (0.74) 2.67 [2.00–3.00]	2.25 (0.77) 2.33 [1.50–2.67]	0.0336

Table 4. (cont.)

Variable	19–25 years old n = 195	26–45 years old n = 24	P-value**
	Mean* (SD) Median* [Q1–Q3]		
ALTREC	3.00 (0.93) 3.00 [2.50–3.50]	2.96 (0.91) 3.00 [2.00–3.75]	0.9376
MISPRES	3.34 (0.95) 3.50 [2.50–4.00]	3.08 (1.23) 3.00 [2.00–4.00]	0.3788

*1 – ethical, 5 – unethical.

** Statistical significance in median differences calculated with the Mann-Whitney test.

Source: authors' own elaboration.

Despite the fact that the females judged dishonest practices more harshly on average, the differences between the male and female students were not statistically significant across any of the analysed categories (Table 5). Similar results were reported by Clikeman et al. (2001), who found that students of each gender appeared to assess each type of manipulation in a similar way.

Table 5. Mean acceptability ratings by gender

Variable	Female n = 186	Male n = 33	P-value**
	Mean* (SD) Median* [Q1–Q3]		
ACC	3.07 (0.64) 3.10 [2.70–3.50]	2.95 (0.63) 3.20 [2.50–3.40]	0.5776
DO	2.58 (0.67) 2.60 [2.00–3.00]	2.53 (0.54) 2.60 [2.20–2.80]	0.4182
OPEREXP	2.41 (0.76) 2.33 [1.67–3.00]	2.37 (0.72) 2.33 [1.67–2.67]	0.6369
MISAPPLIC	3.34 (1.14) 3.50 [2.50–4.00]	3.22 (1.23) 3.00 [2.00–4.00]	0.5971
OPERREV	2.59 (0.74) 2.67 [2.00–3.00]	2.54 (0.76) 2.33 [2.00–3.00]	0.5936
ALTREC	3.02(0.91) 3.00 [2.50–4.00]	2.81 (1.04) 3.00 [2.00–3.50]	0.2814
MISPRES	3.32 (1.00) 3.50 [2.50–4.00]	3.20 (0.88) 3.00 [3.00–4.00]	0.4669

*1 – ethical, 5 – unethical.

** Statistical significance in median differences calculated with the Mann-Whitney test.

Source: authors' own elaboration.

In general, Polish students perceived operating decision manipulation as far less ethical and accounting manipulation as more ethical than the subjects surveyed in other countries. It seems that accounting is underestimated as an ethical business tool and that there is a gap in accounting education that should be filled with proper ethical training. According to Lewicka-Strzałecka (2010, p. 51), ethics education can provide support for legal regulations and institutional solutions in minimising abuse and fraud in business. Most decisions made by managers concern complex situations and often involve a choice between present and delayed gratification. Ethics curricula do not provide ready-made answers to such dilemmas. They can only increase managers' awareness of ethical problems and provide them with the required knowledge for analysing such scenarios. Sawicka and Stronczek (2015) pointed out that ethical standards and attitudes should be promoted and enforced to prevent ethically ambiguous situations from turning into fraud. The effectiveness of ethics programs for managers continues to be debated in the scientific literature and the media around the world. Some researchers argue that ethics training can weed out scandal and fraud from business (Merritt, 2003; Alsop, 2003; Ghoshal, 2003), whereas others claim that ethics education is ineffective and misguided (Beggs, Dean, 2007; Breaux, 2010). According to Żuraw (2012, p. 129), ethical conduct should be actively promoted, and the Code of Ethics for Professional Accountants should be addressed mainly to managers, who are often responsible for unethical practices in a company.

The potential limitations of this study are the small sample size and potential lack of generalisability to all Polish accounting students; thus, the results must be interpreted carefully. However, it is believed that the reader will find some new insights in accounting manipulation aspects.

Conclusions

The aim of this study was to assess the prevailing attitudes of Polish accounting students towards earnings management practices. The respondents' judgements were affected by the field of manipulation in earnings management. The manipulated accounting method was far less ethically acceptable than manipulated operating decisions. In general, perceptions of ethicality in accounting practices did not differ significantly between students working in accounting, students working in other fields and unemployed respondents. With regard to age, younger participants were more likely to regard earnings management practices as less ethical than older respondents, but the observed differences were not statistically significant. The differences between genders were not statistically significant either. Surprisingly, Polish students perceived operating decision manipulation in a different way than the subjects surveyed in other countries. These results could be linked with the Polish accounting education system. Accounting academicians should consider including behavioural accounting courses in accounting curricula. Attempts should be made to raise accounting professionals' awareness of behavioural and ethical issues, which would enable them to cope with real problems and would broaden their perspective beyond documents and numbers.

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