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WHAT DETERMINES EMPLOYEE PROCRASTINATION AND MULTITASKING IN THE WORKPLACE: PERSONAL QUALITIES OR MISMANAGEMENT?

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Abstract. The nature of procrastination is usually analysed from the angle of the psychological mechanism, in the aspects of demotivating factors; however, there are not many studies emphasizing procrastination provoked by mismanagement. A similar situation is also observed with regard to multitasking analysed in this article, which is recorded at work not because employees naturally like to multitask but because they have no other way out. The purpose of this article is to present the results of the empirical study revealing the nature of procrastination and multitasking in the workplace. The study involved 995 employees of Polish (N = 500) and Lithuanian (N = 495) private sector organizations. It has been found that a share of employees are forced to become procrastinators and multitaskers due to management flaws. In addition, procrastination and multitasking are related by medium strength statistical relationships, regardless of the country. The value of the research is presupposed by the fact that it presents new and original data showing the situation of multitasking and procrastination in Lithuanian and Polish organizations. These results improve the literature on procrastination by providing additional confirmatory evidence on how more flexible work organization can serve for better understanding of causes of multitasking and procrastination.

Keywords: procrastination in the workplace, multitasking in the workplace, personal characteristics, personal qualities, private sector, Poland, Lithuania.

JEL Classification: M14, M19.

Introduction

Procrastination has traditionally been associated with lower productivity of employees, which has negative consequences for both employees and organizations (Gupta et al., 2012; Nguyen et al., 2013). However, analysing the psychological mechanism, the nature of procrastination is primarily to be related to time management, which is particularly affected by motivation

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linked with neurophysiological processes (Chen et al., 2020; Zhang et al., 2019). In addition, demotivating factors (e.g., neuroticism, anxiety, fear of failure) (Day et al., 2000; Steel, 2007), age, gender, culture (Steel & Ferrari, 2013), parenting factors/consequences (control in the family, extremely strict discipline) (Darlow et al., 2017; Hong et al., 2015), which have residual effects, are especially important in seeking to explain the causes of the emergence of the phenomenon. In addition, some work characteristics may also promote procrastination (Gupta et al., 2012; Nguyen et al., 2013); therefore, it is generally proposed to separate procrastination from conceptually similar concepts such as counterproductive work behaviour, general procrastination, and boredom (Metin et al., 2016). For example, it has been observed that active procrastinators tend to engage in a large number of tasks, which is likely to require constant reorganization and prioritisation of task-related activities (Choi & Moran, 2009). In addition, the results of a study conducted by Chauhan et al. (2020) demonstrate that individuals who strategically engage in procrastination in the workplace may receive unique activity-related benefits that are not obtained by non-procrastinators. All this draws attention to the fact that procrastination is related not only to personal characteristics but also to the conditions of work organization. Similarly, unambiguous conclusions cannot be drawn in the cases of employee multitasking as well. Although researchers point out that the human brain cannot effectively cope with the challenges posed by multitasking due to the accuracy of task performance (Nijboer et al., 2014), the efficient use of brain resources in the learning process (Rekart, 2011), and especially using working memory in the older age (Clapp et al., 2011), employees often have to handle multiple tasks simultaneously. The conceptual approach of this study is grounded on the fact that procrastination and multitasking at work can be provoked by mismanagement. After familiarising with a study conducted by Kristano and Abraham (2016), analysing decisional procrastination and media multitasking (the study involved 192 university students), it is aimed to investigate the impact of work organization on the forced existence of procrastination and multitasking phenomena in the workplace. It should be noted that no studies analysing procrastination and multitasking in the workplace in the private sector from the point of view of the management science could be found on the Web of Science (Clarivate Analytics) database. Research conducted by other authors usually covers the student audience (especially the procrastination phenomenon), while multitasking is most often analysed in technology-related research or research on media multitasking. Therefore, in the opinion of the authors of this article, the analysis of the above-mentioned phenomena in the workplace is no less meaningful; thus, the aim of the research is to determine the nature of procrastination and multitasking in the workplace, identifying the provocation of the phenomena from the standpoint of personal characteristics and/or mismanagement. Some research, at least in the area of procrastination, shows different links between procrastination trends and culture. For example, Košíková et al. (2020) found such differences when comparing Ukrainian and Slovak students. Doty et al. (2020) compared the links between Internet use in the US and Russia and procrastination and concluded that indirect links between Internet use for social interaction and procrastination were cultural, while the indirect links between other uses of the Internet (for entertainment and Internet idling) and procrastination were culturally immutable. However, Ferrari et al. (2007) compared the responses of respondents in Spain, Peru, Venezuela, the United Kingdom, Australia, and the United States and found no significant differences. Thus, although there are methodological

differences between the above-mentioned studies, the influence of cultural peculiarities cannot be ruled out. Therefore, we conducted the study in Polish and Lithuanian organizations.

Our study is organised as follows. Its first part presents the theoretical background of personal qualities, procrastination in the workplace and multitasking in the workplace, which constitutes the base for formulation of research problem questions. In turn, section two presents' materials and methods applied in our survey. This is followed by findings and their analysis. Finally, conclusions, directions for further research and limitations of our paper are presented. In this article, authors present only a part of the results of the conducted study.

1. Literature review

Monochronic or polychronic persons. Current jobs frequently require employees who are able to use (or rather manage) their time flexibly and effectively (Kirchberg et al., 2015). In other words, they require the multitasking ability. However, multitasking is conditioned by a variety of factors. One of these is the monochronic type of behaviour (engagement in a single activity) or polychronic type of behaviour (several actions performed simultaneously) (Hall, 1959; Lindquist & Kaufman-Scarborough, 2007). An important role among them is played by those of a socio-cultural nature. The reference to the division of cultures into polychronic and monochronic cultures that was proposed by Hall (1983) seems helpful. According to him, polychronic persons are characterized by a lack of punctuality, a relaxed attitude to time and frequent changes in the schedule, are more likely to undertake several actions simultaneously than representatives of monochronic cultures. This is due to the fact that in the latter time it served as the basic regulator of human actions. In monochronic cultures, individuals focus on one task, while members of polychronic communities place greater emphasis on interpersonal relationships rather than schedules dealing with many activities at the same time. Hall goes further in his considerations, including the Mediterranean countries and Latin America as polychronic cultures and treating North-Western European countries and the United States as monochronic ones (Hall, 1983). A similar classification was proposed by Gesteland (1999), who recognises Japan, Germany and North America as representatives of the monochronic (single-task) culture. In addition, he also introduces the category of 'intermediate' cultures, located somewhere between polychronism and monochronism. According to him, this classification contains Eastern, Central and Southern European countries as well as Russia. It should be, however, emphasized that the world does not stand still, and globalization as well as rapid technological and technical progress we observe now are changing this classification. One should also underline the gender differences among researchers. For example, Szameitat and Hayati's (2019) research show that women tended to do multiple tasks simultaneously more often, compared with men, though, though there are other surveys that don't confirm this thesis.

The terms "polychronicity" and "multitasking" are not synonyms, although they are linked by an important conceptual relationship. Polychronism is the ability of an individual to act in a multitasking manner. It can be defined as a person's inclination to distribute attention among several tasks instead of concentrating on one task until its accomplishment and then proceeding with another task (Poposki & Oswald, 2010). It may change with time as the work environment may start requiring that employees should multitask (König & Waller,

2010). In turn, multitasking means the mere involvement in several activities simultaneously (Sanderson, 2012). The polychronic work culture motivates employees to engage in many activities at the same time, including those activities that require the use of new media (König et al., 2010). One should add that polychronicity is a frequent requirement in many types of job descriptions and multiple roles assigned to the employee by the organizations (Sehrish & Zubair, 2020). In addition, the analysis of literature shows that there are also polychronic organizations; i.e., the ones that value the engagement of the employees in two or more tasks at the same time (Mattarelli et al., 2015).

Procrastination at the workplace. As stated by Zacks and Hen (2018), procrastination is a widespread phenomenon which is investigated from diverse theoretical standpoints proposing a wide range of reasons and outcomes.It is observed in our everyday life and for some people it just lies in their nature. It is estimated that procrastination is characteristic to about a quarter of the general population (e.g. Ferrari et al., 2007, 2018). However, there are social groups; e.g., academicians or students where this rate is higher. Schouwenburg (2004) claims that this so-called "academic procrastination" in case of students reaches as many as 70%, and Steel (2007), who analysed behaviour of American students, stated that this ration reaches 95%. However, even within this group there are differences and younger students express higher tendency for procrastination than their older colleagues (Kim & Seo, 2015). This relative higher rate of prevalence of the phenomenon among students is stemming from their little experience and a lack of awareness of its negative consequences, which really may be devastating and which can relate both to their feelings (e.g., sadness, shame or feeling guilty (Grunschel et al., 2013) and affect their private life, for example, lack of social networks (Grunschel et al., 2013; Patrzek et al., 2012). Moreover, it seems that some of them behave like chronic procrastinators, with all negative consequences of this fact. They even do not realise that they need a professional help (Zacks & Hen, 2018). Research also shows that if chronic procrastinators do not have effective self-regulation tools, they may have less advantages resulting from controlling their time (Roster & Ferrari, 2020). However, despite a wide prevalence of this phenomenon, there is still a lack of a single and universal definition of procrastination and authors define it using different criteria (see for example the discussion at Klingsieck, 2013). The simplest as well as the broadest definition links procrastination with dysfunctional forms of delay (Steel, 2007); e.g., voluntary delay in taking an action, despite expecting to be worse off due to this delay. It may be surprising that although a lot of surveys on procrastination have been conducted, there have been less studies analysing the impact of procrastination on health outcomes (Li et al., 2020). However, as presented by many research, it frequently entails negative outcomes in relation to performance of people and their subjective well-being (e.g. Klingsieck, 2013; van Eerde, 2003; Haghbin et al., 2012; Goroshit, 2018). It may also have an impact on the lower salary (Nguyen et al., 2013). Many studies show a negative relation between procrastination and health (e.g., Stead et al., 2010; Sirois, 2016). As such, it is bad both for the individuals as well as for the society (Pychyl & Fleet, 2012) as it affects different aspects of people's lives. One should, however, stress that some authors claim that procrastination may generate positive performance outcomes. They call it "active procrastination" (Chu & Choi, 2005) in opposition to the passive one, in which procrastinators unintentionally postpone the execution of a task due to their inability to act quickly and efficiently to perform the task. In turn, active procrastinators like (and even prefer) to

work under pressure, being able to meet the deadlines (Choi & Moran, 2009). Abramowski (2014) claims that active procrastination may be described as a multidimensional construct that comprises: 1) cognitive (i.e., it is individual who decides to procrastinate), 2) affective (preference for time pressure) and 3) behavioural (completion of the task on time) aspects.

The deliberations presented clearly show that procrastination should be regarded as a serious personal and situational issue that should be addressed. Though known for hundreds of years – as early as since the beginning of human civilization, as stated by Abramowski (2014) – it has been professionally analysed only recently. In addition, as stated by Steel and Klingsieck (2016), there has been considerable specialisation of research on precursors of procrastination. The latest research analyse, inter alia, the elements that favour (or reduce) procrastination behaviours (Codina et al., 2020). For example, one of such matters is motivation (or rather its lack) (Codina et al., 2018; Grunschel et al., 2016). But those things do not change the fact that its consequences, regardless of their nature, are too serious to let this phenomenon exist in the organisations without any preventive actions and strategies. Despite the negative connotation of the phenomenon of procrastination, it should be assumed that procrastination could be provoked as a result of management flaws; therefore, we will try to find an answer to the raised research question. Q1: To what extent procrastination in the workplace is a personal characteristics and how much is it determined by mismanagement?

Multitasking in the Workplace. Every employer is dreaming about a creative, open to new experiences and responsibilities, mobile and effective employee. Another important feature of the desirable employee is its multitasking ability; i.e., doing several things simultaneously. These growing requirements for employees are largely influenced by two things: first, the nature of the environment we live and work in, which is more and more complex and turbulent; and in some sectors, it takes even a hypercompetitive nature. Secondly, the dynamic development of modern technologies, mobile applications and social media, which force the acquisition of new competences by the employees. As a result, multitasking is visible at schools, among students and employees in business because current work and environment requires such activities from everybody (Courage et al., 2015). Carrier et al. (2015) claim even that multitasking is observed practically everywhere, being one of the important phenomena which is observed in contemporary organizations. Due to its multidimensional aspect, it is analysed by researchers from different scientific disciplines; however, mostly from management and psychology. It takes various forms, creates complex structures, composed of many causes and a wide range of effects. It also enters into relationships with other organizational phenomena like time management or procrastination. Given these aspects, no wonder that it is not easy to define this term. The simplest definition assumes that this phenomenon means that a person carries out two (or several) assignments at the same time and that each assignment has a well-defined separate goal (Carrier et al., 2015). There is no doubt that if we want to perform our work effectively, a high concentration is needed. This is especially evident in office work. This is in theory only, and the human mind has the ability to perform multiple tasks with simultaneity. However, this is only apparent simultaneity (Ong & Gupta, 2016). That is a wrong assumption that picking up the phone while preparing a document will not bother an employee at all. On the contrary, practice shows that it is hardly possible to jump from one task to another efficiently. It therefore requires a good organizing of the working day. Given these facts, it is very important to be aware of the factors that distract people at

work and try to use time efficiently, thus eliminating factors that negatively affect employees' concentration. There is a wide debate on benefits and drawbacks of multitasking in the current literature. The supporters of this phenomenon claim that it enables the high-level efficiency and that productivity is of key importance in the hypercompetitive environment the organisations operate in. That is because it improves people's flexibility and the way they learn; the latter is especially observed among young generation (e.g., Sparrow et al., 2011; Lui & Wong, 2012; Mattarelli et al., 2015). For example, analysing a retail bank, Manthei and Sliwka (2013) revealed a favourable impact of multitasking on effort and financial performance. However, it was driven mostly by bigger industries and higher trade in non-core items. In turn, the opponents are of the opinion that the information processing system of human beings has a limited capacity resulting in errors at work, higher stress and thus, lower productivity and worse performance (e.g., Rosen, 2008; Bowman et al., 2010). Regardless of the approach, there are individual differences in effective multitasking, resulting from a variety and complexity of activities people perform, nature of tasks and even relations between individuals (Pollard & Courage, 2017). In addition, multitasking does not work in every area. Whereas some forms of multitasking are helpful; e.g., searching the Internet during the telephone conversation to find answers to the questions raised in the conversation. On the other hand, the more technological skills we acquire, the more frequently we add more tasks, thus falling into the multitasking trap. For sure, multitasking has a positive effect on loyalty to the employer because due to the variety of tasks undertaken, the sense of responsibility for the company's business activities increases. It also gives employee a chance to achieve many goals and experience many activities at the same time. However, at the same time, one cannot forget that a lot depends on managers as some of them support multitasking while others are in opposition. Of course, there are some costs associated with multitasking, especially for employees who do it on a constant basis. Ophir et al. (2009) note that persons who often perform many tasks simultaneously bear higher cognitive costs of switching between individual activities than those who do it rarely. Impulsive people are more sensitive to rewards; therefore, they are more willing to get involved in multitasking (Sanbonmatsu et al., 2013). Moreover, usually they have a reduced level of anxiety and are not afraid of risky behaviours, are not worried about whether they will fail. In other words, they are less sensitive to losses. However, whether we want or not, we can assume that multitasking is the reality of current business. However, based on the results of previous studies and the resulting assumption, the following research question is raised Q2: To what extent multitasking in the workplace is a personal characteristics and how much is it provoked by mismanagement?

Procrastination, multitasking and personal qualities. Though there are a number of research on multitasking, procrastination and monochronic or polychronic persons (though less in the case of the latter), relatively little surveys explore the relations that are observed between them. As it has been stated earlier, nature of jobs has a string impact on prevalence of multitasking. And this is also linked with procrastination. Procrastinators are motivated by both intrinsic motivation (work under time pressure), and extrinsic one (forced by a time limit to accomplish the assignment) (Deci & Ryan, 1985). However, the level of procrastination or the number of procrastinators across jobs vary (Nguyen et al., 2013). They differ depending on the type of work. In general, in widely understood "office work", pro-

crastination is observed more frequently, compared with others. Using a sample consisting of 22,053 individuals, researchers found out that procrastinators are less likely to stay in the positions requiring high-level motivational abilities. Besides, procrastinators tend to work in the positions that are lower with regard to internally rewarding features. In turn, Reinecke et al. (2018) analysed the role of internet multitasking to find out the link between personal quality procrastination and psychological well-being difficulties, investigating a sample of 818 adolescents aged from 11 to 16. Their research demonstrated that personal quality procrastination positively correlated with internet multitasking. A wide survey on the impact of polychronicity and time management on work-related quality of life was conducted by Sehrish and Zubair (2020) on a group of 300 bank employees in Pakistan. They allowed to present several interesting conclusions: (a) polychronic behaviour negatively correlated with control of time and life quality related to work, (b) time control mitigated the relationship between polychronic behaviour and life quality related to work, (c) men tended to be less polychronic and controlled their time better. Furthermore, analysing 185 Canadian students, Choi and Moran (2009) revealed that active procrastination was positively related to polychronicity. That is because individuals may engage in multiple tasks simultaneously, thus adapting their work schedule to meet the multiple deadlines. Moreover, when being under stress, they use more task-oriented strategies. Such behaviour is in apposition to passive procrastinators who rather prefer avoidance strategies. According to Mattarelli et al. (2015), the person's awareness of the organization's predisposition to multitasking (i.e., polychronicity in the organisation) causes multitasking in employee activities. Thus, after reviewing the results of recent studies examining procrastination, multitasking, linking them to personal qualities, we raised the following research questions: Q3: Is there a linkage between multitasking and procrastination phenomena in the workplace? and Q4: How strongly do the individual constituents of multitasking and procrastination correlate with each other?

2. Research methodology

Sample. According to Gesteland's (1999) classification, Poland and Lithuania should belong to the "intermediate" position between polychronic and monochronic cultures. The study involved 995 employees of private sector organizations in Poland (PL, N = 500) and Lithuania (LT, N = 495), of which 448 were men (PL, N = 243, LT, N = 205), representing 45% of the sample and 547 were women (PL, N = 257, LT, N = 290), which constitutes 55% of the total sample. Table 1 presents the characteristics of research participants and the organizations they represent, both by country and in the total sample.

Procedures. In order to achieve the research aim, private sector organizations in Poland and Lithuania were selected. Although the permits of the heads of the organizations to conduct the survey were obtained, nevertheless, the further course of the study depended on employees' self-determination and their voluntary participation in the survey. Research participants were assured of their privacy, anonymity and confidentiality. The questionnaire survey was conducted following the principles of research ethics, ensuring the participants' rights not to be offended and exploited. The questionnaire was uploaded to a specialized platform for conducting surveys. The survey was conducted remotely by distributing the

Table 1. Characteristics of research participants and organizations

Characteristics		Lithuania, N = 495		Poland, N = 500		N = 995	
		Frequencies	%	Frequencies	%	Frequencies	%
Age	18–24	111	22.4	78	15.6	189	19.0
	25–34	195	39.4	156	31.2	351	35.3
	35–44	109	22.0	147	29.4	256	25.7
	45–54	59	12.0	81	16.2	140	14.1
	Aged 55–65 and older	21	4.2	38	7.6	59	5.9

electronic link to the questionnaire. Protections were set for every question in the questionnaire, which prevented the respondent from marking answers with the same ratings on the Likert scale. In addition, responses were blocked if the questionnaire was completed a second time from the same computer. These protections prevented mechanical and fraudulent filling; besides, the questionnaire also included control questions. Finally, the respondent could not confirm and send the completed questionnaire to the researchers if at least one question was left unanswered. This feature helped to avoid incomplete questionnaires.

Measures. The survey was conducted using the following scales: The Polychronic–Monochronic Tendency Scale (PMTS) (Lindquist & Kaufman-Scarborough, 2007), Irrational Procrastination Scale (IPS) (Steel, 2010), Unintentional Procrastination Scale (UPS) (Fernie et al., 2017), Susceptibility to Temptation Scale (STS) (Steel, 2010), General Procrastination Scale (GPS) (Lay, 1986), Multitasking Preference Inventory (MPI) (Poposki & Oswald, 2010). Verification of the questionnaire showed high reliability (lowest Cronbach's alpha value was 0.87). The psychometric characteristics of the scales for this sample are given in Table 2.

Table 2. Psychometric characteristics of Polychronic–Monochronic, Procrastination and Multitasking scales (N = 995)

Scales	Explained dispersion, %	Cronbach alpha	Spearman-Brown	Factor loading (L)			Total item correlation (r/itt)			Factor loadings	
				mean	min	max	mean	min	max	*	**
PMTS	71.12	0.90	0.89	0.84	0.77	0.91	0.70	0.55	0.90	PMTS 0.48	PMTS 0.45
IPS	55.62	0.87	0.87	0.72	0.31	0.87	0.52	0.01	0.86	IPS 0.88	IPS 0.82
UPS	62.84	0.90	0.88	0.79	0.63	0.85	0.62	0.40	0.84	UPS 0.88	UPS 0.81
STS	58.97	0.93	0.91	0.77	0.66	0.81	0.58	0.43	0.81	STS 0.76	STS 0.59
GPS	34.07	0.87	0.86	0.57	0.32	0.76	0.32	0.02	0.77	GPS 0.85	GPS 0.78
MPI	41.44	0.89	0.84	0.64	0.46	0.82	0.40	0.03	0.80	MPI 0.56	MPI 0.62
Explained dispersion, %										56.23	47.61

Notes: *Factoring in Accordance with Principal Components (1 Factor Model) F1 Method; ** Alpha factoring F1.

Respondents were also given the following dichotomous questions. Question 1: Is multitasking a common everyday phenomenon in your work? Question 2: Do you consider yourself a person who is capable of performing several tasks at a time? Question 3: Is procrastination at work acceptable to you? Question 4: Do you often postpone tasks for the last minute? Based on the answers to dichotomous questions, the research participants were divided into the following groups:

- Group PI: procrastination at work is acceptable to me and I am the kind of person who postpones tasks for the last minute (persons who consider themselves procrastinators);
- Group PII: no matter what my personal qualities are, I am forced to work in a way that is not characteristic/suitable for my nature;
- Group PIII: procrastination at work is not acceptable to me and I am not the kind of person who postpones tasks for the last minute (persons who consider themselves non-procrastinators).

Group MI: multitasking is a common phenomenon in my work and I am the kind of person who is capable of performing several tasks at the same time (people who consider themselves polychronic, multitaskers);

Group MII: no matter what my personal qualities are, I am forced to work in a way that is not characteristic/suitable for my nature;

Group MIII: multitasking is not a common phenomenon in my work and I am not that kind of person who is capable of performing several tasks at the same time (persons who consider themselves monochronic, non-multitaskers).

3. Research results

The research data were obtained through questionnaires and analysed using Stjudent t test and establishing correlation relationships between multitasking and procrastination.

The analysis of the results with regard to procrastination (Table 3) shows that the first group (PI; i.e., the group of procrastinators satisfied with working conditions, N = 162) is relatively least numerous. Relatively because, however, the percentage of procrastinators in the case of this sample is quite high; i.e., 16.3%. The representatives of this group find procrastination at work acceptable (i.e., practiced) and they belong to those individuals who postpone tasks for the last minute. Comparing Lithuanian and Polish organizations, statistically significant differences were identified in all scales analysed, where stronger approval of procrastination statements by employees of Polish organizations was recorded.

The most numerous group (PII, N = 455) is the one that signals that employees of the organizations involved in the study are forced to procrastinate, although they are not procrastinators by their nature/they must work according to a strict schedule, although are procrastinators by their nature/ their work does not correspond to their personal qualities (non-procrastinators procrastinate and vice versa). Statistically significant differences were not found here only in one (i.e., MPI) scale.

Representatives of the third group (PIII; i.e., the group of non-procrastinators who are satisfied with the working conditions, N = 378) find procrastination at work unacceptable (i.e., not practiced), and they do not consider themselves persons who postpone tasks for the

Table 3. Manifestation of procrastination and multitasking dimensions in different groups of Lithuanian and Polish organizations according to the role of procrastinator (N = 995)

	Group PI, N = 162						Group PII, N = 455						Group PIII, N=378					
	LT, N=86		PL, N = 76		Stjudent t		LT, N = 258		PL, N = 197		Stjudent t		LT, N = 171		PL, N = 207		Stjudent t	
	Mean	SD	Mean	SD	t	p	Mean	SD	Mean	SD	t	p	Mean	SD	Mean	SD	t	p
1	3.75	0.42	4.19	0.63	–5.135	0.0001**	3.20	0.58	2.37	0.76	9.250	0.0001**	2.32	0.55	2.05	0.49	4.941	0.0001**
2	3.65	0.48	3.86	0.51	–2.689	0.008**	2.71	0.72	2.07	0.93	5.861	0.0001**	2.22	0.62	1.90	0.67	4.881	0.0001**
3	3.79	0.57	4.04	0.42	–3.165	0.002**	2.93	0.66	2.60	0.90	3.074	0.002**	2.55	0.73	2.65	0.74	–1.298	0.195
4	3.30	0.43	3.87	0.44	–8.265	0.0001**	2.61	0.41	2.73	0.45	–2.113	0.036*	2.09	0.42	2.23	0.46	–2.908	0.004**
5	3.36	0.41	4.14	0.89	–6.911	0.0001**	3.33	0.55	3.19	0.71	1.657	0.100	3.13	0.49	2.99	0.71	2.231	0.026*

Notes: *statistical significance level = 0.05; **statistical significance level = 0.01. LT – Lithuania, PL – Poland. Scales: 1 – IPS, 2 – UPS, 3 – STS, 4 – GPS, 5 – MPI.

Table 4. Manifestation of procrastination and multitasking dimensions in different groups of Lithuanian and Polish organizations according to the role of the multitasker (N = 995)

	Group MI, N = 511						Group MII, N = 118						Group MIII, N=366					
	LT, N=251		PL, N = 260		Stjudent t		LT, N = 63		PL, N = 55		Stjudent t		LT, N = 181		PL, N = 185		Stjudent t	
	Mean	SD	Mean	SD	t	p	Mean	SD	Mean	SD	t	p	Mean	SD	Mean	SD	t	p
1	2.98	0.72	2.30	0.67	10.996	0.0001**	3.06	0.62	2.73	0.50	3.197	0.002**	3.00	0.82	3.02	1.18	–0.198	0.843
2	2.70	0.82	2.15	0.88	7.342	0.0001**	2.79	0.59	2.58	0.66	1.835	0.069	2.77	0.82	2.78	1.11	–0.109	0.913
3	3.02	0.74	2.81	0.80	3.075	0.002**	2.98	0.71	2.98	0.65	–0.018	0.986	2.91	0.86	3.17	0.98	–2.760	0.006**
4	2.55	0.57	2.49	0.55	1.203	0.229	2.71	0.62	2.80	0.29	–0.968	0.336	2.64	0.63	2.98	0.83	–4.434	0.0001**
5	3.02	0.43	2.72	0.52	7.138	0.0001**	3.29	0.28	3.09	0.38	3.300	0.001**	3.52	0.48	3.98	0.63	–7.762	0.0001**

Notes: * statistical significance level = 0.05; ** statistical significance level = 0.01. LT – Lithuania, PL – Poland. Scales: 1 – IPS, 2 – UPS, 3 – STS, 4 – GPS, 5 – MPI.

last minute. In the case of this group, statistically significant differences between countries were not identified only in one (STS) scale.

The analysis of the results with regard to the role of the multitasker (Table 4) shows that the most abundant group (MI; i.e., the group of individuals attributing themselves to polychronic persons, multitaskers, N = 511) consists of polychronic individuals; i.e., those persons who are capable of performing several tasks simultaneously by their nature and practice this in their work. This group can be considered as a group "comfortable for employees/productive for the organization" because the nature of work with regard to multitasking corresponds to personal qualities of these employees. Multitasking is a common phenomenon in their organizations and employees are capable (and fond) of working on multiple tasks at the same time. Comparing the cases of Lithuania and Poland in the first group, statistically significant differences were found in all scales, except GPS.

Statistically significant differences were recorded only in two scales (IPS and MPI) when comparing employees of both countries in the second group (MII group; i.e., persons provoked for multitasking OR persons not satisfied with working conditions, N = 118). This group is not numerous, but in general, recording of such employees in organizations may indicate existing managerial problems, as this group includes individuals who are not multitaskers by their nature/whose work does not correspond to their personal qualities (non-multitaskers multitask and vice versa) but who are provoked to become such due to mismanagement.

The third group (MIII; i.e., the group of individuals who attribute themselves to monochronic persons, non-multitaskers N = 366) consists of employees who are monochronic persons by their nature; i.e., they cannot work on several tasks at the same time. This group can be considered as "a group comfortable for employees/quality group for the organization", as the nature of work in terms of multitasking corresponds to personal qualities of these employees. Multitasking is not practiced in their organizations, it is not a common everyday phenomenon, and employees would not be capable of performing multiple work activities simultaneously. In this group, statistically significant differences between Lithuania and Poland were not recorded in two scales (IPS and UPS) out of five.

Table 5. Strength of correlations between individual constituents of multitasking and procrastination (N = 995)

Scales	PMTS	IPS	UPS	STS	GPS	MPI
PMTS	1	0.248** 0.000	0.248** 0.000	0.096** 0.002	0.238** 0.000	0.670** 0.000
IPS	0.248** 0.000	1	0.789** 0.000	0.594** 0.000	0.693** 0.000	0.300** 0.000
UPS	0.248** 0.000	0.789** 0.000	1	0.666** 0.000	0.690** 0.000	0.259** 0.000
STS	0.096** 0.002	0.594** 0.000	0.666** 0.000	1	0.568** 0.000	0.174** 0.000
GPS	0.238** 0.000	0.693** 0.000	0.690** 0.000	0.568** 0.000	1	0.227** 0.000
MPI	0.670** 0.000	0.300** 0.000	0.259** 0.000	0.174** 0.000	0.227** 0.000	1

Notes: *statistical significance level = 0.05; **statistical significance level = 0.01.

Spearman correlation coefficient: 0.6 < r < = 0.8 – strong relationship; 0.4 < r < = 0.6 – medium strength relationship; 0.2 < r < = 0.4 – weak relationship; 0.1 < = r < = 0.2– very weak relationship.

The relationships between multitasking and procrastination were identified employing the Spearman correlation coefficient (Table 5). In both Lithuania's and Poland's cases, statistically significant medium strength relationships between both scales of the test were found (LT 0.446, p = 0.000 and PL 0.549, p = 0.000, respectively). This shows the existence of connectivity between the two phenomena, which became more pronounced in the Polish organization.

4. Discussion

Some authors assume in their research that procrastination is learned; however, it is also stated that procrastination can be avoided by identifying its predictors. Although it is beneficial for organizations to have employees who are able to perform multiple tasks (Crews & Russ, 2020; Kapadia & Melwani, 2021) and employees who do not procrastinate (Hen, 2018; Metin et al., 2018), our study shows that behaviour of even polychronic personalities or non-procrastinators can be negatively affected by improper work organization. Kristano and Abraham (2016) note that some adverse effects of procrastination are anxiety, tension, loss of valuable opportunities, as well as the breakdown of relationships with other people. Therefore, we propose to introduce new concepts such as "provoked multitasking" and "provoked procrastination". Of course, these concepts are conditional and can be revised, but they provide a better understanding of the dependence of phenomena on such circumstance as management.

Answering our first raised problem question "To what extent procrastination in the workplace is a personal characteristics and how much is it determined by mismanagement?", it can be stated that the results of Group II (Table 3) show management gaps in cases of both Lithuanian and Polish organizations. Respondents who are attributed to the second group, regardless of their personal characteristics, are forced to become procrastinators in their work. The main causes of procrastination in the workplace in this group are: (1) determined by other co-workers who do not accomplish their tasks on time (for example, this can also be considered a shortcoming of management because managers form work tasks improperly); (2) determined by inappropriate deadlines for performance of tasks (for example, inadequate deadlines for accomplishing tasks/too long deadlines for performance of tasks; i.e., allowing to postpone work to a later time). On the one hand, the employee who is not prone to procrastination is forced to postpone a decision due to objective circumstances. On the other hand, the person who tends to postpone work is provided with opportunities to put off work to a later time. This complements the findings of other studies highlighting the importance of situational factors (e.g., Hen, 2018). Of course, the influence of the employee's personal qualities cannot be ruled out either, but work context can mitigate procrastination even when the person tends to procrastinate in general (Hen et al., 2021). Kristano and Abraham (2016) also conclude that the affective variable is the principal thing to be intervened to prevent or stop the decisional procrastination.

Answering the second problem question, "To what extent multitasking in the workplace is a personal characteristics and how much is it provoked by mismanagement?", attention should be paid to the results of the second (II) group, presented in Table 4, which, similarly to the case of procrastination, are likely to show management mistakes in both Lithuanian and Polish organizations. Individuals who fall into this group, regardless of their personal characteristics, are forced to multitask in their work. The main causes of multitasking in the workplace related to mismanagement in the case of this study are: (1) improper work organization (for example, unplanned tasks), (2) improper delegation of tasks (for example, duplication of tasks). On the one hand, Sweller (1988) notes that the main cause of ineffectiveness of decisions is that cognitive processes required for different activities do not overlap sufficiently and that problem solving may require a relatively large amount of cognitive processing capacity. In addition, according to Endsley (1995), attention and working memory are critical factors limiting the person's abilities of acquiring and interpreting information in order to form situation awareness, while the mental models and goal-oriented behaviour used are important mechanisms for overcoming this problem. These and other studies demonstrate the existence of objective limitations of cognitive abilities, but our study also points out that a contextual factor such as improper management may promote a shift of attention from work tasks to the media even of those employees who distinguish themselves by the ability to perform more tasks. On the other hand, important factors are negative emotions, workload and stress, which can increase the likelihood of mistakes and reduce the speed of performing actions. Emotions affect motivation and in turn, mental effort investment (Plass & Kalyuga, 2019). Although organizations strive to select employees who are capable of performing more functions in a shorter period of time, the quality of work does not necessarily meet expectations (Goes et al., 2017). Therefore, we believe that it is necessary to address work organization errors first and take better account of the employee's personal characteristics when allocating tasks, in particular, when the pace of their work determines the activities of other employees.

Answering the third and fourth problem questions, "Is there a linkage between multitasking and procrastination phenomena and how strongly do the individual constituents of multitasking and procrastination correlate with each other?", the results of our study demonstrate that multitasking and procrastination are sufficiently related phenomena, as similarly strong relationships were found in two different countries.

Finally, we have not aimed to identify which country's organizations are facing most problems, but the trends that have emerged are eloquent enough to receive the attention of business managers. In addition, it is interesting to note that although according to the Gesteland's (1999) classification Poland and Lithuania could be attributed to the "intermediate" culture in terms of polychronicity and monochronicity, the study shows a greater trend of polychronicity, which came to prominence in both countries. This reaffirms the necessity of more flexible work organization, taking into account the personal qualities of employees. Of course, more detailed research considering more diverse cultures is needed, but it is important that problems related to both procrastination and multitasking can be linked with work organization errors.

Conclusions

In this paper, we point out that improper work organization can provoke both multitasking and procrastination; therefore, when speaking of these phenomena, we use a new category "forced". Procrastination and multitasking in the workplace depend not only on the personal characteristics of employees. Practitioners should take into account the categories of employees who are provoked to procrastinate or engage in activities that are not related to their work. That is, when assigning tasks, it is not enough to take into account only the personal qualities of employees such as polychronicity or monochronicity and the tendency to procrastination – the interactions of employees distinguishing themselves by different qualities also need to be considered. Combined with poor setting of deadlines for the performance of tasks, these are relevant problems of work organization in both countries, which, if solved, could result in better use of the personal qualities of employees at work. This explains why procrastination may not necessarily be related to personal qualities and why the abilities of employees prone to multitasking may remain untapped. This is important in explaining why employees sometimes engage in extraneous activities that are not related to their direct work.

Procrastination is associated with negative consequences for employees themselves and organizations, which also suffer losses due to employee activities that are not related to their direct tasks. Meanwhile, if employees to whom multitasking is inherently alien are forced to accomplish multiple tasks, they will feel greater stress, make mistakes, and be late in completing tasks, this way delaying processes. Losses could be reduced if employees did not become forced procrastinators and multitaskers due to management errors. In addition, we show that procrastination and multitasking can be interrelated phenomena, and these relationships remain quite stable when comparing situations in at least two different countries. Therefore, the results of our study provide a sufficient basis for including multitasking while investigating causes and consequences of procrastination.

Certain limitations are related to respondents' self-knowledge, but high characteristics of psychometric testing show that the items of the questionnaire were well understood in both countries. Our study did not investigate the impact of gender and age on the effectiveness of multitasking. We also did not assess the effect of personality traits (e.g., neuroticism) and leadership style along with the constituents of the organizational climate – factors that could be investigated in further studies. Finally, this study did not aim to find out whether productivity was really significantly higher in the organizations where multitasking prevailed and where employees were inherently multitaskers, compared with the organizations promoting a different type of work (Group I "comfortable for employees/productive for the organization"). On the other hand, this study also did not address the issue of quality of work performance (Group III, "comfortable for employees/of good quality for the organization") in those organizations where multitasking is not practiced, although we make some assumptions that should be tested in other studies involving a larger number of different countries. In addition, our study casts doubt as to whether the cultures of both countries can be attributed to the "intermediate" domain between polychronicity and monochronicity; therefore, we would consider this an argument for further research in this area. Furthermore, it would also make sense to analyse the phenomena of multitasking and procrastination in the workplace during the COVID-19 period.

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Author contributions

JV conceived the study and was in charge of the design and development of the data analysis. JV and WS were responsible for the collection of data (JV collected data in Lithuania; while WS, in Poland). Calculations were performed by JV, who was also responsible for data interpretation. WS prepared the introduction and the theoretical part of the article. JV and WS together wrote the first draft of the manuscript. WS prepared responses for reviewers. JV and WS performed writing-review and editing.

Disclosure statement

The authors declare no conflict of interest.

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