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TIME BANDITRY AT WORK AND ITS PREDICTORS

Master thesis

Work and Organisational Psychology

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Tallinn 2018

Declaration

I hereby declare, that this thesis is entirely the result of my own work and submitted for the Degree of Master Sciences in Tallinn University of Technology. For the present thesis no degree has been conferred on me before either in this or in any other university.

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The work meets the stated requirements for master thesis

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ABSTRACT

The purpose of this study is to examine time banditry behaviours and its predictors among young Estonian workers. Non-work-related behaviours like surfing the web, coming late to work, long lunch breaks and messaging with friends are considered as different time banditry behaviours. This study aims to shed a light on different variables that could predict time banditry. A sample of 105 young employees from different companies in Estonia participated in this study on November of 2017. Results revealed that employees engage most in technological time banditry. Classic time banditry could be predicted with employees' own work time control, cognitive demands, work pace, job satisfaction, commitment to workplace, meaning of work, quality of the leadership, general health, stress and burnout. Predictors for technological time banditry are employees' own work time control, work pace and commitment to the organization. Social time banditry is predicted with work time control and work pace.
Keywords: Time theft, time banditry, cyberloafing.

INTRODUCTION

Many organizations are facing the fact that employees steal money, products, appliances, office supplies or fuel for their personal driving. Less has been talked about stealing organizations time. If you ask your colleague if they steal work time, they would probably say no. But if you ask if they are productive 100% of the time when at work, they would also probably say no. This leads to the question – if they are not being productive 100% of the time, then what are they doing?

In the last decade the concept of time theft at work has become more popular in work and organizational psychology. Time is an organizational asset and the misuse or theft of that asset is just as problematic as the misuse or theft of any other asset. There are many ways in which an employee can engage in stealing of time from an employer, and some activities result in more severe organizational outcomes than do others. An employee who is consistently late coming back from lunch is engaging in time theft. An employee who surfs the Internet for bargains or personal information is engaging in time theft. An employee who knowingly falsifies a time sheet is engaging in time theft. These activities all share the commonality that time is being stolen from the employer (Martin et al., 2010).

A less common narrative about time theft concerns its potential benefits. Previous research focuses mostly on negative aspects about time theft leaving besides, that time theft in fact has also positive organizational outcomes (Brock, Martin and Buckley, 2013; Baskin, McKee & Buckley, 2017). It is even found that non-work-related activities have a positive effect on job performance (Bock & Ho, 2009).

Type of time theft that has been studied the most is cyberloafing, other words technological time theft. Scholars have shown more and more interest about this fenomen indicating the importance of understanding employee cyberloafing activities. Cyberloafing can have a significant cost to employers, in fact already in 2000 it was estimated to cost corporations up to $54 billion annually. (Conlin, 2000) Besides that, cyberloafing has also many positive sides that can overweight the cost. Cyberloafing has proven to have positive effects on social capital, knowledge transfer, work performance, emotional states, as well as give protection against work

stress and promote work-life balance. (Cao et al., 2016; Lim & Chen, 2012; Mercado et al., 2017)

This study aims to shed a light on time banditry behaviours of young Estonian workers and its predictors. The main purpose of this study is to understand the relationship between three dimensions of time banditry (classic, technological, and social) and some work and organization related constructs like work demands, having control over one's own work time and also meaning of work, organizational commitment, job satisfaction, work-life balance as well as job insecurity, leader's behaviour, stress and burnout. This study aims to understand which work and employee related variables predict different time banditry behaviours.

Based on the purpose of this study, author used quantitative research method. In order to understand the relationship between three dimensions of time banditry and some work and organization related constructs author conducted a survey consisting of 5 parts. The first part was about employees' ability to influence their own work time. The second part was about work and organization related aspects including work-life balance, burnout, quality of the leadership, job satisfaction, organizational commitment, meaning of work and work demands. Third was about stress, fourth consisted of questions about time banditry behaviours and finally a few questions about demographic. Author used Google Forms to collect the data and collected results were analyzed in SPSS.

This study consists of four parts: in the first part, author gives an overview of the concept of time banditry and its dimensions. In the second part author describes the empirical study and research questions. Third part is about study methods and result analyses and finally, fourth part is a discussion.

1. THEORETICAL BACKROUND

This chapter gives an overview of the theoretical base of time banditry and its dimensions. Describes theories, explains constructs and gives a theoretical framework for the empirical study. First, the concept of „time banditry", it's suggested causes and different dimensions of time banditry. Second, cyberloafing as one of the most popular type of time banditry, and finally some positive effects of time banditry and cyberloafing.

1.1 Time banditry at work

The concept of time theft or „banditry" was introduced by Ketchen, Craighead, and Buckley (2008) and was further defined by Martin et al. (2010, p.27) as "the propensity of employees to engage in unsanctioned, non-work related activities during work time". Time theft is defined as time that employees waste or spend not working during their scheduled work hours. This behavior is unethical as employees are compensated for this time even though they are not producing for their employers. (Henle, Reeve, & Pitts, 2010)

Over the past decade, time theft construct has become highly congruent with time banditry. Therefore, in this study these two concepts are considered to be the same and used across the study as time banditry.

As per definition of time banditry in the work context, bandit behaviors can include any behavior that results in decreased effort toward focal job tasks, for instance, arriving late to work, leaving work early, taking extra or longer than acceptable breaks, on-the job daydreaming, using the Internet for personal reasons, taking long lunch breaks, and excessive socializing with co-workers. (Henle, Reeve & Pitts, 2010; Baskin, McKee & Buckley, 2017)

By definition, time banditry resembles several other constructs such as counterproductive work behavior (CWB) and cyberloafing and encompasses many of the same behaviors. (Brock, Martin & Buckley, 2013; Spector et al., 2006) Engagement in time banditry is not necessarily intentional, nor is it necessarily done to cause harm to the organization (Brock, Martin &

Buckley, 2013). Time banditry does not require or imply malice on the employee's part. Rather the theft of organizational time could be driven by boredom, laziness, perceptions of injustice, poorly defined tasks, or an inappropriate allocation of personal time during work. (Henle, Reeve, & Pitts, 2010) However, Henle et al. (2010) stated that time theft is unethical and intentional, because employees are stealing time rightfully belonging to their company and they are compensated for this time even though they are not producing for their employer. As a form of passive-aggressive retaliation at the organization, time banditry is a highly suitable exchange behaviour for employees who feel disillusioned, frustrated, and underappreciated by the organization. It is a relatively low-risk way to deviate from organizational norms, as the chances of being detected are small. (Bennett & Robinson, 2000)

Commonly it is believed that time banditry is a major problem for organizations in terms of its frequency and financial costs. Two studies that were conducted in retail setting already in 1989, found that over 60% of employees admitted to stealing time (Boye and Slora, 1993; Slora, 1989). Furthermore, in the construction industry alone, evidence suggests that 53 minutes per employee is lost daily due to time banditry and that time banditry was common as 84% of employees reported committing stealing time at least once over a 2- month period. (Henle, Reeve & Pitts, 2010)

Estimates of time banditry in 2010 in the U.S. organizations range from 1 hr per day (the industry standard, which is typically calculated into salaries) up to 2 hr per day (Henle et al., 2010; Martin et al., 2010). However, there are also studies reporting much more time gets wasted at work. For example, a study conducted by *America Online* and Salary.com (Malachowski, 2005) asked 10,444 employees the amount of time they spent engaging in nonwork-related activities. The survey results revealed that an average employee wastes about a quarter of an 8-hr workday. Additionally, a survey of human resources professionals was conducted by the *Society for Human Resource Management* on employee engagement in time waste. (Burke & Esen, 2005) The results of this study proved that time banditry is indeed engaged in. Specifically, when employees were asked if they stay late at work when they have nothing to do, 50% responded that they stayed late at least sometimes with no work to do. In addition, 44% of employees reported they stayed late even though they were not being productive. Although this study was based on a self-report survey method, the results reveal that wasting time in organizations is prevalent.

1.1.1 Causes of time banditry

Whereas time banditry is defined as engaging in non-work-related activities during workday, high engagement in work activities will probably reduce the amount of time used for activities not related to work performance. The extent to which employees are engaged with their job tasks will lead to more time spent on the job and less on non-work-related activities. An unengaged, bored employee is more likely to engage in time banditry. (Ketchen et al., 2008) Martin et al. (2010) suggested that individuals who score higher on the Time Banditry Questionnaire will be less engaged in their job. Liberman et al. (2011) found that employees who have lower levels of job involvement are more likely to engage in time banditry behaviors. Thus, job engagement is one predictor of whether employees steal work-time or not for personal purposes.

Also, low organizational commitment might predict whether employees engage in time banditry. Organizational commitment is defined as a psychological mind-set, which works to increase the likelihood that an employee will maintain membership in an organization. (Allen & Meyer, 1990; Meyer & Allen, 1991) It is assumed that if individuals are committed to their jobs and/or their organizations, they will be less likely to engage in time banditry, and stay with the organization longer (Johnston, Parasuraman, Futrell, & Black, 1990; Spector & Fox, 2002).

There is a possibility that employee's level of job satisfaction can influence the decision to engage in time banditry behaviors. Lau, Au & Ho (2003) found that employees with low job satisfaction are more likely to engage in time banditry. Moreover, dissatisfied employees are more likely to be late to or absent from work than satisfied employees (Adler& Golan, 1981).

In addition to previous constructs, work time control and time banditry might be related. The possibilities of influencing one's working hours may enable workers to adjust their working hours to prevailing resources at work and also to the demands of their private lives. Such control has also been found to be associated with reduced stress related absenteeism. (Al-Mursula et al., 2006) It is suggested that employees tend to take more sick-leaves when they have poor work time control. More, they take self-certified absences excessively when trying to cope with overwhelming workload. (Al-Mursula et al., 2006) This is considered as time banditry behaviors.

1.1.2 Types of Time Banditry

In addition to the concept of an employee engaging in high or low levels of time banditry, Martin et al. (2010) suggested different types of time bandits exist, who engage in different types of behaviors of different reasons. Also, different types of time bandits engage in various forms of impression management to maintain their status as an employee. The typology of time bandits offered by Martin et al. (2010) is based on an employees' level of engagement and productivity and argues that employee engagement in work-time theft can be both productive and non-productive with employees either engaged or not engaged in their job – an idea which counters most counterproductive work-behaviour (CWB) theories applied also to time theft.

Thus, employee's level of engagement and productivity yields four different types of time bandits: *Weasels, Mercenaries, Sandbaggers, and Parasites* (Martin et al. 2010; Baskin, McKee & Buckley, 2017). The majority of time bandits are weasels or time bandits that are both productive and engaged, but still steal time. The Engaged-Productive worker is moderately committed to his/her job and does a minimally reasonable job of completing their tasks. They have learned how to manipulate their environment to be able to "weasel" out of work and are fully capable of performing more and/or better work. This type of bandit 'weasels' the system by learning how to keep output expectations low. They could perform better if they chose to. For example, this type of time bandit may give the impression that their tasks will take longer to complete than they actually do, and in doing so they appear very hard working but in reality, they get more time for themselves on the job to engage in off-task behaviors. To be successful as a "weasel" this type of employee is constantly managing the time expectations of work to peers and supervisors. Although weasels steal organizational time, this is the most positive type of time bandit because they are still reasonably engaged, committed, and productive, but the additive effect of their behavior remains a problem. (Martin et al., 2010; Baskin, McKee & Buckley, 2017)

The second type of time bandit is productive but not engaged. These workers are termed mercenaries. They have little if any commitment to their position, and like the weasel, they could perform better. These are workers who "go through the motions" but would like rather to be somewhere else and would arguably perform another job better if more engaged. This type of bandit only does what they have to in order to keep their job, and are hypothesized to be more

common in jobs where there are specific and concrete job performance standards, such as piece rate work. One example is an assembly line worker who has a particularly unengaging job, but still produces at a minimally acceptable rate in order to keep his/her job. Such workers might arrive late, or joke around excessively with other line workers, which slows the overall pace of the line. This time banditry profile might also be appropriate for individuals who do not seek to remain with the company or advance their position, thus giving them little motivation to commit to the organization. (Martin et al., 2010; Baskin, McKee & Buckley, 2017)

The third type of bandit is the sandbagger, who is engaged but unproductive. Sandbaggers appear to be involved but the involvement is largely for the sake of managing impressions. They are very excited about what they are doing, but they do not really do a lot of work that is job related. This type of time bandit might exhibit a pattern of occupational helping behaviors. Specifically, you will likely find this individual helping others with their problems rather than accomplishing their own tasks. Because the sandbagger is already engaged in their work, they are likely going to be the easiest type of bandit to manage or fix. Managers should focus their efforts and enthusiasm toward positive organizational goals, using performance goals and incentives to reduce time banditry behaviors. (Martin et al., 2010; Baskin, McKee & Buckley, 2017)

The final and most harmful type of bandit is the parasite. They are neither productive nor engaged but draw the same organizational resources as a worker who produces much more. The behaviors that are categorized under the parasite type are those which are typically identified as time misuse in previous research and include such behaviors as social loafing, which is the tendency of individuals to put forth less effort when working in a group. (Latane, Williams, & Harkins, 1979) While this type of time banditry does not necessarily need to happen in a formal group setting, it is implied that there are other employees that perform the work that a loafing employee is not completing. The first type of behavior of a parasite is free riding, which is a behavior that an employee engages in that allows them to do significantly less work than their colleagues because their colleagues will ‘take up the slack’ and perform their duties for them, in addition to the original assignments the employee has. (Albanese & Van Fleet, 1985) Second is shirking, which involves workers who withhold effort when working on tasks (Judge & Chandler, 1996). The literature suggests that employees are lazy and will withhold effort when they believe that the consequences for doing so are not prohibitive. The final behavior is job

neglect which involves knowingly not performing tasks or duties that have been assigned to the employee. (Albanese & Van Fleet, 1985)

The parasite will likely engage in little impression management. They are employed by the organization due to a lack of oversight from management or because of a poor ethical culture or work climate, which has created a shared understanding that the waste or misuse of time is not something that is policed. (Martin et al., 2010; Baskin, McKee & Buckley, 2017)

In 2013, Brock, Martin and Buckley offered another way to categorize time bandits. They defined three dimensions or categories of behaviors that time bandits can and do engage in. Those categories are classic time banditry, including taking excessive lengthy or frequent breaks, not exerting as much effort in tasks as possible, pretending to be sick and coming to work late, or leaving early. The second category is computer abuse or technology-related time banditry which includes sending and receiving personal e-mails and surfing the Internet. The third category is socially oriented time banditry. This category consists of behaviors such as taking or making personal phone calls at work, lengthy water cooler conversations and badmouthing the boss. (Brock, Martin, & Buckley, 2013) In this study the author will use the categorization of time bandits suggested by Brock Martin and Buckley (2013). As the computer abuse or technology-related time banditry is getting more and more attention both in work organizations and respective research the construct of cyberloafing is introduced.

1.2 Cyberloafing at work

Cyberloafing is the most studied type of time banditry behaviour, therefore author wanted to focus more on this type. Cyberloafing was first conceptualized by Lim (2002) as employee' voluntary use of their organizations' Internet access for nonwork purposes during work time. It is a new form of workplace deviance, which has emerged throughout the years, as the use of technology has become a larger part of people's work and private lives. Workplace Internet deviance, or cyberloafing, has become another way for employees to deviate from their work. (Zoghbi, 2006) Over the past decade, constructs highly congruent with cyberloafing have emerged under different labels in other disciplines, including cyberslacking, personal web usage, technological time banditry, non-work-related computing, social media use at work, and

counterproductive computer use (Anandarajan & Simmers, 2004; Bock & Ho, 2009; Brock, Martin, & Buckley, 2013; Charoensukmongkol, 2014; Gallagher, 2009; Pee, Woon, & Kankanhalli, 2008; Vitak, Crouse, & LaRose, 2011). Fundamentally, cyberloafing is about wasting time at work through a computer – often times under the guise of doing actual work (Blanchard & Henle, 2008). Cyberloafing entails engaging in non-work-related activities such as surfing the Internet and watching videos on YouTube, chatting on social networking sites, sending personal e-mails and online shopping. But also rare behaviors like online gambling, playing video games and even viewing adult-oriented sites during regular work hours. (Anandarajan, 2002; Blanchard and Henle, 2008; Brock, Martin, & Buckley, 2013) In the literature review, cyberloafing is mostly seen as a counterproductive behavior that distracts employees from the work they are paid to fulfill at their organization (Lim, 2002; Lim, & Teo, 2005; Lim, Teo, & Loog, 2002).

In a 2001 UCLA report, 60.7% of employees surveyed said they used the Web at work for personal purposes (The UCLA Internet Report, 2001). Salary.com's (2014) Wasting Time at Work Survey found that 89% of employees reported wasting time at work every day, with 57% reporting wasting at least an hour each day; all of the commonly preferred time-wasting techniques consisted of visiting various webpages for personal purposes.

The construct structure of cyberloafing has been explored by many scholars who have identified potential dimensionality. Mahatanankoon (2004) suggested three dimensions of personal web usage in the workplace: personal e-commerce which includes buying and selling online, personal information research, which consist of researching personal hobbies, and lastly personal communication, like interacting with family and friends. Lim and Theo (2005) distinguished construct structure by the content of the behaviors such as email vs. browsing distinction. Blanchard and Henle (2008) empirically distinguished two primary forms of cyberloafing, minor and serious. In their taxonomy, minor cyberloafing consists primarily of email-related and slacking behaviors, whereas serious cyberloafing includes behaviors such as viewing adult-oriented sites and online gambling.

Classic theories have guided investigation into cyberloafing's relationships with perceptions of justice, (e.g., neutralization; Lim, 2002), employee attitudes, and intentions (e.g., theory of planned behavior; Askew et al., 2014). Additionally, personality variables and job characteristics

have received attention, likely due to the direct practical implications of such findings (e.g., through use in employee selection) (Mercado, Giordano, &Dilchert, 2017).

Anandarajan et al. (2011) used multidimensional scaling techniques and cluster analysis to explain the underlying structure of Personal Web Usage (PWU), which in this research has referred to as cyberloafing. The scholars offered a new comprehensive definition of PWU and identified four clusters of PWU behaviors – work/family, hedonic, self-development, and citizenship.

The causes of cyberloafing have also been discussed in research literature. Researchers have proposed a couple different explanations of cyberloafing. Lim and her colleagues have suggested perceived justice as a major cause. (Lim, 2002; Lim & Teo, 2006) Suggesting that employees cyberloaf when they perceive that the company or its members has treated them unfairly. Cyberloafing is a way to get even, or restore justice, in this perspective. (Lim, 2002) Mastrangelo and his colleagues (2006) have proposed the ABCD model of cyberloafing, which posits that cyberloafing can be understood by looking at the confluence of Access to computers, Breaks from work, Climate, and individual Differences (Mastrangelo, Everton, & Jolton, 2006).

Another theory that has garnered a lot of support from cyberloafing community is the ego depletion model of self-regulation (Baumeister, Muraven, & Tice, 2000; Wagner et al., 2012). In its general form, the ego depletion model of self-regulation posits that self-control is like a muscle: it fatigues with use but will recover with rest. Applied to cyberloafing, the theory states that when an employee's self-control resources are depleted, he or she engages in cyberloafing to recoup self-control resources. (Wagner et al., 2012) The theory has been tested by three research teams, all three of which have found general support for the theory (Prasad, Lim, & Chen, 2010; Restubog et al., 2011; Wagner et al., 2012). Also consistent with theory of ego-depletion is the fact that self-regulation personality variables such as impulsivity (Everton, Mastrangelo, & Jolton, 2005), self-control (Restubog et al., 2011), and conscientiousness (Jia, 2008) have been implicated in cyberloafing. Askew et al, (2014), argued that ego depletion theory is unlikely to fully account for why people cyberloaf. They suggested that Theory of Planned Behavior (TPB) could be a valid theory of cyberloafing. The TPB, as applied to cyberloafing, posits that cyberloafing is caused by three distal antecedents – subjective social norms, cyberloafing

attitudes, and perceived behavioral control – which are mediated through intentions to engage in cyberloafing.

1.3. Positive effects of time banditry and cyberloafing

Previous research focuses mostly on negative aspects about time theft. It has been introduced as a conceptually distinct construct in the counterproductive work behavior (CWB) literature. (Martin et al., 2010)

However, certain time banditry behaviors, while harmful to one's individual productivity, could be rather beneficial to the organization (e.g., building social relationships which could increase team cohesion). Employees can engage in pro-organizational actions, such as engaging in conversation with coworkers, which leads to better team cohesion, or planning a company get together, which helps with overall morale of all employees. (Brock, Martin and Buckley, 2013; Baskin, McKee & Buckley, 2017) Individuals engaging in CWB are not necessarily unengaged and unproductive. In a way, employee time theft may potentially result in myriad positive organizational outcomes. (Brock, Martin and Buckley, 2013; Baskin, McKee & Buckley, 2017). In fact, Bock and Ho (2009) found that non-work-related activities indeed have a positive effect on job performance.

Importantly, the idea that one can be both a time bandit and productive is in sharp contrast to previous literatures, which is largely based upon the conception that those who exhibit CWBs suffer from low job satisfaction, are unproductive, and maliciously handle organizational resources. (Brock, Martin and Buckley, 2013)

Cyberloafing is important to study because it is the most common way that people waste time at work, and therefore is a potential intervention point for how to increase productivity (Naughton, Raymond, & Shulman, 1999). For example, Mercado, Giordano and Dilchert (2017) found that cyberloafing was negligibly related to performance ($\rho = -.05$). Thus, the focus of cyberloafing research should not be on trying to eliminate cyberloafing. Rather, the focus should be on understanding cyberloafing so that organizations can strike a balance between productivity and the needs and concerns of employees. (de Lara, Tacoronte, & Ding, 2006)

Research suggest that cyberloafing provides an effective protection against work stress. Cyberloafing helps the employees to temporarily respite from work demands and rest from work. (Lim & Chen, 2012) Earlier studies have shown how periodic breaks from work help employees to recharge and restore their energy levels, therefore they are crucial for improving work performance (Sonnentag, 2003). Thus, it is very likely that allowing employees to cyberloaf as a break from work, has a positive impact on work performance.

Lim and Chen (2012) considered the potential benefits of cyberloafing to employees' emotional states and demonstrated that certain forms of cyberloafing, such as browsing the Internet, positively influenced employees' positive affect. Beyond the costs and benefits of cyberloafing to organizations, these behaviors may yield additional, nonwork benefits to employees. For example, Cao and colleagues (2016) recently demonstrated that social media use can promote employees' social capital, facilitating knowledge transfer and consequently work performance.

Work-life balance can be defined as a satisfactory resolution of the work and family domains (Valcour, 2007). Mercado, Giordano and Dilchert (2017) state that because technology has blurred the work-life boundaries for many workers, invading personal time with work tasks (e.g., constant accessibility and off-hours emailing), employees may see the cyberloafing dimension of time banditry as a way to restore the balance between work and non-work domains.

Work has moved beyond the traditional eight-hour day, nine-to-five, cyberloafing allows flexibility to accomplish personal tasks even if working time intrudes on non-work time. Since the boundary between work and family is increasingly blurred, cyberloafing can create a new portal in the work-family interface, as the web is an enabling tool. (Gözu, Anandrajan, & Simmers, 2015) The work-recovery literature suggests that work-family cyberloafing may serve to reduce work stress as employees detach themselves from their work-related duties. It is also said to increase motivation and morale and decrease absenteeism. (Fritz, Ellis, Demsky, Lin, & Guros, 2013; Frone, 2003; Greenhaus & Powell, 2006) Thus, work-family cyberloafing activities, while directly benefiting the individual, may indirectly benefit the organization by promoting psychological and social employee well-being (Gözu, Anandrajan, & Simmers, 2015). Additionally, since many employees may be doing work during personal time, doing

personal work during work may be seen as a fair trade (Anandarajan, Devine, & Simmers, 2005).

Clark's (2000) work/family border theory postulates that individuals are often proactive and try to manage the border between work and non-work. Thus, not only can events in one domain affect the other domain (with people reacting to these events), but people can shape each domain in an active way through communication and behavior depending on the needs of each domain. According to Clark, employees actively cross the border between both domains (work and non-work) and shape each domain in an active way through communication and behavior depending on the needs of each. One example of border-crossing is the use of the internet provided at work for personal reasons. For example, employees may use their work internet connection to help their children with homework or discuss who will do the shopping after work.

2. EMPIRICAL STUDY

2.1 Objectives and hypothesis

An empirical study was conducted to peek into time banditry behaviours of young Estonian knowledge workers. The main objective of this study was to understand the relationship between three dimensions of time banditry and some work and organisation related constructs. Specifically, it was focused on how work demands and job satisfaction, having control over one's work and perceiving one's work as meaningful, organisational commitment, work-life balance as well as job insecurity, leader's behaviour, stress and burnout are related to three dimensions of time-banditry (classic, technological, and social).

Main research questions this study aims to answer are:

1) Which dimensions of time banditry are prevalent among young Estonian workers?
2) Which work and employee related variables predict different time banditry behaviours?

The second research question is divided into following more specific sub-questions:

2.1) Are various work demands like work-time control; pace of work; cognitive and emotional demands related to time banditry?

2.2) Are employees who are more satisfied with their job, are more committed to their organisation, and feel their work is more meaningful, engaging less in three different dimensions of time banditry behaviours?

2.3) Are employees with higher job insecurity and work-family conflict, and lower quality of leadership more prone to time banditry?

2.4) Are indicators of employee health (general health, stress, burnout) relevant in predicting time-banditry?

Based on theory introduced in chapter one, the following hypothesis are tested in this study:

Hypothesis 1: Technological time banditry is the most prevalent dimension of time banditry among young Estonian workers.

Hypothesis 2: Higher work time control is positively correlated with time banditry.

Hypothesis 3: Higher work pace, cognitive and emotional demands are negatively correlated with time banditry behaviours.

Hypothesis 4: Higher employee job satisfaction, commitment to organization, perception of meaning of work is negatively correlated with time banditry behaviours.

Hypothesis 5: Higher levels of job insecurity and work-family conflict are positively correlated with time banditry behaviours.

Hypothesis 6: Quality of the leadership is negatively correlated with time banditry behaviours.

Hypothesis 7: General health is negatively correlated with time banditry behaviours.

Hypothesis 8: Stress and burnout are positively correlated with time banditry behaviours.

3. METHOD

An online survey was constructed to answer the research questions. Data was collected in November 2017. Convenience sample was used consisting of 105 employees recruited via social media site *Facebook* (*Facebook* friends of the author were invited to participate in the study as well asked to share the invitation among their friends). As for sample's sociodemographic characteristics, (59,4%) were female and (40,6%) were men. The age of the participants ranged from 20 being the youngest to 50 years being the oldest. The average age of the respondents was (M= 26 years, SD=4.48).

The survey consisted of Time Banditry Questionnaire (TBQ), an adapted version of Swedish Longitudinal Occupational Survey of Health (7-item work time control scale); Copenhagen Psychosocial Questionnaire (COPSOQ II); Single-Item Measure of Stress Symptoms and a short block of demographic questions. A dedicated web address for the study was utilized in order to ensure participant anonymity.

In accordance with APA standards, participant confidentiality was assured, and no personal identifiers (such as name, birthday, ID, or social security number) were collected on survey forms. Anonymity was desired because of the nature of the questions and to reduce socially desirable responding. After collecting all answers, each survey was reviewed to ensure completeness and after that, data was entered into the SPSS database.

3.1 Measures

In this study it was used adapted version of Swedish Longitudinal Occupational Survey of Health, Copenhagen Psychosocial Questionnaire (COPSOQ II), an item from Single-Item Measure of Stress Symptoms, Time Banditry Questionnaire and a short demographic questionnaire.

Time Banditry Questionnaire (TBQ). To measure and identify different groups of time banditry behaviours author used Time Banditry Questionnaire (TBQ), that was developed by Brock, Martin & Buckley (2013). The refined TBQ consists of 31 items (see Appendix 1) on which participants responses were on a 5-point Likert-Type scale that ranges from 1 „Strongly disagree" to 5 „Strongly agree". The identified TBQ subscales are classic (18 items, α=.86), technology (7 items, α=.92), and social (6 items, α=.69) time banditry behaviors. Overall reliability for time banditry questionnaire was α=.91.

Work time control. Author used Albrecht et al. (2016) 7-item work time control scale originally from Swedish Longitudinal Occupational Survey of Health and developed by Alan-Mursula et al. (2005). This questionnaire contains 7 items about length of a work day; starting and ending times; taking breaks at work; handling private matters during work; scheduling work shifts; scheduling vacations and paid days off; and taking of unpaid leave. Overall questionnaire reliability was α=.76. Responses were given on a 5-point Likert-type scale where 1 means „Very little" and 5 means „Very much".

Single-Item Measure of Stress Symptoms. To measure participants self-perceived stress the author used Single-Item Measure of Stress Symptoms (Elo, Leppänen & Jahkola, 2003) which stated: „Stress means a situation in which a person feels tense, restless, nervous or anxious or is unable to sleep at night because his/her mind is troubled all the time. Do you feel this kind of stress these days?" The response was recorded on a 5-point Likert scale varying from 1 „not at all" to 5 „very much".

Copenhagen Psychosocial Questionnaire (COPSOQ II). The second version of the Copenhagen Psychosocial Questionnaire (COPSOQ II) by Pejtersen, Kristensen, Borg and Bjorner (2009) shortened version was used to measure psychosocial work environment factors, including job satisfaction and commitment. COPSOQ II consists of 41 scales, 3-4 items in each scale, altogether 127 items. In this study the author shortened COPSOQ II questionnaire and used 41 items which were divided into 13 sub-scales (see Appendix 2): job satisfaction (4 items), general health perception (1 item), quantitative demands (4 items), work pace (3 items), cognitive demands (4 items), emotional demands (4 items), demands for hiding emotions (3 items), meaning of work (3 items), commitment to the workplace (4 items), quality of leadership (4 items), job insecurity (2 items), work-family conflict (1 item), burnout (4 items). All

responses were given on a Likert-type scale from 1-5. For job satisfaction scale (items 1-4) 1 means „Not relevant", 2 means „Very unsatisfied", 3 means „Unsatisfied", 4 means „Satisfied", and 5 means „Very satisfied". For general health perception scale (1 item altogether) 1 means „Poor", 2 means „Fair", 3 means „Good", 4 means „Very good", 5 means „Excellent". For work demands scale (items 1-3), work place (item 1), cognitive demands scale (items 1-4), emotional demands scale (items 1-2), demands for hiding emotions scale (item 1) responses were given using scale where 1 means „Never/hardly ever", 2 means „Seldom", 3 means „Sometimes", 4 means „Often", 5 means „Always". For work demands scale (item 4) and commitment to workplace scale (item 4), 1 means „Always", 2 means „Often", 3 means „Sometimes", 4 means „Seldom", 5 means „Never/hardly ever". For scales: work place (item 1-2), emotional demands (items 3-4), demands for hiding emotions (items 2-3), meaning of work (items 1-3), commitment to the workplace (items 1-3), quality of leadership (items 1-4), job security (items 1-2) responses were 1- „To a very small extent", 2- „To a small extent", 3- „Somewhat", 4- „To a large extent", 5- „To a large extent". For burnout scale all four items had responses where 1 means „Not at all", 2 means „A small part of the time", 3 means „Part of the time", 4 means „A large part of the time" and 5 means „All the time". For work-family conflict scale responses were 1- „Never", 2- „No", 3- „Rarely", 4- „Yes, sometimes" and 5- „Yes, often".

Overall reliability of the questionnaire was α=.83. The reliabilities of sub-scales were: Job satisfaction α=.79; Quantitative demands α=.84; Work pace α=.85; Cognitive demands α=.64; Emotional demands α=0.83; Demands for hiding emotions α=.84; Meaning of work α=.87; Commitment to workplace α=.81; Quality of leadership α=.91; Job insecurity α=.53; Burnout α=.89.

Sociodemographic data registry. A demographic questionnaire was completed by all participants and it included questions about respondents' gender, age and occupation.

3.1.2 Data analyses

Statistical analyses was performed by using Statistical Package for Social Sciences version 23 for Mac OSX. A descriptive analysis of the demographic data was conducted to describe the sample characteristics including mean and standard deviations for the demographic variables.

Cronbach's alpha was used to test the internal consistency of the used instruments. Cronbach's alpha coefficient was calculated through the reliability analysis. Correlation analyses was conducted to test previously stated hypothesis. Regression analysis was performed to identify the predictors of time banditry by subscale.

3.2 Results

First, exploratory factor analysis of Time Banditry Questionnaire was conducted. Factor analysis shows that 3-factorial solution (Principal component analysis with Equamax rotation) explains 47% of the total variances, and factor structure of Time Banditry Questionnaire in this study is similar to the original. Item loadings in factors is in Table 3, available in appendices.

Minimum and maximum values, arithmetic mean and standard deviation of scale mean scores are presented in Table 1. (Descriptive statistics of the scales are presented in appendix 1).

Table 1. Descriptive statistics of scale's mean scores

Scale	Min	Max	Mean	SD
TB Classic	1	5	2.13	.615
TB Technology	1	5	3.93	1.04
TB Social	1	5	3.13	.755
Work Time Control	1	5	3.52	.82
Work satisfaction	1	5	3.88	.705
General health	1	5	3.85	.769
Work demands	1	5	2.66	.948
Work pace	1	5	3.00	.937
Cognitive demands	1	5	3.73	.747
Emotional demands	1	5	2.80	1.00
Demands for hiding emotions	1	5	3.52	1.12
Meaning of work	1	5	3.81	.988
Commitment to the workplace	1	5	3.59	.959
Quality of leadership	1	5	3.42	1.06
Job insecurity	1	5	1.85	.866
Work-family conflict	1	5	3.04	1.34
Burnout	1	5	3.05	.910
Stress	1	5	2.91	1.18

3.2.1 Engaging in time banditry

Respondents showed low engagement in time banditry classic behaviours (M=2.13, SD=.615), lowest score was 1 and highest 5. An item that got the lowest score was „ I often go to the restroom even if I don't have to" (M=1.34, SD=.818). An item which participants agreed the most was „If I finished a project 20 min before the end of the work day, I would not start working on anything new" (M=2.94, SD=1.45).

Participants showed moderate engagement in time banditry social behaviours (M= 3.13, SD= .755). To specify the results, it was used Turkey's Hinges test quartiles which showed that responses of the highest or 4th quartile of respondents were over 3.6 scale points (i.e. 25% of respondents engaging in social time banditry behaviours) and the answers of lowest quartile respondents were between 1-2.5 scale points. Lowest scored item was „I spend time in and out of the office engaging in leisure activities (e.g., going to lunch, drinks, and/or dinner) with clients" (M=1.86, SD=1.10). Highest scored item was „I never make personal phone calls at work" (M=1.71, SD=1.08) (item was rotated for analysis). Indicating that personal phone calls at work is habitude behaviour.

Results of this study showed that the most engaged dimension was technological time banditry (M=3.93, SD=1.04). Participants reported that they check non-work-related e-mails during work (M=4.36, SD=1.12) and also send e-mails (M=3.72, SD=1.27) or receive e-mails (M=3.97, SD=1.19). Lowest scored item was „I spend time on the Internet for reasons not related to work" (M=3.49, SD=1.38), which shows that participants often engage in cyberloafing.

Differences between mean scores of time banditry three dimensions are statistically significant (χ^2 = 150,59, p<.001). Age and gender were not related to time banditry subscales in this study.

3.2.2. Work and employee characteristics and their relationship to time banditry

Participants showed moderate control over their own working time (M=3.52, SD=.82). There was weak correlation between work time control and classic time banditry behaviours (*r*=.193,

p=.048). Also, work time control was positively related to technological time banditry behaviours (r=.220, p=.024) and there was moderate positive correlation between work time control and social time banditry behaviours (r=.315, p<.001).

Results showed that participants sometimes have to work on a high pace throughout the day (M=3.00, SD=.937). There were no statistically significant correlations between work pace and classic time banditry behaviours. Moderate, negative and statistically significant correlation was found between technological time banditry behaviours and work pace (r=-.315, p<.001). There was also negative, weak and statistically significant correlation between social time banditry behaviours and work pace (r=-.266, p=.006).

Respondents showed that cognitive demands were quite often high (M=3.73, SD=.747). Also weak negative correlation was found between cognitive demands and classical time banditry behaviours (r=-.180, p<.066). There were no statistically significant correlations between cognitive demands and technological or social time banditry behaviours.

Participant reported their job not being that emotionally demanding (M=2.80, SD=1.00). Correlation analysis did not show any statistically significant correlations between emotional demands and all three dimensions of time banditry.

Results showed that participants sometimes have to hide their emotions (M=3.52, SD=1.12). Again, all three dimensions of time banditry showed no statistically significant correlation with demand for hiding emotions.

Participants reported quite high satisfaction with their job (M=3.88, SD=.705). Moderate negative correlation was found between job satisfaction and classic time banditry behaviours (r=-.380, p=<.001). Social and technological time banditry behaviours were not related to job satisfaction.

Respondents reported above average commitment to their workplace (M=3.59, SD=.959). Correlation analysis showed modest, negative and statistically significant correlation between workplace commitment and classic time banditry behaviours (r=-.361, p<.001). Again, no

statistically significant correlations were found between commitment to workplace and social or technological time banditry behaviours.

Results showed that participants feel somewhat to a large extent their work as meaningful (M=3.81, SD=.988). Modest negative correlation was found between meaning of work and classic time banditry behaviours (r=-.387, p<.001). Social or technological time banditry behaviours were not related to evaluating their work as meaningful.

Participants showed insecurity about their job to a small extent (M= 1.85, SD=.866). Correlation analysis showed no statistically significant correlations between classic, technological or social time banditry behaviours and job insecurity.

Respondents reported that they rarely feel conflict between work and family (M=3.04, SD=1.34). There were not found any statistically significant correlations between classic, technological or social time banditry behaviours and work-family conflict.

Quality of the leadership was evaluated slightly above average (M=3.42, SD=1.06). Weak, negative and statistically significant correlation was found between quality of the leadership and classic time banditry behaviours (r=-.215, p=.027). Correlation analysis showed no statistically significant correlations between technological or social time time banditry behaviours.

Participants rated their general health as good to very good (M=3.85, SD=.769). Moderate, negative and statistically significant correlation was found between general health and classic time banditry behaviours (r=-.321, p<.001). Any statistically significant correlations between health and technological or social time banditry behaviours were not found.

Respondents indicated average stress levels (M=2.91, SD=1.18). Weak, positive and statistically significant correlation was found between stress and classic time banditry behaviours (r=.258, p=.008). There were no statistically significant correlations between stress and technological or social time banditry behaviours.

Finally, participants reported that they some part of the working time feel burned out (M=3.05, SD=.910). Weak, positive and statistically significant correlation was found between burnout

and classic time banditry behaviours (r=.222, p=.023). There were no statistically significant correlations between burnout and technological or social time banditry behaviours.

Regression analysis (Ordinary Least Squares) was performed to identify the predictors of time banditry by subscale. It appeared that classic time banditry is most strongly predicted by how meaningful one feels his/her job is (this explains 15% of variance; negative relationship) (β= -1.52, SD=.358). Next of importance is having control over one's work time (β=.407, SD=.181), and the third independent variable relevant in predicting classic time banditry behaviours is job satisfaction (β=-1.285, SD=.500). These three aforementioned variables explain altogether 23.9% of classic time banditry variance. The less employees perceive their job as meaningful; the lover their job satisfaction; and the more control they have over their own work time, the more employees engage in classic time banditry behaviours.

19% of technological time banditry variance is explained by three variables: work pace, organizational commitment, and work time control. The slower the work pace, the more employees engage in technological time banditry (β=-.815, SD=.242). Lower organizational commitment is the second predictor (β=-.475, SD=.177) of employees engaging in technological time banditry. The third independent variable relevant in predicting technological time banditry is work time control (β=.237, SD=.118), the more employees have control over their own work time, the more they engage in technological time banditry.

Time banditry social dimension's predictors are work time control (β=.248, SD=.074) and work pace (β=-.317, SD=.154). These two variables explain 13.5% of social time banditry variances, meaning that employees who have more control over their own's work time and low work pace engage in social time banditry behaviours.

Cluster analysis was run to figure out time banditry subgroups. K-means cluster analysis results indicated that there are two subgroups among the sample respondents. Respondents in Group 1 (n=65) can be characterized as rather not engaging in classic time banditry behaviours (M=2.38, SD=.59), but sometimes engaging in social time banditry (M=3.57, SD=.56) and quite often engaging in technological time banditry (M=4.59, SD=.40). Respondents in Group 2 (n=40) can be characterised as low time bandits, meaning that they generally do not engage in classic time

banditry (M=1.72, SD=.39), quite rarely engage in social time banditry (M=2.45 SD=.44), and sometimes engage in technological time banditry (M=2.85, SD=.43).

To figure out which work and employee related characteristics make difference between respondents of group 1 and 2, t-tests were performed. Statistically relevant differences of mean scores were found in following scales: work time control (*t*= 2.26, p=.023) work pace (*t*=-2.46, p=.015) and commitment to organization (*t*=-2.58, p=.011) (see also results in Table 2). In other words, it appeared that respondents engaging more in various time banditry behaviours (Group 1) have somewhat more control over their work time, but their work pace is a bit slower and they are a bit less committed to their organization compared to the respondents in Group 2. It can be seen, that these results quite mirrow the results of regression analysis indicating that organizational commitment, work pace and work time control are main predictors of time banditry.

Table 4. Mean scores of scales differentiating time banditry clusters 1 and 2

Cluster Number of Case		N	Mean	SD	t-statistic and p value
Work time control	1 group	65	3.66	.776	t=2.26
	2 group	40	3.29	.855	p=.023
Work pace	1 group	65	2.83	.899	t=-2.46
	2 group	40	3.28	.938	p=.015
Commitment to organisation	1 group	65	3.41	1.02	t=-2.58
	2 group	40	3.87	.791	p=.011

4. RESULTS

The purpose of this study was to explore time banditry behaviours and its predictors of young Estonian workers. The chapter presents an interpretation of the findings in a relation to the hypothesis discussed above.

Hypothesis 1 stated that technological time banditry is the most prevalent dimension of time banditry among young Estonian workers. Results supported this showing that technological time banditry was in fact the most engaged dimension of time banditry (M=3.93, SD=1.04). Therefore, hypothesis 1 was supported.

Hypothesis 2 stated that higher work time control is positively correlated with time banditry behaviours. Correlation analysis showed that higher work time control is positively correlated with all dimensions of time banditry. Therefore, hypothesis 2 was supported.

Hypothesis 3 stated that higher work pace, cognitive and emotional demands are negatively correlated with time banditry. Findings showed that higher work pace results in lower level of engagement in classic time banditry behaviours. No results were found on technological and social time banditry behaviours. Result showed no statistically significant correlations with emotional demands and demands for hiding emotions, but there was a weak negative correlation with cognitive demands (r=-.180, p<.066). Therefore hypothesis 3 was partially supported.

Hypothesis 4 stated that higher employee job satisfaction, commitment to workplace and meaning of work is negatively correlated with time banditry behaviours. Results showed that classic time banditry behaviours is negatively correlated with job satisfaction (r=-.380, p=<.001), commitment to work (r=-.361, p<.001) and meaning of work (r=-.387, p<.001). Results showed no correlations between job satisfaction; commitment to work; meaning of work; and social or technological time banditry behaviours. Therefore, hypothesis 4 was partially supported.

Hypothesis 5 stated that higher levels of job insecurity and work-family conflict are positively correlated with time banditry behaviours. Results showed no correlations between job insecurity,

work-family conflict and any dimension of time banditry. Therefore, hypothesis 5 was not supported.

Hypothesis 6 stated that quality of the leadership is negatively correlated with time banditry behaviours. Negative correlation was found between classic time banditry behaviours and quality of leadership (r=-.215, p=.027). Results showed no correlations between quality of the leadership and technological or social time banditry behaviours. Therefore hypothesis 6 was partially supported.

Hypothesis 7 stated that general health is negatively correlated with time banditry behaviours. Results showed that classic time banditry behaviours were negatively correlated with general health (r=-.321, p<.001). Results showed no correlations between general health and technological or social time banditry behaviours. Therefore, hypothesis 7 was partially supported.

Hypothesis 8 stated that stress and burnout are positively correlated with time banditry. Results showed that classic time banditry behaviours were positively correlated with stress (r=.258, p=.008) and burnout (r=.222, p=.023). Results showed no correlations between stress; burnout and technological or social time banditry behaviours. Therefore, hypothesis 8 was partially supported.

5. DISCUSSION

This research has shown how different aspects of work can predict employees' engagement in time banditry. The presence or absence of any predictor discussed below does not assure whether an employee will engage in time banditry, it only increases or decreases the likelihood of time banditry.

Findings show that young employees engage mostly in technological time banditry. It can be explained with the fact that generation Y (1980-1995) was born into the world of technology and they are highly qualified in digital knowledge. Furthermore, it is said that generation Z or „*Facebook*-generation" (1995-2010) are always online and find it easier to communicate through technological devices (Andrea, Gabriella, & Timea, 2016). This shows once again that cyberloafing is a growing trend and it will continue to grow among employees.

Employees engaging in time banditry are not necessarily bad employees or people. They may just be suffering from low cognitive demands, low work pace, low job satisfaction, low organization commitment or poor management. These predictors are all directly related to the organization or job, not to the employee itself. This research also showed that poor health and increased stress or burnout can also predict time banditry, which are all related directly to the individual. By understanding the predictors of time banditry, managers are able to take action in altering variables to reduce time banditry.

Every employee will engage in some type of time banditry at some point and this research shows what could be the predictors of this engagement. Discovery from this study shows how freedom to decide over own's working time can predict time banditry. Surprisingly, the more employees are able to influence their own work time, the more they will engage in all three dimensions of time banditry: classic, technological, and social. This includes leaving work early, surfing the *web* and making personal phone calls at work.

Work pace was found to be one of the predictors of classic, technological and social time banditry. Low work pace can result in higher engagement of all three dimensions of time banditry. This is related to previously discussed predictor „controlling own's work time".

Employee having a low work pace and freedom to decide over owns work time will use the excess time for personal use.

Another thing that this study also showed is the importance of cognitive demands on the job. The fewer the cognitive demands the stronger engagement in classic time banditry behaviours. Results of this study support Ketchen et al. (2008) findings that bored employee is more likely to engage in time banditry. This shows that individuals job has to be challenging and correspond to one's abilities.

This study supported Martin et al. (2010) findings, that individuals who are not satisfied with their job will engage more in time banditry behaviours. Moreover, already in 1981 Adler and Golan found that dissatisfied employees are more likely to be late or absent from work than satisfied employees. That was supported by Lau, Au & Ho (2003), who found that employees with low job satisfaction are more likely to engage in time banditry. Results of this study support these previous findings, but only in case of classic time banditry.

It has been assumed that if individuals are committed to their organizations, they will be less likely to engage in time banditry and therefore stay longer with the organization (Johnston, Parasuraman, Futrell, & Black, 1990; Spector & Fox, 2002). This study supported that assumption and results show that committed employees engage less in time banditry. If employers want to avoid employees taking sick leaves when they are not sick or do not feel like going to work, which are time banditry behaviours, they should consider the fact that if employees are not satisfied with their work or are not committed to their organization they will find a way to steal time from their organization. It is suggested that this is a passive-aggressive way for employees to show their, disaffection, negative workplace affect, frustration and dissatisfaction (Bennett & Robinson, 2000; Garrett & Danziger, 2008). Cynical employees might even engage in time banditry in an attempt to compensate for any frustrations associated with lacking empowerment from their employer, equalizing the exchange relationship (Lorinkova & Perry, 2010).

Another discovery from this study shows that quality of the leadership can be a predictor for classic time banditry behaviours. Results of this study showed that employees who rated quality

of the leadership as poor, engage more in classic time banditry. This is a learning point for all managers who think that quality of the leadership is not important.

Finally, this study shed a light on health factors and their connection to time banditry. Results of this study showed that employees with poor general health tend to engage more in classic time banditry than those with good health. Stress and burnout were found to be positively correlated with classic time banditry, suggesting that employees who feel more stress or burnout engage more in classic time banditry behaviours.

Results of this study did not show any correlations between cyberloafing and stress or burnout. Previous research on cyberloafing on the other hand suggests that technological time banditry provides an effective protection against work stress, because it provides employees an opportunity to temporarily respite from work demands and rest from work (Lim & Chen, 2012). In the light of that the more stressed employees are, the more they will engage in classic time banditry, but on the other hand engagement in cyberloafing could reduce work stress. This is a paradoxical finding that further research should study.

5.1 Practical implications

This study discovered many new predictors of time banditry. It showed that employees engage mostly in cyberloafing and with the technology growth, they will probably continue with this type of banditry. By identifying predictors of time banditry, managers will have a chance to minimize, by tracking internet flow, or take advantage, by allowing employees to socialize and cyberloaf on breaks, of these behaviours.

Results of this study give another point of view on importance to job satisfaction and organizational commitment. How different work demands and meaning of work can have a effect on stealing of time at work.

Although results showed no connection between work-family conflict and time banditry dimensions, author still believes that there may be a correlation that needs further research. Andrea et al. (2016) have stated that nowadays more and more employees start their work day

before getting out of bed, reading their work e-mails from their phones. They are always connected and therefore will not stop working after they get home. Therefore, it is only logical, that they will check their non-work-related e-mails during work hours. This kind of blurring of work-family life boundaries is more common among younger employees, but not only. This is definitely aspect that organizations could benefit from. Further research is needed to have a clear understanding about work-family conflict and time banditry.

5.2 Limitations

There are several limitations of the study that should be taken into account. First, small sample size could be the major limitation of this study. Hypotheses were tested on a small sample (n=105), which may have had an effect on the results. Future research will benefit from a bigger sample.

Second, data was collected from a convenience sample. Author distributed questionnaire through *Facebook,* which means that only authors friends and their friends were given the opportunity to take part of this study. Further research should take this into consideration and try to use randomized sample.

Third, data was collected from participants working in different organizations on a different time schedules. This study did not take shifts into consideration. There might be differences in shift workers and white collars. Future research should take this into consideration and see if there are any differences among shift workers and white collars.

Fourth limitation is working time. This study did not take into consideration full-time and part-time workers. There might be differences in full-time and part-time workers answers. Future research should take this into consideration and see if there are any differences.

Fifth limitation is that many items in Time Banditry Questionnaire were negative. It should be noted that all data were based exclusively on self-reports; thus, the findings may be affected by the common method bias (Podsako , MacKenzie, Lee, & Podsako, 2003). Respondents might

have answered differently because they did not want to make themselves look bad. Future research should try to neutralize the items.

Sixth limitation is the language barrier. Study was conducted in English among Estonian employees, thus probably most of the respondents were Estonian whose native language is not English. They may have not understood all the questions and answered randomly.

CONCLUSION

In this study it was found that young Estonian employees engage mostly in technological time banditry like surfing the *web* or sending e-mails. Time banditry and especially cyberloafing are still quite new constructs that are actually new perspectives from an age-old problem that is purloining of time in an organization.

This study revealed some work and organizational aspects that predict time banditry. Work pace, cognitive demands, job satisfaction, organizational commitment, meaning of work, job insecurity, employee' ability to control own's work time, quality of the leadership, general health, stress, burnout are all predictors for classic time banditry.

Organizations see and will continue to see employees engaging in different time banditry types, especially cyberloafing. They have to understand the aspects and predictors of time banditry to be able to reduce its occurrence or find a way to take advantage of this.

REFERENCES

Adler, S., & Golan, J. (1981). Lateness as a withdrawal behavior. *Journal of Applied Psychology*, 66(5), 544−554.

Ala-Mursula, L., Vahtera, J., Kouvonen, A., Väänänen, A., Linna, A., Pentti, J., & Kivimäki, M. (2006). Long hours in paid and domestic work and subsequent sickness absence: does control over daily work hours matter? *Occupational and Envoronmental Medicine,* 63, 608-616.

Albanese, R., & Van Fleet, D. D. (1985). Rational behavior in groups: The free-riding tendency. *Academy of Management Review*, 10, 244−255.

Albrecht, S. C., Kecklund, G., Tucker, P., & Leineweber, C. (2016). Investigating the factorial structure and availability of work time control in a representative sample of the Swedish working population. *Scandinavian Journal of Public Health,* 44, 320-328.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.

Anandarajan, M. (2002). Profiling web usage in the workplace: a behavior-based artificial intelligence approach. *Journal of Management Information Systems,* 19(1), 243–266.

Anandarajan, M., Devine, P. A., & Simmers, C. A. (2005). A multidimensional scaling approach to personal web usage in the workplace. In M. Anandarajan & C. A. Simmers (Eds.), Personal Web Usage in the workplace: A guide to effective human resources management (pp. 61–78). Hershey, PA: Idea Group Publishing.

Anandarajan, M., & Simmers, C. A. (2004). *Personal web usage in the workplace: A guide to effective human resources management*. IGI Global. Retrieved from http://services.igi-global.com/resolvedoi/resolve.aspx DOI: 10.4018/978-1-59140-148-3

Anandarajan, M., Simmers, C. A., & D'Ovidio, R. (2011). Exploring the underlying structure of personal web usage in the workplace. *Cyberpsychology, Behavior, and Social Networking,* 14(10), 577–583.

Askew, K., Buckner, J. E., Taing, M. U., Ilie, A., Bauer, J. A., & Coovert, M. D. (2014). Explaining cyberloafing: The role of the theory of planned behavior. *Computers in Human Behavior*, 36, 510–519.

Baskin, M. E., McKee, V., & Buckley, M. R. (2017). Time banditry and impression management behavior: Predictors of profiling of time bandit types. *Journal of Leadership & Organizational Studies*, 24 (1), 39-54.

Baumeister, R. F., Muraven, M., & Tice, D. M. (2000). Ego depletion: A resource model of volition, self-regulation, and controlled processing. *Social Cognition*, 18(2), 130–150.

Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85: 349-360.

Blanchard, A. L., & Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in Human Behavior,* 24(3), 1067–1084.

Bock, G.-W., & Ho, S. L. (2009). Non-work related computing (NWRC). *Communications of the ACM*, 52(4), 124–128.

Brock, M. E, Martin, L. E., & Buckley, M. R. (2013). Time theft in organizations: The development of the time banditry questionnaire. *International Journal of Selection and Assessment,* 21 (3), 309-321.

Burke, M. E., & Esen, E. (2005). *Workplace productivity*. United States of America, Alexandria: Society of the Human Research Management.

Clark, S. C. (2002). Communicating across the work/home border. *Community, Work & Family,* 5, 23–48.

Cao, X., Guo, X., Vogel, D., & Zhang, X. (2016). Exploring the influence of social media on employee work performance. *Internet Research*, 26(2), 529–545.

Charoensukmongkol, P. (2014). Effects of support and job demands on social media use and work outcomes. *Computers in Human Behavior*, 36, 340–349.

de Lara, P. Z. M., Tacoronte, D. V., & Ding, J. M. T. (2006). Do current anti- cyberloafing disciplinary practices have a replica in research findings? A study of the effects of coercive strategies on workplace Internet misuse. *Internet Research*, 16(4), 450–467.

Dewe, P. J., & Guest, D. E. (1990). Methods of coping with stress at work: A conceptual analysis and empirical study of measurement issues. *Journal of Organizational Behavior*, 11, 135–150.

Elo, A-L., Leppänen, A., & Jahkola, A. (2003). Validity of a single-item measure of stress symptoms. *Scandinavian Journal of Work, Environment & Health,* 29(6), 444-451.

Everton, W. J., Mastrangelo, P. M., & Jolton, J. A. (2005). Personality correlates of employees' personal use of work computers. *CyberPsychology & Behavior*, 8(2), 143–153.

Fox, S., & Spector, P. E. (1999). A model of work frustrationaggression. *Journal of Organizational Behavior,* 20, 915-931.

Fritz, C., Ellis, A. M., Demsky, C. A., Lin, B. C., & Guros, F. (2013). Embracing work breaks: Recovering from stress. *Organizational Dynamics*, 42, 274–280.

Gallagher, E. C. (2009). Narcissism and forgiveness as moderators of organizational justice and workplace counterproductive computer use (M.A.). University of Nebraska at Omaha, United States -- Nebraska. Retrieved from http://search.proquest.com/docview/250832319/abstract/7A83D7F33D2141A3PQ/1

Garrett, R. K., & Danziger, J. N. (2008a). Disaffection or expected outcomes: Understanding personal Internet use during work. *Journal of Computer- Mediated Communication*, 13, 937–958.

Garret, R. K., & Danziger, J. N. (2008). On cyberslacking: Workplace status and personal internet use at work. *CyberPsychology & Behavior,* 11 (3), 287-292.

Gözu, C., Anandarajan, M., & Simmers, C.A. (2015). Work-family role integration and personal well-being: The moderating effect of attitudes towards personal web usage. *Computers in Human Behavior.* 52, 159-167.

Henle, C. A., Reeve, C. L., & Pitts, V. E. (2010). Stealing Time at Work: Attitudes, Social Pressure, and Perceived Control as Predictors of Time Theft. *Journal of Business Ethics , 93*, 53-67.

Jia, H.H. (2008). Relationships between the big five personality dimensions and cyberloafing behavior. (Doctoral Dissertation). Retrieved from Proquest Digital Dissertations.

Judge, T. A., & Chandler, T. D. (1996). Individual-level determinants of employee shirking. *Relations Industrielles*, 51(3), 468−486.

Johnston, M. W., Parasuraman, A., Futrell, C. M., & Black, W. C. (1990). A longitudinal assessment of the impact of selected organizational influences on salespeople's organizational commitment during early employment. *Journal of Marketing Research*, *27*, 333-344.

Ketchen, D. J., Craighead, C. W., & Buckley, M. R. (2008). Time bandits: How they are created, why they are tolerated, and what can be done about them. *Business Horizons*, 51, 141–150.

Latane, B., Williams, K., & Harkins, S. (1979). Many hands make light the work: The causes and consequences of social loafing. *Journal of Personality and Social Psychology*, 37, 822−832.

Lau, C. S., Au, W. T., & Ho, J. M. C. (2003). A qualitative and quantitative review of antecedents of counterproductive behavior in organizations. *Journal of Business and Psychology,* 18, 73−99.

Lorinkova, N. M., & Perry, S. J. (2017). When is empowerment effective? The role of leader-leader exchange in empowering leadership, cynicism and time theft. *Journal of Management,* 43 (5), 1631-1654.

Lim V (2002) The IT way of loafing on the job: cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior,* 23(5):675–694.

Lim, V. K. G., & Chen, D. J. O. (2012). Cyberloafing at the workplace: Gain or drain on work? *Behaviour & Information Technology*, 1–11.

Lim, V. & Teo, T. (2005). Prevalence, perceived seriousness, justification and regulation of cyberloafing in Singapore: an exploratory study. *Information Management,* 42,1081–1093.

Lim, V., Teo, T., & Loo, G. (2002). How do I loaf here? Let me count the ways. *Communicationf of the ACM,* 45(1), 66–70.

Mahatanankoon, P., Anandarajan, M., & Igbaria, M. (2004). Development of a measure of personal web usage in the workplace. *CyberPsychology & Behavior*, 7(1), 93–100.

Malachowski, D. (2005). *Wasted time at work costing companies billions*. Available at http://salary.com (accessed 3 October 2017).

Martin, L. E., Brock, M. E., Buckley, M. R., & Ketchen, D. J. (2010). Time banditry: Examining the purloining of time in organizations. *Human Resource Management Review*, 20, 26–34.

Mastrangelo, P. M., Everton, W., & Jolton, J. A. (2006). Personal use of work computers: Distraction versus destruction. *CyberPsychology & Behavior*, 9(6), 730–741.

Mercado, Giordano, & Dilchert. (2017). A meta-analytic investigation of cyberloafing. *Career Development International.* https://doi.org/10.1108/CDI-08-2017-0142

Naughton, K., Raymond, J., & Shulman, K. (1999). Cyberslacking. *Newsweek*, 134(22), 62–65.

Pejtersen, J. H., Kristensen, T. S., Borg, V., & Bjorner, J. B. (2010). The second version of the Copenhagen Psychosocial Questionnaire. *Scandinavian Journal of Public Health,* 38(3), 8-24.

Prasad, S., Lim, V.K., & Chen, D.J. (2010). Self-regulation, individual characteristics and cyberloafing. PACIS 2010 Proceedings. Paper 159. Retrieved from http:// aisel.aisnet.org/pacis2010/159.

Pee, L. G., Woon, I. M. Y., & Kankanhalli, A. (2008). Explaining non-work-related computing in the workplace: A comparison of alternative models. *Information & Management*, 45(2), 120–130.

Podsako , P. M., MacKenzie, S. B., Lee, J. Y., & Podsako , N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology,* 88, 879–903.

Restubog, S. L. D., Garcia, P. R. J. M., Toledano, L. S., Amarnani, R. K., Tolentino, L. R., & Tang, R. L. (2011). Yielding to (cyber)-temptation: Exploring the buffering role of self-control in the relationship between organizational justice and cyberloafing behavior in the workplace. *Journal of Research in Personality*, 45(2), 247–251.

Salary.com. (2014). Wasting time at work. Retrieved from http://www.salary.com/2014 wasting time at work/slide/3/

Sonnentag, S. (2003). Recovery, work engagement and proactive behaviour: a new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88(3), 518–528.

Spector, P. E., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: Some parallels between counterpro- ductive work behavior and organizational citizenship behav- ior. *Human Resource Management Review*, *12*, 269-292.

Spektor, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all conterproductive behaviors created equal? *Journal of Vocational Behavior,* 68, 446-460.

Zoghbi, P. (2006). Fear in organizations: Does intimidation by formal punishment mediate the relationship between interactional justice and workplace internet deviance? *Journal of Managerial Psychology*, 2, 580–592.

The UCLA Internet Report 2001: Surveying the Digital Future. (2001). Los Angeles: UCLA Center for Communication Policy

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work–family balance. *Journal of Applied Psychology*, 92, 1512-1523.

Vitak, J., Crouse, J., & LaRose, R. (2011). Personal internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, 27(5), 1751–1759.

Wagner, D. T., Barnes, C. M., Lim, V. K. G., & Ferris, D. L. (2012). Lost sleep and cyberloafing: Evidence from the laboratory and a daylight saving time quasi-experiment. *Journal of Applied Psychology*, 97, 1068–1076.

APPENDICES

APPENDIX 1.

Descriptive Statistics of Time Banditry Scale

Table 1. Time Banditry Questionnaire structure

Item	Min	Max	Mean	SD
I purposely take longer in the restroom than necessary.	1	5	1.77	1.07
I put less effort into my work than I know I can.	1	5	2.54	1.29
I tell my boss/colleague a task will take longer than I know I can finish it in, so I can take my time.	1	5	2.15	1.22
I always put 100% effort into my work task.	1	5	2.17	.995
If my boss is gone for the day, I will leave early.	1	5	1.76	1.02
When given a task, I finish it faster than the expected timeframe and use the remaining time for personal use.	1	5	2.77	1.35
If I didn't feel like going to work, I would call in sick, even if I wasn't.	1	5	1.45	8.55
I spend more time than necessary on tasks.	1	5	2.14	1.01
I daydream while at work.	1	5	2.72	1.22
I take long coffee/smoke breaks.	1	5	2.05	1.20
If I finished a project 20 min before the end of the work day, I would not start working on anything new.	1	5	2.94	1.45
I start working as soon as I arrive at work.	1	5	2.30	1.19
I often go to the restroom even if I don't have to.	1	5	1.34	.818
I take longer lunch breaks than I am supposed to.	1	5	1.84	1.12
I take breaks at my desk to read a magazine or newspaper or to catch up on a bestseller.	1	5	2.11	1.34
I use sick days in order to catch up on personal things.	1	5	1.49	1.04
When I arrive at work in the morning, I get coffee and/or eat breakfast before I start working.	1	5	2.53	1.50
I pretend to work through lunch to leave early, even though I still take a break to eat.	1	5	1.38	.801
I use the Internet for work-related business only.	1	5	3.75	1.27
I check nonwork-related e-mail and/or any kind of messages at work.	1	5	4.04	1.16
I spend time on the Internet for reasons not related to work.	1	5	3.49	1.38
I receive nonwork-related e-mails or any kind of messages at work.	1	5	3.97	1.19
I send nonwork-related e-mail or any kind of messages at work.	1	5	3.72	1.27
I never check nonwork-related e-mail during work hours.	1	5	4.36	1.12
While at work, the only e-mail use I engage in is work related.	1	5	4.18	1.20
I receive personal phone calls at work.	1	5	3.60	1.28
I talk to coworkers about their families or life during work hours.	1	5	3.64	1.13
I never make personal phone calls at work.	1	5	4.29	1.08
I take time out of my day to talk with my boss about nonwork-related topics.	1	5	2.53	1.23
I spend time in and out of the office engaging in leisure activities (e.g., going to lunch, drinks, and/or dinner) with clients.	1	5	1.86	1.10
I only take the required amount of break time allowed in my organization.	1	5	2.96	1.38

APPENDIX 2.

Descriptive statistics of Copenhagen Psychosocial Questionnaire

Table 2. Copenhagen Psychosocial Questionnaire

Scale	Item	Min	Max	Mean	SD
General work	Your work prospects?	1	5	3.90	.861
	The physical working conditions?	1	5	3.97	.826
	The way your abilities are used?	1	5	3.72	1.01
	Your job as a whole, everything taken into consideration?	1	5	3.90	.904
General health	In general, would you say your health is:	2	5	3.85	.769
Work demands	Is your workload unevenly distributed so it piles up?	1	5	2.97	1.08
	How often do you not have time to complete all your work tasks?	1	5	2.70	1.22
	Do you get behind with your work?	1	5	2.40	1.10
	Do you have enough time for your work tasks?	1	5	2.55	1.22
Work pace	Do you have to work very fast?	1	5	3.11	.934
	Do you work at a high pace throughout the day?	1	5	2.93	1.09
	Is it necessary to keep working at a high speed?	1	5	2.96	1.16
Cognitive demands	Do you have to keep your eyes on lots of things while you work?	1	5	3.73	1.11
	Does your work require that you remember a lot of things?	1	5	4.07	1.06
	Does your work demand that you are good at coming up with new ideas?	1	5	3.69	1.17
	Does your work require you to make difficult decisions?	1	5	3.42	.948
Emotional demands	Does your work put you in emotionally disturbing situations?	1	5	2.72	1.11
	Do you have to relate to other people's personal problems as part of your work?	1	5	2.70	1.42
	Is your work emotionally demanding?	1	5	2.77	1.23
Demands for hiding emotions	Do you get emotionally involved in your work?	1	5	3.01	1.17
	Are you required to treat everyone equally, even if you do not feel like it?	1	5	3.86	1.30
	Do your work require that you hide your feelings?	1	5	3.08	1.25
	Are you required to be kind and open towards everyone - regardless of how they behave towards you?	1	5	3.64	1.29
Meaning of work	Is your work meaningful?	1	5	3.90	1.04

	Do you feel that work you do is important?	1	5	3.96	1.11
	Do you feel motivated and involved in your work?	1	5	3.56	1.18
Commitment to the workplace	Do you enjoy telling others about your place of work?	1	5	3.70	1.18
	Do you feel that your place of work is of great importance to you?	1	5	3.75	1.17
	Would you recommend a good friend to apply for a position at your workplace	1	5	3.56	1.25
	How often do you consider looking for work elsewhere?	1	5	3.33	1.23
Quality of the leadership	Immediate superior makes sure that the individual member of staff has good development opportunities?	1	5	3.50	1.19
	Immediate superior gives high priority to job satisfaction?	1	5	3.34	1.16
	Immediate superior is good at work planning?	1	5	3.33	1.25
	Immediate superior is good at solving conflicts?	1	5	3.51	1.17
Job insecurity	Are you worried about becoming unemployed?	1	5	1.69	.974
	Are you worried about it being difficult for you to find another job if you became unemployed?	1	5	2.02	1.12
Work-family conflict	Do you often feel a conflict between your work and your private life, making you want to be in both places at the same time?	1	5	3.04	1.34
Burnout	How often have you felt worn out?	1	5	2.89	.974
	How often have you been physically exhausted?	1	5	2.84	1.08
	How often have you been emotionally exhausted?	1	5	3.04	1.09
	How often have you felt tired?	1	5	3.45	1.04

APPENDIX 3.

Factor analysis of Time Banditry

Table 3. Factor analysis

	Component		
Item	1	2	3
I check non-work-related e-mail and/or any kind of messages at work.	,887		
While at work, the only e-mail use I engage in is work related.	,859		
I receive non-work-related e-mails or any kind of messages at work.	,840		
I spend time on the Internet for reasons not related to work.	,803		
P4 I never check nonwork-related e-mail during work hours.	,794		
I send nonwork-related e-mail or any kind of messages at work.	,794		,358
I receive personal phone calls at work.	,737		
I never make personal phone calls at work.	,733		
I use the Internet for work-related business only.	,666	,312	
I talk to co-workers about their families or life during work hours.	,455		,383
When given a task, I finish it faster than the expected timeframe and use the remaining time for personal use.	,372	,343	
If I didn't feel like going to work, I would call in sick, even if I wasn't.		,677	
I always put 100% effort into my work task.		,658	
I put less effort into my work than I know I can.		,654	
I take longer lunch breaks than I am supposed to.		,591	,411
I spend more time than necessary on tasks.		,523	
I purposely take longer in the restroom than necessary.		,506	,415
I use sick days in order to catch up on personal things.		,482	
I start working as soon as I arrive at work.		,429	
If I finished a project 20 min before the end of the work day, I would not start working on anything new.		,422	
I tell my boss/colleague a task will take longer than I know I can finish it in, so I can take my time.		,417	
I take breaks at my desk to read a magazine or newspaper or to catch up on a bestseller.	,338	,400	
I daydream while at work.	,346	,357	
I only take the required amount of break time allowed in my organization.	,332	,337	

I spend time in and out of the office engaging in leisure activities (e.g., going to lunch, drinks, and/or dinner) with clients.		,772
When I arrive at work in the morning, I get coffee and/or eat breakfast before I start working.		,656
I pretend to work through lunch to leave early, even though I still take a break to eat.	,363	,590
I take long coffee/smoke breaks.	,341	,569
I often go to the restroom even if I don't have to.	,333	,554
I take time out of my day to talk with my boss about non work related topics.		,500
If my boss is gone for the day, I will leave early.	,312	,393

Extraction Method: Principal Component Analysis.
Rotation Method: Equamax with Kaiser Normalization.
a. Rotation converged in 6 iterations.