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CONTENTS

Editorial	4
Research	
Anjar PRIYONO: THE USE OF ICT PLATFORMS TO PROMOTE KNOWLEDGE EXCHANGE IN PROJECT-BASED ORGANISATIONS	5
Monika RANDÁKOVÁ, Jiřina BOKŠOVÁ: REPAYMENT PLAN AS ESSENTIAL INSTRUMENT IN PERSONAL BANKRUPTCY IN THE CZECH REPUBLIC	22
Eva ARDIELLI, Jiří ARDIELLI, David SLAVATA: CALCULATION AND SPATIAL DISTRIBUTION OF CAPITALIZATION RATES IN THE SELECTED SEGMENT OF REALITY PROPERTIES	37
František SEJKORA: PREDICTION MODEL OF DIVIDEND PAYMENT OF CZECH JOINT STOCK COMPANIES	51
Michal PILIK, Petr KLIMEK, Eva JURICKOVA, Premysl PALKA: COMPARISON SHOPPING AGENTS AND CZECH ONLINE CUSTOMERS' SHOPPING BEHAVIOUR	62
Mukarramah Modupe ADEOLA, Sulaimon Olanrewaju ADEBIYI: EMPLOYEE MOTIVATION, RECRUITMENT PRACTICES AND BANKS PERFORMANCE IN NIGERIA	70

Editorial

Dear readers.

That's a great pleasure for me to introduce you new issue on International Journal of Entrepreneurial Knowledge, which includes the four interesting research papers. In last months we have indicated the increasing interest for publication in our journal from different countries of the world. We are very pleased that we have succeeded in establishing the high quality journal, which covers the different fields of entrepreneurship, which is one of the most developing fields of scientific research. Our journal tries, from its first issue to contribute to the discussion in this field. In present conditions it is very hard to succeed in competition of thousands different research journals all over the world and get attention of the authors.

Current issue includes nine interesting research studies, which I hope, will contribute to the extension of the knowledge in the field of entrepreneurship. I would especially like to thank to our editorial board members, prof. Zelený and prof. Rubinstein, for their comprehensive articles. We have also decided to include interesting paper which focuses on the comparison in two rugby leagues, which in fact doesn't accurately fit to the journal scope, but brings the untraditional focus on specific sport field.

To conclude, let me state, that we work on increasing quality of the journal, and expect the soon indexing of our journal in SCOPUS database, which could dramatically extend the impact of the journal.

Your Editorial Board

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THE USE OF ICT PLATFORMS TO PROMOTE KNOWLEDGE EXCHANGE IN PROJECT-BASED ORGANISATIONS

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ABSTRACT

This study aims to investigate the use of information and communication technology (ICT) to support knowledge exchange in project-based organisations. The primary ICT tool investigated in this research is WhatsApp, a messaging application that has been widely used since its introduction. An ethnographic case study method was utilised to analyse qualitative data collected from interviews and focus group discussions. Three projects in an Indonesian university with a duration ranging from 8 months to 2 years were examined as object of investigations. Broadly, the findings show that ICT tools are generally useful in supporting knowledge exchange, which ultimately positively affects project performance. The project teams relied on WhatsApp for the success of the projects. Although face-to-face meetings were rare, team communication was highly intensive, supported by WhatsApp. In addition, managers are encouraged to promote knowledge exchange between team members. Through knowledge exchange, there will be knowledge development, which facilitates the invention of new techniques and methods for promoting project success. The most prominent findings are presented using direct quotations to provide first hand insight from the field. At the end of the paper, recommendations regarding what project managers should do during and after the project has been completed are presented. The recommendations are classified based on the knowledge management life cycle, representing a structured method to manage knowledge in project-based organisations.

KEY WORDS

knowledge exchange, project management, knowledge management, information technology, project-based organisation

JEL CLASSIFICATION

M11, M15

1. INTRODUCTION

Projects create temporary systems in which knowledge creations occur (Boh, 2007). The created knowledge is stored as 'lessons learned' within a project management office, so that it can be

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retrieved at any time if required (Project Management Institute, 2013). Projects are interrelated works that are intertwined and interrelated; these are difficult to operate successfully if the project team is not well organised (Crawford, 2002). Members of the project team interact, create and share knowledge, which is valuable to stakeholders in organisations.

When the field of project management was in its early stages, knowledge management was not a popular topic in the field. In that era, project management typically dealt with the 'hard' side of assignments, related to physical activities. However, in recent years, with the increase in project complexity, the soft side of project management has gained popularity, specifically management of skills, teams, information and knowledge (Ziek & Anderson, 2009).

Project-based organisation is utilised by organizations to meet challenge of dynamic business environment (Boh, 2007). In project-based organisations, which are typically matrix types, each project is assigned to a team. As a subset of an organisation, the team binds together people with different skill sets, knowledge and expertise in an attempt to achieve a shared goal (Hoegl *et al.*, 2004). Due to differences in background, team members should have cross-cultural understanding, and thus be able to communicate effectively. Interacting with people with diverse backgrounds is a critical skill if one is to succeed in this field (Ziek & Anderson, 2009).

Communication is the foundation of knowledge-sharing; without communication, knowledge exchange will never occur. Communication using ICT platforms requires different skills to conventional face-to-face meetings. There is a common belief that use of ICT leads to more efficient communication between people. However, empirical evidence suggests that use of ICT does not always lead to the effective knowledge exchange. A typical problem encountered by project teams is difficulty in developing a common understanding among members. Common understanding is important, as the foundation of collective efforts (Bartsch *et al.*, 2013) and communication skills bridge the knowledge gap as well as create common understanding.

Other factors affecting knowledge exchange include culture and trust. An open culture increases the willingness of people to share and exchange knowledge. People who are highly concerned with privacy tend to be less willing to share knowledge. Meanwhile, trust is also strongly related with risk; individuals who want to exchange their knowledge should consider what return they will receive, and what risk is associated with the exchange (Pemsel & Wiewiora, 2013).

Maintaining a database of knowledge can support knowledge exchange between members of a project-based organisation. Nevertheless, organisations experience difficulties regarding how to develop a database within which to accumulate knowledge gleaned from past projects. Such knowledge is unique, valid in certain circumstances only and could easily become obsolete; consequently, managing knowledge using databases and documents that can be easily accessed is not an easy task. Almeida and Soares (2014) suggest that organisations develop a mechanism to make knowledge exchange easier, such as promoting the use of ICT tools or providing direct channels of communication.

During project execution, a type of social system is formed between the project team members. Knowledge that is created through this social system will be dispersed when the project has completed; therefore a large amount tacit knowledge created during the project will no longer be relevant. The knowledge is typically embedded within individual team members, not within the project team. Therefore, if an organisation intends to reassemble the tacit knowledge created during project execution, the manager should reunite the individuals who formed the social system of previous projects.

There is very little empirical evidence regarding how to use ICT to support effective knowledge creation, transfer and sharing (Kruger & Johnson, 2010). Although the empirical evidence is limited, there is consistent empirical evidence supporting the relationship between improved project team performance and knowledge exchange (Table 1). However, the use of specific tools – i.e. the messaging application WhatsApp – to support knowledge exchange in a project team environment has never been investigated.

Table 1 Previous studies on knowledge exchange and project performance

No.	Topics	Author
1.	The significance of information management to support projects	Johannessen and Olsen (2011)
2.	Information and communication technologies in project teams	Shachaf (2008)
3.	Knowledge transfer across projects, within organisations	Back and Moreau (2011)
4.	Knowledge-sharing in project-based organisations to overcome informational limbo	Almeida and Soares (2014)
5.	Knowledge management with the support of information technology in uncertain environments	Mehta <i>et al.</i> (2014)
6.	Knowledge management practices in project management with the support of information technology	Yang <i>et al.</i> (2012)
7.	The benefit of using a project information system to support decision-making in a multi-project environment	Caniëls and Bakens (2012)
8.	Creating and sharing of tacit knowledge in a project environment	Koskinen <i>et al.</i> (2003)

The use of WhatsApp has proliferated in many different fields, such as education (Alabdulkareem, 2015; van Rooyen, 2015), research (Stefanidis *et al.*, 2015), surgery (Petruzzi & De Benedittis, 2015; Jonhston *et al.*, 2015) and other medical-related fields (Drake *et al.*, 2015; Watson *et al.*, 2015). Although many studies have investigated the use of WhatsApp in a number of fields, its use in the area project management is under-researched, specifically there is a lack of empirical evidence regarding the use of WhatsApp for knowledge exchange in a project management environment. Thus, an investigation of the use of WhatsApp in project management will contribute knowledge in this field. In recognition of this research gap, it is timely and relevant to investigate the use of WhatsApp in supporting knowledge exchange in project-based organisations. This combination represents the novel contribution of this paper, in that it is the first time the use of WhatsApp to support knowledge exchange in a project management context has been examined.

From the discussion above, it is clear that the relationship between knowledge exchange, project management and instant messaging applications needs to be better understood. To address this identified research gap, this study will attempt to conduct a deep and comprehensive analysis of how knowledge exchange supported by messaging applications can promote the success of projects and at the same time fulfill the needs of the project team. The objectives of this study can be broken into the following points:

1. What are the benefits and challenges of using WhatsApp in project management?
2. How do managers could utilise WhatsApp to support knowledge exchange in project project based-organisation?

2. THEORETICAL BACKGROUND

2.1. The use of WhatsApp as an ICT platform

Among a number of existing instant messenger services, WhatsApp is the most popular (Winkler, 2013). Since its introduction in 2009, WhatsApp has quickly gained in popularity. As of 2009, more than two thirds of populations possess mobile phones. This represents a very large market for producers of application software. In 2014, the number of WhatsApp users has reached over 500 million worldwide, who share 700 million pictures and 1,000 million videos daily (Acton & Koum, 2014).

For professional purposes, the use of WhatsApp to support teamwork has largely been devoted to medical teams and learning. Johnston *et al.* (2015) demonstrate how WhatsApp can support communication between members of surgical teams. Also in the surgical field, Stefandis *et al.* (2015) examine its use from a different angle, investigating how the technology could support research collaboration in the surgical field involving a number of institutions. Giardano *et al.* (2015) report that the application can support paramedics in analysing surgical cases and come to agreement without the need to meet face to face.

Like medicine, in the field of education a number of studies have been carried out regarding the use of WhatsApp. Ahad and Lim (2014) report that the application is viewed as convenient by the younger generation. For this reason, its use for supporting learning purposes is strongly recommended. The researchers suggest using the application as 'all-in-one' mobile communication tool for sharing information pertaining to study materials.

Van Rooyen (2015) demonstrates how mobile phones equipped with a messaging application can enhance the quality of teaching and learning in distance-based education. The application can bridge the gap of interconnectedness between lecturers and students in developing countries. Developing countries, which typically lack of internet access, benefit greatly from using mobile phones. Alabdulkareem (2015) reveals that messaging applications enhance the educational experience in Saudi Arabia, and students and instructors confirm this. Further, the researcher suggests training to make better use of the technology, so as to improve the quality of education. In addition, many users enjoy using the messaging application, which contributes to its popularity; however, one of the negative consequences of this is that many users become 'addicted' to it (Sultan, 2014).

Yang *et al.* (2012) classifies ICT applications into two groups: basic and advanced. Using this classification, WhatsApp can be categorised as an advanced ICT application, as it supports collaborations, allows video conferences, and is accessed via a smart phone, the function of which is similar to that of a personal digital assistant. According to Yang *et al.*, these are all the characteristics of advanced ICT tools. It is these characteristics that enable WhatsApp to support knowledge exchange in project management in a variety of ways.

2.2. ICT platforms and knowledge exchange

Knowledge management is based on the premise that the most valuable resource is the knowledge embedded in employees. Due to its importance, many scholars have investigated the benefit of knowledge management (Yang *et al.*, 2012; Shachaf, 2008; Almeida & Soares, 2014). Nevertheless, in practice, it is difficult to find managers who use a formal and structured method of knowledge management. One explanation for this phenomenon is the intangible nature of knowledge management. Thus, in order to enable the exchange of this valuable resource in an efficient way, project managers should promote ICT facilitated communication.

Mickan and Rodger (2000) point out that members of the project team need to give and receive information regularly to ensure that everyone remains up to date with the latest information. As a messaging application, WhatsApp has been extensively used to support communication in daily life. Therefore, it will most likely support communication in a project management environment too. The instant delivery facilitated by messaging application technology enables a reduction of the time lag between sending and receiving a message.

Other digital communication tools offer facilities for communication but they have drawbacks. For example, e-mail is a widely used communication tools; however, it has some disadvantages. It is not a synchronous media, so people will not necessarily notice quickly when a new message is received. Consequently, the recipient may not respond as soon as expected (Juarez-Ramirez *et al.*, 2013). From the perspective of project management, which requires speedy information flows, e-mail is less responsive compared to chatting applications.

Begel *et al.* (2010) present an analysis of how the technology changes the way that individuals communicate and collaborate. As the technology affects the way they collaborate, it ultimately affects team performance. Similarly, Chiocchio (2007) finds that electronic messages enhance coordination between team members, emphasising the importance of social media in supporting teamwork and collaboration.

When knowledge is created, it is embedded in the individual creator as well as the organisation in which they work; it can be 'stored' in a document that can be retrieved by other people. Learning takes place during the knowledge creation, but the retrieval of knowledge only provides the instant results of the stored knowledge. As such, the individuals who retrieve the knowledge will most likely have a lower level of understanding in comparison with the creator. Nevertheless, the individuals who retrieve it could have a better understanding if they combine the new knowledge with their existing knowledge. Thus, a knowledge synthetic process could occur from combination of the retrieved knowledge from the database and the existing knowledge possessed by the users.

Knowledge exchange between individuals in a project team could create social knowledge. Social knowledge is different from individual knowledge (Nahapiet & Ghoshal, 1998); the former represents the shared knowledge of the team members, whereas the latter is possessed only by certain individuals (Chang & Chuang, 2011). In a project environment, the benefit of social knowledge is much greater; thus, managers should develop a bridge in their project team so that individual knowledge becomes social knowledge.

The challenge in knowledge exchange lies in how to acquire knowledge and match it against the need to promote efficient information use (Karim & Hussein, 2008). Detlor (2010) outlines more comprehensively the importance of knowledge management in ensuring that the required information is complete, of sufficient quality, and is available in the right format.

ICT platforms are proliferating across project-based organisations, and support project executions in order to help them run efficiently and effectively, and the advancement of technology means that they are affordable for most people. This progress is positive, as it means a large amount of knowledge is being created and shared; however, it also creates challenges, since a significant amount of messy and chaotic knowledge is also spread within project-based organisations (Detlor, 2010).

In line with the increase in ICT facilitated communication, there has been a growing trend of project failure (Lynn & Reilly, 2000). One of the reasons for this could be that, despite the advantages of technology in supporting knowledge exchange, this is a less important factor than the users

themselves. It is the behaviour of users that determines how knowledge is organised, managed, distributed and shared (Barreau, 2008), and which ultimately affect the performance of the project.

2.3. Knowledge exchange and project performance

A project is an endeavour comprising of professionals undertaking temporary work with the purpose of creating unique products, services or results (Project Management Institute, 2013). A project involves a process of satisfying the needs of stakeholders through complex problem-solving processes. It consists of a set of collective activities pursuant to the development of common understandings. To achieve success in a project, knowledge must be created and should then be disseminated widely. The dissemination is intended to maintain the common interpretation of how to undertake the tasks and what the output of the tasks are (Jackson & Klobas, 2008). Projects have the following characteristics: high interdependence of different knowledge and skill sets, complexity and unpredictability of problems, as well as constraints in terms of budget, time and output specifications (Project Management Institute, 2013). Due to the above features, project-based organisations require a different approach to traditional organisation, particularly in regard to knowledge management.

Prencipe and Tell (2001) discuss how knowledge created in a project can be transferred across and within an organisation. The learning process for creating knowledge occurs at different levels within a project-based organisation. Here, it is important to stress that the created knowledge should be accumulated as well so that it can be accessed by subsequent projects, and therefore, knowledge exchange can occur, in order to avoid repeating past mistakes and wasting resources (Pemsel & Wiewiora, 2013). However, it appears that utilising accumulated knowledge from past projects is not an easy task, due to the uniqueness and finite nature of project tasks (Bartsch *et al.*, 2013).

Many scholars distinguish between knowledge and information, although the two concepts are interrelated. Knowledge is much broader than information, as the former also covers a logical understanding of the context that can help an organisation to complete an assignment or solve a problem (Gunnlaugsdottir, 2003). On the other hand, information is less meaningful than knowledge, and must be assigned meaning. Information is only data that is interpreted within a particular context. However, for the purpose of this paper, as recommended by Almeida and Soares (2014), knowledge and information are considered to be synonymous.

There is no doubt that ICT platforms support effective knowledge management (Rooke *et al.*, 2010), which in turn, leads to improved project performance. Many studies have shown that knowledge management is a critical success factor in project performance, including those by Adenfelt (2010), Liu *et al.* (2004), and Carrillo *et al.* (2006). Although the importance of knowledge management to project performance is generally strongly supported, some studies have yielded slightly different results. For instance, Yang *et al.* (2012) reveals that knowledge management does not directly affect performance; instead, it mediates the relationship between information technology and project performance in terms of cost, scheduling, quality and safety.

There are at least three scholars who outline knowledge management life cycles. Choo (1991) proposed six processes of managing information: (1) identification, (2) acquisition, (3) organisation and storage, (4) design, (5) distribution, and (6) use. Wilson (2005) categorises the cycle from creating to using knowledge into the following phases: (1) acquisition, (2) organisation, (3) storing, (4) retrieval, (5) access/lending, and (5) dissemination. Detlor (2010) also proposes six processes of managing knowledge: (1) creation, (2) acquisition, (3) organisation, (4) storage, (5) distribution, and (6) use. There is some difference between the cycles proposed by the three authors above; nevertheless, there is strong agreement that the main challenge is how to acquire the necessary knowledge, and how to use it to the benefit of the organisation.

3. METHODS

3.1. Case study

This research used a case study method, as suggested by Yin (2009) and Eisenhardt (1989). The researcher was immersed himself in the cases using the ethnographic approach. To analyse the data accumulated via WhatsApp, the content analysis method was used. Content analysis is a data analysis method in which researchers attempt to identify specific words or phrases that are relevant to the subject under investigation. Content analysis is well suited to research with a deductive element, where the researchers propose a list of specific words at the outset (Easterby-Smith *et al.*, 2012).

3.2. The Projects

A number of projects were running at the university where this study was undertaken, in which the researcher works. The university can be considered a project-based organisation, as there are many activities taking place that are assigned to specific teams for certain purposes, with a specific allocated time period and well-defined scope (Project Management Institute, 2013). For the purpose of this study, three projects were selected as objects of the investigation. The cases were selected as they were considered to be the most active project teams, and require intensive knowledge exchange between team members. The investigator was involved in all of the project teams, in one as the project leader for an international event organised by the university, and in the two other projects as a team member. As many as 86 people were involved in the three projects investigated in this study. The durations of the projects ranged from 8 months to 2 years, depending on the scope of the projects.

Table 2 Description of the projects in this study

No.	Description of the project team	Project A: international conference	Project B: Accreditation of master program team	Project C: Accreditation of an academic journal
1.	Number of project team member	26	16	14
2.	Duration of working period	24 months	18 months	8 months

As can be seen on Table 2 above, Project A had the longest working period. It also required more intensive communication between team members as the team interacted with participants of conference consisting of roughly 500 participants. In addition to this, each division of the project team set up different WhatsApp groups to discuss specific issues they were experiencing. There were as many as four WhatsApp were set up by different project teams to discuss specific issues they had.

The fact above is different from two other project teams – i.e. Project B and C – that require one WhatsApp group only. This can be understood because the two projects were mostly dealt with documents preparation. The two teams had limited interaction with customers over the course of the projects. The customers of the projects were government accreditation board, which would meet the project team at the end of the project period. However, the project team should be well prepared a large amount documents and materials in advance before they had meetings the accreditation board members.

The patterns of communication between the three project team are different as well. The first project team, Project A, require extremely intensive communication a few days just before the conference was held. The communications were between project team members with participants of the conference as the customers. At this period, knowledge exchanges were not as intensive as at the beginning of project team formations. During the initiation stage of the project until a few days before the conference, the communications were mainly between the project team members. This was the period where the knowledge exchange occurred. On the other hand, a few days just before the conference, the purpose of the communication was serving the participants of the conference, not for sharing and exchanging knowledge. Meanwhile, the workloads of other two project team's – i.e. Project B and C – were relatively stable over the course of the project period.

In terms of the project team composition, the teams were dominated by managerial level individuals, such as heads of departments, vice heads of departments, and the dean and vice dean of the faculty. Because of their roles, it was extremely difficult to have face-to-face meetings around the same table, due to their extremely high workloads. For these reasons, there is a significant need for more structured project planning processes and communication. To ensure that communication is effective, the project teams which are investigated in this study agreed the following rules:

- Each team would set-up at least one WhatsApp group to enable knowledge exchange between the project team members.
- There should be clear direction regarding who would be responsible for what.
- All members should regularly post information on WhatsApp to update the rest of the team regarding what they have done, or if there had been any deviation from the planned activities.
- For one of the projects, every morning the project leaders would post a message on WhatsApp summarising what had been achieved so far. This summary would contain a list of activities classified as urgent and needed to be completed that day, and an agenda for the coming days.

The communications continue to run regardless of day and time, although not during working days. This indicates that the team continues to work during the day and night time.

4. ANALYSIS AND RESULTS: BENEFITS AND CHALLENGES OF USING ICT

As mentioned in Section 3.1 Case Study, the researcher utilised content analysis to analyse messages posted in the four groups. To this end, the WhatsApp messages were downloaded and imported into Microsoft Word. Then, NVivo software was used to analyse the data.

According to the analysis, there is absolute agreement among the project team members that WhatsApp is an affordable and easy technology to used, and represents a 'perfect' and complete package to support communication in project management. Nevertheless, using WhatsApp as a primary tool of communication is not without challenges. For example, one of the project team members commented: *"It is time consuming to write message on WhatsApp, particularly those that require long explanations. If we meet face to face, I can explain in seconds, but when using WhatsApp, it is not that easy"*.

Another team member described the challenges with using the application as follows: *"There is a lot of important knowledge that I am supposed to know. Team members do not understand what others need; they should report something that seems important to others, but from their point of view it is not important (so they do not post it on WhatsApp). This causes miscommunication between us."* However, opinions concerning the use of the tool are split, as another project member expressed a more positive view: *"We are all busy people who do not have sufficient time to talk*

about technical and operational things. Just say it in a few words on WhatsApp, and other people will understand what you mean”.

There is common agreement between the team members that knowledge exchange can occur in various situations: in a formal meeting, conversations during lunch, or other informal occasions. However, these methods of knowledge exchange require people to meet face by face, and consequently are relatively rare. Relying on direct meetings between people can hinder the progress of projects, as some decisions need to be made quickly. WhatsApp can help to solve this problem; as one team member described, “I do not need to make appointments, schedule meetings, or pick up the phone. I can just send message on WhatsApp and I'll get a response. I do not mind waiting, as I don't want to put pressure on others”.

Using WhatsApp as a communication platform requires all project team members to actively participate in virtual team meetings. This ensures that information asymmetry can be avoided - minor missing information can prove catastrophic for the team. For example, in the course of the study there was an instance of miscommunication, when one of the team members did not attend the meeting, and then did something different from what had been agreed during the meeting, thinking that better results could be achieved, causing a minor disagreement.

Another important point to consider when using WhatsApp is project review and evaluation. Relying on WhatsApp as the primary communication platform makes reviewing process more difficult; the only way to do this is through reporting, but the opportunity for further discussion via WhatsApp is limited. Reporting projects typically require details clarification that is difficult to do via WhatsApp. Face-to-face group meetings are strongly recommended in this case.

Interviews with subjects revealed that the responsiveness of WhatsApp is considered by some to be a ‘double-edged sword’. WhatsApp does not guarantee instant replies, unlike a phone call; accordingly, it is less suitable for those requiring a quick reply. Despite being less responsive in this regard, it is beneficial for those who require some time to think before responding to enquiries. Other members could also share their opinions, which could improve the quality of other responses. The benefit escalates when the response is shared in the group and is useful for all project team members.

Culture is often an issues in project work (Liu *et al.*, 2015), particularly in relation to the power distance between the manager and lower level employees. In Indonesia, where power distance is high (Hofstede *et al.*, 1990), lower level staff experience difficulties communicating with higher level management. These problems escalate when the staff attempt to express negative viewpoints, such as disagreement, criticism or complaint. One member of project team described: “Using WhatsApp, I find it easier to provide knowledge that my manager might be unaware but I have expertise in. The situation is different when I meet him face to face” (Interviewee 1). They continued, “I think he likes it this way too. At least, he does not feel embarrassed in front of me”.

Knowledge exchange supported by WhatsApp is not always easy, but it is still useful. Knowledge of technical skills is not difficult to transfer, but the *transfer process* is complicated if one is relying on WhatsApp alone. In traditional knowledge exchange, the transferee and the receiver meet face by face, but scheduling a meeting for both parties is difficult. WhatsApp facilitates this by enables users to suggest or link to guidelines; one team member commented, “Explaining how to do technical things, such as using MS Project, is not efficient over WhatsApp. I prefer to provide my peers with a link to a YouTube video, website or other resource that they can refer to”. Copying and pasting a resource link via WhatsApp is practical for the recipient of the knowledge, as they can simply click on the website address to be redirected to the resource.

Retrieving knowledge from past projects is also not easy. Tacit knowledge is often embedded in people who were involved in past projects, with no supporting documentation. In the organisation within which the project was undertaken, documenting past knowledge is extremely rare, and is typically dispersed across different people who have been involved in the project. Quite often, new projects use entirely new people, who have never been involved in similar or relevant projects. For example, in one of the projects under investigation, there was a lack of knowledge regarding how to organise the opening ceremony for an international conference. None of the team members possessed any knowledge on this matter. The solution to this issue was to invite a guest who had the relevant knowledge to the project team WhatsApp group; the invited person shared their knowledge and answered questions. Their participation in the group was temporary, as they were not a project team member. In this way, WhatsApp is able to support team members in extending their knowledge networks beyond just the project team.

Culture plays a significant role in successful project management (Liu *et al.*, 2015). It is important to emphasise here that the use of WhatsApp in a project team is strongly supported in a culture that appreciates collectivism (Hofstede *et al.*, 1990). On some occasions, the messages from people supporting the team were simply copied and pasted into the WhatsApp group. The author of the original message did not complain, although the person who forwarded the message did not acknowledge the original author, and acted as if they had written the message themselves. In addition, there are minimal privacy issues; something considered private in other, particularly Western cultures, is considered suitable for sharing with the public in Indonesian culture.

Table 3 Recommendations during knowledge management life cycle

Phases of knowledge management	Strategies during project execution	Recommendation after project execution
Creation	<ul style="list-style-type: none"> • Intensify the use of WhatsApp to maximise knowledge exchange • Identify what type of knowledge is needed and how to acquire that knowledge • Create a contact list in anticipation of knowledge that might be needed • Broaden the network beyond the group members to acquire the knowledge necessary for the project 	<ul style="list-style-type: none"> • Categorise and embed the created knowledge into a database • Create a profile for people who have been involved in the project, along with their expertise • Document lessons learned, parties involved in the projects and who has expertise in what area • Archival of communication logbook that can be assessed by other project teams. The archive should be integrated with a centralised database so that it can be assessed by other members of the organisation.
Acquisition	<ul style="list-style-type: none"> • Maximise the use of the ICT platform, as it enables members of the project team to share and exchange knowledge in an efficient and easy way • Identify potential knowledge needed for the project 	<ul style="list-style-type: none"> • Identification and documentation of lessons learned from the project
Organisation	<ul style="list-style-type: none"> • Identify existing databases that are relevant to the project 	<ul style="list-style-type: none"> • Categorise the knowledge in a way that is easy to access by members

	<ul style="list-style-type: none"> • Update existing databases with the newly created knowledge • Develop a database of expertise – i.e. database regarding who has done what 	of the organisation.
Distribution	<ul style="list-style-type: none"> • Disseminate the knowledge to ensure the completion of projects 	<ul style="list-style-type: none"> • Share information regarding the databases that are created for the projects • Create contact information for the team members and list the specific skills that they have

This study corroborates the findings of previous studies that conclude that communication supported with ICT tools can potentially create ‘social loafing’ (Aggarwal & O’Brien, 2008), where members of the team rely on help from others and put less effort into their roles. This is facilitated by the ability to ask questions and obtain instant answers using WhatsApp, which might be an efficient strategy for the requester, but for the overall group it is less efficient. The members who share knowledge could have used the time spent responding to do something more productive for the project.

In agreement with previous studies, this study shows that the use of ICT tools generally has a positive impact on knowledge exchange. Nevertheless, it seems that no previous study has attempted to address the interplay between ICT tools, knowledge exchange and project performance. The present research has successfully addressed this gap in the literature.

Knowledge is typically embedded in different people and places, meaning it is not readily available for use. This knowledge is of value to higher education institutions; however, due to the dispersed location of the knowledge, members of a project team should make efforts to obtain that knowledge, which is not always an easy task (Nonaka, 1991).

Based on the analysis above, the strategies that can be adopted by project managers within project-based organisations are summarised and presented in Table 3. The strategies presented in the table are organised according to the knowledge management life cycle proposed by Detlor (2010), with some modification. The table also provides the answers to research question two, set out at the beginning of this paper.

5. DISCUSSION

The adoption and use of WhatsApp has successfully promoted communication between members of the project teams. It is an efficient and economical tool that is superior to other existing devices, such as pager systems or conventional telephones. The movement of the ‘real world’ toward digital life has encouraged dialogue between people with different backgrounds; technology such as WhatsApp has made this dialogue even easier, as it avoids conflict that might arise if the dialogue is carried out face to face (Budden *et al.*, 2011). In addition, it helps to break down hierarchical barriers between people in different levels of organisational structure.

Knowledge management as part of project management should not only focus on managing the information needed for or produced in the current project, but also on creating and disseminating it, as it might be relevant to subsequent projects (Fong, 2003). When the project has been completed, the new tacit knowledge should be disseminated across different people within the organisation.

WhatsApp, as a messaging application, facilitates the exchange of knowledge, which can be dispersed among different people within an organisation. This is particularly useful when the individuals in possession of the knowledge are not involved in the project team; they can simply be contacted and temporarily included in the WhatsApp group for the project, in order to share their knowledge and experiences.

The findings of this study support and extend the results of previous studies. For instance, Almeida and Soares (2014) demonstrate that knowledge exchange mechanisms offer opportunities to improve the following cycles: *information management* → *knowledge exchange* → *organisational learning*. This study finds similarity that WhatsApp can benefit information management and knowledge. However, this study comes to a slightly different conclusion in terms of the final output of the knowledge exchange. In this study, the final benefit knowledge exchange is improved team performance. Thus, the pattern of how ICT tools can support team performance follows the sequence of: *use of ICT platform* → *information management* → *knowledge exchange* → *project team performance* → *project success*.

This study demonstrates that ICT supported communication assists knowledge exchange in higher education institutions. This finding complements those of previous studies, suggesting that knowledge management has a mediating effect on the relationship between ICT and project performance (Adenfelt, 2010). The possession of advanced communication tools does not necessarily guarantee the success of knowledge exchange. The technology must be used in a particular way so that all concerned parties can benefit from it (Carrillo *et al.*, 2004).

Yang *et al.* (2012) highlights the importance of storing knowledge so that it can be accessed by the members of the organisation participating in different projects. Using this method, knowledge loss can be avoided. Storing knowledge is part of knowledge management, and is critical for knowledge exchange. This study found that the organisation deliberately did not develop a database of previous knowledge. One of the reasons behind this decision was the high cost of developing such a database. In addition, there is uncertainty regarding what type of knowledge will be needed in the future. Developing a knowledge database, the benefit of which can be questioned, may incur unnecessary expenses. However, WhatsApp offers a solution. This study demonstrates that WhatsApp aids knowledge transfer, although the source of knowledge does not need to be included in the project team. The inclusion of external parties in the virtual WhatsApp team group could overcome the problem of database absence.

A wide variety of knowledge types can be shared via WhatsApp. In general, knowledge is more easily shared via face to face conversation (Almeida & Soares, 2014) rather than using WhatsApp, as it takes more time for people to type a message on the small keypad of a smartphone than to say it out loud. On the other hand, for the knowledge requester, this study shows that it is very easy to request new information using WhatsApp. This leads to an unbalanced condition between those who share knowledge and those who request it.

In addition, knowledge exchange is easier in social and informal interactions (Almeida & Soares, 2014). Here, WhatsApp offers both advantages and disadvantages. It is advantageous in the sense that it can narrow the power gap between the senior and junior team members. Conversations between people with different levels of seniority can occur more frequently via WhatsApp. On the other hand, it can be disadvantageous, because there is some knowledge distortion when using WhatsApp as a tool for knowledge exchange. The quality of knowledge that can be shared via this platform is not as high as in direct conversation (Almeida & Soares, 2014).

The findings of this study corroborate those of previous studies in that knowledge exchange, which is part of knowledge management, is found to be a key determinant of team performance, as well as

successful collaboration (Kotlarsky & Oshri, 2005; Yang *et al.*, 2012). The exchange creates uniformity of knowledge among the members of project teams, which makes the progress of the project more efficient. The findings further provide evidence that knowledge exchanges between members of an organisation could result in the creation of new knowledge, methods and techniques. In this way, Yang *et al.* (2012) argue that the role of knowledge in this phenomena is as a catalyst for innovation and creation.

6. CONCLUSION

This study examines three related disciplines: project management, knowledge management and information technology. This is the first study of its kind that investigates the use of WhatsApp to support knowledge exchange in a higher education institution. WhatsApp can be viewed as a knowledge-sharing tool capable of alleviating the negative effects of bureaucratic knowledge practices within higher education institutions. Knowledge should be adapted according to specific project characteristics, rather than attempting to develop 'best practice' knowledge that is expected to work well under various circumstances (Sage *et al.*, 2010).

Higher education institutions can be viewed as knowledge intensive organisations; they produce an abundance of knowledge in their operations, causing challenges in managing it. In a research and training intensive organisation, knowledge is viewed as an asset, and, if it is not well managed, it will be lost and wasted. In order to successfully manage knowledge, higher education institutions should update their knowledge management practices.

In order to achieve a proposed goal through team coordination, certain requirements must be met. Coordination is categorised as being successful when the following criteria are met: (a) there is routine communication between team members; (b) there is an even distribution of communication between team members; (c) there is a sense of collectiveness and a clear idea of what should be done by who; (d) the team rely on a track record regarding what has been done in the past. The way in which WhatsApp can be used to promote project team performance is summarised in the following points:

- When using WhatsApp, the team should sacrifice a certain amount of time to type messages, as part of good time management. In some cases, members of a committee must devote time, from a matter of seconds to up to 20 minutes, to typing messages. A good example of this found in the case study was a message posted by one of the project team leaders, who posted a long message every morning, up to 500 words, containing the latest updates and necessary knowledge for the progress of the project. To type such a message on a smart phone keyboard took the team member around 15 minutes; however this time can be compensated for by the removal of the need for a meeting, though the team was still updated with the latest information, enabling them to work remotely. If only all members of committee organise a face-to-face meeting, it would take longer as there is a need for meeting preparation as well as time spent for trip to the meeting venue. In this team, the task of the project manager was to ensure that all team members were working in harmony, so that the common goal could be achieved. In this sense, the role of project manager is similar to that of the leader of an orchestra at a music concert, who is the key person in assembling specific instrument players so that harmonic music is created.
- The use of technology to support communication in project management should take cultural factors into account. The use of the messaging application to some extent successfully enabled people to express their ideas in a clear way, and to some degree reduced the chance of conflict. In the Indonesian culture, people tend to express ideas, particularly those regarding sensitive issues, using implicit terms. However, when using WhatsApp, one has to express his idea in a clear and concise way because there is limited

opportunity to express it in comparison to a direct conversation. For this reason, comments must be written in a more explicit way, in order to avoid misunderstandings.

- Similar to the previous point, expressing compliments is also difficult. The local Indonesian culture is generally shy about expressing compliments in a straightforward way in face-to-face conversations. However, this proved very easy to do via WhatsApp, where team members did not hesitate to compliment members of the group, creating a positive atmosphere overall among the group members.

In addition to the contribution mentioned above, this study identifies several opportunities for future investigations. First, this study did not use any metrics to measure the effectiveness of WhatsApp as an application to support project management. Future research could therefore make use various metrics, such as quantitative metrics, qualitative metrics and return-on-investment, as suggested by Turner (2010). Second, future studies could analyse in greater detail the time lag between posting an enquiry or question on the group, and receiving a response from the other members. The time lag reflects the effectiveness of the communication, as the closer the time gap, the quicker the information spreads throughout the members of the group.

Future research should also consider using WhatsApp to support larger projects with higher degrees of uncertainty. Larger sized projects are more likely to have greater difficulty with managing knowledge-exchange. A larger project team is typically associated with more diverse team member backgrounds. Empirical evidence has shown that low uncertainty projects require rigid team management, while high uncertainty projects require less formal and more intensive communication, as well as a flexible management approach (Shenhar, 2001). Previous research carried out by Mehta *et al.* (2014) could be used as a starting point, but further studies are needed to explore how IT could help managers overcome uncertain environments.

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REPAYMENT PLAN AS ESSENTIAL INSTRUMENT IN PERSONAL BANKRUPTCY IN THE CZECH REPUBLIC

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ABSTRACT

It is possible to undergo a personal bankruptcy in the Czech Republic since 2008. The number of personal bankruptcies has been steadily rising in the country since the arrival of economic crisis in 2009. Because of that it is necessary to examine individuals who had undergone personal bankruptcy and by whom has been the process of personal bankruptcy already completed. Submitted research concerns debt relief of individuals who applied for personal bankruptcy in the time period between 1.1.2008 and 31.12.2011 and whose process of personal bankruptcy was declared as successfully completed until the first quarter of 2015. Until the end of the research this applied to 1.352 individuals. The main aim of the research was to find out the percentage of debt repaid to creditors by each individual with regard to their age. The research has been focused on dividing the sample of 1.352 individuals to different categories according to their age, source of their income and amount of their income. Particular debtors who applied for a personal bankruptcy, have been divided into four age groups. Each individual was afterwards analysed for the source of their income, from which the debts were repaid. Possible sources of income were divided into eleven groups. The researched sample of individuals was consequently divided according to the overall amount of their debt into five categories.

KEY WORDS

Personal bankruptcy, debt relief, debtor, creditor, repayment plan, amount of debt, claim of creditor.

JEL CLASSIFICATION

[K35, K36]

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INTRODUCTION

Personal bankruptcy – debt relief is a legal process giving individuals an opportunity to resolve their complicated financial situation. These individuals, having debts toward multiple creditors, are not able to repay them all. The legal process in the Czech Republic enables to solve the insolvency of an individual via declaration of the personal bankruptcy. There are conditions that must be met to declare personal bankruptcy. The debtor must be indebted to more than just one creditor and be able to repay at least 30% of its debt, meaning 30% of the overall amount of debts toward reported creditors. If the personal bankruptcy is resolved through a repayment plan, there is a period of 60 months during which most debtors live only with the minimum income needed for subsistence in the Czech Republic. The amount of income that exceeds this subsistence minimum is used to repay the debts.

The Insolvency Act (Act no. 182/2006 Coll., on bankruptcy and its solution) entered into force on 1st January 2008. Insolvency proceedings can be divided into two phases. The first phase is the time which precedes the decision on bankruptcy, which is same for all methods of dealing with bankruptcy. The decision on bankruptcy is followed by determination how to solve it and application of chosen method. The Insolvency Act regulates in detail various solutions. (Maršíková, 2014)

The paper shows analyses of 1 352 debtors who submitted a proposal for debt relief between years 2008 and 2011. These debtors had reported total debt of almost 800 mil CZK and only twelve of 1 352 debtors did not resolved their bankruptcy through a repayment plan. Paper also presents age structure of debtors and type of their debt as well as rate of satisfied creditors.

1 LITERATURE REVIEW

The general research related to over-indebtedness and debt relief has been well covered in the articles such as ‘The relation between indebtedness of the government, public sector and households in the Czech Republic’ (Smrčka, 2011) or ‘Predicting bankruptcy with the use of macroeconomics variables’ (Korol & Korodi, 2010) which deals with the theory of bankruptcies.

Bankruptcy of the debtor and solutions

Insolvency Act can thus be used in the situation that the debtor is insolvent. The law distinguishes two types of bankruptcy - insolvency and over-indebtedness. Both types include multiplicity of creditors as an assumption. This means that the debtor must have 2 or more creditors to be regarded as a debtor in bankruptcy. While insolvency may occur in all subjects, regardless of whether they are individuals or corporations, entrepreneur or non-entrepreneur, over-indebtedness may occur only on entrepreneurs.

Insolvency is the situation where the debtor has a financial debt more than 30 days overdue and is unable to repay these debts to creditors. Inability to repay the debt must be objective, therefore unwillingness of debtor to repay its debts is not a good enough reason for debt relief. All the above conditions must be met for decision on bankruptcy. The debtor may also become insolvent by the fraud of a third party. However, if it is proven that the debtor is not capable of solving this situation within 3 months after the maturity of its financial debts, the debtor will be deemed as insolvent. Although the law aims at debts more than thirty days overdue, which is necessary for the determination of insolvency, bankruptcy is a lengthy process. (Hásová & Moravec, 2013)

The bankruptcy due to over-indebtedness can only occur in entrepreneurs, individuals and corporations. Like insolvent, and there is a condition multiplicity of creditors. The over-indebtedness is situation where the debtor's liabilities exceed the sum of all his assets. If it is possible to assume that the debtor will continue with his business in the future, sum of his assets with respect this fact. In connection with the definition of insolvency and its forms it is still important to define the impending bankruptcy. Impending bankruptcy may claim only the debtor where according to all circumstances it is possible to assume that he will not be able to properly and timely perform a substantial part of his liabilities. Debtors who are thus able to predict his future insolvency may claim insolvency process sooner and start to solve their situation in a more convenient time. Unfortunately, experience shows that such debtors are not many. The data in the insolvency register indicates that the vast majority of creditors solve their insolvency until the moment actually occurred.

The Insolvency Act defines three ways of dealing with bankruptcy. They include bankruptcy, reorganization and debt relief. While bankruptcy and reorganization are offered as a possibility of dealing with bankruptcy only for entrepreneurs (bankruptcy in some cases even for non-entrepreneurs), on the other hand, debt relief is the only way of insolvency for non-entrepreneurs (especially individuals).

Debt relief individuals

Debt relief (personal bankruptcy) which can be even requested by the debtor itself and often is basically the only way the non-business subjects can solve their bankruptcy. (Smrčka, 2011). Personal bankruptcy should help debtors get back to "normal" life as unencumbered citizens and continue with a "clean shield". The point of debt relief is that the debtor will repay its unsecured creditors at least 30 % of debts and the remaining debts will be forgiven him. Whether it is the "right" to forgive the rest of the debts can be discussed. On the one hand, it may seem that the forgiveness of most of the debts is sometimes unfair to properly repaying citizens, however, it is useful to consider how debtor got into a situation in which they find themselves and have no choice but to deal with their situation with personal bankruptcy – how significant can be an impact of individual's social capital on the probability of bankruptcy was clearly demonstrated by authors such as Agrawal et al. (2010) or Stumm et al. (2012) who researched this problem in Great Britain and also focused on the numerous psychological aspects related to the personal bankruptcy. And there is also a study in Canada that has found a correlation between personal bankruptcies and debtor's Health. There is growing number of acute myocardial infarction (better known as heart attack) among those undergoing debt relief. (Savu, 2016) Within the Czech Republic were psychological and socio-economic reasons for the emergence of personal bankruptcies researched by the Tučková & Strouhal (2010).

However, it is also necessary to put yourself in the situation of creditors. On the contrary, they strive to make the amount they receive, as high as possible, ideally one hundred percent of their financial claims. This is not surprising when we consider how negatively bankruptcy can affect all proprietors of firms, banks and other creditors (Bonaci & Strouhal, 2011; Strouhal et al., 2011). To protect themselves from the growing number of personal bankruptcies and losses arising from them, a personal bankruptcy prediction system gained huge importance in last couple of years in banks. Credit card data mining with the purpose of identifying behavior leading to bankruptcy among clients is one of personal bankruptcy prediction. (Xiong, 2013)

Debt relief can be accomplished in two forms - a repayment plan or the monetizing of assets. If the debtor fails to comply with conditions of personal bankruptcy with repayment plan, its situation will be solved by monetizing its assets. In this case, all his assets will be sold and after it is sold, there is no forgiveness of the remaining part of the debts. In the interest of all debtors should therefore be

made to comply with the conditions laid down by the insolvency court and avoid bankruptcy option. Additionally, the fact that the laws and procedures linked with the personal and company bankruptcies represent a fundamental part of the legal environment of market societies was clearly demonstrated by the Di Martino (2005).

The most common debtors who undergo the process of debt relief are consumers, meaning individuals who are non-entrepreneurs. The meaning of this term, non-entrepreneur debtor, has its history. The primary case law had implied that the debtor cannot be an entrepreneur from the view of legal enactment, meaning that they do not have trade licence or they have it stopped, and that they do not have debts coming out of their business. By this it is meant debts from their business activities on its own and also debts which did not come out of their business activities but has originated from business activities of others (e.g. taking over guarantees for a debt which has come out of business activities). As the time went, the strict explanation of this term has eased and sole possession of trade licence is no more a reason to refuse someone's debt relief proposal and it is also possible for the debtor to have some liabilities from their business activities. In the latter it is necessary to obtain the agreement of creditors which declares that it is possible to repay the business debts through debt relief. According to the current case law it is even possible for the debtor to start a business if they lose their job position while undergoing the process of debt relief (Resolution of the High Court in Prague, 2010). Current state is a big benefit for the creditors because it allows the debtor to raise their income which leads to higher and faster satisfactions of their receivables. On the other side it is forbidden for the debtor to take on new debts in case of fulfilling the repayment plan if there is any risk that the debtor is not going to be able to repay them when they are due. However being an entrepreneur involves this risk. It is up to the decision of the creditors and the court. (Maršíková, 2014)

Creditor's Demands

Creditors who are applying their claim against the debtor are participants in the insolvency process. In the case of creditors there are no limits. Among them can be entrepreneurs, non-entrepreneurs, individuals and other legal entities however they need to apply their claim against the debtor. It is possible to divide the creditors into different categories. One of them is the amount of time, for which they attend the process. These can be either creditors who claim their rights through entered receivable who then attend the whole process, or other creditors who take part only in a part of the insolvency process, in which their receivable is involved. The latter could be for example claims against the estate and their equivalent departments. Another difference is between secured and unsecured creditors. A secured creditor is an entity which receivable is secured by equity that belongs to the assets of the debtor either by lien, right of retention, limitation of transferring the property, reinsurance transfer of right or assignment of claims. Their advantage in comparison to unsecured creditors is their better position in the insolvency process. That means that their receivables will be satisfied via selling the assets of the debtor, by which the receivable is secured. As a particular example, may serve a receivable from a mortgage bank, which is secured by a family house of the debtor. In case the debtor does not repay their debt according to the contract, the house would be sold and the receivable of the bank would be satisfied. Unsecured creditors are satisfied either from the sold assets of the debtor (fulfilment of the debt relief via selling debtors assets) or from their incomes in the following five years (fulfilment of the debt relief via repayment plan).

In case of debt relief the creditors take part in deciding which kind of debt relief the debtor will undergo, they oversee the activity of bankruptcy administrator and at the same time they can influence the actual selection of the bankruptcy administrator. Secured creditors are also entitled to give instructions to the bankruptcy administrator how to treat the assets of the debtor which are

securing their receivables. All creditors realize their right through the creditor bodies which are Meetings of Creditors and Board of Creditors.

Application for a debt relief can be brought in only by the debtor and through the application the debtor proposes the way of how their personal bankruptcy is going to be handled. The application can be applied with the insolvency application or after the start of the insolvency process. For the court to be able to approve of debt relief, the application must be handed in. If this does not happen, the court decides to deal with the insolvency through distraintment of their assets and income and not by debt relief.

The Way of Undergoing the Process of Personal Bankruptcy

Debt relief can be dealt with either by repaying the debt according to the repayment plan or by monetisation of the debtor's assets. It is also possible to combine both methods. The debtor must propose the combination of both methods and agree to it (ergo the court cannot instruct the debtor to do so). The advantage of the combination is higher satisfaction of creditors. About the way of undergoing the bankruptcy is decided on the Meeting of Creditors by creditors themselves. The debtor is obliged to attend this meeting in order to answer all eventual questions and convince the creditors that he is able to fulfil the debt relief plan. The voting right is assigned only to unsecured creditors who applied with their receivables in the insolvency process. Secured creditors do not vote on this matter for a simple reason – they will be satisfied from the selling of the assets. The way of debt relief is accepted if more than a half majority has voted in favour of it (the votes are in this case also counted according to the amounts of the receivables). During the decision-making and voting the creditors have at their disposal information about the debtor and the bankruptcy administrator. This information consists of income of the debtor in the past five years and his current assets. Because of that they have enough information in order to be able to decide which way of the debt relief is more preferable for them. In real life the repaying through a repayment plan is a lot more common. The accepted debt relief confirmed by the court is obligatory for both the debtor and all the creditors regardless the way for which they voted.

The statistical data imply that opportunity of declaring personal bankruptcy is being used by more and more people. It is evident that the number of insolvency applications corresponds to the unemployment rate. Whether the number of applications corresponds also to the e.g. age, gender or amount of income of the debtors will be shown by the research of individuals who applied for personal bankruptcy in the Czech Republic during the period between 1.1.2008 - 31.12.2011 and by whom was the debt relief successfully finished in the first quarter of the year 2015.

2 METHODOLOGY

Aim of research

The institute of personal bankruptcies was introduced into The Czech law on January 1st, 2008. The main aim of research was to find out the rate of satisfaction of debtors – individual natural persons who successfully went through the process of personal bankruptcy in Czech Republic. Before defining these aims this research took into account previously conducted studies within this field, such as, Carter & Van Auken (2006) which focused on insolvencies particularly within the small firms and Pasekova & Bařinova (2013) which researched the problem of personal bankruptcy in the Moravian-Silesian region (Czech Republic) by observing 114 cases of personal bankruptcy.

Sampling

The research includes all allowed debt relief of individuals who applied for personal bankruptcy in the time period between 1.1.2008 and 31.12.2011 and whose process of personal bankruptcy has been declared as successfully completed until the first quarter of 2015.⁴ For the needs of research, all individuals were divided according to age structure. The primary sources of data are detailed information published in Insolvency Register. The significant defect of this source was the fact that all documents are stored in pdf format and therefore it was very challenging to get necessary data. (Department of Justice, Czech Republic, Insolvency Register, 2015)

The sample of finished personal bankruptcies – natural persons who have gone through the process of debt relief, includes debtors who:

- fulfilled the debt relief via repayment plan within 5 years
- fulfilled the debt relief via repayment plan and they paid 100 % of signed claims of creditors within 5 years
- fulfilled the debt relief via selling debtors assets.

Sample distribution

From the primary database stored in the Insolvency Register we found out that the final number of examined insolvency process was 1.352 from the total amount of 8.538 of accepted debt relieves. Other processes are still ongoing and they are expected to be finished during the years 2015 and 2016 (see Tab.1).

Table 1 Accepted debt relieves

<i>Accepted debt relieves in CR between 1. 1. 2008 and 31. 12. 2011</i>	<i>Debt relieves completed until the first quarter of 2015</i>	<i>Ongoing debt relieves accepted between 1. 1. 2008 and 31. 12. 2011</i>
8 538	1 352	7 186

(Source: Based on own research of authors, 2016)

The primary sample of finished personal bankruptcies for the further research was 1 352 individuals. Then the sample of debtors was divided into four categories according to their age:

- from 18 until 29 years,
- from 30 until 44 years,
- from 45 until 54 years,
- 55 years and more.

Another division concerned sources of debtor's income:

- employment,
- old age pension
- full disability pension,
- partial disability pension,

⁴ The collection of data for this research was conducted by Ing. Kateřina Smejkalová.

- combination of employment and old age pension,
- combination of employment and full disability pension,
- combination of employment and partial disability pension,
- combination of employment and widow's pension,
- combination of old age pension and widow's pension,
- others,
- not identified.

The last division of debtors sample was according to their net income:

- less than 10 000 CZK,
- 10 000 CZK – 12 999 CZK,
- 13 000 CZK – 14 999 CZK,
- 15 000 CZK – 19 999 CZK,
- 20 000 CZK and more.

The main sample of all completed personal bankruptcies was also researched from the perspective:

- The overall amount of reported debt by the debtors in each year,
- The type of debt reported by the debtors in different age categories (age structure),
- The overall amount of registered financial claims.

At the end of the research the amount of registered financial claims was compared with the rate of satisfaction based on results of fulfilled debt reliefs. For this purpose were created ranges of percentage satisfaction of creditors:

- 100 %,
- 60.00 % - 99.99 %,
- 50.00 % - 59.99 %,
- 35.00 % - 49.99 %,
- 30.00 % - 34.99 %,
- less than 30 %.

3 RESULTS OF RESEARCH

Results of the research are summarized in following tables 2, 3, 4, 5, 6, 7, 8, 9 and 10.

Table 2 **Division of personal bankruptcies of debtors according to their age and source of income**

Sources of income of debtors	Age structure of debtors from finished debt relieves				Total
	18 - 29	30 - 44	45 - 54	55+	
Employment	193	538	262	94	1 087
Old age pension	0	0	2	59	61
Full disabled pension	1	14	14	23	52
Partial disabled pension	0	6	3	1	10

Combination of employment and old age pension	0	0	0	23	23
Combination of employment and full disabled pension	0	3	2	4	9
Combination of employment and partial disabled pension	5	19	24	24	72
Combination of employment and widow's pension	0	5	2	1	8
Combination of old age pension and widow's pension	0	1	2	19	22
Others	0	0	1	2	3
Not identified	0	2	3	0	5
Total	199	588	315	250	1 352

(Source: Based on own research of authors, 2016)

Based on examining, it was found that predominant source of income, which will be used in most of the cases to repay creditors through the repayment schedule and satisfied them, is debtor's wage regardless of his age. At the same time, it is logical that since the age group 45-54 and 55+, the share of other sources of income is gradually increasing in comparison with debtor's wage. As people get older, it comes with a variety of health issues and complications which prevent the debtor from working at full power. Therefore there are more often represented other sources of income in these age groups, especially different types of pensions and other payments from the state.

Table. 3 Distribution of personal bankruptcies of debtors according to their monthly net income

<i>Monthly net income in CZK</i>	<i>Amount of completed personal bankruptcies (abs.)</i>	<i>Amount of completed personal bankruptcies (%)</i>
Less than 10 000	100	7.4%
10 000 – 12 999	309	22.8%
13 000 – 14 999	185	13.7%
15 000 – 19 999	417	30.8%
20 000 and more	329	24.4%
Debtors who cannot be assigned to any of observed group	12	0.9%
Total amount of completed personal bankruptcies	1 352	100.0%

(Source: Based on own research of authors, 2016)

Besides, debtors source of income, the aim was also to find out their monthly net income. The processing of this issue was based on information, which was presented by debtors themselves in their insolvency proposal. There were twelve debtors who could not be assigned to any of observed income group due to undergoing the personal bankruptcy through monetizing of their assets. Therefore the results of research would have been distorted if taken into account. On the basis of summarizing data was found that the largest group are debtors with monthly net income in between of 15 000 CZK and 19 999 CZK, second largest group are debtors with income over 20 000 CZK. At the third position are debtors with income between 10 000 CZK and 12 999 CZK. Moreover the table 3 shows that group of debtors whose income is less than 10 000 CZK, participates in the research sample by 7.4%. It is astonishing that creditors were willing to provide funding to such a group of debtors. At first glance, it is obvious that these debtors must have issues with the payment for basic living needs. So money they borrow are most likely used just for consumption with unrealistic view of payback.

Table 4 shows the total amount of reported debt by the debtors in each year. The research demonstrated that the average of total debt reported by a single debtor ranged between 456 000 CZK and 676 000 CZK.

Table. 4 Total amount of reported debt by the debtors in the Czech Republic between 2008 and 2011

<i>Year</i>	<i>Total Amount of reported debt by the debtors (CZK)</i>

2008	127 938 492
2009	315 439 804*
2010	150 591 491
2011	173 967 039
Total	767 936 826

(Source: Based on own research of authors, 2016)

*In the year 2009 was the total amount of registered financial claims the highest because during that year was approved the most of the insolvency proposals within the researched sample.

Table 5 Structure of the debt reported by the debtors according to the different age groups

Type of debt	<i>Age groups and the structure of reported debts by debtors</i> (in mil. CZK)			
	<i>18 - 29</i>	<i>30 - 44</i>	<i>45 - 54</i>	<i>55+</i>
loans	75.3	282.8	161.3	109.4
insurance	0.9	1.4	0.9	0.3
mobile operators	1.0	3.3	1.2	0.7
alimony	0.0	0.3	0.0	0.0
other	13.8	64.1	29.5	21.7
Total	91.0	351.9	192.9	132.1

(Source: Based on own research of authors, 2016)

Table. 6 Share of different types of debts on the total debts reported by the debtors in the Czech Republic between 2008 and 2011

<i>Type of debts</i>	<i>Reported debts by the debtors</i> <i>in mil. CZK</i> (<i>abs.</i>)	<i>Reported debts by the debtors</i> (<i>%</i>)
loans	628.8	81.89 %
insurance	3.5	0.45 %
mobile operators	6.2	0.81 %
alimony	0.3	0.04 %
other	129.1	16.81 %
Total	767.9	100.00 %

(Source: Based on own research of authors, 2016)

Tables 5 and 6 demonstrate that the loans (bank and non-bank) are the most common type of debt throughout all age groups. The last group 'other' includes (e.g.) unpaid tenancy, unpaid home energy consumption (electricity, gas etc.), loans from the third parties (friends, family – non-institutionalised lenders). Overall the most indebted age group was represented by the citizens between 30 and 44 years.

The research also demonstrates the difference between the total amount of reported debt by the debtors (table 4) and the total amount of registered financial claims (see table 7). Nonetheless, it is important to realize that the total amount of registered financial claims represents only those claims that were acknowledged by the government authorities. E.g., debtor has reported total debts of 500 thousands CZK, but total amount of registered financial claims by creditors is only 450 thousands CZK. Therefore the rate of satisfied creditors is higher if taken into account only the registered financial claims.

Table 7 Total Amount of Registered Financial Claims against the Debtors in the Czech Republic between 2008 and 2011

<i>Year</i>	<i>Total Amount of Registered Financial Claims (CZK)</i>
2008	127 091 590
2009	307 921 503*
2010	127 908 294
2011	135 049 458
Total	697 970 845

(Source: Based on own research of authors, 2016)

*In the year 2009 was the total amount of registered financial claims the highest because during that year was approved the most of the insolvency proposals within the researched sample.

Table 8 The difference between the total debt reported by debtors and the overall acknowledged financial claims in the Czech Republic between 2008 and 2011

<i>Year</i>	<i>Unregistered /unacknowledged claims in relation to reported debt by the debtors (abs.)</i>	<i>Unregistered /unacknowledged claims in relation to reported debt by the debtors (%)</i>
2008	846 902	0.66 %
2009	7 518 301	2.38 %
2010	22 683 197	17.73 %
2011	38 917 581	22.37 %
Total	69 965 981	9.11 %

(Source: Based on own research of authors, 2016)

Table 8 demonstrate that the overall difference between the total amount of reported debt by the debtors and the total amount of registered financial claims (from 2008 to 2011) was 69 965 981 CZK. This was generally caused by two factors. Either creditors did not register their financial claims or government authorities rejected creditors' claims. It is important to realize that during the insolvency procedure only those claims that were properly registered and acknowledged by the government authorities are being satisfied.

Table 9 Number of personal bankruptcies in relation to the degree of satisfaction of creditors in the Czech Republic

<i>Percentage ranges of satisfied creditors from completed personal bankruptcies</i>	Number of personal bankruptcies in relation to the degree of satisfaction of creditors	Share of each group in total examined sample
100 %	711	52.6
60.00 - 99.99 %	134	9.9
50.00 - 59.99 %	78	5.8
35.00 - 49.99 %	206	15.2
30.00 - 34.99 %	192	14.2
Less than 30 %	31	2.3
Total	1 352	100.0

(Source: Based on own research of authors, 2016)

Table 10 Number of personal bankruptcies in relation to the degree of satisfaction of the creditors and debtors age in the Czech Republic

<i>Percentage ranges of satisfied creditors from completed personal bankruptcies</i>	<i>Age structure of debtors from completed personal bankruptcies</i>				<i>Total</i>
	<i>18 - 29</i>	<i>30 - 44</i>	<i>45 - 54</i>	<i>55+</i>	
100 %	133	295	158	125	711
60,00 - 99,99 %	16	57	37	24	134
50,00 - 59,99 %	6	41	18	13	78
35,00 - 49,99 %	17	94	48	47	206
30,00 - 34,99 %	25	88	46	33	192
less than 30 %	2	13	8	8	31
Total	199	588	315	250	1 352

(Source: Based on own research of authors, 2016)

The table 7, 9 and 10 shows that total of 711 debtors (52.6 %) across all age categories has fulfilled all their obligations to their creditors. The largest age group is formed by debtors in age between 30 and 44. In this context it is necessary to draw attention to the fact that in the course of insolvency

proceedings are satisfied only creditor claims which are submitted to the insolvency proceedings. If any of the creditors have not sign in his claim in due time, he will not be satisfied during the process of debt relief and this debt will not be taken into account at all.

In addition, it is necessary to mention that 31 debtors failed to achieve the minimum threshold of creditor satisfaction which according to the law is 30 % out of all signed claims. However, this situation may occur in the course of debt relief. E.g. debtor in the course of debt relief lost a job for a certain period and therefore could not pay his debts as intensely as before. If there is no intention to avoid finding a new job, there is no reason to terminate the process of debt relief. When debt relief is being approved, the 30 % threshold must be fulfilled, but is always based on the past. The current level of net income can be higher or lower, but it is always fundamental for the course of debt relief to have regular income and not to violate the conditions laid down.

4 DISCUSSION

The Insolvency Act is for those who seek help in a moment of realizing their situation is not sustainable anymore. Situation is not sustainable when the debt is growing even though debtor paid all repayments it could have, therefore the total debt is not decreasing but on the contrary still increasing. But what precedes this situation? How can anyone end up in a situation like this? There are two main factors. First, the financial literacy of the population is on a very low level and they are not always capable to evaluate all aspects related to their commitments. Problem of calculating all expected expenditure, as interest and fees, connected with the commitment is really common among the population and sometimes even those who provide financial services have troubles doing so. Which leads to the second factor and that is quality of financial services provider. The problem is not just whether they are experts and are able to calculate correctly expected expenditure for a client, but also the ethical and moral view. Whether they provide honest service without misleading client expectations of future obligation.

Even though The Insolvency Act helps those who need a second chance, there must be an improvement in financial literacy among people, which could be achieved by including basis of financial literacy into schools and also involve companies and employers to organize financial literacy workshops and seminars for their employees on a regular basis. That would help to avoid the personal bankruptcy in a first place. There should be also more emphasis on professional, ethical and moral qualities of those who provides financial services.

CONCLUSION

Out of 1.352 examined debtors 711 have paid 100 % of their creditor claims which represents 52.6 %. Such results are very surprising as more than a half of debtors from our researched sample (who at one point in time found themselves in the situation where they declared a personal bankruptcy) managed to repay 100% of their debts. Second largest group of 206 debtors satisfied between 35 % and 49.99 % of their creditor claims in the course of debt relief.

From our sample of 1.352 debtors, 97.7 % (1 321 debtors) repaid at least 30 % of their debts – this represents the minimal boundary (30 %) which allows the institution of personal bankruptcy to be applied. However, 31 debtors (2.3 %) still did not manage to repay at least the necessary 30 % of their debts. Nevertheless, the process of personal bankruptcy still successfully occurred and these debtors were forgiven the rest of their debts. This was caused by the fact that for the process of personal bankruptcy to begin the debtors must be able to pay in the five-year period at least the

aforementioned 30 % of their debts. Additionally, during this five-year period the debtor is obliged to make a continuous effort to repay back to its creditors as much as possible. Nevertheless, during the five-year period the debtor might go through the unexpected circumstances (such as a long-term illness, losing his/her job etc.) which could prevent him/her from paying at least the aforementioned 30 % of debts – in such case the debtor's debts might still be forgiven.

Simplified structure of persons in debt relief according to social standing from the perspective of income source can be divided into three groups – employee, pensioner, working pensioner, where 80% of debtors are in an employment relationship. The results corresponds with similar results of research conducted by Paseková & Bařinová (2013).

Out of all aforementioned types of debts – loans (bank and non-bank) are not just the most common type of debt which is represented throughout all age groups, but are also the most common type of debt causing insolvency process to begin. Moreover, based on this research it was demonstrated that the majority of debtors who applied for the process of personal bankruptcy have more than one of such loans.

Overall, the institution of personal bankruptcy represents an alternative for solving a situation of an indebted citizen of the Czech Republic. In case that the debtor fulfil the repayment schedule and live on the living wage for up to 60 months, he has the opportunity to apply for the debt relief from yet unpaid portion of debt by the end of the 60 months (five-year period). However, in case that the indebted citizen would not apply (or could not apply) for the personal bankruptcy process, the indebted citizen (debtor) would face the risk of execution on his/her property. Additionally, in such case no debts could be forgiven. (Hášová, 2012)

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CALCULATION AND SPATIAL DISTRIBUTION OF CAPITALIZATION RATES IN THE SELECTED SEGMENT OF REALITY PROPERTIES

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ABSTRACT

The process of real property valuation by usage of income approaches is significantly affected by capitalization rate. This article deals with problematic of the capitalization rate determination in the real estate segment of apartments in the Ostrava city. It primarily aims to calculate the level of gross capitalization rate according to different urban localities of Ostrava, for various sizes of apartments, as well depending on the type of apartment ownership. The analysis of the real estate market is an important part of the research. It is focused on the offer of apartments from the perspective of market apartments for sale and also of market apartments for rent. The analyzed and calculated spatial values distributions are consequently processed into cartographic outputs.

KEY WORDS

Apartments, capitalization rate, income approaches, Ostrava, real estate market.

JEL CLASSIFICATION

R310, R210

INTRODUCTION

Apartment market represents an important segment of the real estate market, which enjoys great popularity among professionals and the public. It is also the subject of frequent scientific studies and analyses, for example Parli (2008), Komárek and Kubicová (2011) or Mills, Parli and Anthony (2008). It is possible to describe, compare and analyze the apartments and their market price based on many attributes, that may include the physical characteristics of the apartment (internal layout, size, equipment, state, type of building structure, location in the floor) as well as the location of the

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flat (in terms of the attractiveness of the location or the availability of civic amenities). A significant factor is also the localization of the apartment by region, see Mackmin (1999) or Gelbtuch (2011).

The aim of this paper is to evaluate the gross capitalization rates by usage of the standard methods, as described for example in Bradáč, Krejčíř and Scholzová (2012) or Zazvonil (2009), for each category of apartments located in the City of Ostrava and also to analyse the different values of gross capitalization rate in different districts of the city.

Capitalization rate generally represents the costs (interests) for borrowed capital. It is also very sensitive item at the calculations of yield values of properties. The estimation of yield value of the property is practically often applied not only at valuation praxis but also in the investment environment, in a situation when the investor decides about the effectiveness of the investment (Douglas and Osborn, 2014). The outputs of the research may contribute primarily in this field to the more accurate final result in income valuation application. In particular, this article discusses the findings of gross capitalization rates based on locations and types of properties in the Ostrava region in relation to the theory of property valuation. It is based on data obtained by analysis of market prices and market rents of apartments. It aims to refine the value of capitalization rate to calculate the yield value of the property in individual locations in Ostrava and to investigate in detail the gross capitalization rate in selected districts from the perspective of the size and ownership of the apartments.

The structure of the article is devoted into introduction and theoretical statement, where attention is paid to the importance of capitalization rate specification and the possibilities of its determination. The results of empirical research then evaluate the selected segment of reality properties in Ostrava region from the spatial and real estate market aspects. This is the unique evaluation of the capitalization rates in the real estate segment of apartments focusing in detail on Ostrava region. The research and data obtaining is based on data mining techniques and software for online data gathering.

1 STATEMENT OF A PROBLEM

The estimation of real estate property values is a complex process that is influenced by various factors as the physical characteristics of real estates, local equipment or political and economic factors as stated in Melanda, Hunter and Barry (2016) or Janasová, Ardielli and Slavata (2014). Theory of valuation describes the basic approaches used in real estate valuation. One of them is represented by income approach. The basis of this method is the transformation of future income to present value by usage of given level of capitalization. Capitalization rate is defined for these purposes in International Valuation Standards, see IVSC (2007). Capitalization rate is the price for loan capital, which is expressed either as a percentage (%) or in centesimal form, as stated by Maříková and Mařík (2001). The capitalization rate is very sensitive item in the calculation process of yield values. The level of capitalization rates is significantly influenced by risk of the investment. Between the degree of risk and the capitalization rate exists direct relationship. The higher is the yield on the investment, the higher is the risk of possible losses on investments. In principle, the surest investments are investments in banking institutions. At the moment the appreciation rate on deposits is usually 0.1 % - 0.5 % per annum. Investment in property from this sight of view belongs to one of the surest.

To determine the real yield from the saved capital, capitalization rate is usually calculated from the achieved interest rate (nominal interest rate), which is adjusted for annual inflation (real interest rate) based on the Fisher equation, see formula (1):

$$ir = \frac{qn}{qi}, \quad (1)$$

where i_r – is the real interest rate,
 q_n – is the nominal interest,
 q_i – is interest of the annual inflation rate.

Determination of the capitalization rate for purpose of the valuation of real estate has its own specifics. In particular, the nominal value of the property, measured in replacement cost, is rising with inflation of value of construction works, and it implies that the investments in real estates are immune to inflation. Also the rent inflation nominally usually grows and in case of eventual sale grows also the entirely property value. For this reason, the effect of inflation is not considered by usage of income approaches. Another distinguishing feature is the higher risk of investments in real estates. The risk-free interest rate (nominal interest rate) is actually max 1 % while the expected return on real estate may be much higher.

The determination of the capitalization rate is carried out by comparison in the presented research. This method is specified for example by Zazvonil (1996). The comparative methods are used often by real property valuation and they are used in two concepts. On one hand the comparison is the basic valuation approach that is based on direct comparison of comparable properties in real time. Here is assumed that the comparable property should have also comparable price (comparative method). In the second concept is comparison only one the sub-part of the basic valuation approaches. E.g. Income approaches compare rents and sales prices, within the cost approaches are measured individual cost items by comparing prices of materials and labor. The basic principle of comparative methods can be expressed by the following mathematical notation (2):

$$PH = \frac{1}{n} \times \sum_{i=1}^n RC_i \cdot Ka \quad (2)$$

where PH – is value of the thing determined by comparison,
 n – is the number of things that have the same characteristics as the valued thing for which we know the realized price,
 RC_i – is realized price for the i -th property,
 Ka – is the coefficient of comparison expressing the a -th characteristic of the thing.

Calculation of capitalization rate can be done then in the following ways:

- In case of approximately same objects the capitalization rate (centesimal) is determined by the simple arithmetic average from the relationship: achieved annual profit / achieved sales price,
- for unequal objects, but otherwise comparable objects (buildings) could be used a weighted average, where the profit from a larger object is reflected by greater weight.

The value of the capitalization rate is determined by comparison with similar property types; see Bradáč et al (2009). It is based on knowledge of the realized normal price (sale price) and the net income from the rental property. Specifically, the capitalization rate is determined based on the great number of records on real estates in the statistical file (database) as the arithmetic average of the realized normal prices of properties and annual net income of these objects according to equation (3):

$$R = \frac{1}{n} \times \sum_{i=1}^n \left(\frac{CV_i}{COB_i} \right), \quad (3)$$

where R – is the capitalization rate,

n – is the number of realized sales,
 CV – is the net annual income,
 COB – is the price of the object.

Above mentioned input attributes are taken from the database of properties (realized sale prices of the properties and realized annual net income of the properties). From this reason it is necessary to monitor these attributes on the real estate market long-term and to record them clearly into the database.

The capitalization rates increase generally with the increasing risk of the investment. The real estate risks are associated primarily with the location in the wrong location, such as the location of the property in less attractive locality or flood zone (Ardielli and Janasová, 2011).

In case of the absence of relevant data it is possible to use other methods of capitalization rate calculation, e.g. the modular system. The core is determined by safe type of investment in the financial market and superstructure by the risk premium, which is the sum of the risks. For further details see Maříková and Mařík (2001 and 2007). It is also possible to compare the nominal level of capitalization with data from Annex of the Decree by Ministry of Finance (No. 199/2014 Coll). In the document are given the concrete values of capitalization rates by type of construction for the valuation of property by income approaches.

In practice, it may be encountered with other possible methodologies for estimating the capitalization rate, which may be based on practical experiences or on exact calculations. It is clear, however, that the capitalization rate has a significant impact in the determination of the yield value of the property and therefore it is necessary to pay attention to its proper determination.

2 METHODS

Applications of outputs and findings of this research are seen in the specification of the capitalization rate for the correct calculation of the yield value of the property according to equation (4):

$$VH = \frac{CV}{R}, \quad (4)$$

where VH – is the yield value of the thing,
 CV – is the net rental income,
 R – is the capitalization rate centesimal.

The optimal way to calculate the capitalization rate is to determine the level of capitalization rate from the purchase prices of similar properties in comparable locations and their rent prices Bradáč et al. (2009). This method was used in the presented paper. The main prerequisite for the usage of this method was the existence of the required database of comparable properties, knowledge of their market prices, rental prices and the credibility of the reported data.

In the presented research was distinguished net and gross capitalization rate. Net capitalization rate is determined from knowledge of the gross annual revenues, annual expenses and also the selling prices of real estate. The research focused on determination of the gross capitalization rates. In this way was eliminated the detection of costs associated with property maintenance. Due to the fact that for the calculation of the gross capitalization rate the standard selling prices are needed, within the database were observed the duration periods of the properties sales and final prices corresponding

with the realized sales prices. A secondary product of this sub step was the analysis of the marketability of the properties by type and location in the city of Ostrava. An indicator of the marketability is the duration of the offer of certain property. This value also indicates the liquidity of real estate.

Offer prices are usually taken as estimations of market prices for each property. The offer price is therefore usually adjusted by the coefficient of reduction on the price source (kZC). This coefficient compares discrepancy between market prices and offer prices. In the current state, the value of the coefficient of reduction on price source kZC is 0.85. This value comes from literature, but it is inaccurate and particularly because there are not distinguished the different types of real estates and various locations of real estate. More specifically clarifies Cupal, see Cupal (2011).

In this research, however, was monitored the entire time series of individual advertisements on reality websites, respectively updates of this advertisements. Update of advertisements contained mainly the price adjustment. For advertisement with sales that have been posted (updated) for up to 90 days (most ads), the selling price of apartments decreased on average by 4.03 %. Ads with rents were in the vast majority published (or updated) for up to 60 days until their first publication. During this reported period, the average rental price decreased on average by less than 3 %. The evaluation was then calculated by taking the offer price of the last update of each ad, which is presumed as the realized sale price or the price very close to it. Last updated offer prices (before the disappearance of the advertisement from the websites) for each property were therefore treated as sale (market) prices. Sale prices of real estates were then compared with the required rents for similar properties located in the same area and property of the same type (category 1+1, 2+1, etc.).

2.1 Data gathering

The important prerequisite for the implementation of the research was the provision of continuous and automated monitoring of apartment prices and rents in Ostrava. This input data were collected by usage of the automated process. The result of this data monitoring and gathering was the database of rentals and sales.

Data of market prices and rents were recorded over a period of two years from the 1st of February 2012 to 31st of January 2014. As the data source served the server sreality.cz. In the database was processed a total of over 16 000 records relating to the bid prices of apartments and over 15 000 records relating to requested rent price of apartments in the city of Ostrava. Data included all updates of monitored ads registered during the reporting period. This means that for the given property the advertisement has been stored in the database repeatedly, up to 16 x depending on how often the ad was updated. The gradual changes of the property in advertisements contained mainly the price changes. The resulting number of unique ads, i.e. ads that identify the property regardless of the number of updates is therefore lower - less than 7 000 unique ads for the sale database and nearly 11 000 unique ads for the rent database.

This process of monitoring of ongoing updates ensured the obtaining of input data for the analysis and getting insights about the movement of prices and rents of apartments from the submission of the advertisement till its clearing (sell or rental was finished). The prices used for the calculation of capitalization rates are the bid prices, however they converge in the time series to the real sale/rent prices. For this reason it was not used the coefficient of reduction on the price source, which is recommended by Bradáč et al. (2009) in case of usage of data from advertisements. In case if the price of the real estate would be taken without the monitoring of time series of the ads, this coefficient would be appropriate to adjust the price to the sale price. Prices quoted in the database are therefore taken as sale prices, or prices very close to the price of the realized sale or rent.

2.2 The database structure of the sales and rental

For the reliable processing of the database and for the calculations, it was necessary to design an appropriate database structure, in which the input data will be stored. Data must be clearly recorded and contain the unique identifier that ensures easy navigation in the database, and uniqueness of each record. Data structure and domain attributes were based on data provided by source, see SREALITY (2016).

Database structure:

- ID (a unique identifier of the record)
- DATE
- TIME
- LINK (unique identifier of ad - groups of updated records)
- PRICE
- AREA (m²)
- SIZE (type / category of apartment 1 + kk, 1 +1, ...)
- CONSTRUCTION (panel, brick, ...)
- FLOOR
- OWNERSHIP (cooperative, private, other)
- CADASTRE
- STREET

In terms of the geographical location the data records contained the municipality name and street. One possibility of the geographic categorization was to compare records with city price-map, which reflects the lucrativeness of land within the city in terms of set criteria. Another option was to use the cadastral territory map, for further details see Dokládlová (2005). This option was chosen for further application. The geolocation of property was carried out with regard to the administrative districts. For the purposes of geolocation on districts level (or cadaster) each entry was assigned the name of cadaster and street name. In the districts where were detected high number of ads was conducted geolocation accuracy with the resolution on cadastral level.

2.3 Data preparation for evaluation

The database has been cleared from data with zero price, unrealistic price, from record without entered street and records located outside Ostrava (removal of 1 212 records of sales). After aggregation of records belonging to one ad (aggregation of updates) remained the resulting number of unique ads for sales on 6 636 entries, see tab. 1.

Table 1 Statistics of sale records

PROCEDURE OF DATA CLEANING	NUMBERS
Records totally	16 116
Zero price	357
Non-real price	63
Without street	656
Outside Ostrava	136
Cleanup data	14 904
Data after aggregation	6 636

(Source: Authors' processing)

Similarly, the number of unique ads for rent was 10 418 records. For the purpose of obtaining of sales prices (i.e. prices very closed to sales prices) and rent prices, was created the database of final prices, which included only the most recent records of individual advertisements for the given property which were derived from the time series of tracked ads.

3 PROBLEM SOLVING

The results of the research are divided into two outputs. In the first part there are evaluated the ads for the both options – offer of apartments to sale and offer of apartments to rent. In the second section there are evaluated the capitalization rates in the locations of Ostrava.

3.1 Evaluation of the ads – offer of apartments to sale

Almost two-thirds of ads (4 103) were made only once without subsequent updates, and then were removed from the offer. The remaining one-third of ads was updated 1-11 times. Only a minority of ads was updated more than 12 times. The exact number of advertisements and the number of updates are shown in Table 2.

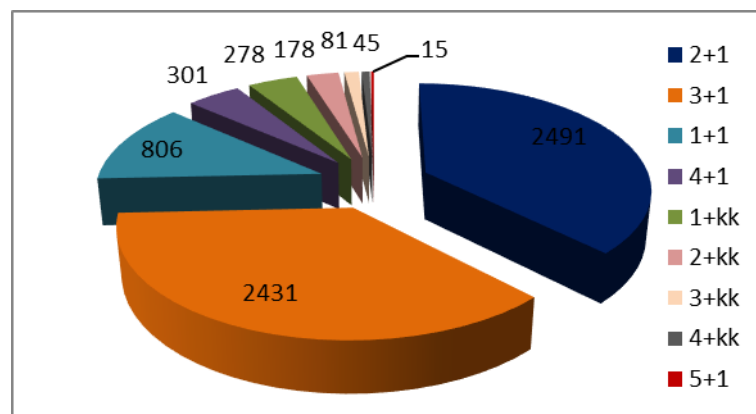
Table 2 Updates of ads - sales

NO. OF UPDATES	0	1	2	3	4	5	6	7	8	9	10	>10
Quantity of ads	4103	877	439	310	208	180	144	173	115	54	15	18

(Source: Authors' processing)

Number of ads occurrences by size of apartment (number of rooms) is shown in Figure 1. The most frequently offered were apartments 2+1, (total of 2 491 occurrences), followed closely by apartments 3+1 (total of 2 431 occurrences).

Figure 1 Apartments to sale by number of rooms (category of apartments)

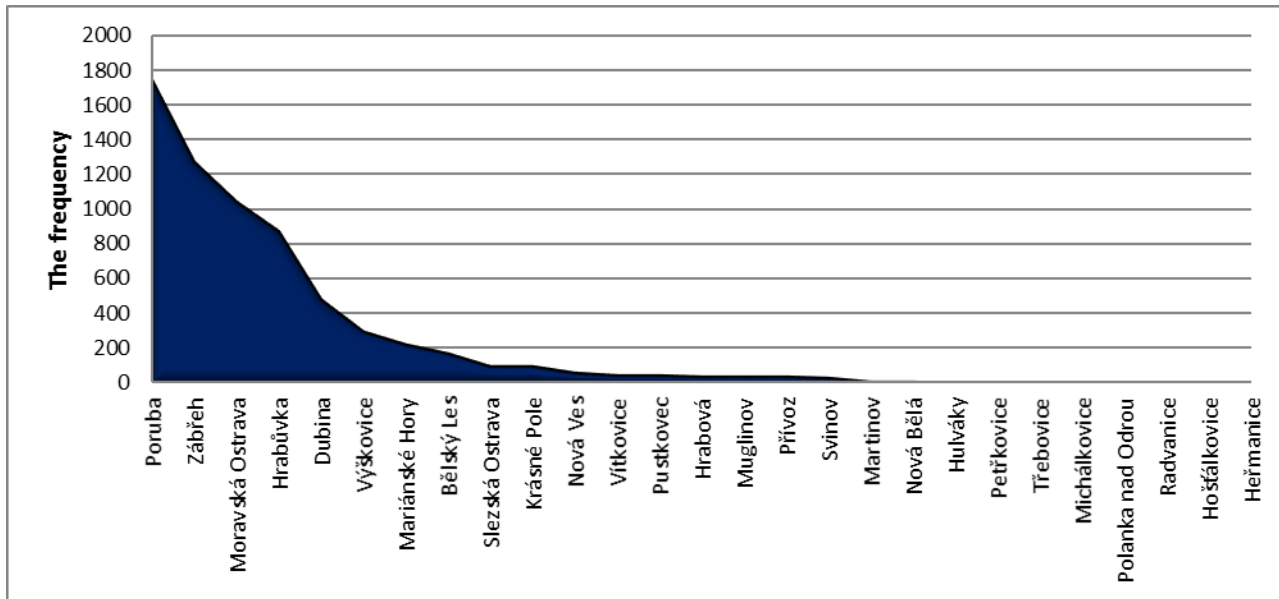


(Source: Authors' processing)

Great apartments 5+1, 5+kk and 6+1, and other atypical apartments were advertised during the monitored period only in a very small number (15 or less occurrences). The area of apartments offered to sale ranged from 17 m² to 402 m².

In terms of occurrence by locality there were most frequently on real estate web-sites advertised apartments to sale in the district of Poruba, Zábřeh and Moravian Ostrava, as indicated by the area chart in Figure 2.

Figure 2 Apartments to sale by location



(Source: Authors' processing)

Conversely, in districts without extensive settlement structures, such Heřmanice, Hošťálkovice, Radvanice, Polanka nad Odrou, Michálkovice, Třebovice or Petřkovice, was stored the minimum of records. The exact frequency of ads in different locations in Ostrava is summarized in Table 3. There are listed seven districts (or cadastral areas) with the most frequent occurrence of advertisements.

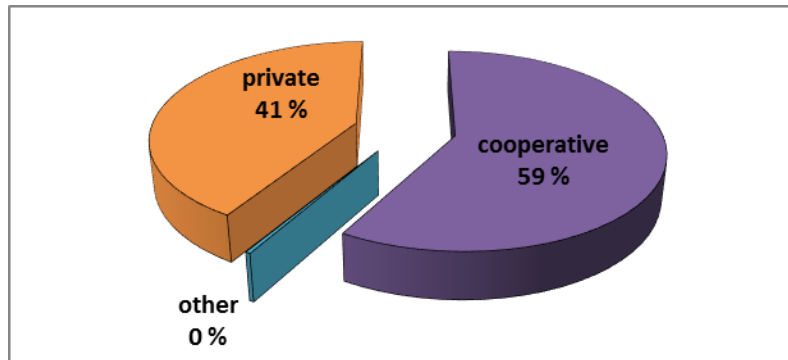
Table 3 Apartments for sale by location

THE CITY DISTRICT	FREQUENCY
Poruba	1745
Zábřeh	1271
Moravská Ostrava	1039
Hrabůvka	871
Dubina	479
Výškovice	294
Mariánské Hory	221

(Source: Authors' processing)

The next monitored criterion was the apartment's ownership. Apartments to sale were sorted in three kinds on private, cooperative and others. 59 % of all apartments were in cooperative ownership and 41 % of apartments in private ownership. Other ownership contained only 22 apartments, see Figure 3.

Figure 3 Apartments to sale by type of ownership



(Source: Authors' processing)

3.2 Evaluation of the ads – offer of apartments to rent

About 75 % of adverts of the apartments offered to rent were filed only once without subsequent updates (total of 7 824), and then were removed from the offer. The remaining about quarter of advertisements was updated 1-4 times. Only a negligible part of the ads were updated more than 8 times. The exact frequency of ads for each update is summarized in Table 4.

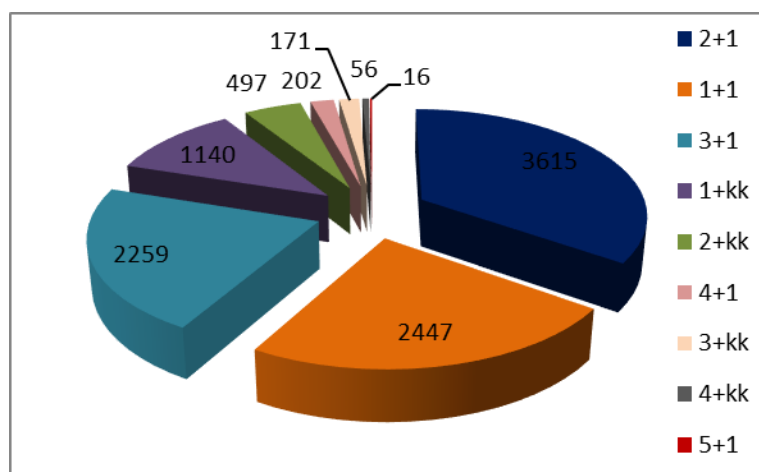
Table 4 Updates of ads - rentals

NO. OF UPDATES	0	1	2	3	4	5	6	7	8	9	10	>10
Quantity of ads	7824	1405	641	343	104	38	26	12	13	4	1	5

(Source: Authors' processing)

The offer of apartments to rent in terms of the size of apartments by room number was wide, including apartments from size 1+1 to size 7+1, atypical and other variants with kitchenette (the +kk apartments). Graphically is the situation shown in Figure 4.

Figure 4 Apartments for rent by number of rooms (category of flats)

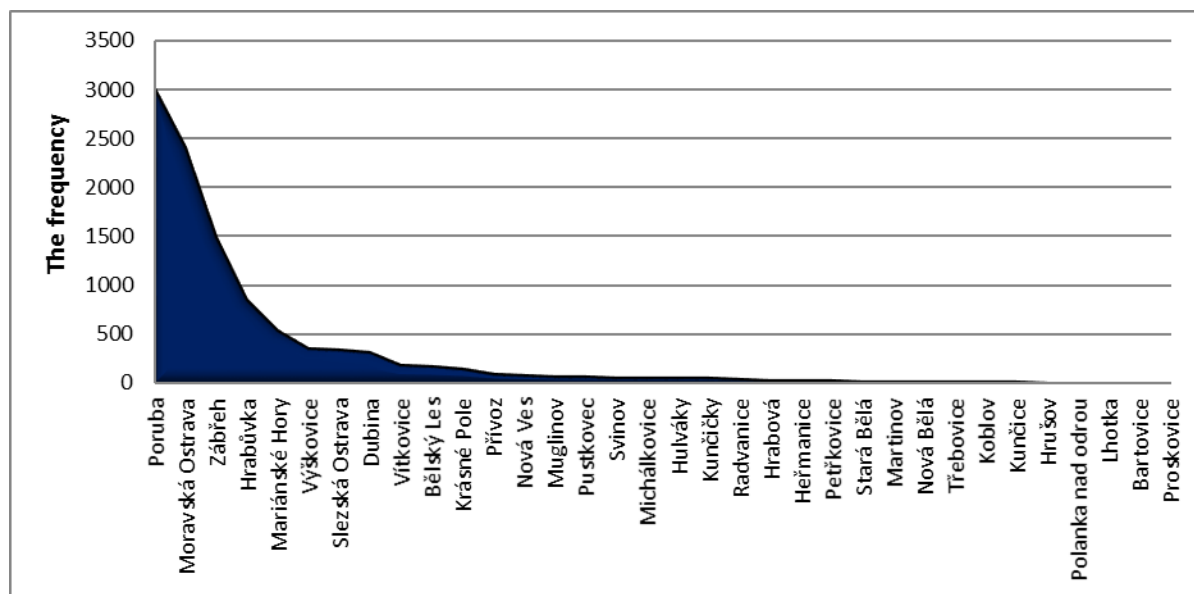


(Source: Authors' processing)

Most offered apartments were apartments 2+1 (total of 3 615 records). Next followed apartments were type 1+1 (2447 records) and 3+1 (2431 records). Big apartments of type 5+1, 5+kk, 6+1, 6+kk, 7+1, 7+kk, and other atypical apartments were advertised only in very low numbers (16 and under). The area of apartments to rent ranged from 15 m² to 260 m².

According to the web-sites were the most numerous real estate advertised to rent located in the district of Poruba, Moravian Ostrava and Zábřeh. This corresponds with the situation of apartments to sale. Conversely, the lowest number of entries was registered in locations with vast family houses such as Hrušov, Polanka nad Odrou, Lhotka, Bartovice or Proskovice. Graphically, the frequency of bids is shown in Figure 5.

Figure 5 Apartments to rent by location



(Source: Authors' processing)

The exact frequency of ads in different locations of Ostrava is summarized in Table 5. Here are specified 7 districts (or cadastral areas) with the most frequent occurrence of advertisements.

Table 5 Apartments to rent by location

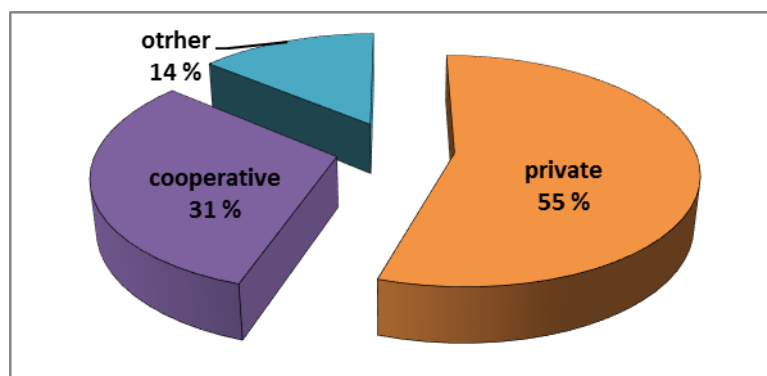
THE CITY DISTRICT	FREQUENCY
Poruba	3008
Moravská Ostrava	2409
Zábřeh	1487
Hrabůvka	847
Mariánské Hory	530
Výškovice	355
Slezská Ostrava	338

(Source: Authors' processing)

In the case of apartments to rent the apartments were also divided in terms of ownership. The result was different than in case of apartments to sale. 55 % of all apartments were in private ownership

and 31 % were in cooperative ownership. There were also strongly represented the category of apartments owned by "other" - (14 %), see Figure 6

Figure 6 Apartments to rent by type of ownership

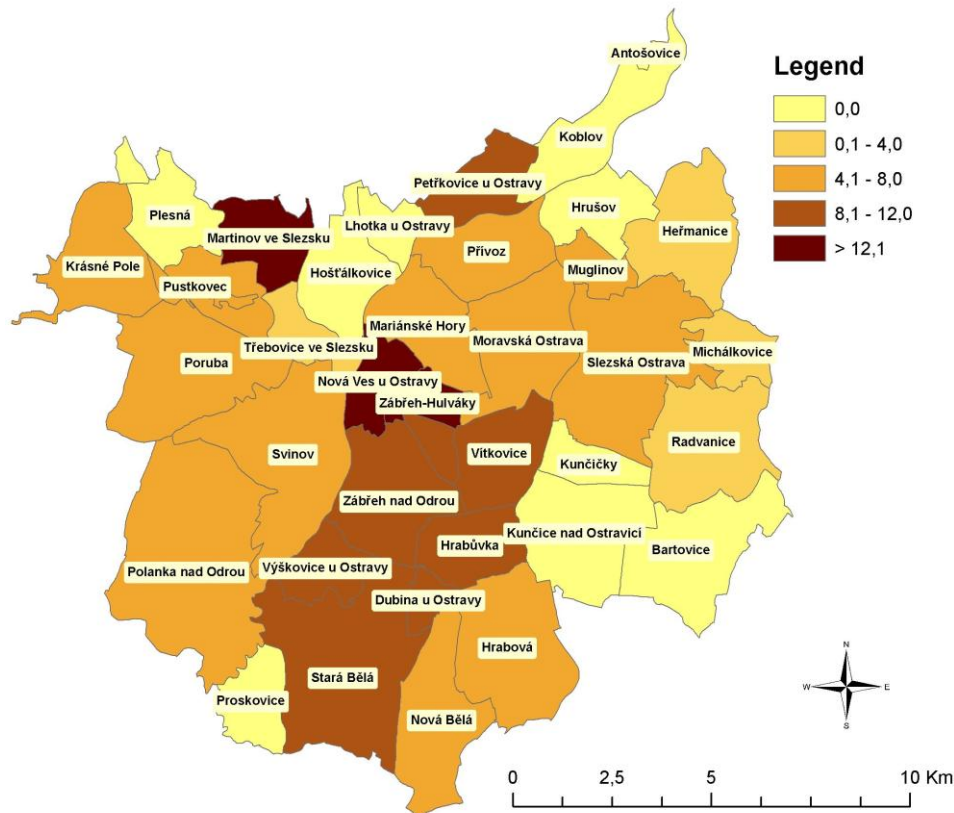


(Source: Authors' processing)

3.3 Specification of capitalization rates

The outcome of the research was to determine the level of gross capitalization rates in Ostrava districts. In Fig. 7 is depicted the distribution of the gross capitalization rates of apartments by individual districts. Gross capitalization rates in most Ostrava districts range from 4.1 to 8.0 %.

Figure 7 Gross capitalization rate of apartments in individual districts



(Source: Authors' processing)

In some districts of Ostrava couldn't be calculated the capitalization rate because of the insufficient data for evaluation (e.g. Plesná, Koblov, Antošovice, Proskovice, Bartovice, Lhotka u Ostravy). These were mainly the districts in which the area is made up of mostly single-family houses, so that there was only limited offer of apartments to rent, and limited or non-existent offer of apartments to sale.

In Table 6 is shown the level of gross capitalization rate by size of the apartment. The calculation was performed regardless of the location of the apartment within Ostrava for apartments in the size category 1+1, 2+1, 3+1, 4+1, 5+1 and their variations with kitchenette.

Table 6 Gross capitalization rate by size of apartment

FLAT SIZE	GROSS CAPITALIZATION RATE (%)
1+1	11,4
1+kk	11,5
2+1	9,5
2+kk	8,3
3+1	8,5
3+kk	4,8
4+1	8,2
4+k	5,0
5+1	8,1

(Source: Authors' processing)

For apartments in the size category 1+1, 2+1, 3+1, 4+1, 5+1 and variations of apartments with kitchenette, was done the calculation of gross capitalization rates by the resolution of parameter - the type of ownership, see tab. 7.

Table 7 Gross capitalization rate by size of apartment and type of ownership

FLAT SIZE	GROSS CAPITALIZATION RATE OF PRIVATELY OWNED FLATS (%)	GROSS CAPITALIZATION RATE OF FLATS IN COOPERATIVE OWNERSHIP (%)
1+1	11,0	12,0
1+kk	9,5	13,4
2+1	9,3	10,6
2+kk	6,6	13,3
3+1	7,8	10,0
3+kk	4,7	6,6
4+1	6,6	9,4
4+kk	3,2	10,2

(Source: Authors' processing)

CONCLUSIONS

In the valuation practice in the Czech Republic, there is in determining of the value of real estate normally operated with the capitalization rate. The basis for the calculation by the yield method presents the net capitalization rate. However, a significant attribute represents also the gross capitalization rate. For its calculation is not necessary to quantify the costs associated with holding of the property.

For the purpose of the quick decisions of investors, and also as a tool for appraisers and experts, the detailed mapping of the gross capitalization rate for the segment of apartments in Ostrava was made. Gross capitalization rate was calculated for each size category of apartments and for both types of ownerships and also for individual locations of Ostrava.

The research aimed to ensure sufficient data sample for subsequent analysis of the market prices and rents of apartments. The analysis of automated obtained data has shown the sufficient number of both sales and rental ads. Extensive sample of data allowed subsequent analysis of prices on several levels - by category of apartment, by ownership type and by location. In addition, ensuring of the monitoring of time series of ads, respectively their updates, allowed the analyzes of the marketability of apartments, the frequency of updates, price changes, respectively price change from the first administration of the ad to its latest update.

The presented article described the possibility of evaluation of the level of capitalization rate. In the practical part dealt with the practical setting in the city of Ostrava from the perspective of the individual districts and also from the perspective of the individual categories of apartments. Gross capitalization rate in Ostrava districts ranged from 1.8 to 15.9 %, the most common was between 4.1 to 8.0 %.

The comparison of the gross capitalization rates of apartments by type of ownership implied that the higher level of gross capitalization was reported in case of apartments in cooperative ownership than in privately owned apartments. Gross capitalization rate wasn't less than 4.0 % for apartments in cooperative ownership in any district of Ostrava.

In terms of the locality the highest level of gross capitalization rate was observed in Zábřeh-Hulváky and Nova Ves near Ostrava. High level of gross capitalization was calculated in the locality Ostrava-Jih, which is directly connected with aforementioned city districts and forms the comprehensive area of Ostrava with the highest gross capitalization rates of apartments in Ostrava. Ostrava-Jih consists of cadastral areas Dubina, Hrabůvka, Výškovice, Zábřeh nad Odrou. It is the most populous district of Ostrava with dense residential development, which is home to about the third of city residents.

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PREDICTION MODEL OF DIVIDEND PAYMENT OF CZECH JOINT STOCK COMPANIES

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ABSTRACT

The dividend payment is the very important part of investment decision for many stockholders. Results of this text identify finance factors that influence the management in dividend policy within the examined branch "Production and distribution of electric energy, gas and water". Seven regressive models were created and they identify and define the effect of individual factors on the dividend payment among individual owner's types. The retained earnings, the rate of return of invested assets in total and the size of company have the positive effect on the dividend payment. For the purpose of better interpretation the individual factors were quantified in form of the chance that the company will pay the dividend when compared to the fact that the company is not going to pay any dividend. The resulting regressive model was subsequently validated using the classification table and the receiver operating characteristic curve.

KEY WORDS

Dividend policy, factors, management, model.

JEL CLASSIFICATION

G35, M21

INTRODUCTION

The decision on the economic result distribution is one of key spheres of the financial management of company. The dividend payment can be, provided the legal conditions are fulfilled, one of options how to distribute the economic result. The dividend payment is the important part of the investment decision making for many stockholders. The financial management must perform the dividend policy according to other financial decisions, i.e. mainly to the financial (with what sources to finance own business) and investment (how much and in what assets to invest) decisions. From the point of view of the financial theory the dividend policy is usually reviewed based on the original goal of the company that is, according to the current financial economy, to maximize the market value of the company. The existence of market imperfections, as the cost of agency are, the information asymmetry and different taxation of capital and dividend incomes are the important reason why the company pays out the dividends. It is the dividend payment that can to some extent

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reduce these market imperfections. The dividend theory of company life cycle explains how companies adapt the payment ratio in relation to its development, when on one hand the costs of external capital acquisition are decreasing and on the other hand the costs of authorisation are incurring. For many stockholders the dividend payment is the very important part of their investment decision making. This text aims to identify factors that explain differences between the dividend payment by the company controlled by foreign or domestic owner and the prediction model definition that shall quantify the probability of dividend payment depending on the type of ownership.

1 REASONS WHY COMPANIES PAY OUT DIVIDENDS

Various theories were developed relating the reasons why companies pay out dividend. From the point of view of the financial theory the dividend policy is usually examined on the background of the primary goal of the company that, according to current financial economy, consists in the maximisation of the company's market value. In the year 1961 the economists issued (Miller and Modigliani 1961) the theoretical text titled "Dividend policy, growth and evaluation of stocks" that is still one of the most discussed controversies within the financial theory. Authors of this text presented the scientific proof that the stockholder or the potential investor is irrelevant towards the dividend policy of the company as this one does not influence the company's value. It results from the authors' text that the dividend does not increase the company's value as itself but only mediated through the market imperfection.

The existence of the theory of costs for representation is the important reason why companies pay out dividend. The separation of the management and the ownership of the company causes the conflict of representation when there can be the situation in which the stockholders' interest and the management's interest can differ and can even be in conflict. This especially includes the option of investment devaluation, the fear from ineffective use of entrusted financial means as well as the opportunist behaviour by the management or the minimisation of business risk. This is just the dividend payment, pursuant to (Easterbrook 1984; Jensen 1986), that can to some extent reduce this kind of conflict between the management and the stockholders. There is also a conflict between majority and minority stockholders in the company. La Porta et al. (2000) present two models of dividend policy of company towards minority stockholders that are modified and empirically tested in various forms. At first, the minority stockholders use their right and require the dividend payment for the reason of limitation of potential personal profit on the side of majority stockholders. Such hypothesis is supported by the empiric study of authors (Chae et al. 2009). The second model presents the dividend as the substitution mechanism for reduction of conflict between minority and majority stockholders. The majority stockholders are motivated to pay the dividend mainly in countries with low protection of minority stockholders in order to create the good company's reputation and thus to ensure better access to sources of company's financing. This hypothesis is supported, for example, by the authors' empiric study (Jo et al. 2009). In the end, the third problem of authorisation relates to the conflict between the company itself and third persons, mainly creditors of the company. Nash et al. (2003) state several ways how stockholders can dispossess the creditors' wealth. One of the most often ways are the insufficient investments when the stockholders prefer the dividend distribution to the prejudice of investments in new projects that can finally cause the risk increase from the point of creditor's view.

Another market imperfection consists in the existence of information asymmetry between stockholders and the management. According to Miller & Modigliani (1961) the dividend itself does not increase the value of company. The value of the company is increased by the information on expected future profits that the dividend brings. If the theory of signal is true, then the investors can, through changes in dividend policy, deduce the information on future company profitability.

The theory of signal is specified by the presumption of information asymmetry between managers and investors related to the access to information on company's perspectives. Such asymmetry can be mastered through the dividend signal. The large empiric researches, made so far, do not give unambiguous support to the theory of signal. There are proofs that there is the relation between the dividend and the stock price, confirmed by most of empiric researches (Michaely & Roberts 2006). Whereas the empiric proofs that the dividends bear the information on future company profitability are not so unambiguous. The empiric studies that confirm that the dividends bear the information on the future profitability are for example (Healy and Palepu 1988; Nissim and Ziv 2001). To the contrary, the relation between the dividend and the future profit was not confirmed by the empiric research Benartzi et al. (1997).

Various tax loads on dividends and capital incomes cause that there are investors' group interested in various dividend policies of companies. If the capital incomes are subject to taxation with lower rate than the dividends' income, then the investors with higher profits will prefer the capital incomes. On the other hand, there are such investors with lower or null taxation of dividends' income on the market who unambiguously prefer stocks with high dividends in relation of the clientele effect. If the changes of dividend policy in their preferred company occur, then the investors can sell stocks of this company, or this company can attract another group of investors that can finally influence the prices of stocks. The empiric verification of this theory is made using the stock price decrease on the ex-dividend day. Elton and Gruber (1970) were the first who have empirically confirmed the theory of clientele effect. It results from the authors' conclusions that investors with higher tax load shall prefer companies with lower dividend incomes and vice versa. The tax clientele effect confirmed the authors Korkeamaki et al. (2010), to the contrary the tax effect was not confirmed in the empiric study by authors Travlos and Milonas (2001).

The theory of company life cycle can be included among further key factors. The theory of life cycle presumes that the dividend payment relates to the development stage of company when the financial indexes, as profitability, size, investment opportunities and capital structure, change during the time course. When the company reaches some life stage, it is not capable to find suitable investment means for its generated cash flows and thus the dividend payment can be seen as the most suitable strategy how to distribute cash flows to investors in form of dividends. This dividend theory explains how companies adapt the payment ratio depending on their development when, on one hand the costs of external capital acquisition decrease, and on the other hand costs of authorisation incur (Brockman & Unlu 2011). Fama and French (2001) believe that large reputable companies with high profit and slower growth are more willing to pay dividends. Deangelo et al. (2006) present the ratio of the undivided profit to the basic capital as the index of the life cycle stage. Recently the management follows the psychologic analysis in its decision making according to Novotný (2014). Under insecure conditions the dividend decision becomes the behavioural issue for the management, when the profit increase is transferred into the dividend only when the company is sure that it should not need to review its decision in the future.

2 GOALS OF THE RESEARCH AND THE METHODOLOGY

This text aims to summarize the dependencies of individual financial indexes on the dividend payment in the Czech Republic. The research was focused on the branch "Production and distribution of electric energy, gas and water" that is, from the point of view of profitability and frequency of dividend payment, the most interesting among Czech joint stock companies. There are 221 joint stock companies in this branch in total. This basic set was subsequently reduced based on the availability of complete final accounts. After performed adaptations the final accounts of 137 companies for the period 2008-2013 were the main data sources. With regard to the character of

discussed variable (dividend is paid out or not) in the examined analysis, the logistic regression was used for the analysis of relation between the explained and the explaining variables.

The task of regression model is to:

- 1) Define main variables that explain differences in dividend payment between the company controlled by foreign or domestic owner,
- 2) Define the influencing force of individual explaining variables on the explained variable, i.e. if the company will pay out the dividend or not.
- 3) Create models by which the investor can, for known values of financial indexes, predict the dividend payment of Czech joint stock companies.

The basis of logistic regression consists in the logit presumption, i.e. in the natural logarithm of the chance that the explained index will get the specific value from two possible ones. The model creation always requires the analysis of the number of variable that we let to enter into the multiple regression. The inclusion of very similar indexes into the model would be useless. Thus only one explaining variable from the groups of indexes in the table No. 1 enters into the model, when such variable is the one able to improve the maximum model's credibility to the maximum. The choice of variables influencing the dividend payment was based on empiric studies and in addition, these variables are enlarged in detail by ratio indexes of financial analysis, indexes of company's performance and by main company characteristics, i.e. the size and the growth stage of the company. The method of maximum credibility was used for the parameters estimation. The test based on Wald statistics was used for testing of chosen variables importance. The step method was used for analysis, consisting in the subsequent choice of indexes based on the order of their importance for the model. The deviation G2 was used for the determination of the model importance in the whole. The curve ROC (receiver operating characteristic) and the classification table were used for verification of resulting regression model.

3 RESULTS

According to (Hosmer & Lemeshow 2000) it is suitable, when creating the logistic regression model, to start with one-factor analysis which means to test every variable influencing the dividend payment separately. The table 1 displays values of the test of analysis of the influence of individual explaining variables on the dividend payment. The indexes in the table are classified in the descendent order according to the credibility score criterion.

Table 1 Explaining variables having influence on the dividend payment

Group	Index	P – value
Rate of return and absolute indexes of performance	ROA (net profit/assets)	0.000
	Added value	0.000
	Economic results	0.000
	Operational economic results	0.000
	Added value/revenues	0.158
	ROE (net profit/equity)	0.305
	ROS (net profit/revenues)	0.455
Indebtedness	Credits/debts	0.000
	Regular indebtedness (short-term external capital/assets)	0.107
	Credit indebtedness (credits/equity)	0.233
	Leverage effect (assets/equity)	0.300
	Indebtedness of equity (external capital/equity)	0.304
	Total indebtedness (external capital/assets)	0.357
Liquidity	Immediate liquidity (money/short-term liabilities)	0.000
	Stand-by liquidity ((OA -reserves/short-term liabilities))	0.008
	Immediate liquidity (money/short-term liability)	0.009
Size of the company	Balance sheet total	0.000
	Revenues	0.000
Development of company	Retained earnings	0.000
	Retained earnings/equity	0.000
	Increment of fixed assets	0.125
	Increment of revenue	0.254

(Source: Own)

After having analyses the statistic importance of influence of separated variables, 10 indexes in total were eliminated. The rate of return and the absolute performance indexes belong to the most numerous group of statistically important determinants.

The table 3 shows individual models that quantify variables influencing the dividend payment pursuant to the ownership and the influence of particular explaining variables on the dividend payment. In the first step, the model with the only one explaining variable (Model 1) is estimated – depending on the owner of company (Table 3). This model serves for comparison and can help to determine how large the differences of dividend payment are among individual owners if we do not consider any other variables. It results from this model that the company controlled by a foreign owner has, when compared with the company owned by a domestic owner, approximately the ten times chance of dividend payment. For better understanding the coefficient e^{β} is transferred to estimated probabilities. Such probability for the company controlled by a foreign owner is 80.7%, for the company controlled by a domestic owner such probability goes to 29.1%.

In further steps the explaining variables are added to the model and the effect of company ownership change is observed. In the second model, the index *Return on assets (ROA)* was added. Just the single-factor analysis has shown that this relative index is more important for the explained variable than the absolute index in form of the economic result. This index is statistically important and the individual statistics of model quality have also considerably improved. The inclusion of this control variable decreased the size of the coefficient “foreign owner”. The table 3 shows that the ratio of chances decreased from 10.13 to 4.62, it effectively means a considerable decreasing. Even this control variable is included, the company controlled by a foreign owner, has nearly fivefold chance when compared with the domestic ownership that it will pay out the dividend. The value of estimated parameter β *Return on assets (0.41)* is positive and statistically important. Such value can be interpreted so that the chance for the dividend payment increases with increasing rate of return by 1% when compared with the non-payment by a multiple, i.e. by approx. 51%.

In the third model, the variable *Retained earnings* is added. Pursuant to the theory of life cycle the companies paying out the dividend are profitable and dispose of undivided economic result that is sufficient for covering of investment needs. The coefficient e^{β} for the ownership is in this model increased from the value 4.62 to the value 6.04. It can be stated that the amount of undivided economic result, after having checked the equity rate of return, explains the difference in the chance for the dividend payment among individual types of ownership. At the same time the total parameters of model have considerably improved. The value of estimated parameter β *Retained earnings (0.00148)* is positive and statistically important. The estimated parameter for the unit change (1 million CZK) is very small and thus we interpret it's ten times amount. If the undivided economic result is increased by 10 million CZK and the values of other independent variables remain unchanged, the chance that the company pays out the dividend, compared to its non-payment, increases by the multiple 1.0149 ($e^{10 \cdot 0.00148} = 1.0149$).

The cash availability is an important factor for decision made by the company on the dividend payment. Within the one-factor analysis the index of immediate liquidity was important among liquidity indexes. Thus, in the fourth model, the categorical dichotomous variable *Immediate liquidity* is added. The recommended value within the scope 0.9 – 1.1 is valid for the immediate liquidity. The average value of immediate liquidity of examined companies, amounting to 1.4, was added into the regression model. The liquidity lesser than 1.4 was indicated by a zero, the liquidity higher than 1.4 was indicated by the number one. The table 3 shows that the effect of this variable, after having checked the variables *Return on assets* and *undivided economic results*, does not considerably explain the differences in the coefficient of ownership. The coefficient of ownership in this model is decreased from the value 6.04 to 5.87. In fact it means the minimal decreasing and also the statistics of model quality does not indicate any considerable positive progress. The value of estimated parameter β *Immediate liquidity (-0.6056)* is negative and statistically important. This negative coefficient can be interpreted so that if the index of stand-by liquidity is higher than 1.4, than the chance to the dividend payment by the company, when compared to its non-payment, is decreased by the multiple 0.55. The negative value can be interpreted so that too much high level of liquidity can be a negative effect when the free financial means do not work on behalf of increasing of the rate of return, and this can finally cause the limitation of dividend payment.

The fifth model adds the variable of *Indebtedness*. The single-factor analysis proves that the ratio index of bank credits sum and of total sources is, among indexes of indebtedness, statistically important. Again, this index was used in form of dichotomous variable. The average sum of this index for examined companies is 8%. This variable in regressive model gets the value 0 for companies with index under 8% and the value 1 for the index higher than 8%. The table 3 shows that, after having checked the return on invested assets, the undivided economic result and the immediate liquidity, the coefficient of ownership is in this model decreased from the value 5.87 to

5.51. Again, this is only a marginal change and after inclusion of control variables the companies under foreign owner control have nearly five and half times chance of dividend payment when compared to the domestic company. The value of estimated parameter β *Indebtedness* (-0.853) is negative and statistically important. This negative coefficient can be interpreted so that if the given index of indebtedness is higher than 8%, than the chance of dividend payment by the company is decreased by the multiple 0.43.

In the end, the sixth and seventh models test the theory of the influence of company size on the dividend payment. The variable *Company size* is measured based on the balance sheet amount. First, the company size in form of quantitative coherent variable is included into the model (model 6) and then the factor of Company size in form of categorical variable is included into the model 7. In case of the categorical variable the company size is divided based on the balance sum into small companies (balance sheet total not exceeding 270 mil. CZK), medium companies (balance sheet total within 270 – 1300 mil. CZK) and large companies (balance sheet total exceeding 1 300 mil. CZK). The large company was chosen as the reference level. It is obvious in both cases that the model improvement as well as the change of the ownership type coefficient happened. Thus the company size is not the main determinant that would be able to explain differences in the chance of dividend payment among individual types of ownership. The value of estimated parameter β *Company size* is, in case of coherent variable (model 6), positive and statistically important ($p=0.049$). The estimated parameter for the unit change of variable (1 mil. CZK) is very small (0.00007) and thus, for better interpretation, the company size in form of categorical variable was chosen. The small company, when compared with the big one, has the chance of dividend payment 0.55 times lesser and the value of parameter is statistically important. On the contrary, the middle company when compared with the big one, has the chance of dividend payment 1.37 times higher. In spite of it this parameter is statistically important just at the higher level of importance ($p=0.055$).

If the first model is compared to the last one, the ownership coefficient value decreased by approx. 50%. It can be stated that companies controlled by a foreign owner have higher chance of dividend payment especially due to the more effective use of assets and retained earnings. The influence of other factors, as the liquidity, indebtedness or company sizes are, has marginal effect. For better understanding the differences between individual types of ownership were documented again on estimated probabilities for individual categories. Based on coefficients of final model the companies under foreign owner control have the probability of dividend payment at 40.5% and those under domestic owner control 7.8%. When compared with the model without explaining variables the differences is decreased by a third approximately (from 52 to 32.7 percent points).

The influence of explaining variable on dividend payment is in case of factors *Return on assets*, *Retained earnings* and *Company size* positive, on the contrary in case of factors *Immediate liquidity* and *Indebtedness* it is negative.

The resulting regression model can be recorded in following form

$$\ln\left(\frac{P(\text{DIV} = 1)}{1 - P(\text{DIV} = 1)}\right) = -2.032 + 1.647\textit{ownership} + 0.434\textit{ROA} + 0.001\textit{retained earnings} - 0.634\textit{liquidity} - 0.873\textit{credits/debts} - 0.595(\textit{company: small}) + 0.312(\textit{company: medium}) + 0.283(\textit{company: large}) \quad (1)$$

Whereas:

$$\begin{aligned}
 (\text{ownership}) &= \begin{cases} 1, & \text{ownership} = \text{foreign} \\ 0, & \text{ownership} = \text{domestic} \end{cases} \\
 (\text{liquidity}) &= \begin{cases} 1, & \text{liquidity} > 1,4 \\ 0, & \text{liquidity} < 1,4 \end{cases} \\
 (\text{credits/debts}) &= \begin{cases} 1, & \text{credits/debts} > 8\% \\ 0, & \text{credits/debts} < 8\% \end{cases}
 \end{aligned}$$

The above stated equation of model represents the relation between the logarithm of chance of dividend payment compared to the dividend non-payment (left side of equation) under conditions given by values of mentioned explaining factors (right side). Using the logit transformation of model equation it is possible to calculate the probability of dividend payment (or the probability of dividend non-payment) for the company with foreign owner and the company with domestic owner depending on given factors. Based on the rule of combinatorial product up to 24 different groups can be set that will represent the probability of dividend payment based on the type of ownership.

The level of probability of dividend payment for the company with domestic and foreign owner is expressed in the following formula:

$$\begin{aligned}
 &\text{Domestic owner (DIV = 1)} \\
 &\frac{e^{-2.032+0.434ROA+0.001RE-0.634liquidity-0.873\text{ credits/debts}-0.595(CS)+0.312(CM)+0.283(CL)}}{1+e^{-2.032+0.434ROA+0.001RE-0.634liquidity-0.873\text{ credits/debts}-0.595(CS)+0.312(CM)+0.283(CL)}}
 \end{aligned} \tag{2}$$

$$\begin{aligned}
 &\text{Foreing owner (DIV = 1)} \\
 &\frac{e^{-0.385+0.434ROA+0.001RE-0.634liquidity-0.873\text{ credits/debts}-0.595(CS)+0.312(CM)+0.283(CL)}}{1+e^{-0.385+0.434ROA+0.001RE-0.634liquidity-0.873\text{ credits/debts}-0.595(CS)+0.312(CM)+0.283(CL)}}
 \end{aligned} \tag{3}$$

3.1 Model verification

For verification of resulting regression model the classification table and ROC curve were used. The table 2 represents results of reliability validation of dividend payment prediction by the proposed regression model.

Table 2 Classification table of regression model reliability

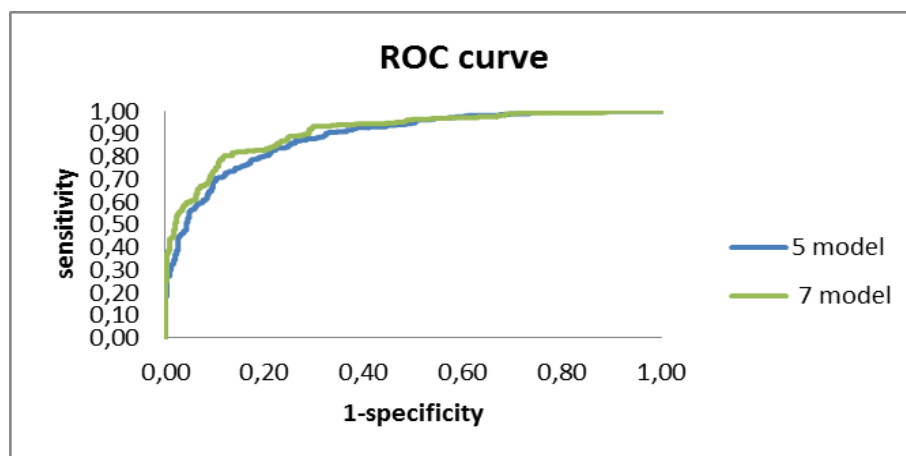
Depending variable DIVIDEND	Found by model		Total
	YES	NO	
YES	230	62	292
NO	39	317	356
Total	269	379	648

(Source: Own)

Based on values of classification table we can state on the tested regression model of dividend payment that its level of discrimination success is at 84.44% (547 of 648). In 230 cases from 292 ones, (in 78.77%), when companies paid out dividends, the model identified correctly this situation, in resting 62 cases (21.23%) the model wrongly estimated the situation. In 356 cases when the

company did not pay the dividend, the model estimated such fact in 317 cases correctly (89.04%), in 39 cases (10.96%) the model was wrong.

Figure 1 The regression model quality is evaluated by ROC curve



(Source: Own)

The shape of curves proves good classification capability of logistic models. The ROC curve on the fig. 1 is approaching the left upper corner which means high model reliability. The surface under the curve of seventh model is AUC = 0.91 (area under curve) and of fifth model is AUC = 0.88 which is very close to the ideal value, i.e. the value of 1.

CONCLUSION

The proposal for economic result distribution undoubtedly belongs to basic financial decisions of management. The dividend payment to stockholders can be, under fulfilment of legal provisions, considered as the profit distribution. The results of this text identify the financial factors that influence the management in its dividend policy within the examined branch. This issue is under conditions of Czech joint stock companies very actual as no more complex study of this branch are available. Nevertheless today most of joint stock companies regularly pay out the dividend. The analysis was performed using the logistic regression analysis. Seven regression models were made to identify and define the influence of individual factors on the dividend payment. In addition, the task of this regression analysis was to explain differences in dividend payment among companies controlled by the foreign or domestic owner. The analysis has shown that differences in dividend payment frequency between individual types of ownership are mainly given by the *rate of return of the total capital* and by the *retained earnings*. The influences of other factors, i.e. *liquidity*, *indebtedness* or *company size*, have marginal effect. The undivided economic result, and the rate of return of total invested assets have positive influence on dividend payment, on the contrary the immediate liquidity and the indebtedness have negative effect. The individual factors were, for better interpretation, quantified in form of a chance on dividend payment by the company compared to the dividend non-payment. The resulting mathematic regression model was subsequently validated. The success rate of the model was evaluated based on the classification table and ROC curve. It results from the model validation that it has relatively high capability of classification, the success rate of the model was 84.44%, i.e. the model has correctly identified 547 cases of 648 in total. The value of the surface under the ROC curve amounts to 0.91 which is very near to the ideal value, i.e. the value of 1. The research results can be practically used by stock brokers and financial advisors for timely investment of clients in order to get dividend incomes.

Table 3 Regression models

variable	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	β	e^β	β	e^β	β	e^β	β	e^β	β	e^β	β	e^β	β	e^β
ownership	2.315	10.129	1.530	4.620	1.798	6.036	1.771	5.875	1.707	5.512	1.651	5.214	1.647	5.191
ROA			0.410	1.507	0.382	1.466	0.377	1.459	0.390	1.477	0.398	1.488	0.434	1.544
Retained profits					0.001	1.001	0.001	1.001	0.001	1.001	0.001	1.001	0.001	1.001
Imm. liquidity							-0.606	0.546	-0.588	0.555	-0.518	0.595	-0.634	0.530
Credit/debts									-0.853	0.426	-0.813	0.444	-0.873	0.418
Company size											0.000	1.000		
<i>Size (large comp. - refer. level)</i>														
Small comp.													-0.595	0.552
Medium comp.													0.312	1.366
Absolute elem.	-0.891		-2.015		-2.329		-2.153		-1.948		-2.050		-2.032	
Deviance	736.800		548.800		511.900		506.600		495.500		490.800		484.900	
Log-Likelihood	-368.400		-274.400		-255.900		-253.300		-247.700		-245.300		-242.400	
AIC	740.800		554.800		519.900		516.580		507.500		504.800		500.900	

(Source: Own)

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COMPARISON SHOPPING AGENTS AND CZECH ONLINE CUSTOMERS' SHOPPING BEHAVIOUR

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ABSTRACT

The internet has changed the lifestyles and shopping behaviours of customers. Online purchasing enables people to obtain information about products and services provided more effectively and easily, with the result that home shopping has become ordinary and usual. This paper presents part of a research focusing on online shopping customers' behaviour in the Czech Republic. The article pertains to comparison shopping agents (CPAs), a tool which provides information to customers and helps find the best offer. The research was conducted on the basis of an online questionnaire available on an internet web page. The main results confirmed a dependency between online purchasing and the use of shopping agents, which are very popular in the Czech Republic. Almost two-thirds of online shoppers use CPAs when they engage in internet shopping. The final part of the paper addresses references and customers' reviews as an important factor for the selection of online retailer.

KEY WORDS

e-commerce, comparison shopping agent, customer review, references

JEL CLASSIFICATION

M31, L81

INTRODUCTION

The internet has become one of the most popular shopping channels and its usage has increased in the past few years. InternetWorldStats (2016) show that there are over 604 million internet users in Europe and overall there is 73.5 % internet penetration. According to Eurostat (2016) 65% of European internet users shopped online in 2015. Almost two-thirds of internet users in the EU made purchases during the same time. The segment of online sales of goods in Europe is expected to

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reach EUR 509.9 billion in 2016 (Ecommerce News, 2016). The e-commerce turnover in Europe increased by 13.3 % to reach EUR 455.3 billion in 2015.

Internet shopping agents plays a role as a tool for comparing the prices of items from different sources in order to find the best deal (Hajaj, Hazon, & Sarne, 2015). Doorenbos, Etzioni, and Weld (1997) defined the capabilities of a sophisticated shopping assistant to include the following: 1) helping the user decide what product to buy, e.g. by listing what products of a certain type are available, 2) finding specifications and reviews of them, 3) making recommendations, 4) comparison shopping for the best price for the desired product, 5) monitoring 'What's new' lists and other sources to discover new relevant online information sources, 6) and watching for special offers and discounts. Comparison shopping agents (CPAs) as an intermediary facilitate shopping for potential customers and provide information to e-shoppers.

The aim of the paper is to examine a role of comparison shopping agents in Czech customers' shopping behaviour. The contributions of the paper are twofold. To begin, we follow previous studies that have pursued this topic to describe e-commerce on B2C markets and available comparison shopping agents in the Czech Republic. Then we analyse the usage of CPAs in the Czech market and the influence of customers' reviews and references on consumers' choices of e-shops and online purchasing process.

The paper is organised as follows. In section 2 we provide a basic review of the literature and the theoretical background to the topic. Section 3 explains the methodology of the research and data collection. The main results are presented and discussed in section 4. Section 5 highlights the main conclusions of the paper.

1 LITERATURE REVIEW

E-commerce has led to dramatic changes and evolutions in commercial affairs. That is, e-commerce has led to variations and changes in buying and selling products and items and has improved the relations and communication between the customers and suppliers (Choshin & Ghaffari, 2017). Anvari and Norouzi (2016) state the internet is dramatically expanding opportunities for business-to-business and business-to-consumer e-commerce transactions across borders; online shopping is growing year by year. Go Globe (2016) presents the estimated amount spent on online shopping by Czech e-shoppers in 2015 as 81 billion CZK compared to 67 billion in 2014. At least 42% of Czech shoppers shopped online in 2015 and online purchases account for 8.1 % of total retail sales in the Czech Republic.

The study of Huang and Tsai (2011) mentions that comparison shopping agents are becoming more and more important as the number of e-tailers is increasing. CPAs help potential shoppers to orientate between various e-shops not only in price issues, but also in offers of particular retailers comparing advantages and disadvantages of individual purchases possibilities. Czech customers prefer good prices for products or services (Pilík & Juříčková, 2016) but have the option to compare further factors influencing the purchase such as convenience, terms of delivery, service, etc. In this context, the CPA can be considered an effective tool to compare merchandise in clearly defined parameters.

Comparison shopping agents are one of the most important sources of online shops' revenues. We can compare CPAs due to their size and the number of real or potential users. According to NetMonitor (2016) heureka.cz is the most visited CPA in the Czech Republic, followed by zbozi.cz a srovname.cz.

2 RESEARCH AIM, METHODOLOGY AND DATA USED

The purpose of this paper is to describe online shopping behaviour in the Czech Republic and identify the influence of shopping agents on the purchasing process. The research was conducted in 2015 on the basis of a survey of online purchasing conditions and factors impacting the online buying process. The study was implemented by using a questionnaire focusing on the research area presented on a website. The sample consisted of 1,601 respondents and the questionnaire included 40 questions. The first questions focused on the respondents and related to their age, gender, education and internet literacy. The second part of the research was connected to the online shopping behaviour of the internet customers. This article presents part of the results obtained.

As can be seen in Table 1, the sample included 962 women (60.1%) and 639 men (39.9%). More than 65% of respondents came from the category millennials (ages 18–34). The research included university-educated respondents (48.2 %) and 63 % of participants were common internet users.

Table 1 Sample demographics

		N	%
Gender	Male	639	39.9
	Female	962	60.1
Age	16–24	563	35.2
	25–34	482	30.1
	35–44	239	14.9
	45–54	184	11.5
	55–64	85	5.3
	65+	48	3
Level of Study	Primary education	73	4.6
	Secondary school without graduation	144	9
	Secondary school with graduation	613	38.3
	University degree	771	48.2
Level of Internet Literacy	Beginner	182	11.4
	Common user	1008	63
	Advanced user	358	22.4
	Professional	53	3.3

(Source: own research)

Based on the theoretical framework which was outlined in the previous part of paper, the following hypotheses were set prior to the research:

H1: Czech customers use comparison shopping agents when shopping online on the internet.

H2: *References and customers' reviews are very important factors when choosing an e-shop.*

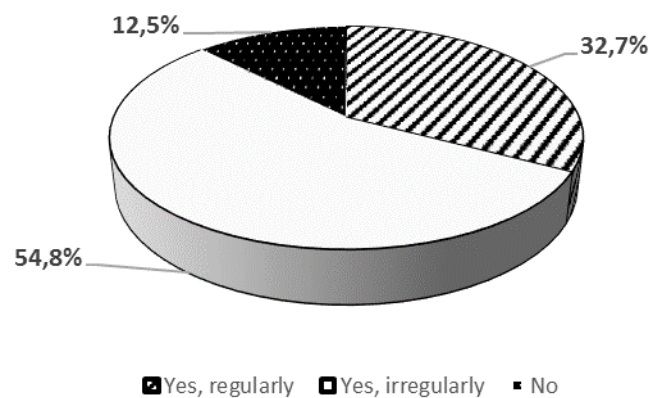
Pearson's correlation coefficient was used to measure the correlation between variables. The p-value considered significant was the 0.05% level. If the p-value is lower than the significance level, we reject the null hypothesis that there is no association between variables. The statistical package for the social sciences (SPSS) was used for the calculations.

3 RESULTS AND DISCUSSION

3.1 Basics of online shopping in the Czech Republic

According to the Czech Statistical Office (2015) more than 60% of millennials are shopping on the internet. Based on the results of our research, almost 55% of research participants shop for products or services online on an irregular basis. 12.5% respondents do not purchase on the internet, but prefer traditional brick-and-mortar shops (presented in Figure 1).

Figure 1 Internet buying in the Czech Republic



(Source: own research)

Eurostat (2016) states that more than two-thirds of European internet users shopped online in 2015. The share of e-buyers is growing with the highest proportion in the 16–54 age bracket (over 68% in each category). The European research shows the 25–54 age group shops online regularly (14% of respondents shopped online more than 10 times in the previous 3 months), the second group of e-shoppers is surprisingly the 55–74 age group (10% of participants).

3.2 Comparison shopping agents

Nowadays internet agents not only have a function of comparing the prices of competitive online shops, but also of offering advice about products, services and other information that is given by real customers and sellers. This new role marks them as 'comparison shopping agents' that try to help customers find the best offer.

The main role of shopping agents is to make shopping easier and help to navigate amidst present offers of e-shops, as mentioned below. Table 2 presents shopping agents in the Czech Republic compared to their size. According to NetMonitor (2016), heureka.cz is the leader in a group of CPAs (presented in Table 2). This agent is followed by zbozi.cz and srovnanicen.cz. The data are based on a number of real users of the CPAs without affiliated agents (heureka.cz without

srovnani.cz, nejlepsiceny.cz and seznamzbozi.cz) over the period of the second half of 2016, specifically till the end of October 2016.

Table 2 Comparison shopping agents in the Czech Republic (in % of real users)

	2015	07–10/2016
heureka.cz	24.28%	19.77%
zbozi.cz	15.55%	12.93%
srovnanicen.cz	3.45%	5.41%

(Source: own calculations based on NetMonitor, 2016)

The regularity of CPA usage in a comparison between regular and irregular e-shoppers is shown in Table 3.

Table 3 Usage of shopping agents in the Czech Republic

	Regular online customers	Irregular online customers	Total regular and irregular online customers
Yes, regularly	60.9	42.6	49.9
Yes, irregularly	27.9	36.7	33.2
No	11.2	20.7	16.9

(Source: own research)

Almost 50% of e-shoppers use shopping agents regularly. It is clear that 83% of online customers use shopping agents because of the help in navigating the extensive offers of the e-shops. Based on the results of this research, we can state that Czech customers use shopping agents as an instrument for effective shopping without any dependency on regularity of purchases. Thus, hypothesis H1 was confirmed.

The purpose of the hypothesis H1 was to confirm a dependency between online purchasing and the use of shopping agents as a tool for the comparison of e-shops. The data presented in Table 4 were analysed using a chi-square test, which examined the relationship between the defined variables. The p-value is compared with the standard 5% significance level. If the p-value is lower than the standard significance level $\alpha = 0.05$, we reject the null hypothesis of the independence of variables.

Table 4 Chi-squared test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.539	2	7.837E-11
Likelihood Ratio	47.230	2	5.549E-11
Linear-by-Linear Association	44.587	1	2.433E-11

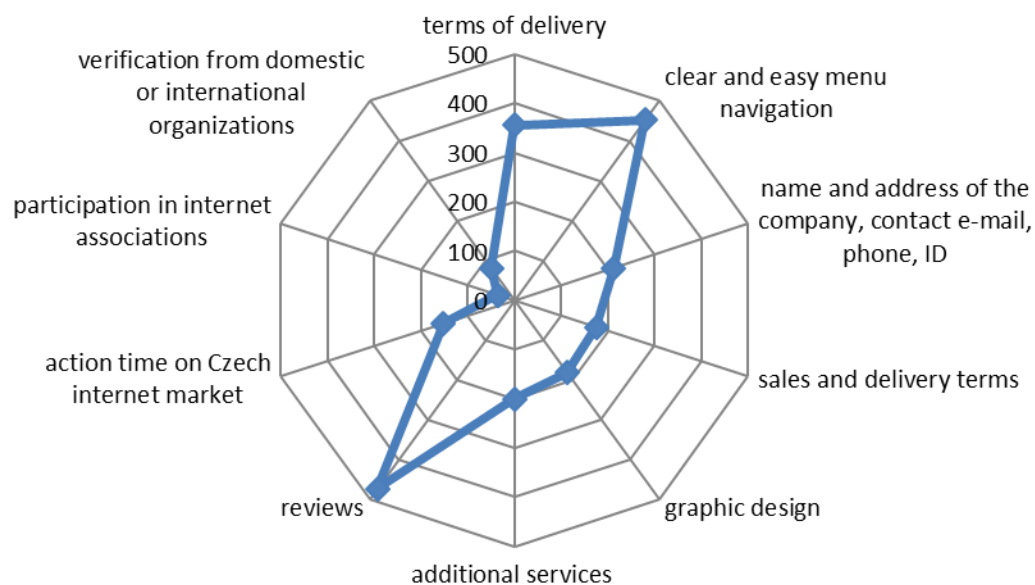
(Source: own research)

Since the p-value ($7,837E-11$) is smaller than the standard significance level $\alpha = 0.05$, we reject the null hypothesis H_0 of independence between online shopping and the use of shopping agents when conducting online purchasing. The hypothesis H_1 was statistically confirmed; the dependency of these two variables exists.

3.3 Customer reviews

Customers' reviews are important criteria for the selection of online retailers. In addition to these factors, Chaffey (2006) defines more key areas defined by e-shoppers: logistics, trust and security, on-time delivery, merchandise in stock, convenience and service. Czech customers prefer online shops with positive customer reviews, clear and easy menu navigation and a focus on terms of delivery. It is obvious that customers who are not able to find the required information or product/service in a short time are leaving e-shop very quickly. Figure 2 presents the criteria of customers when choosing an online shop.

Figure 2 Criteria for online shop preference (in absolute numbers)



(Source: own research)

Customers shop online because they do not want to waste time visiting brick-and-mortar shop and they need merchandise available as soon as possible or readily available. This is one of the reasons customers use reviews as a key factor influencing the selection of e-shop (marked by 473 participants of all age categories). Clear menu navigation was identified as the second most important factor (in the answers of 453 respondents), and terms of delivery are very important for 355 of the e-shoppers. Thus, hypothesis H_2 was confirmed. We regard references and customers' reviews as important factors when customers choosing an e-shop.

CONCLUSIONS

This paper has presented a part of a complex research that focused on the problem of comparison shopping agents (CPAs) and their utilisation in online purchasing in the Czech Republic. The results of the research show regular usage of CPAs when shopping online and definitely confirmed a dependency between these two variables. The last part of the paper pursues the topic of customers' reviews and the relevance of this factor in e-shop selection.

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EMPLOYEE MOTIVATION, RECRUITMENT PRACTICES AND BANKS PERFORMANCE IN NIGERIA

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ABSTRACT

Many organisations recognizes the use of human resource as a major influence to their success. And with today's competitive environment, it is imperative for organisations to find ways to be more effective and efficient in utilizing their resources so as to improve their general performance. Hence, there is need to recruit and retain highly qualified and motivated employees in order to remain competitive in the unstable environment. This study evaluates the relationship between recruitment practices, employee motivation and their impact on organisational performance focusing on the Nigerian banking industry, with a view to investigating factors that motivate employees of Nigerian banks and the methods banks adopt to motivate their employees. The study also assesses recruitment and selection methods used by Nigerian banks to select effective employees. The study is a cross-sectional in time and the primary data collected from a conveniently selected sample of 60 employees each of the seven selected banks. Face-to-face survey and interview was carried out in order to achieve the research objectives and back up theoretical findings. Using correlation and thematic analysis, the results indicated that there was a strong positive relationship between employee motivation, recruitment practices and organisational performance. Findings from the analysis identified that bank employees are mostly extrinsically motivated; although intrinsic factors also motivate them, it is not as motivating as extrinsic factors. The banks also provide more of extrinsic motivators to increase the performance of their employees. The banks make use of various methods of employee selection, by dividing the methods into stages. In addition, recruiting is mostly undertaken through recruitment agencies or advert placements. The study provides future recommendations that banks in Nigeria should be firmer in their selection processes; this will allow them to identify unsuitable applicants and make room for effective employees who will improve the efficiency of the bank and be motivated. At the same time, this research also suggests that the bank should provide more accessible motivational incentives for its employees in order to boost their performance because unmotivated employees are of no use to any organisation.

KEYWORDS

recruitment, selection, motivation, Nigeria, banks, performance.

1. INTRODUCTION

In developed countries and stable economies, most employees will leave their current place of work if they are not satisfied with the job or are not sufficiently motivated and apply to organisations where they feel they will be more motivated and will be more able to develop their cognition and experience. On the other hand, in an unstable economy or in developing countries, people often remain in their current jobs irrespective of the motivation. They may even apply to companies where they have zero experience or knowledge about the job description and even have the fear to move elsewhere, especially when they believe they do not know what is obtainable. In short, they have a fear of the unknown. For this reason, the improvement in performance of organisations based in developing countries is, at times, hindered. This is because it is difficult to find the right person that has the required experience and if the organisation finally finds someone suitable qualified, they must be highly motivated so as to provide a positive impact to the organisation. Hence, it is important to initially select the right skilled personnel that will aid in the organisation's future improvement and also to provide a conducive environment that improves adequate job performance. That is one of the major problems facing the Nigerian banking sector, with commercial banks not following the appropriate recruitment processes and having employees that might not be motivated to perform at work to achieve the bank's goal.

In fact, the Nigerian banking industry has grown over the years with some banks going into strategic alliance, while new banks also emerged. Therefore, the expansion of the industry has prompted fierce competition in the sector, which has resulted in unwarranted employment of people, which leads to an excessive rise in the bank's operating costs. There is also the problem of the appointment of the employees who lack adequate banking experience or knowledge or who even have qualifications for the position being offered to them. This invariably discourages the commercial banks from training their staff, and consequently the overall skill level of the banking industry is affected. Most commercial banks do not follow rigorous employment and interview processes. Some recruitments and selection are based mostly on the director's or sponsor's recommendations made on signed complementary cards and not on academic or professional qualifications or experience in current or previous jobs. In addition, with the issue of unemployment in the country people tend to apply to any organisation no matter what the job description, even if they lack the key talents for the job position they applied for. Often here, the organisation will not have the appropriate selection processes to 'filter out' such individuals.

After employing staff it is essential for the employee to be motivated because it affects his or her performance. Workers' performance levels can be of low standard if they are not highly motivated. Managers are responsible for creating an environment that is conducive for improving performance, so as to induce the right behaviour from employees in the organization. For employees to be highly motivated, "the manger must ensure that working conditions are adequate and the welfare package is attractive to the employees" (Shenkel & Gardner, 2004). Recently, it is been reported that most Nigerian commercial banks, especially the new generation banks, set goals and profit and liability targets that are far-fetched with a clearly specified condition of either confirmation of appointment or promotion or even getting fired if the target is not achieved. The major problem here is whether the employees are motivated enough to achieve these far-fetched goals and if they are provided with a conducive working environment in which to improve their working ability.

However, one thing they have failed to realise is that these sorts of issues can hinder the performance of the bank because they are not getting the right people on board and are not providing the right motivation factors for their employees, since the success of an organisation is also determined by its employees. This study sets out to describe the relationship between an employee's motivation and recruitment practices and its effect on the organisation's performance in the Nigerian banking industry.

2. LITERATURE REVIEW

2.1 Introduction

This section reviews the concept of employee motivation, recruitment practices and organisational performance in the Nigerian banking industry by assessing the various definitions and views from numerous previous studies. The literature looks at the various concepts of employee motivation, recruitment practices and their effect on the organisation's performance and how they are related to each other, with theories used to back the variables up. This section also explores how performance is measured in the Nigerian banking industry.

2.2 Recruitment and Selection

In an organisation, the management of human resources involves activities such as recruitment, motivation and the training and development of employees. Therefore, recruitment and selection is part of the management decision-making process, which plays an important role in the organisation's success. This is because choosing the right employees enables organisations to improve their capabilities to achieve strategic goals and be able to handle future challenges.

Recruitment can be considered as a process that brings together a group of candidates that are potentially qualified for the job vacancy provided by the organisation. Breaugh (2008) described recruitment as the "set of activities and processes used to legally obtain a sufficient number of qualified people at the right place and time so that the people and the organisation can select each other for their own short and long term interests". The process of recruitment aims at aligning with the strategy of the organisation to employ the best candidates so as to develop their human resources. Hence, recruitment and the selection process form an essential part of the activities carried out in an organisation.

Dessler (2000) identified that "recruitment and selection has an important role in ensuring workers' performance and positive organisational outcomes". However, Budhwar & Mellahi (2007) viewed that "even though the two functions are closely connected, each term still requires a separate range of skills and expertise, and may in practice be fulfilled by different staff, for instance the recruitment practice, but not normally the selection decision, at times is outsourced to an agency". Therefore, it is logical to treat each practice separately. Recruitment is the process of creating a group of competent people to apply for a job position in an organisation. Selection, on the other hand, is the process by which the organisation's manager makes use of specific tools to choose from a group of candidates a person or persons whom are likely to succeed in the job, considering the management objectives. To state clear distinctions, recruitment practices offer a group of people that are qualified for selection.

2.2.1 Recruitment and Selection Methods

Recruitment methods can be classified into two forms: internal and external forms of recruitment. When an organisation decides that the method of recruitment practice they are using is the internal

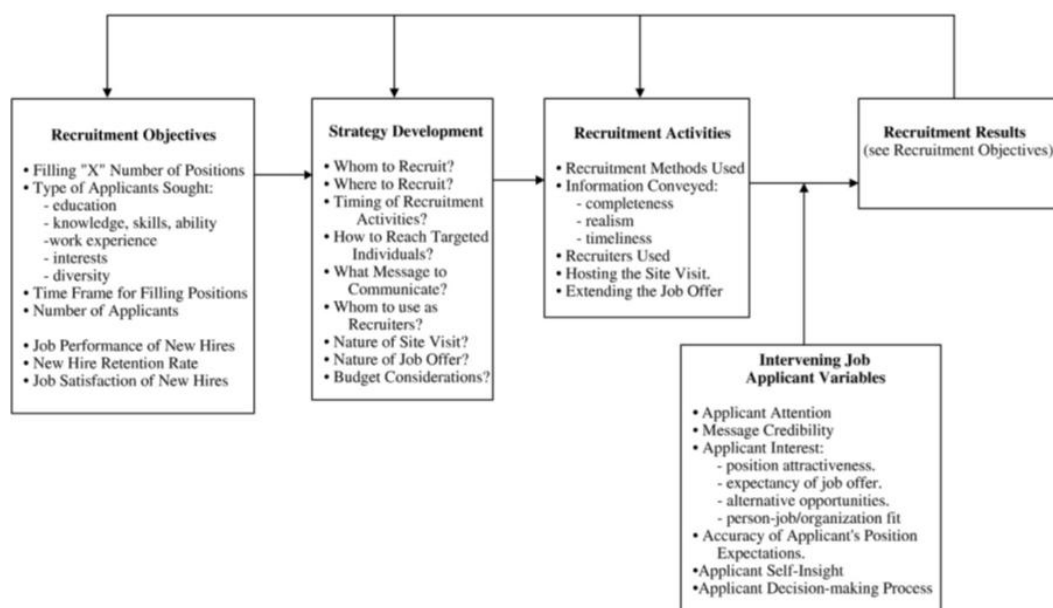
form, the practices includes posting a job vacancy on the notice board and announcing it to employee unions so as to notify and provide room for competition for all the employees eligible for the job position in addition to reviewing the records of employees in order to identify potential candidates for the job position. "Filling a job vacancy from within the organisation has its advantages of elasticity and stimulating preparation for possible transfer or promotion (career progress), increasing the general level of morale, and providing more information about job candidates through analyses of past work within the organisation" (Mudashiru *et al.*, 2013). In spite of this, there are situations when existing employees do not possess the right capabilities for the job position in the organisation and where providing existing employees with appropriate skills might require substantial cost and time. In this case, it is crucial for organisations to introduce new employees with different capabilities for the benefit of the organisation. This can be done through the external recruitment method. The external form of recruitment varies and depends on the category of employees that required. This form of recruitment includes advertising in newspapers, on the radio and television, in magazines and at recruiting agencies, etc. Furthermore, the range of recruitment and selection methods practiced around the world is mostly influenced by national factors and cultures.

For the selection process, there are some popular methods used for the selection of the employee, which include interviews, references, tests and physical examinations, etc. Some other methods for selection are application forms, curriculum vitae, assessments, job trials, job aptitude tests, etc. Moscoso (2000)'s research identified that the selection method that is most popular is the interview. This is probably the most used method in many countries throughout the world in recent times. Budhwar (2000) discovered that there is diversity in the methods used for the recruitment and selection process around the world.

2.2.2 Recruitment Process

Breaugh (2008) proposed a model that illustrates the recruitment process and which is shown in Fig.1 below. The model identifies various numbers of recruitment objectives a manager might have. Some of these recruitment objectives involve the specific number of positions the organisations intend to fill and attracting submissions from various individuals who will perform at a particular level and have a certain retention level.

Figure 1 a model of the recruitment process adopted from Breaugh (2008)



After establishing the recruitment objectives, an organisation must be able to create a rational strategy in order to fill vacant positions. As specified in the model, the manager should concentrate on getting answers related to the established recruitment strategy, which may include who and where to recruit, the time frame of the recruitment process, how to reach the prospective applicants and who to use as recruiters. According to Breugh (2008), the answers to these strategy-oriented questions should be “consistent with the recruitment objectives previously established”. Once the contemplated strategy questions have been answered, the organisation should make sure the recruitment activities are carried out, such as placing an advert of the job opening on job boards such as websites or by hosting receptions at college campuses with all necessary information conveyed. The recruitment result can be viewed as the final stage of the recruitment process. This stage involves an assessment of the recruitment results. More precisely, “an employer should compare its recruitment objectives, that is, what they hope to accomplish and its recruitment outcomes, that is, what they actually accomplished” (Breugh, 2008). In respect to the job applicant variables shown in the recruitment process model, these variables play an important role in how an employer plans its recruitment process. For instance, if an employer intends attracting the attention of people who are not looking for jobs currently, commonly used recruitment methods such as newspaper advertisements and job fairs may not be particularly efficient. Therefore, the organisation needs accurate information and consideration of the applicant perception for the duration of the recruitment process.

2.2.3 Recruitment and Selection Practices and Organisational Performance

Recruitment and selection have become an important tool for organisations in making sure that they have the human capabilities needed to achieve their existing strategic objectives and to continue innovating and developing in the future. Breugh (2008) supported this by explaining that “good recruitment and selection practices can reduce the risks of failing to achieve the business strategy and of incurring needless costs”. A successful recruitment and selection can deliver significant improvements in the efficiency of employee morale and allow the organisation to create a labour force of competent employees who, as a group, offer a better product or service. The likelihood of an organisation’s success frequently rests on the capability of the human capital that was recruited and selected. Hence, recruitment and selection practices should be focused on getting the right people, in the right place, at the right time with the right talents to achieve the business objectives.

Ntiamoah *et al.* (2014) presented a useful summary of the potential positive and negative sides of recruiting and selection by stating that “the recruitment and selection of employees is fundamental to the functioning of an organization, and there are compelling reasons for getting it right”. Hence, poor recruitment efforts can lead to poor selection of prospective employees, which can become detrimental to the organisation in the long run. The research of Breugh *et al.* (2008) deduced that “poor recruitment decisions continue to affect organisational performance, limit goal achievement and invalidate reward and development strategies which are frequently unfair to the individual employees and can be distressing for the managers also who have to deal with unsuitable employees”. Therefore, it is best that great effort is put in to the recruitment and selection practices.

As it is known that recruitment and selection involve getting the best candidate for the job position, it is imperative for the organisation to have an appropriate plan in order to employ the most suitable candidate that has the drive to work in that organisation. Simultaneously, it is important for the organisation to create a favorable environment as well to boost the recruited employees’ morale in order to improve their performance.

2.3 Employee Motivation

While having effective employees start from the recruitment and selection process, it is essential to motivate these employees in order to improve their performance and that of the organisations. Motivation has become one of the important aspects in identifying how individuals act the way they do at the workplace. According to Leete (2000), “motivation is the inner drive to behave or act in a certain manner”. This inner drive plays an important role in pushing individuals to work towards achieving a specific objective and organisations have recognized it as an important motive towards achieving success in the organisation.

Employee motivation is viewed as “one of the strategies of organisations to enhance its performance through its workers by providing a conducive, motivated environment in the organisation” (Taghipour & Dejban, 2013). Employee motivation is based on the condition where employees are ready to dedicate time and passion to their work by devising better techniques to get the work done with all sense of eagerness and dedication. According to Shenkel & Gardner (2004), “motivating employees is sometimes tricky for organisations: if the right environment or motivational factors are not in place it will result in poor performance, inadequate satisfaction, declining morale and widespread discouragement”. Amabile (1993) argued that it is essential for “managers and organisations to understand and know how to deal effectively with their employees’ motivation since motivated employees are important to ensure the organisation becomes successful”. The study also added that unmotivated employees are unlikely to perform well or may even dodge responsibilities at work.

Motivation can be broken up into two major forms: extrinsic and intrinsic motivation. Extrinsic motivation can be viewed as including external factors, which can be determined in monetary terms, such as salary, benefits, promotions and incentives. Amabile (1993) explains that “individuals are extrinsically motivated when they engage in work in order to obtain some goal that is separate from the work itself”.

Intrinsic motivation, on the other hand, refers to internal factors such as job satisfaction, responsibility, freedom to act and development of skills and abilities. Individuals that are intrinsically motivated are mostly viewed as self-motivated because “they enjoy performing the actual tasks or the challenge of successfully completing a certain task” (Moshan *et al.*, 2012).

These two different aspects of motivation are connected to each other and cannot be seen in isolation. Amabile (1993) states that both “intrinsic and extrinsic factors can motivate employees to do their work. However, both factors can have very different effects on employees”. In the service industry, specifically here the banking sector, embracing employee motivation can be portrayed when an employee only goes to work for no other reason than the salary they receive. However, when an employee is still not satisfied, there is the tendency for them not to be productive. When that happens, it results in a low rate of job commitment and performance, which can affect the organisation in the long run.

2.4 Organisational Performance

According to Richard *et al.* (2009), “organization performance is determined by measuring the actual outputs of an organization against its intended outputs (i.e., goals or objectives)”. Barathi & Kamath (2007) explained that “organization performance comprises three areas of company outcomes, namely, financial performance (return on assets, return on investment, and profits), product market performance (sales and market share), and shareholder return”. Many organisations measure their performance through their financial activities while at the same time, some other organisations recognize the non-financial performance measurements, such as management quality, long-term orientation, workforce quality, etc.

According to Sabo (2008), “a good means of measuring performance in Nigerian banks and other business organisations is through the use of financial analysis, which was described as the process of identifying the financial strengths and weaknesses of the organisation by properly establishing the relationship between the details of the balance sheet, the profit and loss account”. The financial analysis evaluates the bank’s performance in terms of, for example, asset quality, profitability and solvency. The financial statements are prepared to provide overall information on the organisation on a regular basis, mostly annually.

However, in this study, the bank’s performance will be examined through workforce qualities and financial output (profit and cash flows). In this sense, it is the main concern of the bank is to ensure that the right recruitment and selection practices are used to bring in the right people on board and provide appropriate motivational tools that stimulates and improves employee’s morale for better performance and improve quality of service.

2.5 Recruitment Practices, Employee Motivation and Bank’s Performance

From the above explanations, it can be deduced that recruitment practices and employee motivation are of individual importance to any organisation’s performance. However, it is has not been realized that both recruitment practices and employee motivation can be connected in order to improve organisational performance. Employee motivation starts from the initial job application and how prospective applicants perceive the whole process of recruitment. The morale of these applicants can influence their job performance positively or negatively, if they are eventually employed. For that reason, banks should endeavor to have an effective recruitment process for the prospective applicants to have a clear view about the vacant job position and, at the same time, providing necessary motivational packages that will benefit the employees in order to improve their job performance and achieve organisational goals. This is because having effective employees is a vital factor for any organisation to perform efficiently, and survive in the changing business environment.

In general, when recruiting potential candidates, it is important to highlight the job description and features that make the position desirable and provide a clear vision of future possibilities. It is also important to recruit employees who are genuinely driven and enthusiastic about the job position. There is also the need to understand the potential employee’s set of unique motivational drivers because it is absolutely crucial to the effectiveness of the recruitment and selection process, and which will significantly improve any human resource team's ability to select the right person for the job and the organisation as a whole. By effectively recruiting and selecting the right employee, it can be less complicated to motivate and retain employees. For employees to be motivated, Moshan *et al.* (2012) viewed that “sales recruiting minimums must be upheld” such as pay, working conditions and job security. Without the basics, recruiting even the best employee might be challenging.

Hence, with the enlightenments of all the research concepts, it can be concluded that, irrespective of any employee, the appropriate recruitment and motivational foundation will keep them engaged in their work. This will therefore result in a positive relationship between employee’s motivation, recruitment practices and organisational performance.

3. METHODOLOGY

This research was achieved by making use of both quantitative and qualitative methods of research. It focuses on commercial banks in Lagos, Nigeria. The chosen sample population of the study is the

employees of both old and new generation banks. The banks are; Access bank Plc, First bank Plc, United bank for Africa (UBA), Guarantee bank Plc, Sterling bank Plc, First City Monument bank Plc (FCMB), and Zenith Bank Plc. These banks have diverse range of employees which made them most suitable for the study. The sampling technique used in this study is the random sampling method. The random sampling method provides all the employees of the banks an equal chance of being selected for the survey since all the employees have gone through the recruitment process and have experienced motivation issues at one point or another. This research made use of the questionnaire, which was administered through a face-to-face approach, handed directly to the respondents by the researchers` and assistance of four trained research assistant, which gave the researchers` the privilege to introduce the topic and offer encouragement to banks employees in answering the questionnaire. A total of sixty (60) copies each of the questionnaires were administered in each of the seven selected banks branches in Lagos, totaling 420 questionnaires. Out of the total 420 questionnaires administered across the seven banks, 385 representing 91.67% were returned and properly filled for the purpose of data analysis. The questionnaire used in this research asked both open-ended and closed questions because the closed questions allow respondents to select from a range of prearranged answers while open-ended questions will allow the respondents have a free narrative for their response. The survey questionnaire consisted of three sections. The first section dealt with the personal and demographic characteristics of the respondents, which were expected to identify the respondents` job position, level and duties. The questions asked in the second section are related to the recruitment and selection practices and organisational performance of the bank and the employee`s perception of it. This section consisted of both open-ended and closed questions to expand on the participants` response and which included a five-point Likert scale from `strongly agree` to `strongly disagree`. The third section asked questions pertaining to employee motivation and the identification of factors that motivates employees of the bank. The questions also took a form of five-point Likert scales from `strongly agree` to `strongly disagree` so as to allow the respondents to provide their views in measurements of how motivation affects them. The questions were clear and precise in order for easy completion by the busy employees. The qualitative method that was applied is the interview method, which involved one-on-one question and answer sessions between the researchers and some heads of section of bank branches. The selected banks supervisors were interviewed so as to have their own perspective of the subject matter. The interview meeting was carried out in the staffs` respective offices at their own convenient time. There was an in-depth interview with five employees each of selected banks from the manager to the supervisors to the head of Human resources. To analyse the data, different techniques were implemented. For the quantitative data analysis, descriptive statistics were used including frequency counts and percentages, and the mean of the responses were calculated for each of the variables in all the sections. The descriptive statistic measures were used to create a summary of the respondents` demographic characteristics and, as a result, a frequency analysis was conducted on the research objectives. Correlation was calculated to show whether there is significant relationship or not between all the variables (recruitment practices, employee motivation and banks performance) related to the subject on the basis of the research objectives. These analyses were achieved with the use of SPSS Package.

4. RESULTS AND DISCUSSION

4.1 Quantitative Data Analysis

4.1.1 Presentation and Analysis of Demographic Data

For the demographic data, questions were asked on the respondents` gender, qualifications, number of years worked at the bank, work level and position at the bank and the core duties they perform at work. This is fully illustrated in appendix. With regards to the employee`s gender, it was observed

from the result that 49.1% of the respondents were male while 50.9% were female in this category of employees. This shows that there were a few more female participants than male in this survey. This can be a result of the sampling technique used or that the bank might have more female staff than male. Identifying the highest qualification of the respondents revealed that over 50% of the respondents hold a 1st degree from different areas. Hence, it is observed that the banks have various levels of qualified personnel to aid in carrying out their objectives. Results gathered from the data collected also showed 55.5% of the employees have worked with the banks between one and six years. Most of the respondents are medium level workers, with 52.7% of the employees consisting of sales executives, relationship managers, operation managers, etc. Meanwhile, 31.8% of the respondents are low level employees with various personnel functions such as cash teller officers, customer service officials, etc. Finally, 15.5% of the respondents are high level employees such as supervisors and HR heads, etc. This shows that the survey covered all the job levels in the banks and provided different views of how job level influenced the responses to the survey.

4.1.2 Presentation and Analysis of Data According to the Research Variables

To achieve the stated objectives, some questions were asked and the responses were analysed in relation to the objectives the survey wanted to achieve. In order to identify the different methods used in recruiting employees, questions were asked on how the employees found out about the job position. Some 30.4% of the respondents stated that they found out through other methods of recruitment such as employee referrals, the use of family and friends and internal sources of recruitment, whereby existing employees are considered when a vacant position is available. In relation to the recruitment practices, respondents were asked if there are any methods considered most for the selection of employees. Around 46.4% of respondents agreed that all the methods for selection are very important and are all considered by the bank as conditions for recruitment and selection of new employees.

Results from the data collected from the employees showed that 85.5% of the respondents pointed out that their morale affected their job application. Where questions were asked about whether the job description and specifications were clearly defined in the recruitment process, it was clear that the respondents expressed their views towards the job description being clearly stated during the recruitment process, with 77.5% agreeing to it. As such, it is reasonable to infer that employees were clearly provided with the job description and specifications before starting the job. The findings revealed that the respondents had mixed opinions on whether the job position they were given was what they were expecting. A total of 67.5% agreed to this fact while 17.2% disagreed, implying that the job position they were put in was not what they wanted. From the distribution, it is observed that most respondents agree to the opinion that the recruitment and selection process influenced performance at work, with the total of 66.5%. This shows that some respondents have been able to perform their duties because of the recruitment and selection method the bank used, as it has added to their knowledge of performing better at work. In addition, respondents shared their opinions about the recruitment and selection practices of the bank, which many viewed to be very effective and professional while suggesting there is still room for future changes and improvements. The survey shows that the majority of the respondents believe to be a competent addition to the bank's performance, with 98.2% agreeing. This is high enough to deduce that employees feel they have a vital impact on the bank and its performance.

In connection to the competency of the employees, respondents were asked if the job position they currently hold allows them to make use of their full potential. The responses show that there were mixed views about the employees and the positions they hold in terms of whether they perform well in it. Some 91.9% agreed that their job position allows them to make use of their full potential, while the remainder disagreed, suggesting that the job position is hindering them from showing their full potential.

The survey data also indicates that many respondents feel motivated at work, with a total of 70.9% agreeing to the statement. This indicates that some employees still feel highly motivated regardless of the problems or situations they find themselves in at work. In order to identify how good the bank's performance is at present, respondents were asked if the bank's performance is outstanding. Some 90.9% of the respondents agreed that the bank's performance has been tremendous over the years, with the increase in customer base and profit.

To identify factors that motivate the employees of banks, some questions were asked about various motivational factors that can influence them as employees of a bank. Some 95.6% respondents agreed that they are motivated to perform more at work when the incentive is financial in nature. Exploring further on the specific financial incentive that motivates employees, 98.2% of the respondents identified that salary and its subsequent increments (when provided) motivate them to achieve their specified target. When asked whether the benefit packages the employees receive motivates them, 96.4% respondents agreed that the benefit packages they receive motivate them to do their best at work.

Furthermore, many respondents were of the view that the possibility of them getting promoted to a higher level motivates them to work hard at the bank, with a response rate of 96.6% in agreement. Some 98.4% of the participants were of the view that a proper working condition motivates them to do their best work. Meanwhile 92.7% of the respondents agreed that being credited and recognized for the work they perform in the banks, motivates them to improve in their performance. The survey also gathered that the drive of gaining more skills at the job motivates many employees, which was shown with a 99.2% response rate. In addition, 82.1% respondents were in agreement that their desire to work at banks motivates them to work hard and improve their performance so as to retain their job in the bank. However, there were mixed views when a question surfaced on whether the employees are motivated by non-financial incentives.

In fact, 67.3% of the respondents agreed that non-financial incentives motivate them to perform well at work. Finally, a question was asked on whether the employees were satisfied with the motivation packages and incentives they receive from the bank. Only 52% of the respondents agreed that they were satisfied with the motivational packages the bank provides for them, while 15.4% disagreed, suggesting they were not nearly satisfied enough with the incentives they receive at work. Therefore, this survey revealed that most of the respondents are financially motivated, especially with their salaries and the subsequent increases, which was further explained during the interview session. Although it was also identified that other factors motivate the employee to increase their performance and achieve their stated targets at work.

4.1.3 Reliability Test

When choosing scales, it is important to include scales that are reliable. Hence the scales need to be tested so as to evaluate the amount of regularity between different measurements of variables. Cronbach's Alpha was used to test the reliability and to assess the regularities of the entire scale. Nunnally (1978) indicated that reliability scores greater than 0.70 are an acceptable reliability coefficient but "lower threshold are sometimes used in the literature". Cronbach's Alpha was computed for the following measures of the variables in this study: factors that influence employee motivation and recruitment and performance. The reliability test was computed using SPSS.

As the first variable was recruitment and performance, seven items were computed to check the reliability statistics and that the results (appendix) exceed the acceptable score which is 0.7. Here, Cronbach's Alpha score was 0.736. Therefore, the instrument used for this study had satisfactory construct validity.

The second variable is employee motivation and its factors. Eleven items were entered to confirm the reliability result. The Cronbach's Alpha score was 0.707, which is acceptable according to the above standard guideline (appendix). Therefore, it can be viewed that the entire variable scale of this survey exhibited a good internal reliability and satisfactory construct validity.

4.1.4 Test of Hypothesis

To test the hypothesis of employee motivation, recruitment process and organisational performance, some items stood as characteristics of each variable. However, the items were then transformed into new variables to represent the dependent and independent variables. Thus, it was easier to identify the effect of one on the other and to establish whether there is a positive or negative correlation between the variables. After looking at the correlation table (appendix 5), the result shows that there is a positive relationship between the dependent variable, organisational performance, and the independent variables: employee motivation and recruitment practices (0.590). This shows a strong correlation between the dependent variable and the independent variables since the p-value is less than 0.01 Alpha ($0.000 < 0.01$), which is significant at 1%. We thus accept that employee motivation and recruitment practices have a significant and positive relationship with the bank's performance. In order to expand more on the responses gathered from the survey, an interview was conducted for the high level staff of Banks to share their opinions about the research concept.

4.2 Qualitative Data Analysis

There were three major themes identified from the data gathered, namely, recruitment and selection practices, employee motivation and performance measurement, which still had their respective subthemes. These themes were identified as influential to the banks' effectiveness.

4.2.1 Employees' Perception of Recruitment and Selection Practices

Respondents were asked to assess the bank's recruitment and selection practices. It was acknowledged that banks' recruitment and selection practice is efficient, because they ensure the selection process is thorough. As one employee said, "it is important to get the right people for the right position, therefore the bank has stated the requirements to be met before being employed". For the recruitment and selection process, many employees held that prospective applicants need necessary educational qualifications and the right experience for them to qualify for the specific vacant job position.

The major methods the bank adopts for recruitment are recruitment agencies and the internet and newspaper adverts, which have proved to be effective. For the selection method, the HR head stated that because the bank wants to be thorough, the prospective candidates go through various stages of the selection process before the most suitable candidate for the job is chosen. The selection process begins from the applicants submitting their curriculum vitae (CV) and attaching the right documents with it, then, after the preliminary stage, shortlisted applicants who meet the bank's requirements will be called in for a test and a follow-up interview designed to ascertain whether the applicant is of sound mind and of good character. Then the eligible candidates will go through training to be able to have an idea of the position they are applying for. Afterwards, the right candidate will be employed.

While this seems to be an efficient recruitment and selection practice, some employees still had reservations about it, by identifying that the recruitment and selections practices have their flaws. From the survey carried out, the majority of the employees were recruited from referrals, personal relationships or internal recruitment. Just a few of the respondents were recruited through the methods the bank actually claims to adopt. An employee mentioned that when it comes to recruiting

employees through referrals and personal relationships, it tends to lead to favoritism because those kinds of applicants do not mostly go through all the stages of the selection process. This might lead to employing individuals without key talents that will increase the bank's performance and demotivating other employees who feel they were not provided that kind of easy opportunity. Another employee's view was that there is beginning to be lack of 'key talents' to recruit, which is an issue for the bank. However, with these challenges there were also future improvement plans such as 'the procedure for selection of potential employees should be strictly adhered to'. In other words, the bank's job requirements and related experience should be implemented. There should also be the adoption of doing adequate background checks on prospective employees; educational qualifications and experience should not be solely relied on.

Views were also shared on the impact recruitment and selection has on performance. Many employees stated how important recruitment and selection is because it immensely impacts performance. An employee said the recruitment of new employees helps to demonstrate the bank's ambitions by emphasizing the skills to which it attaches the highest priority.

4.2.2 Employees' Perception of Motivation

One employee said "there is so much effort put in motivating the employees from short to long term benefits". The essence of motivating the employees is to ensure continuous survival of the bank operations. The bank tries to make sure the motivation packages adopted cover all areas of motivation of employees. Such packages include salaries, working reward benefits, bonuses, fringe benefits, loan schemes, promotion, training, good working conditions, opportunity to use and develop their skills and providing freedom to act. Many of the respondents were of the view that most employees are financially motivated with salaries and bonuses, which was also observed in the survey carried out. This is because with the boost of extra bonuses, they will be able to achieve the branch's target and improve overall bank performance. Another employee mentioned how "these benefits are renewed every two years by the meeting of unions, management and the board of directors".

Regarding these benefits however, one employee was asked about motivation issues in the branch and replied by stating that "some people do nothing while others do so much which discourages me because they get paid to do nothing while one that does so much might not get paid as much as other people". Other employees viewed that appropriate recognition is not given to the subordinate staff that work very hard; rather recognition is just given to the bosses. There was also an issue that came up concerning some motivational packages not being provided to all levels in the bank.

A supervisor said employees that work as DSAs are not included in the loan schemes and fringe benefits, which can cause low morale for them. Another employee mentioned that the time frame for working before being eligible for some benefits is outrageous, leaving employees to either leave the bank or not perform properly. Nonetheless, there are plans for further improvement of the motivation packages, such as the introduction of yearly recognition and awards for individual employees and branches with outstanding performances, a more flexible loan scheme and making some benefits more accessible.

Employees also spoke about how motivation impacts performance, indicating they understand that in order to be effective, employees need to perform well and that motivation affects the bank's performance. Low morale is bad for the bank and should be avoided as much as possible because it is unhealthy for a work environment and the overall corporate performance. When further asked about the connections recruitment and motivation have and how it impacts on the bank's performance, the HR manager mentioned how "the bank can only succeed if we recruit and motivate people who are able to respond and adjust to the challenges of the future". Therefore, there

is a need to bring in the right people into the bank because the right employee will not be difficult to motivate and will be able to perform diligently for the banks.

4.2.3 Employees' Perception of Performance Measurement

The bank's performance is very important because it is under the scrutinizing eye of the governing bodies and, if they perform poorly, this will affect their whole operation from customers to staff. To be efficient, the bank assesses their performance as a whole and that of their employees. For the employees, performance is measured mostly by a quarterly performance appraisal which involves reviewing and evaluating the employee's career development and performance reflections. The performance appraisal draws attention to the employee's productivity, accomplishments and whether they are meeting the bank's target. As for measuring the bank's overall performance, many employees commented that the performance is measured using key performance indicators (KPI) and the amount of money they bring in. That is, making a profit and being able to meet their target. There were also comments on the importance of these performance measurements. One employee said the bank's performance measurements help detect strengths, weaknesses and provides room for potential future improvements for the bank.

DISCUSSION OF FINDINGS

Relating the findings gathered from the research to relevant literatures, recruitment practices and employee motivation has always been stressed by various scholars to result in efficiency of both employees and organisations. From the research findings, it was identified that it is the responsibility of the bank's management to recruit suitable employees and motivate their employees in order to provide ground for improved performance within the employees and for the bank (Begum, Zehou, & Hossain Sarker., 2014).

The research findings discovered that banks in Nigeria have a structured way of selecting new employees. The first stage is recruiting potential applicants that have all the necessary requirements for the vacant job position through various medium of recruitment. Shortlisted applicants are then invited for a test and follow-up interview to select the suitable candidate. From the interview, it was realized that some respondents were of the opinion that recruitment and selection practices adopted by the bank were very effective as the right capabilities are always employed. However, some other employees were of the view that the measures adopted for recruitment and selection were not effective and the reasons raised included favoritism and lack of key talents in Nigeria.

Recruitment as a human resource management function, is one of the activities that influences the performance of any organisation (Brindusoiu, 2013). This is because it has been understood that poor recruitment practices will continue to affect organisational performance and hinder goal achievement. This study revealed that recruitment and selection practices have improved the performance of the employees and the bank. Recruitment and selection practices had led to the employment of qualified employees, while there were still reservations that recruitment and selection practices alone cannot improve the performance of the bank because the bank might not be applying these methods appropriately which is where motivation comes in place.

From the data gathered, employees have different needs to be achieved and these needs influences how they perform at work. When these needs are achieved, it prompts another desire to achieve another necessity which is in accordance with Maslow's hierarchy of needs. From the findings, financial incentives such as salaries and its subsequent increase provided for employees will increase their motivation for better performance which is emphasized by Maslow's basic needs. It was also gathered that majority of the employees are permanent workers which provides possibility

for promotion at work. This tends to enhance the frame of mind of employees when it comes to job security and increase their performance at work. This explains Maslow's safety needs. These findings are also associated to the expectancy theory (Amabile, 1993).

The belonging needs of employees which can be as a result of good working environment was identified to give rise to higher motivation at work. In addition, allowing employees make full of their potentials and abilities will increase the employees' motivation at work. The utilization of employees' abilities and valuing their services at work further justifies the theoretical understanding of esteem needs proposed by Maslow. Some employees are motivated when they fulfil the desire to meet the bank's target in order to be retained in the banks. While other employees are motivated when they have the drive to gain more skills by taking up challenging task. This sense of fulfilment and achievement identified from the findings above explains Maslow's theoretical assumption of the self-actualization needs. Also, the findings above can also be connected to the Herzberg motivator factor (Herzberg *et al.*, 1959). Besides, employees still believe that financial incentives will motivate them more at work than other incentives. When employees are appraised appropriately once they perform well at work, it motivates them to have a better performance. Therefore, these research findings are supported by the theoretical assumptions of Herzberg's hygiene factors. If the hygiene factors are not fulfilled it will lead to dissatisfaction of employees.

Therefore, banks would be advised to bear in mind that their employees are vital to the enhancement of the bank's performance and great attention needs to be provided in getting the employees with right capabilities and motivating them appropriately in order to improve the bank's efficiency. Hence, better performance can be achieved by banks through adopting both appropriate recruitment methods, selection criteria and motivation methods.

Summary of Findings

The major objective of this research was to examine the relationship between employee's motivation, recruitment practices and organisational performance in theory and practice. To accomplish that, the research captured a number of important aspects with the support of previous findings on how recruitment practices and employee motivation affects the organisational performance, especially in the Nigerian banking industry. Begum *et al.*, (2014) state that "knowing what qualities to look for and what questions to ask, can help in making the recruitment and selection process more effective and at the same time booster the motivation of an employee". This study also identified that effective recruitment practices and employee motivation can be linked together to increase the performance of both employees and the organisation as a whole. From the research gathered, an employee's motivation starts from how effective the recruitment process is carried out before being employed and then from the organisation providing a conducive environment for the employees to perform in order to achieve the organisational goals. Recruitment practices and employee motivation are very important for the success of any organisation. Having employees with suitable capabilities that fit the organisation's objectives and have the willingness to perform well in their position mostly depends on the combination of the organisation's recruitment and selection practices and the motivation methods the organisation adopts.

The study highlighted various recruitment and selection methods adopted by the selected banks of study, which they find effective in achieving their objectives. These included recruitment agencies, newspaper adverts, tests and interviews. However, it was found that there are some recruitment methods used by the bank that may hinder the bank's performance, which includes employment through employee referrals and personal relationships (family and friends). These methods were identified as leading to the recruitment of employees that may not have the appropriate capabilities for the job position given, which can negatively influence the morale of the employees, their performance and that of the banks.

The study also discovered factors that motivate employees and what methods the banks adopt to motivate their employees in order to achieve their performance targets. The bank makes sure their employees are highly motivated in order to bring the best out of them. They provide necessary provisions to boost the employees' performances, such as good working conditions, good salaries and bonuses, promotion and other benefits. It was also identified that employees are mostly motivated by extrinsic factors, especially those with financial incentives. Nonetheless, it was realized that financial incentives alone are not, to an extent, sufficient to motivate employees to perform well at work. Other factors that motivate employees are good working conditions, the drive to gain more skills, achieving recognition, etc.

This study also gave an opportunity to banks in Nigeria to address the recruitment practices and employee motivation challenges as they seek to improve on their performance.

CONCLUSION

This section brings together the research outcome and knowledge gathered from the study with future recommendations for the selected bank of study. The project aimed at executing research on how to increase performance through implementing effective recruitment practices and employee motivation. With an in-depth review of the relevant literature, the interviews and survey conducted in this study showed there was a practical link between the theoretical assumptions and the practical views on how employees can best be motivated and recruited for better performance levels in organisations. This shows a more realistic understanding of employees' opinions on recruitment practices and motivation and how these affect performance within the case study in question. Therefore, it is concluded that employee motivation and recruitment practices have, to a large extent, an impact on the performance of an organisation and it is vital to understand this if the organisation wants to achieve their stated goals.

LIMITATIONS AND RECOMMENDATIONS

From the above findings, it is realized that recruitment and selection practices and employee motivation is very important and connected to the performance of any organisation, whether this is a bank or not. However this study also had its limitations and future recommendations.

For the limitations, since the study focuses only on Nigerian banks, the findings cannot be assumed for banks in other African countries or around the world.

It cannot be presumed that recruitment and motivation in relation to performance is the same in other business sectors in Nigeria or around the world.

As for recommendations, the following were formulated to help improve the banks' future effectiveness:

- (i) All prospective applicants should be given equal and fair chance during the recruitment and selection process, preventing favoritism while providing this fair chance. Therefore, 'short-cutting' in the selection process for applicants should be stopped because at times these applicants might not have a positive impact on the bank's performance.
- (ii) During the recruitment and selection process, the bank should endeavour that the job position is described and specified in detail in order to filter out unwanted applicants and also to improve the morale of all prospective candidates by ensuring they know exactly what they are getting into.
- (iii) There should be annual seminars and training for the employees to refresh their knowledge about the competitive market. Since it is believed that key talents are hard to come by, the bank needs to improve their employees' skills in fields in which they have difficulties in terms of recruitment.

(iv) The human resource department should improve on the ways of valuing and providing necessary recognition to the employees in order to bring out the best in them and improve their performance.

(v) The motivational packages provided by the bank should be more accessible and flexible. This could include elastic loan schemes and reachable benefits for all levels of employees so as to show that the management has genuine interest in the welfare of their employees.

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Appendix

SPSS DATA OUTPUT

1.

Descriptive Statistics

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	189	49.1	49.1	49.1
	female	196	50.9	50.9	100.0
	Total	385	100.0	100.0	

Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HND	35	9.1	9.1	9.1
	1st degree	193	50.1	50.1	59.2
	2nd degree	112	29.1	29.1	88.3
	others	45	11.7	11.7	100.0
	Total	385	100.0	100.0	

The duration of working at the bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 year	116	30.1	30.1	30.1
	1-6 years	214	55.6	55.6	85.7
	7-12years	55	14.3	14.3	100.0
	Total	385	100.0	100.0	

Work level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	low level	123	32	32	32
	medium level	203	52.7	52.7	84.7
	high level	59	15.3	15.3	100.0
	Total	385	100.0	100.0	

Methods of Recruitment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	radio advert	18	4.7	4.7	4.7
	TV advert	25	6.5	6.5	11.2
	newspaper advert	53	13.8	13.8	25
	professional associations	81	21	21	46
	recruitment agencies	91	23.6	23.6	69.6

others	117	30.4	30.4	100.0
Total	385	100.0	100.0	

Method most considered for recruitment and selection

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid academic qualifications	95	24.7	24.7	24.7
work experience	67	17.4	17.4	42.1
interview	35	9.1	9.1	51.2
test	7	1.8	1.8	53
All of the above	179	46.5	46.5	99.5
others	2	.5	.5	100.0
Total	385	100.0	100.0	

Morale affects the job application

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	329	85.5	85.5	85.5
No	11	2.8	2.8	88.3
Maybe	45	11.7	11.7	100.0
Total	385	100.0	100.0	

The job description and specifications were clearly defined in the recruitment process

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	56	14.6	14.6	14.6
agree	242	62.9	62.9	77.5
neutral	39	10.1	10.1	87.6
disagree	46	11.9	11.9	99.5
strongly disagree	2	.5	.5	100.0
Total	385	100.0	100.0	

The job position was what I expected

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	39	10.1	10.1	10.1
agree	221	57.4	57.4	67.5
neutral	60	15.6	15.6	83.1
disagree	56	14.6	14.6	97.7
strongly disagree	9	2.3	2.3	100.0
Total	385	100.0	100.0	

The recruitment process and selection influenced my performance at work

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	strongly agree	53	13.8	13.8	13.8
	agree	203	52.7	52.7	66.5
	neutral	95	24.7	24.7	91.2
	disagree	28	7.3	7.3	98.5
	strongly disagree	6	1.5	1.5	100.0
	Total	385	100.0	100.0	

I am a competent add to this organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	231	60.0	60.0	60.0
	agree	147	38.2	38.2	98.2
	neutral	7	1.8	1.8	100.0
	Total	385	100.0	100.0	

The organisation's performance is excellent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	102	26.5	26.5	26.5
	agree	252	65.4	65.4	91.9
	neutral	31	8.1	8.1	100.0
	Total	385	100.0	100.0	

Job allows me to make use of my full potential

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	49	12.7	12.7	12.7
	agree	224	58.2	58.2	70.9
	neutral	98	25.5	25.5	96.4
	disagree	14	3.6	3.6	100.0
	Total	385	100.0	100.0	

Financial incentives motivates me to perform at work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	151	39.2	39.2	39.2
	agree	217	56.4	56.4	95.6
	neutral	14	3.6	3.6	99.2
	disagree	3	.8	.8	100.0
	Total	385	100.0	100.0	

Salary and its subsequent increments that are provided motivates me to meet my target

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	147	38.2	38.2	38.2
	Agree	231	60.0	60.0	98.2
	Neutral	4	1.0	1.0	99.2
	Disagree	3	.8	.8	100.0

Salary and its subsequent increments that are provided motivates me to meet my target

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	147	38.2	38.2	38.2
Agree	231	60.0	60.0	98.2
Neutral	4	1.0	1.0	99.2
Disagree	3	.8	.8	100.0
Total	385	100.0	100.0	

The benefit packages I receive motivates me

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	119	30.9	30.9	30.9
agree	252	65.5	65.5	96.4
neutral	11	2.8	2.8	99.2
disagree	3	.8	.8	100.0
Total	385	100.0	100.0	

The possibility of getting a promotion motivates me to do my best at work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	158	41.0	41.0	41.0
agree	214	55.6	55.6	96.6
neutral	13	3.4	3.4	100.0
Total	385	100.0	100.0	

Achieving recognition and credits motivates me at work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	126	32.7	32.7	32.7
agree	231	60.0	60.0	92.7
neutral	25	6.5	6.5	99.2
strongly disagree	3	.8	.8	100.0
Total	385	100.0	100.0	

The drive of gaining more skills at my job motivates me

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	161	41.8	41.8	41.8
agree	221	57.4	57.4	99.2
disagree	3	.8	.8	100.0
Total	385	100.0	100.0	

The desire to work in this organisation motivates me to improve in my performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	74	19.2	19.2	19.2

agree	242	62.9	62.9	82.1
neutral	60	15.6	15.6	97.7
disagree	9	2.3	2.3	100.0
Total	385	100.0	100.0	

Non-financial incentives motivates me to perform well at work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	42	10.9	10.9	10.9
agree	217	56.4	56.4	67.3
neutral	77	20.0	20.0	87.3
disagree	35	9.1	9.1	96.4
strongly disagree	14	3.6	3.6	100.0
Total	385	100.0	100.0	

I am satisfied with the incentives the bank offers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	18	4.7	4.5	4.7
agree	182	47.3	47.3	52
neutral	126	32.7	32.7	84.7
disagree	46	11.9	11.8	96.6
strongly disagree	13	3.4	3.6	100.0
Total	385	100.0	100.0	

Organization performance has been tremendous over the years with increase in customer base and profit

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	140	36.4	36.4	36.4
agree	210	54.5	54.5	90.9
neutral	28	7.3	7.3	98.2
disagree	7	1.8	1.8	100.0
Total	385	100.0	100.0	

The good working condition provided at work motivates me

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	137	35.6	35.6	35.6
agree	242	62.8	62.8	98.4
neutral	6	1.6	1.6	100.0
Total	385	100.0	100.0	

Statistics

	Gender	Qualifications	The duration of working at the bank	Work level
N Valid	385	385	385	385

Missing	0	0	0	0
Mean	1.52	2.46	1.85	1.84
Std. Error of Mean	.048	.078	.062	.064
Median	2.00	2.00	2.00	2.00
Mode	2	2	2	2
Std. Deviation	.502	.820	.652	.671
Variance	.252	.673	.425	.450
Skewness	-.074	.372	.165	.203
Std. Error of Skewness	.230	.230	.230	.230
Kurtosis	-2.032	-.420	-.657	-.771
Std. Error of Kurtosis	.457	.457	.457	.457
Range	1	3	2	2
Minimum	1	1	1	1
Maximum	2	4	3	3
Sum	167	271	203	202
Percentiles				
25	1.00	2.00	1.00	1.00
50	2.00	2.00	2.00	2.00
75	2.00	3.00	2.00	2.00

2. Reliability Test

Reliability Statistics 1

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.736	.704	7

Item Statistics	Mean	Std. Deviation	N
The job description and specifications were clearly defined in the recruitment process	2.22	.871	385
The job position was what I expected	2.43	.953	385
The recruitment process and selection influenced my performance at work	2.31	.865	385
I am a competent add to this organisation	1.42	.531	385
The organisation's performance is excellent	1.82	.561	385
The job position I currently hold allow me make use of my full potentials	2.35	1.001	385
I feel highly motivated at work	2.20	.701	385

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The job description and specifications were clearly defined in the recruitment process	12.53	8.508	.575	.468	.672
The job position was what I expected	12.32	7.724	.672	.606	.641

The recruitment process and selection influenced my performance at work	12.44	9.257	.416	.206	.713
I am a competent add to this organisation	13.33	11.635	.076	.213	.764
The organisation's performance is excellent	12.93	11.297	.153	.262	.755
The job position I currently hold allow me make use of my full potentials	12.39	7.763	.614	.439	.658
I feel highly motivated at work	12.55	9.278	.567	.397	.681

Reliability Statistics 2

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.707	.751	11

	Mean	Std. Deviation	N
Financial incentives motivates me to perform at work	1.66	.595	385
Salary and its subsequent increments that are provided motivates me to meet my target	1.65	.552	385
The benefit packages I receive motivates me	1.74	.553	385
My morale affects my performance at work	1.75	.670	385
The possibility of getting a promotion motivates me to do my best at work	1.63	.556	385
Achieving recognition and credits motivates me at work	1.76	.649	385
The good working condition provided at work motivates me	1.66	.512	385
The drive of gaining more skills at my job motivates me	1.60	.545	385
The desire to work in this organisation motivates me to improve in my performance	2.02	.677	385
I am satisfied with the incentives the bank offers	2.63	.887	385
Non-financial incentives motivates me to perform well at work	2.38	.928	385

Item- Total statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Financial incentives motivates me to perform at work	18.81	12.138	.230	.683	.703

Salary and its subsequent increments that are provided motivates me to meet my target	18.83	12.052	.284	.734	.796
The benefit packages I receive motivates me	18.74	11.003	.582	.560	.756
My morale affects my performance at work	18.73	12.145	.182	.193	.712
The possibility of getting a promotion motivates me to do my best at work	18.85	10.792	.641	.593	.748
Achieving recognition and credits motivates me at work	18.71	10.612	.571	.552	.652
The good working condition provided at work motivates me	18.81	11.752	.408	.370	.781
The drive of gaining more skills at my job motivates me	18.87	10.809	.652	.543	.747
The desire to work in this organisation motivates me to improve in my performance	18.45	11.314	.367	.342	.784
I am satisfied with the incentives the bank offers	17.85	11.325	.223	.311	.716
Non-financial incentives motivates me to perform well at work	18.09	11.863	.112	.344	.741

3. Correlation Analysis for the test of the Core Hypothesis

		Performance	EM	Recruitment
Performance	Pearson Correlation	1	.468 ^{**}	.505 ^{**}
	Sig. (2-tailed)		.000	.000
	N	385	385	385
EM	Pearson Correlation	.468 ^{**}	1	.600 ^{**}
	Sig. (2-tailed)	.000		.000
	N	385	385	385
Recruitment	Pearson Correlation	.505 ^{**}	.600 ^{**}	1
	Sig. (2-tailed)	.000	.000	
	N	385	385	385

^{**}. Correlation is significant at the 0.01 level (2-tailed).

		EMRP	Performance
EMRP	Pearson Correlation	1	.590 ^{**}

	Sig. (2-tailed)		.000
	N	385	385
Performance	Pearson Correlation	.590**	1
	Sig. (2-tailed)	.000	
	N	385	385

** . Correlation is significant at the 0.01 level (2-tailed).

