

Figure 3. The number of entrepreneurial entities according their level of risk in the Czech Republic, source: based on Bisnode (n.d)

General conclusions can be got also from registers used by financial institutions. The results could be observed in the division according to regions, age groups, gender etc. Although the biggest group of bad debts is connected with age groups 35-44 and 45-54 (61% of debts in default and 59% of defaulting debtors from all age categories), these age groups do not have the highest level of default risk (Kislingerova et al., 2013 : 47). It is caused by the situation that these age groups use the debts the most. Another age groups have the highest level of risk - the youngest and oldest age group how it is proved by figure 4.

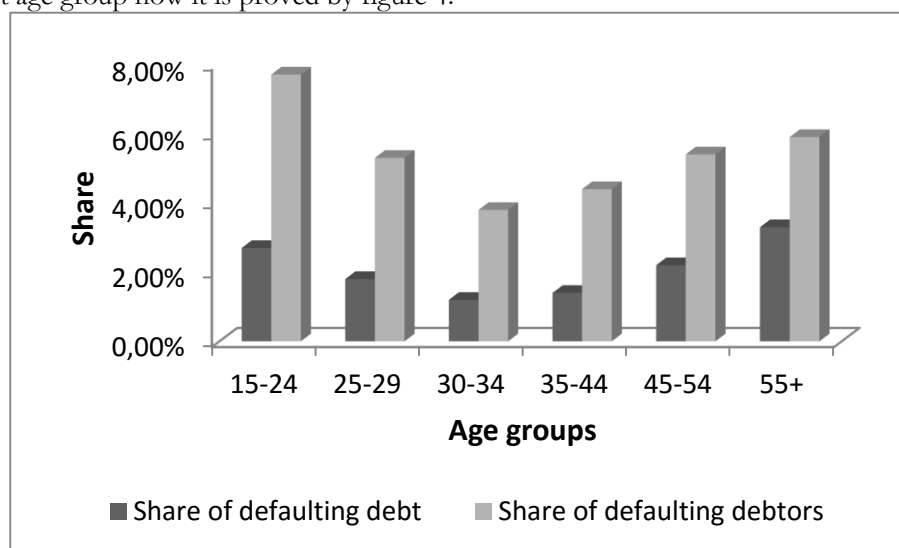


Figure 4. Defaulting debts, source: based on Kislingerova et al. (2013)

2.3 Recommendations

Using information technologies itself does not mean that there would not be mistakes in the business partners' choices. Management should respect following recommendations (Smrcka et al., 2016). On one hand we have available data and scoring reports on the other hand we have to respect results provided by the reports. These results have to be incorporated part of decision making process and they cannot be omitted due to specific conditions. In other words the information has to be use consistently. If the relationship between company and a new business starts the process does not finish with the evaluation at the beginning. The new business relationships have to be monitored and these data have to be collected for further use. The monitoring is especially important in the case that problems would occur and the business partner does not fulfill conditions based in the contract and invoice. The company has to regularly monitor if the payment discipline of the business partner is not worsening. The monitoring is easier when the corporate information system enables connection of ordering system with invoices and banking account or cash register showed in financial accounting. If the company does not own a sophisticated IT solution as the corporate information system (especially case of SME) still the company should monitor the payment discipline of its customers. The worse payment discipline can cause serious troubles in operation management and it may result in secondary insolvency.

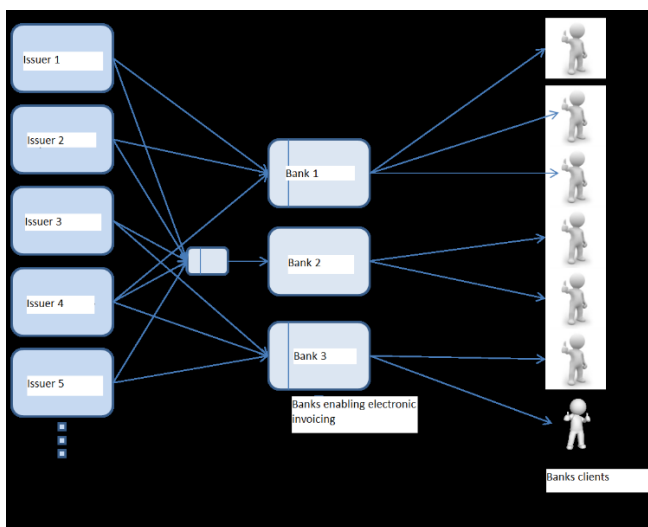
It does not matter if there is information system or just simple paper evidence but the outputs have to influence decision making. If the payment discipline gets worse there has to function alert which would warn the company. First the company can start a communication with a partner. The problem can be only technical as not arrived invoice, unreadable invoice or incorrectly entered payment. It also can be much serious as that the company does not want to pay or is not able to pay. Then the process of enforcing receivables starts. The alert function is also necessary for not starting new contracts with someone with bad payment discipline or for modification of conditions as paying directly and not using invoice time period.

One recommendation can also be to use a standard of electronic issuing of invoices. It is a way how to avoid obstacles with invoices. The invoices do not have to be clear or enough readable because of not enough high quality printing. They do not have to arrive on time or on right place. The last thing is a possibility of human mistake when responsible person fills a bank order. It is filled most in an application of online banking nowadays. It can be proved by the research of Association of Small and Medium-Sized Enterprises and Crafts CZ (2015) that the applications of online, internet electronic or mobile banking are regularly used. It is not only a case of large enterprises but also MSEs and as well as individual entrepreneurs. Precise figures are mentioned immediately. Small and medium sized enterprises have a positive relationship to electronic communication in ways as online banking

(96%), electronic forms (65%) or invoices (65%). Only 1% of SMEs mentioned that they do not use any form of electronic communication. Individual entrepreneurs also use electronic communication but especially in the way of online banking (90%), proportion of electronic forms and invoices is lower and reaches 48%. 6% of individual entrepreneurs mentioned that they do not use any form of electronic communication because they do not need it. The reasons why SMEs and individual entrepreneurs prefer electronic communication are quickness and simplicity which outweigh reasons as money saving, environment pressure and clearness. In the favor of electronic invoices most used kind of payment is cashless transaction. 90% of SMEs use dominantly cashless transactions for payments as well as receipts. The payments dominate for 92% of SMEs. On the other hand the importance of cashless transactions in the case of receipts is lower because it is used dominantly only by 88% of SMEs. The individual entrepreneurs have a lower share of cashless transactions. For payments it is a preferred kind of transaction for 65% of the individual entrepreneurs and for receipts only for 60% of the individual entrepreneurs. It is caused that final customers pay cash immediately with goods' delivery or with services' providing. The character of goods and services has to be taken into account. The individual entrepreneurs mostly sell smaller goods and cheaper services to their customers. The discrepancy between SMEs and the individual entrepreneurs is caused by the environment, enforcement of law, trust and level of frauds.

The standard of electronic issuing of invoices have been prepared by Association of Small and Medium-Sized Enterprises and Crafts CZ cooperated by Czech Bank Association (CBA, 2015). The first version was published in April 2014 and last update came a year after in April 2015. Electronic issuing is a modern way how to transfer documents as invoices which can be used for taxation purposes as well. The possibility of using electronic form instead of physical form is enabled by the Czech legal framework system. The main aims if the standard of electronic issuing of invoices are simplification of electronic communication and invoicing between suppliers (issuers) and customers (recipients) and ensuring of uniform open access to electronic invoicing system for all related counterparties. The transfer of payment instructions is possible without an intervention of human factor and therefore the risk of human mistake done during the retyping payment instructions is significantly decreased or even limited to zero. On the other hand it increases the level of comfort for the client/customer (or in case of documents receiver) who only check automatically generated payment order in online banking and then sends the order by standard payment authorization process. But it is not everything yet. The standard of electronic invoices enables also transferring of other related documents than only invoices. The transfer of documents takes place in the system of online banking. Commercial banks are perceived as transparent institutions whose level of security is one of the highest and therefore their systems can be used for transfer of invoices and other related non-invoicing documents. The platform of online banking is secure but also enables archiving of documents on one place which is accessible almost from everywhere via internet network.

Figure 5. Model of electronic issuing of invoices, source: based on CBA (2015)



The schema of electronic issuing of invoices is illustrated by figure 5 which shows the connection among issuers and receivers via system of online banking provided by individual commercial banks. The model is based on the following requirements. Transfer of invoices and other related documents from suppliers to customers via online banking systems has to be standardized. The standard of electronic invoices is based on the current available and used technologies and respecting current conditions of B2C electronic issuing of invoices. Any user must not be restricted. The standard has to enable the transfer of the necessary and most used attributes of domestic cashless payments. Electronic banking enables the transfer of files not exceeding 400kB. The files can be e-invoices

containing payment instructions or e-documents without payment instructions as contract deals, confirmations, information etc. Commercial banks can accept documents and files only in specified formats. The possible formats are pdf file with metadata and simplified format B2C-ISDOC 6.0 or higher or ISDOC 6.0 or higher. The identification of the document or in other words distinction between e-invoice and e-document in the case of ISDOC formats is possible from main (root) element <Invoice> or <CommonDocument>. In the case of pdf with metadata the distinction is possible according <DocumentType> whose value is 1 for e-invoice and 0 for e-document not containing payment instructions which can be specified further. The documents can be also downloaded but there is a limitation of maximal amount of files. The issuer is able to download maximally 500 new issued documents of the specified kind or format. The maximal amount can be decreased after issuer request. The individual customization enables to use current technologies for SMEs and individual entrepreneurs who have not heavily reinvested in their hardware and software solutions during recent years.

2.4 Information Technologies in the Last Instance of Receivables Management

As last instance of receivables management it is meant the situation when all classical methods how to be paid failed. Classical methods are represented as phone calls, letters, personal meetings with a defaulting debtor. Classical methods are followed by last instance of individual or collective enforcement of receivables. In the case of individual enforcement we do not connect with other entities who are also affected creditors because they do not exist or we prefer individual solution. It ends up in court which order forfeiture proceeding. The proceeding is done by a distrainer's office. Collective enforcement is also connected with a court trial but the process is usually much more difficult due to more affected creditors. The defaulting subject finishes in insolvency which is done by insolvency administrator.

The results of forfeiture proceedings as well as insolvencies should be publicly available because it can protect other entities to come into a business with an ailing defaulting partner. The insolvency register meets this condition although it has many shortcomings discussed by Smrcka (2014) and Smrcka (2015c). To get data about forfeiture proceedings is not easy because they are not publicly available for free as in the case of insolvency register. The environment is less transparent and clear for creditors who are not enough protected. Getting data about efficiency of executions is hard never ending work (Smrcka et al., 2015b). There are some registers/systems which work on the paid principle as Centrální evidence exekucí (CEE, n.d.) and Centrální registr dlužníků (CRD, n.d.). In the case of Centrální evidence exekucí the each question is charged (60 CZK per piece) even when the answer is negative (the person is not included in register). When you realize that evaluated person is included you have to pay a new fee to get information about the specific forfeiture proceeding. That helps to create environment which is based on insufficient data and it protects more defaulting debtors than creditors.

According to research of Association of Small and Medium-Sized Enterprises and Crafts CZ (2014) the amount of available data generally increases and therefore there is also a need for enterprise protection. The protection and limited access to data is questionable in the case of the register Centrální evidence exekucí organized by Chamber of Executors. Creditors should have the access to information about their problematic or doubtful debtors or potential debtors. Unlimited access is in the case of the insolvency register in the Czech Republic. The insolvency register is focused on insolvency proceedings, in other words collective enforcement of receivables. The register Centrální evidence exekucí is focused on individual enforcement of receivables. The access to the insolvency register is possible from web platform without any fees and even without registration or logging by user account. Unfortunately there are available the data about individual cases and almost any aggregated data about insolvency proceedings.

There are information about the amount of insolvency proposals, their kinds (without proposal how to insolvency proceeding, personal bankruptcy, reorganization and liquidation) and their division according to justice court areas (Kislingerová, 2012). There are not aggregated information about affected industry branches, enterprises' size according property, turnover or number of employees, results of insolvency proceedings as number of creditors, length of collective enforcement, level of satisfaction (how many percent of receivables have been enforced) etc. These pieces of information would be very useful for law upgrading, comparison of time development and seeing efficiency of entrepreneur environment. Although we have many technologies available nowadays as never before we are not able to aggregate information. One case of insolvency proceeding contains dozens of documents which are ordered according to time of publishing but their titles are not unified (even more documents can have the exactly same name). The documents do not have the similar structure. Many documents and reports are prepared by insolvency administrators and agents. Although the law describes the required parts and details each insolvency administrator has its own style and preferred structure. The reports are not always clear and you as user have to compare and combine several reports to come to the right conclusion. Last thing which is against computerized data processing using IT is that the reports are usually in pdf version but many of them are

not saved originally as pdf. It means that the original documents were scanned and this scanned version (sometimes not fully readable) was uploaded to the insolvency register. Against data processing based on IT there are several reasons as above mentioned scanned documents and reports in the insolvency register, not unified documents' structure and titles. According to time and money funds available we are not able to create any database which would enable to aggregate information for further data mining. Therefore the research team of University of Economics, Prague have processed the data manually. It has a consequence that only representative samples have been processed. For the future aggregated data processing would be possible in the case of not scanned documents and unified structure of the reports prepared by the insolvency administrators. It would enable to monitor time development, justice and insolvency administrators' efficiency and impacts of the environment. It is possible to conclude that the insolvency register is opened available source of information about individual insolvency proceedings for everyone but unfortunately the results are not enough transparent in the case of aggregated insolvency proceedings. Nowadays available technical solutions do not enable fast computerized data processing.

3. CONCLUSION

This paper was focused on the receivables management and possibilities how to use information technologies for improving efficiency and results of this process. The specific situation was illustrated on the case of the Czech Republic. Firstly the importance of receivables management is emphasized. Then there are detected phases in which information technologies can be applied. Possibilities how to use information technologies differ if the business entity is a part of financial or non-financial sector. In the case of financial institutions the decision making process setting up the existence of receivables is more sophisticated, structured and regularly replicated and therefore also the use of information technologies is an obvious part of this decision making process. For non-financial institution the process setting up the existence of receivables is a part of broader activities. These activities are connected with the core business as selling bought goods, selling own produced products or provide non-financial services.

Monitoring of maturity of debts helps to sustain recovery rate of receivables on the highest possible level (of course in connection with evaluation business partner before running a common business). Reporting about maturity of debts enables to generalize recommendations which groups are more prone to default. These groups should be checked more before signing a contract. The groups can be characterized by the region, size, business sector, age, gender etc.

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