

# IMPLEMENTATION BARRIERS IN DIGITAL TRANSFORMATION: A QUALITATIVE PERSPECTIVE ON GERMAN BANKING

Florian Diener – Miroslav Špaček

---

## Abstract

The paper deals with the process of digitalization in banking sector. Bank digitalization is understood to be a great challenge for banks. They perceive digitalization as a radical innovation that requires the adjustment of almost all bank processes. Unfortunately, digital transformation in banking is tied with obstacles that may hamper smooth implementation of digital transformation. This issue hasn't been properly addressed in current scientific literature. The goal of the paper is to identify and analyse main barriers to digital transformation in both retail and corporate banking sector. The methodology is based on triangular approach that rests in combination of contextual interviews with bank managers and specialists, inductive content analysis and multiple case study research. The findings reveal groupings of barriers. Elements of strategy and management, technology and regulatory, customer, and employee receive a high degree of attention within digital transformation. Further main barriers can be formed in the fields of market, knowledge and product, participation of employees and customers as well as public benefits. Each main barrier is characterized by several sub-barriers with different importance for digital transformation of banks.

**Key words:** Implementation, barriers, digitalization, banking, digital transformation

**JEL Code:** G20, G21, O33

---

## Introduction

Rapid development of technology, as well as many changes in the global market today, have led to the emergence of a new trend that is called digital transformation. Digital transformation is a creation of new, innovative business models and/or change and improvements of the existing business model with the help of digital technologies (Ivančić et al., 2020). It is a concept that ambushed not only industrial sector but namely banking sector. Industrial companies, various administration bodies, educational institutions, financial sector etc. undergo digital transformation that has significant impact on performance, risks and sustainability of

these entities. Digital transformation is a holistic concept that includes digital and other technologies as well as organizational and strategic changes. Moreover, it is also the process that the organisation goes through when it changes from an outdated approach to new ways of working and thinking, using digital, social, mobile and new technologies (Terrar, 2015). Digital transformation is driven by the advancement in technology, the appearance of new business models, changes in expectations of the customer (Valdez-de-Leon, 2016). Several additional definitions of the term digitalization are now commonly accepted. According to Gartner (2020), digitization represents improvement of existing business models, creation of new revenues, and value-adding opportunities with the help of digital technologies. It can be understood as a complex issue that encompasses several areas like (i) shift in thinking, (ii) changes in leadership, (iii) technology embracement, (iv) digitization of resources, and (v) innovation embracement (Francis, 2018). As it became apparent from preceding classification, the term digitalization should be distinguished from the similar term digitisation. The former rather addresses the impact of digital technologies on the organization the latter represents the shift from analogous solution to digital one. Digital transformation is a complex issue that proceeds within a framework that includes (i) changes in value creation, (ii) structural changes, (iii) use of technologies and financial aspects (Matt et al., 2015). No surprise that digital transformation is blocked by a set of barriers that may hamper or even collapse whole process. That is why that timely identification and analysis of barriers to digitalization is of high importance for the organization. This paper contributes to this topic and reveals and maps barriers to digital transformation in a banking sector. In line with the research objective, the following research questions were raised:

RQ1: Which types of implementation barriers proved to be the most threatening to the banks?

RQ2: What measures do retail and corporate banks take to respond to implementation barriers?

## **1 Theoretical Framework**

The main purpose of an interview framework is to provide impulses for an individual narrative (Helfferich, 2020, pp. 178–179). Based on Mayring (2015, p. 61), a theory-based analysis model is set up, which is carried out in the special form of a summarizing and inductive category formation. Taking into account existing research, the barriers to implementation identified by (Chan, 2011), Vikneswaran and Anantharajah (2012), Kamalulariffin et al. (2013), and Yusof and Jamaludin (2014) that arise in connection with the implementation of a new strategy or sustainability strategies and a management approach will be included. As they have already

properly elaborated and investigated the barriers to implementation of new strategies, their research approaches will be taken into account accordingly. The focus was on the hotel industry; a closer look at the study shows that this industry is in a similar situation to banks, where competitors are pursuing new strategies and business models. New business models, in particular those that are focused on sustainable business models are able to satisfy customers' needs on higher level and simultaneously jeopardize traditional business models. (Chan, 2011) already considered internal and external barriers, which he validated again through his work. Kamalulariffin et al. (2013) also mentioned five and Vikneswaran and Anantharajah (2012) nine barriers to their analysis. From the content analysis of related literature, in summary 12 pertinent barriers were also identified by Yusof and Jamaludin (2014), which could be likewise interpreted on banking and FinTech. Due to the holistic nature of these analysis, the results serve as a textual foundation for the preparation of the interview questions for this paper. The choice of respondents as well as the number and scope of the answers given are of crucial importance in the interview method (Döring and Bortz, 2016, p. 401 et seq. and p. 414 et seq.). As with similar work on expert knowledge, quality depends crucially on the selection of the so-called experts, i.e. the interview partners in this case (Döring and Bortz, 2016, p. 292 et seq. and p. 307). Experts are understood to be individuals to whom knowledge of the surveyed topic area is attributed, due to their activity and resulting practical expertise, as well as their specific educational qualifications (Gläser and Laudel, 2010, p. 12 et seq.). Experts' knowledge usually exceeds the knowledge of people who are not familiar with the topic to be surveyed. Interviewees are internal bank experts that are the decision-makers (management personnel) of a bank with budget and personnel responsibility (i.e. officers, managers, and specialists), as well as external bank experts which specific knowledge and professional experience in the fields banking, finance, financial technology, innovation, and entrepreneurship. A larger sample often leads to more confident and more reliable statements on what to look for (Döring and Bortz, 2016, p. 411 et seq.). Frequently, more accurate and more representative inferences about the population can be made in the case of large sample proportions; however, surveys are usually only conducted as long as new information is perceived. The term population refers to the entirety of regional savings, cooperative and private banks. It can be assumed that at least one decision-maker and/or expert can be assigned to a bank. But it can also be assumed that the actual population is much larger, since banks are not authoritarian and one person alone does not make decisions; the prevailing ownership and organisational structures have an additional influence on the business orientation of a bank.

## **2 Methodology**

The paper focuses on the identification and analysis of barriers of digital transformation in both retail and corporate banking. The methodology is based on a triangular approach using a combination of six contextual interviews with bank managers and specialists, an appropriate inductive content analysis of the interviews (Mayring, 2015) and multiple case study research (Gustafsson, 2017). Starting with the interviews, the content of the interviews is evaluated using the inductive analysis approach. Based on these findings, implementation barriers in the digital transformation in banking are defined. These barriers were examined in the further course of the study based on detailed practical cases. The following subchapters describe the steps of the interview process and the subsequent evaluation.

### **2.1 Structure of the Interview Guideline**

The structure of the interview guideline is divided into a German and English approach. Both are based on previously extracted theoretical findings and the elaborated derivations of the first step, which are then used to interview decision-makers and bank experts. The barriers mentioned in chapter 1 are fully taken into account for all interview partners. Furthermore, due to the different perspectives of the individual respondents, the guideline was also adapted to each individual situation. The specifically adapted guideline that was applied to individual interviews differs slightly and is divided into the following categories: Banks internal, banks external, and financial service providers. However, the basic structure of the interview guide has not been changed. First, the interview topic was introduced and introductory questions were asked about the person. Next, the interviewees placed themselves in their respective positions in the company and described their level of knowledge on the topic of digitalization in the German banking sector. This is to determine the suitability of each interview partner in advance. In the further course of the interview, questions regarding the banking sector and digitalization were asked in detail.

### **2.2 Conducting the Survey**

The interview guideline focuses on interviews with decision-makers and experts. These conversations are obtained through personal contact in the financial and banking industry and active addressing of banking associations and local banks, as this is where the access problems appear to be the lowest (Gläser and Laudel, 2010, p. 117 et seqq.). Furthermore, the partners for interviews were selected on ‘snowball sampling principle’. It plays an important role in the acquisition of interview partners. Consequently, further contacts to experts were established.

Due to the geographical distance to the respective interview partners, the interviews were not exclusively conducted in person, but also via telephone or video conferencing (Gläser and Laudel, 2010, p. 153). In order to ensure the clarity of the individual questions, a pre-test with three test persons was carried out in advance. As a result, the interview framework was confirmed and no further adjustments had to be made. Interviews conducted led to an expected interview length of about 30–40 minutes.

### 2.3 Evaluation of Interviews

According to Mayring (2015), the basic principle of inductive content analysis is that categories are derived directly from the respective research material in a generalisation process, without referring to previously formed theoretical concepts. Its objective is to capture a naturalistic, object-like representation of the investigation material without distortion through presuppositions. This approach is a central process within ‘Grounded Theory’ and is called open coding (Mayring, 2015). It can be described as systematic, with a step-by-step and line-by-line approach. In this logic, the topic of category formation has to be determined theoretically first, i.e. a selection criterion is introduced that determines which material is to serve as the basis for further category formation. Insignificant contents are thus excluded from the analysis. The thematic question of the study is of great importance and in accordance with the main question of this thesis, defines the focus of the content. Likewise, within the content analysis, the category dimensions and the level of detail should be defined as well as the coding, context and analysis units (Mayring, 2015, p. 85 et seq.).

If, taking into account the level of abstraction and the category definition, a suitable text passage is identified in the test material during the analysis, a category is constructed. A term or phrase that is as close as possible to the material is then used as a category name. If, in the further course of the search, a new passage is found that matches the selection criterion and category, it is also assigned to the same category. This is also referred to as *subsumption*. Should it become apparent, however, that no assignment to already existing categories is possible; a new category is inductively formulated from the specific material (Mayring, 2015). After a certain percentage of the material (often at 10 % to 50 %), when almost no new categories can be created, this is the moment of revision of the category system (Mayring, 2015, p. 86). It should then be checked whether the logic is clear and the degree of abstraction fits the object and the question posed. In the further course of this qualitative analysis, the coded text passages are first paraphrased, then generalized and finally form the actual category. The result of this

process is a set of categories that are assigned to a specific topic and corresponding text passages in the research material.

### 3 Results and Discussion of Findings

#### 3.1 Derivation of the Implementation Barriers

The analysis of six interviews, when considered according to Mayring's method, led to 264 codings, which were determined inductively based on the material. A coding system was developed which forms the basis for answering RQ1. In this way, eight implementation barriers could be identified.

**Technology and Regulatory Affairs:** The technical effort required by banks for the new and further development and adaptation of solutions is very high and hinders digitalization. Furthermore, regulatory requirements have to be met by banks by law. In this context, the data is particularly in need of protection, which poses challenges for institutions. The implementation of processes and techniques, taking into account legal requirements and the overall structure of banks, also creates implementation problems for digital approaches. Furthermore, the public infrastructure does not meet the necessary requirements and an old IT infrastructure of banks sets limits to digitalization. **Market:** The current market situation, in particular due to the current interest rate policy, poses challenges for banks. Institutions are currently undecided about current and future market developments and do not know how to entirely react to upcoming digital developments. Increased competitive pressure is repeatedly demonstrated by technical and market-driven developments and will intensify in the future. Banks can currently 'still' defend their position and position themselves by using the market power they have built up in the past, thus blocking young companies and making market penetration more difficult for them. However, this will become increasingly difficult in the near future. **Public Benefits:** No public funding is known or available for the (further) development of banking technologies. **Participation:** The involvement of staff in digitalization issues should be a priority. They should identify themselves with the digital change and, at best, develop digitally. The same applies to customers, who should be actively involved in the development. **Employees:** They will be needed less in the future due to increasing digitalization. This causes fears and inhibitions. It is typical that at the beginning of a change, in this case digitalization, employees often reject and refuse to accept changes. From a human resources point of view, employee availability plays an important role in digitalization. Since employees implement digitalization and make it possible in the first place, the general perception is that they are not

available in sufficient numbers to enable a fast and holistic transformation. Insufficient or even missing employee qualifications also prove to be a disadvantage for understanding complex digitalization processes and upcoming changes. Increasingly ageing employees are also seen as an essential factor that makes digitalization more difficult but also necessary; It is a reason for changes to secure the future existence of a modern enterprise. In the future, employees have to become more flexible and maintain and expand the existing level of performance, even if digitalization leads to more transparency and control of employees. **Knowledge and Product:** The complexity character of the (product) offer often decides on analogue or digital solutions. Highly complex solutions can often not be digitally represented, as they require a high level of advice (e.g. corporate client vs. private client needs). Within the framework of digitalization and an interlinked structure, man-made mistakes can have holistic effects in a centrally organized (IT) infrastructure. Experts for digitalization issues are of great importance here. Internally they are (still) present and also indispensable for the future digital transformation. External experts are also available to support bank projects. **Customer:** The customer is an essential factor in the digitalization process. They expect the permanent availability of technology and at the same time the possibility to be advised personally by a specialist if they wish. The expectation of security plays a major role. Acceptance and trust in an application/technology is also essential. However, the expectations are shaped by the age of the customer. The behaviour of the customers has fundamentally changed in that they have developed from analogue to digital customers. In the relationship between customer and consultant, digitalization minimizes personal contact, which becomes more impersonal and more anonymous. As a result, customer retention and loyalty are reduced. Furthermore, the ability of customers to use the technology is important, because only if customers are able to understand technology, they can use it. **Strategy and Management:** The management recognizes the importance of the topic digitalization and takes the necessity for further development. Digitalization is an essential part of today's banking strategy and development. Decision-making is often time-consuming. Banks face the risk of disruption and have to adapt to the pace of digitalization. The direction is taken by management in banks. They see FinTechs<sup>1</sup> as partners and competitors in certain areas at the same time. Banks will continue to exist and will only become more digital through further development. FinTechs are no threat here. But competition is increasing, forcing banks to react. In this context, banks also seek proximity to FinTechs, as they (often) offer innovative solutions and would like to cooperate

---

<sup>1</sup> Financial Technology Companies.

with them accordingly. There are also banks that either do not want to cooperate with FinTechs or are unable to do so for multiple reasons. Often banks simply dominate young companies and thus play out their market power. There is a risk of dependence on external providers in the case of cooperations – this (can) prevent from cooperations. There are also concerns about negative reputational repercussions in the event of a failed partnership. Nonetheless, institutes also react actively to market developments and thus try to keep up to date with the latest developments and to develop further. In this context, banks have to cope with an often large corporate structure and multiple customer needs. But internal restructuring also leads to obstacles/resistance that have to be overcome. Banks are mostly characterized by the culture and tradition that has been established for decades. They are integrated into an often centralized organizational structure that forces them into structural dependency. Due to organizationally grown and centralized structures, the reaction speed of institutions is characterized by precisely this structure and is therefore slow. In general, digitalization leads to transparent markets and products and is associated with high costs. Availability of resources is essential in this context. They are often distributed incorrectly or inefficiently within grown structures.

### **3.2 Digital Transformation: The Case of German Banking**

The cases examined below relate specifically to the German banking sector and attempt to answer RQ2. For the evaluation, a total of 5 decision makers of savings and cooperative banks, including 1 specialist, 3 board members, and 1 manager<sup>2</sup>, were questioned about the measures they had initiated in the context of digitalization.

*What concrete measures have you taken in the past to keep pace with digital competition and the changing pace of digitalization?*

This question has deliberately been kept general in order to give respondents the greatest possible scope for answering it. To comply with the data protection regulations, the interviewees were asked in advance about the desired anonymity. However, due to their professional status, none of them explicitly allowed the mention of their personal name and the name of the bank in question. Official interviews would require the explicit authorisation before publication, which would not be appropriate in the context of this scientific analysis, as this would lead to a distortion of the answers. For this reason, the original transcriptions of the interviews are used for this study and the respondents are solely mentioned anonymously.

---

<sup>2</sup> Here the interviewees classified themselves into the appropriate survey group and legitimized themselves as suitable interview participants through their many years of professional experience.



The analysis of the surveys has shown that all decision-makers are generally aware of digital change and that they are aware of it in their bank and throughout the industry. This may have multiple reasons. One interviewee even confirmed that they are actively looking at new trends and issues in order to consider them in their business orientation: *'In particular, we are very active in the field of trend scouting and in identifying and evaluating the strategic relevance of various trends and technologies. (...) We have an innovation lab where we do trend scouting and observe about 170 trends and technology duration'*.

The management personnel respectively their banks show appropriate awareness and react actively to corresponding market developments within the scope of what is feasible, in order to develop themselves further. This is particularly evident in the fact that, for example, channels for addressing customers are constantly being expanded and the technology is being used for this purpose. In particular, this can be seen in the introduction of chat solutions or even entire customer dialogue centres, which are available to customers and offer bank employees new ways of approaching customers. These solutions mean that customers can carry out all their banking transactions digitally if they wish – they can contact their bank or a financial advisor via chat or even video telephony. This introduction was pursued with the aim of improving and intensifying customer contact. Of course, it also leads to the relocation of employees, as they can no longer work in bank branches, which have been known for decades, but can provide customer service from anywhere. This development takes into account the idea of efficiency and should be further expanded in the future. However, the question then arises as to how a location without customer traffic can be physically maintained in the future and what justifies maintaining cost-intensive branches.

Cooperations with external partners play an important role in the further development of banks. Today, banks cooperate with partners such as universities, which support them in the further and new development of applications and provide them with the necessary expertise for implementation. Especially the participation of the target group (the actual developers) in the bank offer contributes to a more customized realization of banking solutions.

The digital transformation in banking is based, as the name itself suggests, on technology. It is evident that the management has recognized this trend and wants to use it accordingly. Far from regulatory and interface requirements, banks are also creating application interfaces on their own initiative to integrate innovative business models and/or products *'We also support via the Banking-API such innovations as Google Assistant or Alexa and many other things'*. The main focus here is on stronger networking, which is beneficial for both banks and customers alike and is intended to provide a more comprehensive range of products and

services. Digitalization does not only mean the internal development of internal approaches and ideas, but also the intended cooperation with other banks and FinTechs, which will be realized via the new application programming interface: *'(...) so that we can also integrate our technical processes, which we have for product closures and transactions, into third-party platforms in order to network more closely with each other'*.

In order to implement digital approaches and to pursue these further, far from merely perceiving trends, banks are reacting with detailed elaboration of practical approaches that are intended to facilitate and fundamentally enable future digital implementation. This presupposes the availability of resources, because only by securing them an implementation is ultimately possible. In this respect, there is a great discrepancy between small, medium-sized and large bank institutions - major digitalization issues can only be driven forward jointly. For an individual bank, topics such as 'quantum computing', which could be highly relevant in 10-15 years, simply cannot be addressed today from a financial perspective. It is essential, however, that banks systematically address tomorrow's issues today, so that they can *'have the necessary know-how to deal with them proactively at the appropriate time. There is no doubt that banks definitely want to know what is happening and have a clear opinion on it'*. Knowledge and the ability to react are important here: *'(...) one has to be familiar with the complex issues in good time, otherwise one cannot react accordingly'*. Employees have an important role in this respect, as they implement digitalization within the company and bring it closer to the customer. Employees and customers alike should be taken along and introduced to the technology. In this respect, it is important to differentiate between individual customer groups and age structures.

To make implementation easier and to create greater acceptance and competence, specific programmes are also being introduced in banks to educate customers and employees. Internal experts are of great importance here, as they deal with a specific topic within digitalization and can bring it to the attention of the respective persons and provide support. *'For example, we have set up a programme with other partners, called Digital Tiger, where we have specially trained one employee in each market area as a Digital Tiger (an expert). He then serves as a multiplier, which also serves to encourage the employees more (...) We actually have seven experts in the entire company. E.g. in the corporate customer area and real estate centre. There is an expert in every branch office who is regularly trained. Then, in turn, he transfers the already existing knowledge and new knowledge or new products to the employees'*. It is shown that insofar the relevance of a topic gains importance, the necessary financial but also humanitarian resources are mobilized so that topics can be pursued internally. However, this is, without question, highly dependent on the individual perception of management on a

topic and the general financial situation of each individual bank. It also depends on the availability of personnel, because people have to be mobilized for a project and show a will to change and participate. In addition, the respective corporate culture is crucial, because employees must also be willing to be led by specialists and managers and should not be completely against the new - only then can new topics or digitalization be realized.

## Conclusion

The findings reveal that the elements of *strategy/management*, *technology and regulatory*, *customer*, and *employee* receive a high degree of attention. Further groupings can be formed in the fields of *market*, *knowledge and product* as well as *participation and benefits*. However, the interviews show that not all areas receive the same attention from management, and although each of these areas can be seen as a major barrier to the transformation of digital banking, not all barriers are equally important, as shown by the content analysis. The results reveal that each of the defined main barriers is assigned to multiple sub-barriers. It is apparent that the surveyed bank managers only show perceptions of certain sub-barriers and do not show a holistic perception to all of them. The following barriers were confirmed in the case study approach, but other barriers were not further considered: **Company reaction to market development:** Banks are responding to changing market conditions by proactively pushing ahead with digitalization. **Experts (external):** External experts are available and are used by banks for digitalization. **Management perception:** The management is aware of the digitalization. **Customer integration:** Customers are actively involved in digitalization. **Banks want to cooperate:** Banks also want to cooperate with other companies, respectively FinTechs. **Resources availability:** Resource availability is necessary for the implementation of digitalization. For certain topics these are also available. **Employee involvement:** Employees are involved in digitalization, so that it can be applied.

Future studies should question the reasons for this discrepancy between perceived and actual reaction to implementation barriers. It is possible that the small sample size limits the scope of the study or that perhaps management's lack of awareness of certain barriers is the reason why further research is needed. The latter could lead to future problems in the digital change and transformation at banks, as the management does not perceive the change and its barriers carefully enough. Future studies should address this issue and try to prepare the management for the change in the best possible way. It is also recommended that in future studies, for all methodological approaches, the results should be validated with a larger number

of participants and results should at best be supplemented. If possible, a differentiation between individual banks could also lead to further findings. It is also important to verify these results quantitatively and to identify individual correlations between main and sub-barriers. For this purpose, the development of a questionnaire is essential.

## References

- Chan, E.S.W. (2011). Implementing Environmental Management Systems in Small- and Medium-Sized Hotels: Obstacles. *Journal of Hospitality & Tourism Research*, 35(1), 3–23. doi:10.1177/1096348010370857
- Döring, N., & Bortz, J. (2016). *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften (Springer-Lehrbuch)* (5. ed.). Berlin/Heidelberg: Springer.
- Francis, J. (2018). *How BPM is Taking a Central Role in Digital Transformation*. [ONLINE] Available at: <https://kissflow.com/bpm/how-bpm-is-taking-a-central-role-in-digital-transformation/>. [Accessed 12 Mai 2020].
- Gartner. (2020). *Gartner IT Glossary - Digitization*. [ONLINE] Available at: <https://www.gartner.com/en/information-technology/glossary/digitization>. [Accessed 11 Mai 2020].
- Gläser, J., & Laudel, G. (2010). *Experteninterviews und qualitative Inhaltsanalyse als Instrumente rekonstruierender Untersuchungen* (4. ed.). Wiesbaden: VS Verlag für Sozialwissenschaften.
- Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study. *Halmstad University*.
- Helfferrich, C. (2020). *Die Qualität qualitativer Daten: Manual für die Durchführung qualitativer Interviews* (5. Aufl. 2020 ed.). Springer VS.
- Ivančić, L., Stjepic, A.-M., & Vugec, D.S. (2020). Mastering digital transformation through business process management: Investigating alignments, goals, orchestration, and roles. *Journal of Entrepreneurship, Management and Innovation*, 16(1), 41–73. doi:10.7341/20201612
- Kamalulariffin, N.S., Nabihah, S., Khalid, A., & Wahid, N.A. (2013). The barriers to the adoption of environmental management practices in the hotel industry: a study of Malaysian hotels. *Business Strategy Series*, 14(4), 106–117. doi:10.1108/BSS-06-2012-0028
- Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. *Business and Information Systems Engineering*, 57(5), 339–343. doi:10.1007/s12599-015-0401-5
- Mayring, P. (2015). *Qualitative Inhaltsanalyse: Grundlagen und Techniken* (12 ed.). Weinheim and Basel: Beltz.
- Terrar, D. (2015). *What is Digital Transformation?* [ONLINE] Available at: <http://www.theagileelephant.com/what-is-digital-transformation/>. [Accessed 12 Mai 2020].
- Valdez-de-Leon, O. (2016). A Digital Maturity Model for Telecommunications Service Providers. *Technology Innovation Management Review*, 6(8), 19–32.
- Vikneswaran, N., & Anantharajah, S. (2012). A green makeover for our hotels? *Quarterly DOE update on Environment Development and Sustainability*, 2, 10–12.
- Yusof, Z.B., & Jamaludin, M. (2014). *Barriers of Malaysian Green Hotels and Resorts*. Proceedings from AMER International Conference on Quality of Life, AicQoL2014KotaKinabalu, The Pacific Sutera Hotel, Sutera Harbour, Kota Kinabalu, Sabah, Malaysia, 4-5 January 2014, Procedia - Social and Behavioral Sciences, 153.

**Contact**

Florian Diener

University of Economics in Prague

Churchillovo nám. 4, 137 00 Praha 3

[dief00@vse.cz](mailto:dief00@vse.cz)

Miroslav Špaček

University of Economics in Prague

Churchillovo nám. 4, 137 00 Praha 3

[miroslav.spacek@vse.cz](mailto:miroslav.spacek@vse.cz)