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Adoption of Online Appointment Schedule Platforms – An Interview-based Case Study Series with Micro-Enterprises

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ABSTRACT

Based on the Technology-Organization-Environment model we propose a model for explaining the adoption of online appointment schedule platforms by micro-enterprises in order to take the specific characteristics of this organizational type into consideration of technology adoption research. Using case study interviews from seven micro-enterprises we can show that the adoption decision is mainly influenced by the attitude of the entrepreneur, support and updates, scalability, test phase, training and compatibility. In addition, we identify a fourth context of marketing factors relevant for the adoption decision and not considered by the TOE-model so far. Moreover, we discuss whether rather individual- or organizational level adoption models are appropriate to explain the adoption decision of micro-enterprises.

Keywords

TOE-Model, Micro-Enterprises, Adoption, Online Appointment Schedule Platforms

INTRODUCTION

Based on numerous studies technology adoption research provides a lot of insights into factors why an IT-innovation is adopted (Thong et al., 1999; Venkatesh, 2003). The level of analysis differs as on the one side organizations are focused in order to understand why an organization adopts an IT-innovation (e.g. ERP-systems, Thong et al., 1999) and on the other side research deals with an individual's decision to accept an IT-innovation either in work (Venkatesh et al., 2003) or private settings (Brown and Venkatesh, 2005). Both research streams have in common that they focus on technology adoption in large organizations, in small- and medium-sized enterprises (SMEs), or households. Nonetheless, less research focuses on micro-enterprises (Parker and Castleman, 2009).

This type of enterprise can be characterized based on a definition of the European Union by the number of employees (less than 10), the balance sheet amount (less than 2 million Euro), and turnover (less than 2 million Euro) (N.N., 2003). For example, in Germany 6 million micro-enterprises represent 75 per cent of all German enterprise and provide employment for about 18 per cent of the German workforce (Klees, 2008). These figures illustrate that micro-enterprises are an important aspect of an economy. Nonetheless micro-enterprises are neglected by prior technology adoption research approaches due to multifaceted reasons. First of all, micro-enterprises might only use single IT-tools such as word processing and does not require complex enterprise systems (Williams et al., 2009). Moreover, the IT penetration might be perceived as very small, as several tasks simply do not require IT-support (e.g. hair cutting, etc.). Also, a low process-oriented governance of many micro-enterprises might lead to less usage of information systems (Ramdani and Kawalek, 2007). In addition, these organizations often work directly with end customers and thus have the opportunity to respond to individual customer requests.

Nonetheless, micro-enterprises rely on information technology for their daily business and might realize benefits by implementing IT-innovations in their organizational infrastructure. For example, for micro-enterprises working with an appointment schedule (e.g. restaurants, barbers, surgeries, garages, etc.) an online appointment schedule might be an alternative to manage appointments with customers such as consumers can search and book appointments online. Consequently, the time spent on managing the appointment schedule can be reduced and the time can be used for different purposes. However, our case study research shows that the willingness of micro-enterprises to use such a platform is limited. As there are several technology solutions available which might be beneficial for micro-enterprises, but neglected by them and as relatively little explanation for the adoption phenomena for micro-enterprises exists, this work ventures to provide insights into this phenomenon.

It is our objective to investigate the various factors influencing the adoption decision of micro-enterprises and to draw conclusions which factors influence the decision in a positive or negative manner. We make use of an interview series conducted with different micro-enterprises to understand their willingness to use an IT-innovation (online appointment

schedule platforms, OASP). As the owner of a micro-enterprise typically makes all relevant decisions by him/herself, there is a need to discuss whether to distinguish between organizational and individual adoption. In this context, one might argue that both types lead to the same results in micro-enterprises, because the organization is managed by one or only a limited number of individuals. Consequently, this issue will be discussed in the last section. We focus our research on an organizational adoption point of view investigating the organizational adoption decision of micro-enterprises to implement or to use an OASP. The paper is organized as follows. In the following section our research model will be developed and afterwards the methodology will be explained. Section 4 is illustrating the results of our case study series, which will be discussed in the final section.

RESEARCH BACKGROUND AND MODEL

The proposed research model is based on the Technology-Organization-Environment (TOE) model and illustrates the suspected influence factors for an adoption decision by micro-enterprises. The TOE-model is described in Tornatzky and Fleischer's "The Process of Technological Innovation" (1990). The TOE-model is an organization-level theory that predicts that three different elements of a firm's context influence adoption decisions: technological, organizational, and environmental context. All three are posited to influence technological innovation (Baker, 2012).

The *organizational context* refers to the characteristics and resources of the firm. Within this context the attitude of the decision maker is an important factor influencing adoption decisions as one of the key characteristics is the low number of employees and consequently the low number of decisions makers (Grover, 1993; Premkumar and Ramamurthy, 1995). In many organizations the decision to implement an IT-innovation is made by one or two persons only. Thus, we assume,

H_OC_01: The attitude of the decision maker towards the technology influences the decision of a micro-enterprise to adopt an IT-innovation.

It is also important to consider the technical requirements of an IT-innovation as the low process-oriented governance of many micro-enterprises might lead to less technical requirement. Moreover, IT penetration is very small, as several tasks do not require IT-support (Ramdani and Kawalek, 2007). Thus, micro-enterprises might not have developed a high degree of IT-capability compared (Chau and Hui, 2001), such that we assume,

H_OC_02: The technical requirements of the technology influence the decision of a micro-enterprise to adopt an IT-innovation.

Moreover, the success of micro-enterprises is linked with its image (Ramdani and Kawalek, 2007). These organizations often work directly with customers such that the willingness to use an IT-innovation is higher, when the organization can improve its corporate image. Thus, we assume,

H_OC_03: The image of a micro-enterprise influences the decisions of a micro-enterprise to adopt an IT-innovation.

The *environmental context* includes the structure of the industry, the presence or absence of technology service providers, and the regulatory environment. They are often considered as a given starting point for the adoption decision and used as classification of different companies.

For example, if an organization is part of a rapidly growing industry it tends to innovate also more rapidly (Nager et al., 1995). In mature and declining industries, however, innovation practices are not distinctive (Tornatzky and Fleischer, 1990). Thus, the respective industry of a micro-enterprise might influence an organizational decision to use an IT-innovation. Consequently, we assume,

H_EC_01: The industry structure of a micro-enterprise influences the decision of a micro-enterprise to adopt an IT-innovation.

Furthermore, if the IT-innovation is used to support the communication between the organization and its customer the respective target groups of an organization are an important aspect of the environment (Kamal et al. 2010). If the target group is not using the respective communication technology to a certain extent, also the organization might not realize benefits by implementing the innovation (Beck et al., 2009). Thus, we assume,

H_EC_02: The target group of a micro-enterprise influences the decision of a micro-enterprise to adopt an IT-innovation.

H_EC_03: Awareness and utilization of technology by its customers influences the decision of a micro-enterprise to adopt an IT-innovation.

Another aspect of the industry structure is the use of a particular IT-innovation by competitors (Elliot, 2002; Gharavi et al., 2004). If the technology is used by competitors and provides them a competitive advantage, also a micro-enterprise is going to implement the innovation. Thus, we assume,

H_EC_04: The use of technology by competitors influences the decision of a micro-enterprise to adopt an IT-innovation.

The third context according to the TOE-model is the **technological** one. It includes all of the technologies that are relevant to the firm (Baker, 2012). Regarding IT-innovations not currently in use organizations have to consider the type of organizational changes that will be created by adoption a new innovation as some of them will change the organizational structure dramatically and others will only have a small impact (Volkoff et al., 2007). Moreover, some technologies might provide more benefits than others. In our model nine factors are considered as follows.

If a technology will provide benefits for an organization, also a micro-enterprise will consider implementing the IT-innovation (Chau and Tam, 1997; Tornatzky and Klein 1982). Thus, we assume

H_TC_01: Expected benefits of the technology for the company influence the decision of a micro-enterprise to adopt an IT-innovation.

Moreover, if the technology under consideration fits with the existing IT-infrastructure the likelihood of adoption increases (Thong, 1999; Hausman, 2005). Thus, we assume

H_TC_02: The ease of integration of the new technology influences the decision of a micro-enterprise to adopt an IT-innovation. In addition, the range of functions and thus the

H_TC_03: The power in relation to the complexity of technology has an influence on the intention whether to adopt or not a technology.

Another aspect discussed is process adaption which means that the higher the fit between the organizational tasks and processes and the respective IT-innovation, the higher is the willingness to use this technology (Niederman, 1998). Hence, we assume

H_TC_04: A required process adaptation influences the decision of a micro-enterprise to adopt an IT-innovation such that it decreases the willingness to adopt.

Another key characteristic of IT-innovations is scalability (Brown and Kaewkitipong, 2009). If the technology can be used for more than just one task the willingness to implement is increasing. Consequently, we assume

H_TC_05: The scalability of a technology influences the decision of a micro-enterprise to adopt an IT-innovation.

Beside the technology also the change in the organization is an important aspect of the technological context. If an technology is changing organizational elements to a great extent it is rather perceived as threatening than when the changes are reduced to a minimum (Laumer and Eckhardt, 2010). Thus, if a micro-enterprise is changed by the implementation of an IT-innovation to a great extent, it rather stand back from adopting the respective technology (Jasperson et al., 2005). Hence, we assume

H_TC_06: The reversibility influences the decision of a micro-enterprise to adopt an IT-innovation.

Moreover, security characteristics of an IT-innovation are important aspects of the technological context. If a technology is related to decreasing security, increasing privacy issues and increasing protecting mechanism against malicious software the likelihood of adoption decrease (Tan et al., 2010). Thus, we assume

H_TC_07: Security aspects in general influence the decision of a micro-enterprise to adopt an IT-innovation.

H_TC_08: Privacy issues relating to technology influences the decision of a micro-enterprise to adopt an IT-innovation.

H_TC_09: The protection against malicious in terms of technology influences the decision of a micro-enterprise to adopt an IT-innovation.

The adoption of IT-innovations by micro-enterprises is affected by the technological, organizational, and environmental contexts. The remaining research model for the adoption decisions of micro-enterprises based on the TOE-model is illustrated by Figure 1.

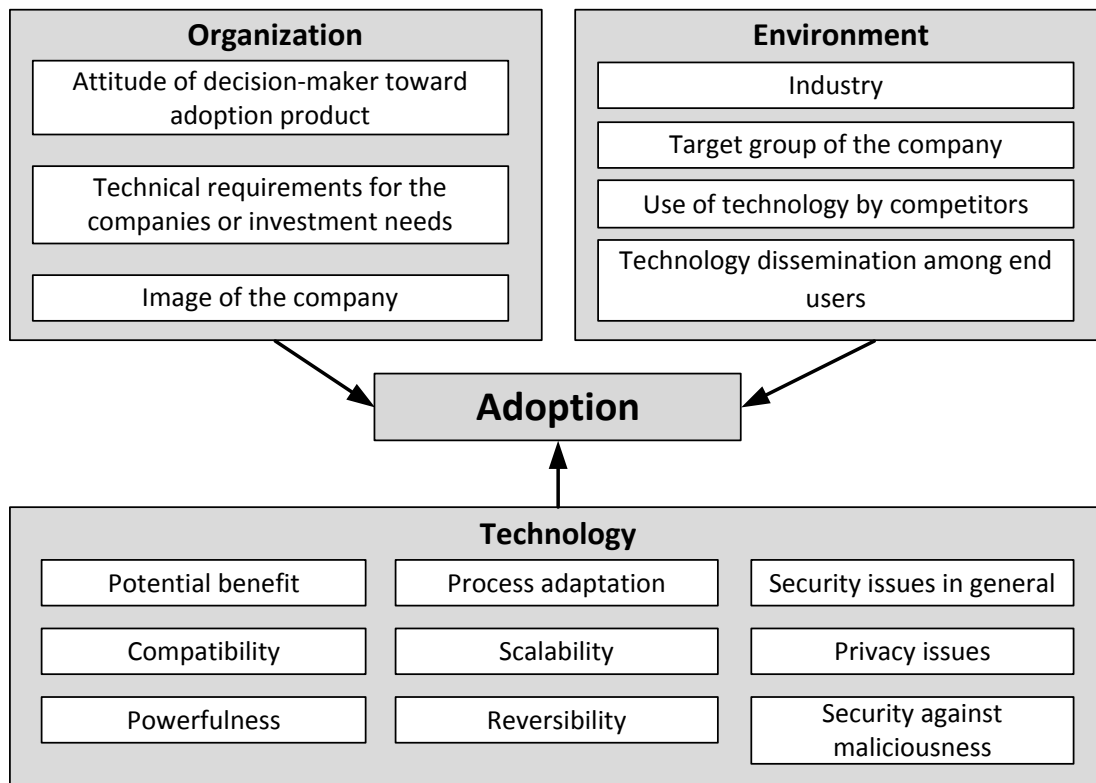


Figure 1 IT-innovation Adoption by Micro-Enterprises

RESEARCH METHODOLOGY

The proposed model of IT-innovation adoption by micro-enterprises will be validated with a interview series on the adoption of OASP. Thus, the following section introduces this IT-innovation and the research methodology conducted.

Online Appointment Schedule Platforms

OASP are online systems designed to support the process of communication between an organization and its customer to reach an agreement about a specific date the organization provides a service to the customer. Within non-IT-supported reservation process information are exchanged directly between customers and individuals of the service provider. The required information will be obtained via direct communication. If an agreement can be researched an appointment is reserved. This process has, however, for both sides major drawbacks. The persons who represent the service provider have to interrupt their current workflows. If several people accept appointment bookings, the entries must be coordinated. The customer however, must take into account to wait until the phone line is free. In addition, it can happen that he interacts with stressed and annoyed employee on the telephone. These problems can be addressed through the use of an intermediary in terms of an OSAP. Thus the customer has the possibility to communicate with the help of a user-friendly interface on the internet. The platform uses the appointment information of the service provider and allows the reservation only to dates that are suitable for both the customer and the service provider.

Interview-based Case Study Research

To investigate the adoption decision of several micro-enterprises an interview series with seven organizations has been conducted. As case study research is appropriate for investigating emergent phenomena, and especially for answering “how” or “why” research questions (Yin, 2003) this methodology seems to be most appropriate for our research question. Moreover, if there is a close relationship between context and phenomenon under investigation, while their interplay is unknown, case study research using interviews is the most suitable research methodology (Yin, 2003).

For the respective interviews semi-structured interviews were chosen to collect data. OASP are a cross-industry innovation, whose potential and possible interest probably depends greatly on the industry, the respective organization, and especially the specific characteristics of a micro-enterprise. Thus, using interviews can provide evidence for different factors relevant for each organization. In total seven interviews in the four sectors *hairdressing*, *catering*, *health care* and *garage* were

performed. Each interviewed lasted about one hour. All sectors are appropriate for investigating the adoption of OSAP because in all these sectors it is the usual rule to make an appointment before making use of the actual services.

For the analysis of the data collected, both qualitative and quantitative methods (Yin, 2003) were applied. In a first step, the collected data was systematically structured using the transcribed material in terms of the categories of the proposed model. In a second step, frequency analyses were conducted to substantiate and illustrate the results. Within a feedback loop between the researchers, the identified categories were revised and checked (Yin, 2003). The data analysis was supported by using MAXQDA (www.maxqda.com). The derived results will be presented in the following section.

RESULTS

In the following section, the results of the interviews are illustrated. First of all, for each industry sector a summary is provided and afterwards the different interviews are analyzed regarding the proposed research model.

Summary of Interviews

Car garage operators

The two garage operators are interested in OASP. They agree that they would benefit from automation by using this technology. They had already made some attempts to improve their processes through technology, but this failed by the industry-specific circumstances. According to them, these are the biggest obstacles associated with the introduction of the new technology. Further concerns are raised regarding data protection several times as published data might be used by competitors to gain information about the company. They see themselves as rather inexperienced users in the computer field.

Café operator

The café operator reveals the use of new technology more as an opportunity rather than as a risk. However, prior to adoption, he needs a possibility to do extensive and free testing, in which both the employee and the customer should give an affirmation in order to prove sufficiency. He does not mention security concerns. A contact person must be present, since neither he nor his employees can maintain the system.

Dentist

The dentist is rather skeptical. In his view, the success of a technology that involves the customer depends strongly on the target group. Thus, preferably only younger customers will use the system. Moreover, it is important that a discharge for its employees happens and they do not have an extra effort. Therefore, he would expect a training of its employees. He also believes that the technology is incompatible with the heterogeneous variety of appointments at a surgery.

General practitioner without appointments

As the only interviewee the general practitioner assigns no appointments. He would not consider adoption the technology. He believes, however, that it is very important for micro-enterprises who use this technology to integrate it into their existing systems. Moreover, a new technology should be kept simple and easy to use to encourage inexperienced users. As the most important factor influencing the price-performance ratio was mentioned.

Orthopedist

The orthopedist points out that such a technology is doomed to fail in its industry, as a priority needs to be made that cannot be done by any computer. Generally, he prefers automation of any kind and uses it already to some extent. In his opinion, it is essential that software will be refinanced by itself. Only if this is the case adoption software can be considered. The product has to receive a strong encouragement by customers within a few months.

General practitioner with appointments

Another general practitioner shows a great enthusiasm toward the technology and expresses a suitable integration of the software in its current system as the main criterion. The doctor already uses a paperless office. Major changes are already accustomed to its employees. Therefore he sees no problems with a possible process adjustment when introducing OASP. But he has safety concerns about internet use. For him, however, the assessments of other colleagues are very important. He would never buy software as an early adopter.

Hairdresser

The hairdresser, who is also part-time hairdresser trainer and knows many colleagues, indicates that it fails for most hairdressers already at the premises - an internet connection and a computer in the studio. It is important that such a product is simple and plain, in order for the computer novice hairdressers do not represent a large hurdle. The personal presence and personal counseling are more important factors for him, of course, along with the price of the software.

Model Validation

Based on the general description of each interview this section compares the results. Moreover, the percentage impact strength for each factor is determined based on the quantitative data analysis. Each interview statement was examined and evaluated as either insignificant or as an influential factor for the respective factor and respective quotes are provided. The percentage impact strength is derived from the ratio of the sum of statements to the impact on all statements at the respective influence. If the influence exceeds 80%, then the corresponding hypothesis will be accepted. If it remains below 20%, the hypothesis is rejected. Between 20% and 80%, the hypothesis is accepted only conditionally, since it does not show a generalizable influence, however a relevance for individual entrepreneurs.

Organizational context

The attitude of the decision maker toward the adoption product and the company's image are seen by all surveyed companies to be serious. However, if technical requirements are available, seems to be negligible.

| Factor | Citations | Count |
|-----------------------------------|---|-------|
| Attitude of decision maker (100%) | "In principle, this is good, because I already think about possibilities to publish my appointment schedule online." (General practitioner) | 7 |
| | | 0 |
| Technical requirements (17%) | "The acquisition [of a second computer] would be too expensive." (General practitioner) | 1 |
| | "[The acquisition] is not a problem. Today these things are cheap and easy to order." (Garage operators) | 5 |
| Company's Image (100%) | "But as a doctor who appreciates the value of personal contact, I have to say that my patients should not look on the internet." (Dentist) | 5 |
| | | 0 |

Table 1 Organizational Context

Environmental context

The industry and the target group of the company are important factors for the adoption decision. The use of technology in both the competitors and for end users seems to show only limited influence.

| Factor | Citations | Count |
|--|---|-------|
| Company's Industry (100%) | "This is not a big deal for me. But in other branches, I could imagine that very well." (General practitioner) | 6 |
| | | 0 |
| Target group of company (100%) | "It depends on the age structure of the individual." (Orthopedist) | 6 |
| | | 0 |
| Use of technology by competitors (43%) | "If I would get to know about this, I would look at it [at colleagues] and certainly make my own opinion as to whether it would be worth for me." (Orthopedist) | 3 |
| | "At least in that respect I do not throw up to the competition." (Café operator) | 4 |
| Technology dissemination among end users (50%) | "The acceptance is very important. That would be a reason to back out of it." (Orthopedist) | 3 |
| | "If I were offering this service, I wouldn't turn it off immediately because my patients have to become acquainted with it, too. Of course, this takes some time." (General practitioner) | 3 |

Table 2 Environmental context*Technological context*

The factors of potential benefit, powerfulness and scalability have been assessed by all interviewees as important. In addition, conditional disagreement for the factors compatibility, process adaptation, reversibility, security and privacy issues can also be observed. Only the hypothesis for security against maliciousness has to be rejected.

| Factor | Citations | Count |
|---|---|-------|
| Potential benefit (100%) | "It must provide a potential benefit and run by itself, especially without much preparation and rework. Just a work shift would not be profitable." (Garage operators) | 7 |
| | | 0 |
| Compatibility (57%) | "It is very important for me that the new software is fully compatible with my current software." (Dentist) | 4 |
| | "In my opinion, the systems do not have to communicate to each other." (Café operator) | 3 |
| Powerfulness (100%) | "I would prefer a simpler version, because I have five assistants. Some of them are not very familiar with computers and most of this work is done by them." (Dentist) | 5 |
| | | 0 |
| Process adaptation (25%) | "The important thing is that the employees are convinced that they have a profit or relief after some additional efforts for the changes, too. This would be a prerequisite." (Café operator) | 2 |
| | "In the beginning, there would be a wail, but they will habituate very quickly. So no problem." (Orthopedist) | 6 |
| Scalability (100%) | "It should be matched as perfect as possible to my needs." (Hairdresser) | 6 |
| | | 0 |
| Reversibility (71%) | "I think that this is fundamentally important for everyone. Some small effort is certainly no problem, but everything beyond that is doubtful." (Garage operators) | 5 |
| | "Switching back to the old system would be a bit difficult. Compare it to a homepage. You cannot just say: ‚It has not worked, so I will no longer operate it‘. Your clients already got used to it." (Café operator) | 2 |
| Security issues in general (50%) | "It has to run without errors. Quickly and safely. This is the most important thing." (General practitioner) | 4 |
| | "I have no concerns regarding internet security." (Orthopedist) | 4 |
| Privacy issues (57%) | "What bothers me a bit about the whole thing is that competitors can watch your calendar and thus they can see how busy I am. This is information which doesn't concern my rivals." (Garage operators) | 4 |
| | "As for privacy, I'm not scared and I don't have any negative experiences so far. This would not be an issue for me." (Café operator) | 3 |
| Security against maliciousness (0%) | | 0 |
| | "Evil is everywhere. For example I can order a pizza for a not existing person somewhere in the city. Same is here. But most people are good. I don't have major concerns about that." (Garage operators) | 6 |

Table 3 Technological Context**DISCUSSION**

After the individual interviews were described in the previous chapter and the differences for each factor were illustrated, this section discusses the results and illustrates further insights from the conducted interviews. For example, the price has a very strong influence on the adoption decision of a micro-enterprise.

In our research based on the TOE-Model we have to conclude that the proposed model does not cover all areas of influence derived from the interviews conducted. During the interviews five additional influencing factors have become identified which are also (partly) crucial for micro-entrepreneurs. We call this fourth dimension *marketing context*. For example, contract terms for the support of software are usual in the doctor's industry, while similar services in the caterer industry are not common.

Marketing Context

Based on our results marketing factors can show a significant influence on the adoption decision. During our interviews we identified the following dimensions:

- *Support* (based on Igbaria et al., 1997). A support has been considered without exception to be absolutely necessary within our interviews. The absence of support is seen as an exclusion criterion. In micro-enterprises the knowledge of technologies often lacks. Even small operating problems related to the technology may not be fixed. By the introduction of technology, the dependence of computer application systems will be increased. If an error occurs, in most cases this will pull not only to the original process negative consequences, but can bring company-wide restrictions. Thus, if a support is offered for a technology, it is more likely to be adopted, and vice versa.
- *Price and consequential costs* (based on Premkumar et al., 1994). The price is crucial for micro-enterprises as all interviewees reveal this factor as important. The micro-enterprises interviewed classified the price as the main criterion for or against the adoption.
- *Trial period* (based on Hausman, 2005). Almost all interviewees expressed the need for a trial period. It is the first factor that was not mentioned as influencing factor to 100 percent. But with about 85 percent impact strength, we assume that this factor is still important and a test phase has a positive effect on the adoption decision by micro-enterprises.
- *Training* (based on Igbaria et al., 1997). The interviews indicate that the existence of training provided by the service provider is an important driver of technology adoption by micro-enterprises. A lack of training is sometimes seen as a key aspect for non-adoption.
- *Sales talk* (based on Premkumar et al., 1994). Another aspect raised is the reduced number of sales talks due to the potential increasing communication between a micro-enterprise and its potential customers via OSAP. Although, the hairdresser emphasizes that a sales talk is essential in his business the interviewees from other organizations do not take this factor serious.

According to the results from the interviews almost all aspects of the marketing context have influence on the adoption decision as not hypotheses by our TOE-based research model. A potential explanation might be that these factors are typically for micro-enterprises and their relatively strength is more important for these type of enterprises. The interviews show that support and training have an important impact on the contractual commitment of micro-enterprises as these two factors were rated by interviewees as the most important ones. If no support and no training are offered, almost all entrepreneurs have decided against adoption. The same rule applies to the trial period, but the lack of the trial period does not automatically lead to refusal. Obviously, the price influences the importance of the contract system and run-time. Thus, we suggest for future studies using the TOE-model for micro-enterprises' adoption decisions also to include a marketing context.

Although all discussed industries would be suitable for the use of the investigated technology, there were also significant differences between these industries. For instance, privacy plays a much more important role at the doctor than in a car garage. Of course, these differences have an effect on the adoption behavior of entrepreneurs which was not investigated in this study in detail and might be an opportunity for future research

Moreover, it would be interesting to examine whether the accepted hypotheses are consistent with the statements of other entrepreneurs from micro-enterprises of different industries. In addition, a generalization of the results of other industries and technologies should be made, because the statements cannot be applied to them without further investigation which limits our results.

Conclusion

The most important finding of our work is that small businesses must be more engaged in technology adoption research. Although they are certainly treated similarly in many aspects, these companies show certain characteristics that are very different from large organizations (Brown and Kaewkitipong, 2009). Within our approach, the marketing context revealed as important to explaining the adoption decision by this type of enterprises and can be classified as an extension to the TOE-Model for micro-enterprises.

Furthermore, the most important factor is not in the technology context. The attitude of the decision maker toward the technology is identified as an important factor for the adoption decision. Moreover, environmental factors cannot be

evaluated as highly relevant. This finding is in line with Ramdani et al. (2009) who also show that environmental factors are less important for micro-enterprises.

In addition, several factors were marked by the interview partners as "have or die" factors. This means that these aspects must be present for the micro-enterprises in order to adopt a technology. For getting started with technology it is therefore very important to address these factors at least in any manner. These factors are: support, updates, scalability, test phase, training and compatibility.

Based on underlying TOE-model our research has investigated the adoption decision by micro-enterprises from an organizational perspective. However, also one might argue that the decision is made by a single entrepreneur such that also individual-level technology adoption theories might be appropriate for explaining the adoption decision of micro-enterprises. Based on our interviews we have to conclude that the organizational perspective is appropriate and should not be neglected. Nonetheless during our interviews each interviewee indicated that she will make the final adoption decision herself and is responsible for the budget of the enterprise. Some of the factors derived from the interviews are similar to the ones of individual-level technology adoption research. Thus, we assume that a combination of factors representing the organizational and individual adoption decision (e.g. individual differences) might be appropriate for the context of micro-enterprises. In this specific context the different level of adoption decisions merge into a single one, as one person makes the organizational adoption decision. Future research might build on our assumption developing a research model explaining micro-enterprises' adoption decision by both factors from the organizational level and from the individual level. One possible starting point might be the discussed *attitude of the decision maker* which is an important determinant of an adoption decision in both individual-level (see Venkatesh et al. 2003) and micro-enterprises organizational-level adoption models (see the proposed model within this paper).

Another option for future research might be to validate these findings using empirical field studies or additional qualitative approaches. It would be interesting to analyze, whether the accepted hypotheses are consistent with the statements of other micro-enterprises in different or similar industries. Second, it has to be made a generalization of the results to other industries, but more important, to other technologies. This is also one limitation of our study as we have investigated OSAP with seven interviews in one cultural region. Thus, our results are limited to this specific setting and cannot be transferred without future investigations into other contexts.

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