Acceptance of BYOD among Employees at Small to Medium-sized Organizations

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ABSTRACT

BYOD is a trend among organizations in which employees use personal devices for their professional work. This causes a shift for employees, willing or not. Little is known about how employees perceive this new trend. Should organizations embrace BYOD or should they hold back for the sake of their employees? Current research focuses on security and governance. This paper will focus on acceptance, an area which little is known about.

The approach taken in determining the acceptance of BYOD is first to define what BYOD is with the use of a literature study. The results of the study will be used to make a comparison with existing organizations. After which the acceptance will be determined with the use of interviews.

A gap exists between what literature states about BYOD and the current situation at organizations. Literature has a focus on security and governance whereas the organizations do not. The research implicates a positive attitude towards BYOD from employees. Indicating that the BYOD phenomena is accepted among the employees of small to medium-sized organizations. Productivity, part of performance expectancy, and facilitating conditions are the most important factors that influence use. Distraction and a blurring line between personal and professional is considered to be a negative aspect.

Keywords
acceptance, bring your own device, BYOD, Miles and Huberman, small to medium-sized, use what you are told, user, acceptance, UTAUT, UWYT, grounded theory

1. INTRODUCTION

“Work is no longer a place you go to, and then leave, but an ongoing activity” [1]. In their private lives employees demand innovative products as the line between work and private blurs they demand the same at work.

Expected is that by 2014 90% of the organizations [16] will support corporate applications on personal devices. BYOD is advancing quickly. But at the same time organizations have trouble dealing with BYOD or do not have a clear policy for BYOD, “BYOD policies are nascent if not non-existent” [7].

In the past products were always first used in the corporate market before they made it to the consumer market. Nowadays this is not the case anymore. This change is causing organizations to fall behind due to not being capable of keeping up with the consumer market. At the same time employees demand to use these technologies at work. A statement by Peter Hinnsen illustrates this well: “definition of work is: “That brief period during the day when I still have to use old technology.”” [10].

This shift from organizations facilitating devices, to employees bringing their own personal devices within the organization is a big shift in how organizations cope with IT raising many new questions: “Organizations are faced with questions regarding the exponential growth of smart phones and tablets, and defining the best practices and key considerations for supporting a BYOD initiative for an organization” [18].

1.1 Problem Statement

BYOD is a change within organizations that brings new threats and opportunities. In The Friendly Takeover The Consumerization of Corporate IT [1] these pros and cons are formulated as followed. Benefits include: employee efficiency, employee satisfaction and IT costs. Risks include: security risks, productivity loss, legal & compliance and support & maintenance costs.

The friendly takeover the consumerization of Corporate IT is a whitepaper from Booz & Co. Numerous whitepapers from consultancy firms exist on the subject of BYOD. Examples of these are BYOD : From company-issued to employee-owned devices [6], The next-generation CIO [5] and BYOD in Government: Prepare For The Rising Tide [1] Forrester Consultancy 2012. BYOD in Government: Prepare For The Rising Tide. Most of these whitepapers focus on the pros and cons of BYOD. Which opportunities and threats does BYOD bring? At the same time they pressure this upcoming trend of personal devices and pressure organizations to take adequate measures.

Other research suggest that Generation Y is said to be the reasons of this push for the use of personal devices at the workplace. Generation Y grew up with technology and expect to be able to use it both at home and at work. Another reason is the lack of suitable technology at the workplace compared to their personal situation. Driving employees to use personal devices at work.

“The gen Y worker, also called as IWorker are more tech savvy and thus their lifestyle. Hence for the the organisations are also shaking hands and moving towards making a collaborated and communicated and satisfied workforce.” [17]
From the industry there is push for BYOD and at the same time from a new generation of workers. But not the whole workforce consists of this new generation workers. Consultancy firms could also have a certain amount of self-interest at hand, in the long run BYOD means business to them.

The given brief description of the situation concerning BYOD shows that there is a good understanding of the pros and cons. Also it seems that generation Y is an advocate of BYOD. These two observations about BYOD are just a part of the picture. They both focus on specific areas of BYOD. Little is known about how employees, as a collective, see BYOD. Do they really embrace this new trend? This is alleged by several white papers from consultancy firms and studies about the new generation of workers. Does this apparent need for BYOD really exists among all employees?

1.2 Research Questions
To find an answer to the questionable statement that all employees want to be able to use their personal device the following research question will be answered.

How is the user acceptance of BYOD among employees of small to medium-sized businesses?

1. What is BYOD?
2. How do the organizations from the interviews compare to this definition of BYOD?
3. How is the acceptance of BYOD in these organizations?

Methods in answering the questions are explained at each sub-question. The overall method is visualized in Figure 1: plan of execution.

2. LITERATURE REVIEW
To answer a part of the questions posed in the previous section a literature review was done. Before starting the literature search a search plan [20] was made.

In the search for literature the following keywords were used: BYOD, Bring your own device, UWYT, use what you are told, consumerization, CoIT.

Generic keywords were used in the search. This was possible due to the limited amount of literature available on the subject of BYOD. Resulting in manageable amounts of literature. At the same time this posed a problem in finding sufficient literature.

The search engines used are Google Scholar, Scopus, Business Source Elite and also Google. Google was also used due to the difficulty of finding sufficient literature with the search engines for scientific literature. This is due to the early stage in which BYOD is at the moment resulting in a limited amount of available research. This is also the reason a great deal of the used literature is not scientific, but consists out of whitepapers from various consulting firms.

The literature found can be divided in number of topics the general focus is on one of the following topics.

- Acceptance
- Consumerization
- Governance
- Security

2.1 Related work
The literature review revealed current work exists on acceptance of BYOD in organizations. In Towards an IT consumerization theory [15] interviews have been conducted on how certain aspects of consumerization are perceived as advantages or as disadvantages.

Part of the research focuses on the potential effects for individuals within organizations. In which they assess three advantages and disadvantages for individuals. These three are workload, autonomy and competence.

In Motivations for BYOD: an investigation of the contents of a 21st century school bag [11] factors that affect students’ use of BYOD are identified.

Factors that positively affect the use of personal devices are ease of use and compatibility with learning tasks.

3. WHAT IS BYOD?
3.1 Method of research
The literature found with the literature review served as input for answering this sub-question.

In the literature the different aspects of BYOD were identified. Although the literature was classified into four main topics the literature usually contained information about certain sub-topics. The organizations from the interviews also helped in identifying the different aspects of BYOD.

In the interviews the aspects were identified and used for a more directed search throughout the literature. If these aspects were stated in the literature they were incorporated in the results.

By approaching this sub-question from two different ways a more covering definition of BYOD is ensured.

3.2 Results
Consumerization is changing corporate IT. This change is apparent in many different cases. An example from before consumerization is the personal computer which started off...
as a business appliance, in the beginning as a mainframe, and after several years made its way to consumers as the personal computer. Nowadays this is different. An iPad, a device introduced by Apple for consumers, first used as an entertainment device now also as a business appliance. Another example is the use of social media, which was first used by individuals. But now possess new opportunities for business [12].

A part of this trend is changing the landscape of corporate IT. The gap between available information technology on the consumer market and the available devices for employees in the business market are causing employees to use their private consumer devices for their professional work [1]. This shift is commonly referred to as bring your own device.

BYOD can be defined as the use of personal devices in a professional organization. This definition only describes a part of what BYOD is. The different aspects of BYOD do not follow from this definition. This part of the research will try to give a definition of BYOD by describing the different aspect of BYOD in relation to organizations.

With the use of various literature on the subject a comprehensive list of different aspects of BYOD have been identified giving a broader overview of the concept of BYOD.

3.2.1 Security

The use of personal devices leads to a loss of control over the devices for the IT department. Less of half of the personal devices used are being protected by basic security measures [14]. Employees access sensitive data, applications and have access to the intranet of the organization all leading to possible leakage of data and the spreading of viruses or malware.

Personal devices are unmanaged, thus organizations have less control and visibility [9]. Less control means no control over the applications that employee may use. The use of cloud services such as Dropbox or Evernote are a danger to the organization: “lead to knowledge loss ... bypasses existing policies and security guidelines” [15].

3.2.2 Compatibility

The use of personal devices leads to a wide variety of different devices. Different platforms, systems and available software. This in contrast to the situation when UWYT was the standard. Employees in the organization used similar or the same platforms, systems and software.

Organizations usually have various different information systems which may consist of certain legacy systems with specific requirements. Not all devices from employees will be compatible. The importance of compatibility is emphasized in BYOD: From company-issued to employee-owned devices [6]. Mobile enterprise applications will need to be flexible upon platforms which it will run on.

Corporate networks were always intended for the use of company-owned devices. Thus organizations mostly have security measures in place to ensure this. With the emergence of BYOD this changes.

3.2.3 Technical Support

Organizations that allow the use of personal devices should realize the impact BYOD can have on technical support. BYOD might seem cheaper to an organization due to employees purchasing devices on their own, but this is not always true. As illustrated in: The future of enterprise mobile computing [4].

“For most organizations, consumerization will likely increase IT costs as organizations increase their investments in technology and expand security, management, and support capabilities.” [4]

Different devices, platforms and versions can lead to a whole new problem for an IT department. If users have problems with their personal device it will impact their work. Organizations will need to cope with these issues.

IT departments are concerned about security, support and a growing workload due to personal devices [2].

3.2.4 Financial Support

In the previous aspect, technical support, it was shown that personal devices may lead to increased costs due to additional investments in certain capabilities. This is an example of indirect financial support.

On the other hand employees using personal devices leads to reduced capital investments, lowering the costs. The literature is ambiguous on the subject. Another white paper states the following about the costs.

“Companies that embrace the consumerization trend, we believe, will ultimately gain a real competitive advantage in the war for talent, while potentially reducing IT costs.” [1]

3.2.5 Governance (Policy)

The shift from company devices to personal devices is a change which is seems to be inevitable. Organizations will have to deal with the change. BYOD is in odds with the current policy concerning information technology, organizations are hesitant to allow personal devices. But policy on this subject is inevitable. This is also acknowledge by The ‘Consumerization’ of Information Technology.

“A mobility strategy with proper governance reduces perceived threats and risks associated with employees using their own devices.” [18]

A proper governance or policy is required to reduce security and data loss risks which the use of personal device bring with them.

Organizations are not blind to this fact, 94% of the organization attempt to create a BYOD policy by 2013. [3]

3.2.6 Acceptance

In Towards an IT consumerization theory [15] focuses on the acceptance of BYOD. This concerns the same research as mentioned under related work.

In the article potential effects with the use of personal devices are analyzed. Workload is considered to be a disadvantage for employees. With the use of personal devices employees tend to make longer working hours.

Autonomy and competence are considered to be advantages. Personal devices are associated with greater freedom. Competence increases because employees are familiar with their device and are more capable of solving problems easier.

3.2.7 Devices

BYOD consists of the use of personal devices. Only the definition does not state which devices it concerns. The devices that are referred to in different articles, concern electronic devices. Assumed can be that it are personal electronic devices. This does not narrow it down enough.
Personal electronic devices include but are not limited to phones, smartphones, PDA’s, laptops and tablets.

With the use of literature from the literature review a list of devices has been constructed. The different articles all use the phrase: personal device. Examples of these devices are:

- Phones
- Smartphones
- Tablets / Slates / Touch enabled devices
- PC’s
- Laptop / Netbooks / Ultra portables

All the articles, if they mention particular devices, mention the same type of devices. All articles, except two, mention only portable devices. These devices can be divided into the following categories.

- Mobile communication devices: smartphones, tablets
- Mobile workstations: laptops, netbooks or ultrabooks

There are two articles which mention the use of personal PC. Only these examples do not fit within the BYOD idea, but fall within consumerization. Certain organizations give employees a choice as to which devices they want to use.

4. HOW DO THE ORGANIZATIONS COMPARE TO THIS DEFINITION?

4.1 Method of research

In comparing the organizations, the definition from the previous sub-question was used. In creating a suitable overview of the comparison the results are displayed in table 1: BYOD in the organizations. The organizations are compared on the aspects of BYOD. In comparing the organizations there are three possible outcomes: positive (+), negative (-) or unknown (o).

If no data is available in the interview, the aspect is labeled unknown. Positive indicates the organizations pays attention to it, negative indicates they do not. Only three scales were used due to the difficulty in comparing the organizations with the available data.

Some aspects are unknown due to the nature of the interviews. The interviews were conducted by different students with different questions, although for the same purpose the interviews do not always contain all the required information.

The different aspects are derived from the previous sub-question. The aspects are chosen in such a way that they can be used to determine the extent to which BYOD is used with the organization. Not all the aspects from the previous questions are used in the comparison, governance (policy) and acceptance are not used. Acceptance is not used because it is an aspect which will be discussed in the next sub-question. Governance or policy are only compared on the security aspect, if questions were asked about policy these mainly focused on security policy. This enabled a comparison on governance, although this is only a subtopic.

4.2 Results

4.2.1 Comparing organizations

The research shows a number of noteworthy outcomes. Starting with the communication aspect. A great deal of the organizations, 14 out of 18, use personal communication devices. These devices range from smartphones to tablets. An observation that is worth noticing is that users feel the need to use their own devices due to absence of them at the organization.

When communication devices are compared to workstation devices. It is visible that a significant difference exists. Only at five organizations do users use their personal laptop. This due to the fact that most of the organizations facilitate these devices. Although most employees own a laptop they do not feel the need to use it at work. In one organization they facilitated the employees with top of the line devices. A reverse of BYOD occurred there. Employees used the company owned device for personal use and the organization supported and encouraged this. Employees did not feel the need to use their personal devices since these were less advance then those from the organization.

Although in 14 out of 18 of the organizations some use of personal devices is present little have policy or technical measures in place to deal with the personal devices. This seems to be typical for the organizations from the interviews. The exact cause is unknown but this may be due to the size of the organizations and the overall lack of policy.

The absence of control on BYOD is also visible in the compatibility aspects. A large number of the organizations support the use of personal devices. The infrastructure is usually there and the use of application is not prohibited. Use of applications is limited to communication systems. Other (sector specific) information systems are not accessible from personal devices. This mostly due to the fact of systems requirements from these information systems.

4.2.2 Comparison to literature

In the limited amount of literature that is available on the subject of BYOD there is an emphasis on the risks of security, data loss and malicious software. This emphasis is not present in the organizations from the interviews. Only four from the all the organization have policy or technical measures in place aimed at personal devices.

From the interviews it is not apparent that the organizations address any of the pros and cons as specified in the literature. Advantages such as employee efficiency, employee satisfaction and IT costs. Or disadvantages such as security risks, productivity loss, legal & compliance and support & maintenance costs.

The organizations have a passive approach concerning BYOD. Most of the organizations do not formally allow the personal devices, support them or have policy for them. There is a gap between what organizations are doing at the moment compared to what the literature describes what they should be doing.

4.2.3 Suitable organizations

The comparison shows that differences exist between the organizations. Comparing the organizations is not the only goal of this sub-question.

Comparing the organizations is necessary in answering the main research question and also the following sub-question. Determining the acceptance requires organizations in which the use of personal devices is present.

In determining which organizations are usable for further research the following criteria have been used.

1. Some use personal devices is present: this can be a communication device or workstations device
2. Some use of computability is present: this can be
Table 1: BYOD in the organizations

<table>
<thead>
<tr>
<th>Devices</th>
<th>Checkline Europe BV</th>
<th>Max Planck Institute</th>
<th>Heckhoff GmbH</th>
<th>StudentTutors</th>
<th>Saxion</th>
<th>Alfred Wegener Institute</th>
<th>GoalGorilla</th>
<th>Tectura</th>
<th>Witte Group</th>
<th>Border Concepts</th>
<th>PE-Solution</th>
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<td>Compatibility</td>
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infrastructure or application

The first point is necessary because some use of personal devices is required among the employees. Without devices employees are only capable of saying what they might think about BYOD. But not on the basis of their experience but their expectation about the subject.

The second point is necessary because some interaction of the personal device with the organization is required. The interaction is of importance because using a personal device at work does not necessary mean that is being use for work purposes.

Some employees indicated that they used personal devices at work, but not for work purposes. The main use was staying in contact with family and friends.

At four of the organizations no use of personal devices is present. These organizations will be discarded in the further research.

A further look reveals that at a number of organizations employees do make use of personal devices but do not use any infrastructure or applications from the organization with their personal device. An example of such use is taking picture with a smartphone.

If these organizations are discarded, the following organizations are left: Max Planck Institute, Checkline BV, Heckhoff GmbH, StudentTutors, Saxion, Alfred Wegener Institute, GoalGorilla, Tectura, Witte Group, PE-Solution and Thoon.

5. HOW IS THE ACCEPTANCE OF BYOD IN THESE ORGANIZATIONS?

5.1 Method of research

In determining the acceptance of BYOD interviews have been conducted at 18 different organizations. These interviews have been constructed on the basis of the UTAUT framework [19].

The interviews themselves were not suitable for further analysis before aggregating them. In doing so a qualitative data analysis and data reduction framework by Miles and Huberman [13] was used.

The framework adapts three processes for data analysis and reduction.

1. **Data reduction** consists of selecting, focusing, simplifying, abstracting and transforming the data.

2. **Data display** is about formatting the data is such a way that systematic patterns and interrelationships become visible.

3. **Conclusion drawing and verification** involves assessing what the data means and the implications of this. Verification is determining whether the conclusions drawn from the data are credible, can they be justified?

The processes are not necessarily done in sequential order, but in an interactive manner. The qualitative data analysis technique has been adapted with the interviews as follows.

1. **Data reduction:** Classifying interviews by organizations, questions by determinants from UTAUT.

2. **Data display:** Simplifying answers to a scale, questions into keywords, aggregating all keywords and answers.

3. **Conclusion drawing and verification:** analyzing data for trends and verifying if these are from significant value.

5.2 Results

After the data analysis and reduction a limited amount of interviews was available (n=37). In the process not all the interviews were deemed useable for drawing conclusions.

A number of interviews was discarded for one of the two following reasons.

1. Interviews with employees were already simplified in to one aggregated whole. The answers of the employees were not available making it impossible to abstract and simplify the data in the same fashion as the other interviews.
2. Interviews did not correctly put the UTAUT framework into practice. Resulting in questions which could not be classified into one of the determinants.

The UTAUT framework identifies four moderators which influence behavioral intention and use behavior. These are: gender, age, (technological) experience and voluntariness of use.

The number of the moderators and the amount of interviews makes it difficult to make well-founded statements about the data in combination with the UTAUT framework. Instead a different approach has been taken in identifying factors that could determine the acceptance of BYOD.

All the interviewees use a personal device at work making it possible to identify important factors for the users of these personal devices. The grounded theory method [8] has been used in doing so. Grounded theory is a method which enables the discovery of theory by analysis of data. Although the grounded theory has been used in the analysis. The UTAUT framework has been used as a guideline for structuring the discussion of the results.

The results are displayed in table 2, which is included as the last page. The results are on a scale from 1 to 3. 1 indicates no importance, 2 is neutral and 3 is important.

5.2.1 Communication devices

Before discussing the factors that influence acceptance an interesting observation about communication devices will be discussed.

As shown in the previous sub-question a large part of the organizations, fourteen out of eighteen, use of personal communication devices is existent.

The determinant facilitating conditions is rated positively at these organizations. Employees indicate that they have the necessary resources and knowledge at hand. Also compatibility with other system has a high rating.

This may partly be due to the fact that it concerns communication devices. These devices are limited in computing power, screen size and functionality. Devices are primarily used for reading documents, calling and emailing.

Systems for accessing documents or mail are standardized for a great deal. Resulting in a high compatibility with the other systems in the organization. The perception of employees is that the devices are used to the maximum of their capabilities.

It is likely that if employees also used personal workstation devices that the facilitating conditions would have been perceived as far less as they are now. Employees would not have been able to use these devices to the maximum of their capabilities.

5.2.2 Performance Expectancy

In determining performance expectancy a number of indicators were used: usefulness, performance, routine tasks and productivity.

Out of 31 interviewees that commented on productivity 21 consider it to be important when using their own device. When employees use their own device they want to see an increase in productivity. Another factor that plays an important rule is usefulness.

Employees experience a productivity increase due to several reasons. Reasons are but are not limited to: choosing own software, familiar devices, familiar with way of working and less limitations on own devices. The same goes for usefulness, which increases due to the familiarity with the device.

5.2.3 Effort Expectancy

The indicators for effort expectancy are ease of use and ease of learning. Only ease of learning has a slight advantage.

Most employees indicate that they do not perceive a difference in ease of use compared to company-owned devices and therefore do not find this aspect important. Ease of learning is considered to be important when using devices, the learning curve should not be high. Especially older employees indicate difficulty when using new devices.

5.2.4 Social Influence

Independent from the type of device that is used, social influence scores well below the other determinants. Employees do not seem to be influenced by others, the organizations, superiors or their colleagues. In the use acceptance of information technology [19] the following is said about social influences.

“In mandatory settings, social influence appears to be important only in the early stages of individual experience with the technology, with its role eroding over time and eventually becoming nonsignificant with sustained usage.”

This could explain why employees are less influenced by others. This can’t be stated with certainty because no information is available on the usage duration of personal devices within the organizations.

5.2.5 Facilitating Conditions

Overall facilitating conditions are considered to be the most important, specifically necessary knowledge and support. 22 out of 31 interviewees consider necessary knowledge to be important and 24 out of 29 consider support to be important.

Necessary knowledge implies that the user knows how to use the system. This factor is important with most systems also with devices owned by the company. Necessary knowledge is not to typical to personal devices.

Support is also present with devices owned by the company but is possible more difficult with employee owned devices due to the fragmentation of devices. Employees consider support to be important if they use their own devices. Problems with their own devices for work purposes should be solved by their employer.

5.2.6 Overall acceptance

With the available data it is difficult to measure the acceptance of BYOD in the organizations. This does not make it impossible to make any statements but validity is a problem. Certain important factors which influence the use of personal devices can be indentified.

The data suggests an overall acceptance of BYOD among the employees at the organizations. The performance expectancy is not perceived to be high, although productivity is considered to be important.

Employees associate their own devices with higher productivity but indicated that this is negatively affected due to more distraction on personal devices. This is due to fact the same device is used in their personal life, mixing private and professional which has its downsides.

This is also apparent the other way around. Employees indicate that they aren’t always comfortable with taking
their work home. They want a line between private and professional. BYOD complicates this. This was also established in Towards an IT consumerization theory [15] were they found the increase of workload to be a negative aspect of consumerization. This disadvantage is also visible with BYOD.

6. CONCLUSION

The research was done to able to answer the following research question:

How is the user acceptance of BYOD among employees of small to medium-sized businesses? The following can be concluded from the results of the three sub-questions:

There still a large gap between what is written in the literature about BYOD and the current position of BYOD at various organizations. Organizations do not fully support BYOD, policies are close to non-existent and computability is difficult.

On the other hand there are employees which use personal devices in organizations without the proper support. Use of personal devices consists mostly out of communication devices, such as smartphones and tablets. Only at a few organizations do employees use their personal laptops.

Overall there is an acceptance of BYOD among employees at small to medium-sized organizations. Employees perceive an increase in productivity in spite of a greater distraction due to the blurring line between their personal and professional life.

Productivity and facilitating conditions are considered to be important factors in the acceptance of BYOD. Personal devices should increase productivity and good facilitating conditions are necessary. Employees want the support and the resources to use their personal device. These two factors offer a good indication as what to organizations should focus on.

6.1 Discussion

The limited amount of interviews proved to be an issue in answering the main research question. The different nature of the organizations, ranging from organization with a focus on production, sales or service oriented. The use of technology differs between these organizations.

Also there is a large difference in the other variables. The UTAUT framework states that age, gender, experience and voluntariness influence use behavior. In the population from the interviews there is scatter of these variables among the interviewees. This would not have been a problem if a significant amount of interviews was available.

Trustworthiness of the coding cannot be guaranteed. Multiple coding or cross-checking coding by other researchers was not done. Cross-checking is needed in reducing subjectivity of the researcher.

6.2 Future work

The results of this research give an overall view of the acceptance of BYOD. Within the topic of acceptance of BYOD more specific questions can be answered. What drives the use of personal devices in organizations? Changes in organization can be achieved in roughly two ways, a top-down approach or a bottom-up approach. Future work could focus on the way BYOD is implemented in an organization and whether there is a relationship to acceptance. Another interesting approach is the question of why employees use BYOD. In the interviews numerous employees indicated that they were not satisfied with the available facilities at their organization. More or less forcing them to use personal devices.

A more detailed look at what drives the use of personal devices in an organization. Would employees still want to use personal devices if the organization facilitates in everything they need?

7. REFERENCES


| Gender | M | F | M | - | - | - | - | - | F | M | - | M | M | M | M | M | M | - | - | - | - | - | - | F | M |
| Age    | 41 | 49 | 44 | 54 | 27 | 23 | 54 | 23 | 48 | 23 | 25 | 30 | 60 | 59 | 62 | 53 | 50 | 24 | 30 | 24 | 41 | 43 | 38 | 41 | 50 | 29 | 51 | 59 | 28 | 35 |
| Performance Expectancy | 1 | 2 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 1 | 1 |
| Usefulness | 1 | 1 | 3 | 3 | 1 | 3 | - | - | - | 3 | 2 | 2 | 3 | 3 | 2 | - | - | 2 | 3 | 1 | - | - | - | 3 | 1 | 3 | 3 | 2 | - | - |
| Performance | 1 | 1 | 3 | 3 | 1 | 3 | - | - | - | 3 | 1 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 1 | 3 | 1 | 3 | - | - |
| Routine tasks | 1 | 1 | 3 | 3 | 1 | 1 | - | - | - | 3 | 2 | 3 | 2 | 3 | 3 | - | - | 2 | 3 | 1 | - | - | - | 3 | 1 | 3 | 3 | 2 | - | - |
| Productivity | 1 | 1 | 1 | 3 | 1 | 1 | - | - | - | 3 | 1 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 1 | 3 | 1 | 3 | - | - |
| Effort Expectancy | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 3 | 2 | 3 | 1 | 3 | - | - | 1 | 2 | 2 | 2 | 1 | - | - |
| Ease of use | 3 | 3 | 3 | 1 | 3 | 3 | - | - | - | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | - | - | 1 | 3 | 3 | 1 | 3 | - | - |
| Ease of learning | 3 | 3 | 3 | 1 | 3 | 3 | - | - | - | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | - | - | 1 | 3 | 3 | 1 | 3 | - | - |
| Social Influence | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 3 | - | - |
| Important others | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 3 | 2 | 3 | 1 | 1 | - | - |
| Support from organization | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 3 | 2 | 3 | 1 | 1 | - | - |
| Support from colleagues | - | - | - | 1 | 1 | 1 | - | - | - | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - |
| Facilitating Conditions | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | - | - |
| Necessary Resources | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | 3 | 1 | 3 | 3 | 2 | - | - |
| Necessary Knowledge | 3 | 3 | 3 | 1 | 1 | 1 | - | - | - | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | - | - | 1 | 3 | 3 | 1 | 3 | - | - |
| Compatibility other systems | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 2 | 2 | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 1 | - | - |
| Compatibility way of working | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 1 | 3 | 3 | 3 | 2 | 3 | 2 | - | - | 3 | 3 | - | - | - | 3 | 2 | 3 | 3 | - | - |
| Support | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | 3 | 3 | 3 | 3 | - | - |
| Behavioral Intentions | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | 3 | 3 | 3 | 3 | - | - |
| Plan to use | 1 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Table 2: Results interviews**

1 = not important, 2 = neutral, 3 = important