Impact of Mobile IT Consumerization on Organizations – An Empirical Study on the Adoption of BYOD Practices

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Abstract. The last few years have seen more and more employees using their personal mobile devices for work-related tasks. This phenomenon is part of a broader trend known as IT consumerization. Enterprises and employees have recognized that they might profit from these developments and implemented "Bring Your Own Device" (BYOD) policies, but they also have to face new challenges. This study investigates which types of employees adopt BYOD and how they benefit from it. To address these questions, the authors conducted a survey with 219 participants. Participants were classified into adopter types based on the Diffusion of Innovation Theory. The results indicate that early adopters and the early majority use their personal smartphones more often for work-related tasks than laggards, and that innovators and early adopters more often receive work-related email on their personal smartphones than other adopter types. It is concluded that DOI can successfully be applied to explain BYOD adoption behavior. Differentiated management strategies have to be applied in order to address the whole workforce.

Keywords: BYOD · Mobile · Diffusion of innovation theory · IT consumerization · Adoption

1 Introduction

In recent years, mobile devices have invaded both private and business life [1–3]. This phenomenon is part of a digital transformation process in many societies, of which, for instance, the diffusion of social network sites like Facebook is also part [4].

Employees increasingly use their own devices in a business context [1]. Particularly since 2012, the press and the web community have termed this development 'Bring Your Own Device' (BYOD) [5–7]. In academic research this phenomenon has been discussed for many years under the name IT consumerization [8]. IT consumerization describes the usage of consumer IT resources for business purposes [9]. From the point of view of the employees, their personal devices are often easier to use than those provided by their employer, for example because they are more familiar with the operating system. Accordingly, employees claim to be more productive when using their own devices [10, 11].

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Thanks to the accelerating diffusion of smartphones and the increase in mobile applications, employees can easily use their own devices for work-related tasks [12].

Enterprises need to be aware of the adoption of mobile services by their workforce, because it might influence employees' productivity, work-life balance, and communication behavior [12]. They often deal with these issues by providing BYOD policies directed at the employees or by implementing 'mobile device management' (MDM) software in order to maintain a high level of security and to create a homogeneous software landscape [13].

Some recent studies, such as those by Gartner and the German management magazine "CIO", reflect on BYOD from a critical perspective. They observe that the willingness of employees to adopt BYOD is not as strong as press reports suggest [5, 14]. In our research, we draw on Rogers' Diffusion of Innovation (DOI) theory [15] to explain this phenomenon. DOI theory predicts that certain types of technology users are more open to adopting the BYOD mindset than others. A major goal of this research is therefore to identify which types of employees, following the DOI theory, adopt the Bring Your Own Device philosophy. The differences between adopter groups are also examined.

Our research concentrates on smartphones. Until now, little research has investigated the adoption of BYOD practices regarding smartphones by employees. In contrast to traditional mobile devices like laptop computers, smartphones are wearable computers [16, 17]. Therefore, they differ with regard to frequency of usage, types of tasks and willingness to use one's own device for work-related tasks [18]. However, empirical data on this phenomenon are scarce. In order to address the research questions and contribute to this research area, we provide empirical data on smartphone usage and BYOD adoption collected in a large-scale survey.

The remainder of this paper is structured as follows. Section 2 provides a comprehensive literature review in the field of IT consumerization and mobile IT management. Section 3 introduces the diffusion of innovation theory and argues that IT consumerization in an innovation in this sense. In Sect. 4 the methodology and propositions of our empirical study are presented. Section 5 presents and discusses the results. The final section draws conclusions and provides an outlook for further research.

2 Related Work

2.1 IT Consumerization

The diffusion of mobile devices, such as feature phones and Personal Digital Assistants (PDAs), started in the early 1990 s and increased quickly in the following decades [19]. The Apple iPhone, launched in 2007, popularized the concept of mobile applications (apps), leading to new potentials for smartphones. Additionally, the growing coverage of the mobile broadband infrastructure accelerated the dispersion of smartphones [20]. Research in the field of mobile devices today covers a multiplicity of research areas such as the security of mobile applications and devices and the design and development of mobile applications. Furthermore, some studies have specifically evaluated the use of mobile technologies for business purposes [21–24].

The accelerating diffusion of mobile devices, especially of smartphones, has massively influenced business as well as private life [12, 25, 26], offering several challenges and opportunities for organizations as well as for employees [8, 27]. Such professional use of technologies that are already applied in private contexts can also be observed with the introduction of social software in organizations [see e.g. 28–32].

Organizations need to manage their transformation into a so-called mobile enterprise [33, 34]. The term 'mobile enterprise' describes a corporation or large organization that supports business processes by using mobile applications via wireless mobile devices such as smartphones [35]. Harris et al. [8] define IT consumerization as 'the adoption of consumer applications, tools and devices on the workplace'. As organizations integrate enterprise mobility into their business strategy to benefit from increased flexibility and productivity advantages, they face the challenge of dealing with a large variety of employee-owned mobile devices [36–40].

Nevertheless, BYOD offers the potential to increase organizational performance [34]. Miller et al. [39] identified several positive aspects like reduced acquisition and training cost and a high speed of adoption. Despite the advantages of BYOD, the relaxation of IT restrictions that a BYOD policy engenders leads to several new operational challenges for IT management, such as the rollout of updates and the proper management of IT services according to the job responsibilities arising [41].

BYOD is a new phenomenon and there is still little scientific research available [42]. The bulk of the literature consists of studies executed by consulting firms and it mostly offers descriptions of the phenomenon as well as normative advice for executives [43]. Researchers have recognized, however, that IT consumerization is driven by employees [6, 37, 39]. To the knowledge of the authors, no research has been conducted to investigate the adoption of BYOD with a strong focus on smartphones from an organizational perspective.

2.2 Mobile IT Management

A major goal of organizations is to ensure maximal performance in terms of productivity and profitability, inventory, competitive advantages, and costs [44]. Organizational performance can be increased by using mobile IT effectively. A well-designed company-wide strategy needs to be established. The strategy should address both technical (e.g. choice of devices and functionality support) and organizational issues [34]. Three processes (cf. Fig. 1) need to be managed successfully for maximal organizational performance through mobile devices: the mobile IT conversion process, the mobile IT use process, and the competitive process.

Not every enterprise is able to convert its IT investments into IT assets effectively and efficiently. The mobile IT conversion process, for example, is influenced by the number of supported business activities, the level of integrated management and the level of technical and business knowledge. Traditionally, IT management has been responsible for all of a company's IT expenditures and for converting these investments into assets. Allowing IT consumerization by implementing a BYOD policy introduces privately owned mobile IT assets into the company [34]. Expenses incurred privately create enterprise assets. The benefits from a management point of view are evident. At

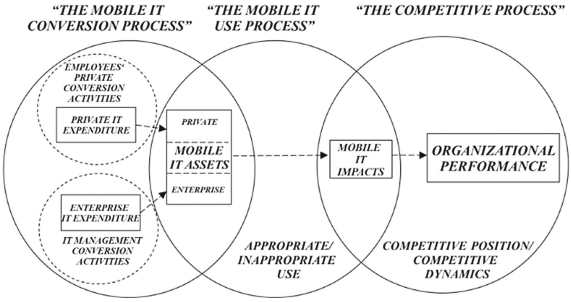

Fig. 1. Model for mobile IT organizational performance [28]

the same time, employees experience higher satisfaction and feel more productive because they are allowed to use a device with which they are familiar. They are more independent and have a higher degree of freedom in their choice of applications and functions. On the other hand, IT management is confronted with several challenges. They are confronted with a loss of control over the devices. Managing these devices is more complex and usually needs special mobile device management software and higher support. Still, IT assets accrued through employees' smartphones may result in positive IT impact (e.g. new services, redesigned business processes) when used appropriately for work activities. For an effective 'mobile IT use process' as regards IT consumerization, user skills as well as existing business processes need to be taken into account. Finally, an effective competitive process is needed for an enterprise to transform its IT impacts into greater organizational performance — i.e. to achieve competitive advantages relative to its competitors [45]. However, managing successful IT consumerization requires the input of employees. They are the main driver for IT consumerization and responsible for the benefits gained in the end. Hence, this research concentrates on the behavior of employees and their adoption of smartphones in enterprises.

3 Theoretical Background

3.1 Diffusion of Innovation Theory

Rogers [15] developed the DOI theory to explain a variety of innovations ranging from agricultural tools to organizational innovations [15, 46]. The theory is based on four key elements: innovation, communication channels, time and the social system. According to Rogers [15], innovations may be concepts, ideas, practices, technologies or objects — anything an individual, organization or other unit of adoption considers new. Communication channels describe the way in which information about the innovation is transmitted from one individual to another. Time, as an element of innovation diffusion, refers specifically to the period it takes for an innovation to pass through the innovation-decision process, from first knowledge of the innovation to the final decision to adopt or not. Finally, the social system in which the innovation is diffusing, and its structure are important elements to consider. The members of the social system can be classified according to their innovativeness into five categories: innovators, early

adopters, the early and late majority, and laggards [15]. Empirical data suggests that the number of members adopting an innovation approximately resembles a normal, bell-shaped curve. Accordingly, the cumulative distribution — the fraction of people who have adopted the innovation over time — is an s-shaped curve.

Rogers [15, p. 287–292] reviews several decades of research on adopter categories to identify characteristics associated with innovativeness and, hence, early adoption of innovations. Innovativeness is highly correlated with socioeconomic characteristics such as a high level of education and a high social status (indicated by variables such as income and wealth). Personality variables related to innovativeness include a positive attitude towards change, an ability to cope with uncertainty, and a favorable attitude towards science. Finally, innovativeness is also related to communication behavior. Early adopters end to be highly connected, have a great deal of knowledge and are valued by their peers, taking the role of opinion leaders.

The diffusion of an innovation follows a five-step process [15, p. 169]. The process occurs over a certain time and uses different communication channels. The five stages of the process — knowledge, persuasion, decision, implementation and confirmation. During the knowledge stage, an individual is first confronted with an innovation, but lacks information. This is followed by the persuasion stage, in which the individual tries to gather more detailed information about the innovation. The decision stage describes a weighting of innovation advantages and disadvantages. At the end of this stage, the individual decides whether to adopt the innovation or not. The person later implements the innovation in the implementation stage, evaluates the innovation and seeks more information. The last stage is the confirmation stage, in which the decision and the usage are finalized.

Moore and Benbasat [47] applied the DOI theory in the Information Systems (IS) domain to study IT innovations in organizations. Since then it has been an important foundation of the adoption models used in IS research for more than two decades [48–50]. Prescott and Conger [51] reviewed ten years of DOI research by information technology researchers and classified studies according to their locus of impact. They found that DOI theory is applicable to explain the diffusion of technological innovations in an intra-organizational context.

In recent years, researchers have also begun to use the DOI theory to explain inter-organizational and societal topics, particularly in research on mobile IS [52]. Monchak and Kim [53] conducted a meta-analysis of diffusion of innovations in Information Systems for the years 2003 to 2011 based on publications in the top eight IS journals. The authors found that the application of DOI theory in Information Systems research is primarily divided into eight categories: perceived attributes of innovations, types of innovation decisions, communication channels, the nature of social science, the extent of change agents' promotion efforts, adopter categories, the stages of adoption and the stages of an innovation process in an organization [53]. However, DOI theory has always also been the object of some criticism. The theory is based on agricultural methods and medical practice. Rogers [15] categorizes the criticisms of diffusion research into four categories: its pro-innovation bias (the "implication that an innovation should be diffused" [15, p. 106]), its individual-blame bias (the "tendency to side with the change agencies … rather than with the individuals" [15, p. 118]), the recall problem (survey

respondents being "asked to look back in time in order to reconstruct their past history of innovation experiences" [15, p. 127]), and the issue of equality (e.g. the widening of the socioeconomic gap [15, p. 130]).

3.2 IT Consumerization as an Innovation

In this article the DOI theory is used as a theoretical foundation to explain the progress of the BYOD mindset regarding smartphones in enterprises. How does IT consumerization match the definition of innovation according to Rogers [15]? Recall that Rogers defines an innovation as a concept, idea, practice, technology or objects perceived as new. BYOD, of course, is not a technology per se, because technology refers to the making, modification, usage and knowledge of tools, machines or techniques. It is instead a mindset regarding the use of technology in a social system. Similarly, IT consumerization describes an enterprise-wide tendency to use consumer IT devices. BYOD and IT consumerization can therefore be classified as 'practices' in the sense of Rogers' [15] definition.

The diffusion of these practices, however, is not altogether different from the diffusion of a technology. Analogous to the adoption of e.g. a new software system, the permission of and support for BYOD have extensively influenced IT management and enabled new values and challenges [54]. Its diffusion is based on extensive communication in social systems. The relationships and characteristics between different adopters and adopter categories therefore need to be examined to understand the progress of this innovation. In our study, DOI is used as a basis for gathering retrospective information about the diffusion progress of the BYOD mindset.

4 Empirical Study

4.1 Survey

As a first step in investigating employees' attitudes towards BYOD, we developed a questionnaire. The survey captures the current BYOD attitudes of employees in enterprises and shows whether different adopter types exhibit different attitudes towards BYOD. We decided to ask employees instead of IT managers or CIOs, as our goal is to examine end-user attitude and behavior.

We focused our survey on employees who actually use smartphones in their daily business life. The study is limited to smartphone users as we assumed that the phenomenon of IT consumerization is much more relevant for smartphones than for laptops or other devices (e.g. because smartphones are cheaper, are frequently used in private life and users are often emotionally attached to their smartphones, etc.). Furthermore, from the perspective of organizations, it is especially challenging to integrate consumer smartphones in business IT.

The online survey was carried out between October 29 and November 12, 2012, using the online survey tool LimeSurvey. It was directed at German employees. The questionnaire comprised 30 questions consisting of dichotomous items (yes/no), multiple-choice items and five-point Likert scale items. It was spread through social media: On LinkedIn,

a call for participation was posted to two user groups related to the topic 'mobile' and 47 private messages were sent to personal contacts. On XING, a large German business SNS, a call for participation was posted to three user groups on the topic 'mobile' and 42 private messages were sent to personal contacts. Additionally, a call for participation was published in a large German online blog on mobile topics.

The questionnaire consisted of three sections, each focusing on a specific point of interest. The first section gathered demographic data. The second section was designed to investigate the participants' attitudes towards BYOD. The questions included whether participants receive work-related email on their personal smartphone, and to what extent they use their own phone for business purposes. Finally, the third section was designed to gather the data necessary to classify participants into adopter categories according to the DOI theory.

4.2 Identification of Adopter Categories

To investigate which adopter types were represented in the sample, the questionnaire included items that could be linked to the characteristics typical for the different adopter categories. These characteristics are based on Rogers' [15] review of innovation diffusion research. Rogers describes early adopters as venturesome individuals with cosmopolite social relationships and substantial financial resources who are willing to take risks. Laggards tend to be isolates in their social systems, limited in their resources, and suspicious of innovations. The other adopter categories occupy a position on the continuum between these two extremes. Table 1 presents the seven criteria we used to

Table 1. Adopter classification cheme

Characteristic	Question(s)	Adopter categories	
		Innovators	Laggards
Age	Age	Youngest	Oldest
Social status	Income	Highest income	Smallest income
	Expected financial support	No expectations	Expect all costs to be paid for
Knowledge of innovations	Number of used operating systems (OSs)	High number of used OSs	Used at most 1 OS
	Use of mobile social networking sites (SNSs)	Highest SNS activity	Lowest SNS activity
Opinion leadership	Frequency of contacts from persons for tech questions	Very frequent	Never been asked
Ability to cope with uncertainty, fatalism	Use of security mechanisms on smartphones (e.g. access control)	Insecure devices	Secured devices

assign participants to adopter categories. For example, the knowledge of (IT-related) innovations was measured by asking for the number of operating systems used and the amount of social networking site activity. Opinion leadership was measured using the frequency of contacts from peers containing questions about technology, e.g. how to configure a smartphone to access corporate email or how to access the enterprise network on one's personal smartphone. Age was also used to allocate participants to adopter categories. While Rogers [15] concluded that age is not directly related to innovativeness, this conclusion is based on empirical studies from a variety of domains such as agriculture. In technology adoption research, age has been shown to play a prominent role [55]. For example, older workers are less likely to be knowledgeable about technology and are more anxious about using it. This anxiety is naturally likely to extend to technology-related practices such as BYOD.

Together, these criteria represent each of the three types of characteristics associated with innovativeness according to Rogers [14]: socioeconomic characteristics, personality variables, and communication behavior. Participants who could not be unambiguously assigned to an adopter category because of their apparently conflicting characteristics were removed from the sample.

4.3 Propositions

In order to investigate the current state of adoption of the BYOD mindset, and the relationship between the adopter categories according to DOI theory and employees who have a favorable opinion of BYOD, we formulate three propositions. The analysis was conducted by first allocating the participants to the adopter categories. Then, for each adopter category, the propositions were examined.

P01: Innovators, early adopters and the early majority use their personal smartphones more often for work-related tasks than laggards and the late majority.

The proposition P01 posits a positive relationship between a tendency to adopt innovations early in the sense of DOI and the frequency of personal smartphone use for work-related tasks. If DOI can be used to explain BYOD adoption, the early adopter types (innovators, early adopters and early majority) will have a more positive attitude towards BYOD and will be more likely to use personal smartphones for work.

P02: Innovators and early adopters more often receive work-related email on their personal smartphones than other adopter types.

Individuals who choose to receive work-related email on their personal smartphone regularly are generally more likely to have a positive attitude towards BYOD. In summary, if DOI explains the adoption of BYOD, the survey results should support these propositions.

5 Results and Discussion

5.1 Results

We received a total of 219 completed questionnaires. 151 respondents (69%) own a smartphone and are employed. In order to answer the research question only those

participants owning a smartphone are relevant. Therefore, all further evaluation is based on this group (n = 151). Table 2 summarizes the demographic data collected.

Table 2. Demographic data of participants (n = 151)

Age[a]	16–30 years: 42% 31–45 years: 46% 46–60 years: 12%	Income	0€–1.500€: 14% 1.501€–3.000€: 22% 3.001€–4.500€: 30% >4.500€: 34%
Gender	Male: 81% Female: 19%	Married	Yes: 38% No: 62%
Responsibility for employees	Yes: 36% No: 64%	Children	Yes: 33% No: 67%
Industry	Internet/IT: 40% Education/NGO: 8% Finance: 6% Media: 5% Automotive: 4% Other: 37%[b]	Division/Departments	Marketing: 13% IT/Org: 39% Management: 18% Purchasing/Sales: 8% Production: 4% Other: 18%[c]

[a] There were no participants under 16 or over 61 years.

[b] The category "Other" consists of industries accounting for less than 4% of responses

[c] The category "Other" consists of departments accounting for less than 4% of responses

The following section collected data on the use of smartphones. 64% of respondents have used their smartphones for at least two years (15% for one year, 12% for more than three years). This is not surprising, as it is common practice in Germany to provide customers with a new device when they sign a new mobile phone contract, which usually runs for two years. 55% of the participants have been equipped with a smartphone for professional use by their employer.

53% of participants retrieve their company email with a personal device, while 47% do not do so, preferring to keep business and private life separate. This split among the surveyed employees illustrates that BYOD is a practice in the process of being adopted. 47% of the participants who use their personal device to retrieve company email do so with the explicit permission of their employer, while only 2% do so in clear violation of the employer's policy. As a side note, all of the participants in this last group have an alternative smartphone provided by their employer. However, their desire to use their personal device seems to be particularly high. Moreover, 22% of those employees who do not receive emails on their personal device accept the company's ban on the retrieval of email and 15% do not see any added value in it. Interestingly, 81% of all respondents have already sent email with business content to their personal email accounts to be able to access it from anywhere.

Only 3% of the participants do not respond to professional communication in their leisure time at all. The boundary between job and private life is already seems to be heavily blurred, which is also a positive signal to BYOD. The presence of children or the participants' marital status does not appear to be related to their attitude on BYOD.

However, people who work away from the office on at least one day per week use their private smartphone to a higher percentage for business (14% vs. 19%).

The final part of the survey was used to classify participants into adopter categories. 16% of the employees who never use their private smartphone for business purposes state that they would expect 100% of the initial costs to be compensated for by the employer, were they to use it for work. In contrast, merely 7% of those already using their smartphones between 50% and 100% of the time for business purposes expect their employer to cover any of the costs at all. This observation suggests that expectations regarding the coverage of expenses are a major factor preventing more employees from adopting a favorable view of BYOD.

Most of the respondents apply access protection mechanisms on their smartphone (80%) and need to authenticate themselves in order to get access to enterprise data (57%). The participants are relatively experienced with different mobile operating systems. 78% have already used a different operating system apart from the current one. This goes hand in hand with the question whether a change of the operating system would be difficult, to which 31% replied yes.

5.2 Discussion of Propositions

The participants were divided into the adopter categories. Overall, 44% of the 151 respondents (67) could be clearly assigned to an adopter category by applying the classification scheme described in Sect. 4.1. The remaining 84 (56%) of the participants could not be unambiguously classified. Rogers [15, p. 281] provides reference values for the size of the adopter categories. Compared with these values, it can be stated that the innovators are slightly overrepresented in our sample (9% compared to the reference value of 2.5%). The group of early adopters nearly fits the expected size of 13.5%. In the sample, there is an imbalance between the early majority (42%) and the late majority (27%) in contrast to the reference values of 34% each. Laggards are underrepresented with 6% compared to the 16% reference value. In summary, the s-shaped curve in this sample is shifted left and has a steeper incline. Based on the sample and their attitude towards BYOD, the outcome of the analysis is shown in the representation of adopter categories.

P01: Innovators, early adopters and the early majority use their personal smartphones more often for work-related tasks than laggards and the late majority.

Table 3. Usage of personal smartphones for work

Adopter category	% of respondents in category
Innovators	83% more than 50% work-related usage time
Early adopters	90% more than 50% work-related usage time
Early majority	82% more than 50% work-related usage time
Late majority	48% more than 50% work-related usage time
Laggards	34% more than 50% work-related usage time

Table 3 summarizes the results regarding P03. In our data set, 83% of the innovators use their smartphone more than 50% of the time for business purposes. In contrast, only 48% of the late majority and only 34% of the laggards use their smartphones more than 50% of the time for business purposes. This underlines that the participants in these adopter groups seem to prefer BYOD.

Another fact could also be observed. There is a descending trend from innovators to laggards as regards employees who are equipped with smartphones by their employer. Whereas innovators and early adopters are not provided with devices, the late majority and laggards are offered devices. Furthermore, more than 48% of the late majority and 34% of the laggards use their personal smartphones more than 50% of the time for work-related tasks, even if they are equipped with a company smartphone. However, this leads to the assumption that just providing employees with mobile devices does not prevent BYOD. Enterprises are obliged to a greater extent to ensure successful BYOD management. They have to develop policies, choose the right devices and consider different employee types and their preferences.

P02: Innovators and early adopters more often receive work-related email on their personal smartphones than other adopter types.

Given the results of the survey (see Table 4), we can verify the proposition since all of the participants classified as innovators receive emails on personal phones and 81% of the early adopters do so as well. In comparison with the laggards, only 34% of the respondents receive work-related emails on their personal smartphones. With respect to our data, it can be argued that innovators and early adopters and at least the early majority use their personal devices regularly to receive work-related email. Moreover, these groups have usually sent work-related email to their personal email account in order to have the content available on their personal smartphone while they are on the move.

Table 4. Usage of personal smartphones to receive work-related email

Adopter category	% of respondents in category
Innovators	100% “yes, regularly”
Early adopters	81% “yes, regularly”
Early majority	67% “yes, regularly”
Late majority	48% “yes, regularly”
Laggards	34% “yes, regularly”

Summing up, the adopter categories *innovators*, *early adopters* and *early majority* have a positive attitude towards BYOD. While innovators and early adopters are usually the most instrumental to triggering critical mass, the results of the survey suggest that BYOD has already reached the early majority group. However, the attitude towards BYOD of the late majority and laggards is already more positive than expected.

6 Conclusion

In this article, we discussed the BYOD mindset regarding smartphones as a certain type of IT consumerization, and an innovation in the sense of Rogers' Diffusion of Innovation theory. The results of our survey indicate that in fact BYOD has been adopted by innovators, early adopters and the early majority. The results of the survey suggest that it is not sufficient for enterprises to develop a generic BYOD strategy for smartphones. The personnel structure is usually heterogeneous and the employees have different attitudes. Therefore, a differentiated BYOD strategy is necessary. Innovators will rarely change their behavior to comply with company policy and will instead always want to give new gadgets a chance, even at their workplace. As our results indicate, prohibiting BYOD may not be a suitable instrument, since 2% of participants still act in defiance of the employer's policies and retrieve their emails with a personal device. Managers should keep this in mind and attempt to accommodate the needs of these groups. The late majority and laggards need more structure. They are supposed to be equipped with devices, policies and training. Thus, these findings contribute knowledge that is of interest to practitioners. Moreover, the diffusion and attitude of employees towards BYOD have been examined, which is highly relevant from an academic perspective. We suggest that DOI theory could be used to explain the adoption of IT consumerization, particularly BYOD adoption in different domains.

We are aware that this study has some limitations. On the one hand, the participants recruited were, to a large extent, employees with an IT background from Germany. Consequently, it can be assumed that the participants are generally technology-savvy, and are thus perhaps more innovative and have a more positive attitude towards BYOD than the general population or employees in other fields.

For further research a survey with a more clearly defined target group, for example based on a single enterprise, may be appropriate. A comparison of different industries and cultural influences might also provide deeper insights for research. Additionally, we plan to start a series of interviews with employees in order to better understand their behavior regarding BYOD.

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