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Influence of Privacy Concerns on Enterprise Social Network Usage

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Masterarbeit

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1 Introduction

1.1 Relevance and Motivation

The rapid distribution of Web 2.0 technologies allows users to play a decisive role in the creation of content on Internet platforms. A basic feature of these technologies is the possibility to generate information and to exchange them via internet-based platforms. These Web 2.0 technologies are also designated as Social Media and form the basis for profound debates about chances and risks in both research and practice. Social Media comprises a variety of technologies and functions, such as Blogs, Wikis, Podcasts and Social Networks [1].

In this regard, the demand for efficient communication and collaboration tools is also steadily growing in a business context. Not least, because of the increasing relevance of the internationalisation of businesses, extensive project work and expert knowledge [2]. The associated changes offer a series of advantages that are relevant for both, final users and companies. Organisations across all business areas implement Web 2.0 tools for the internal application. Hence, this enables employees to share information and to support collaboration with costumers and business partners. One group of these tools receives particular attention in the corporate context and is designated as Enterprise Social Networks (ESNs) [3][4].

ESNs refer to a further evolutionary stage for the usage of digital technologies for communication and collaboration in companies. The way it is communicated and cooperated in a company is subject to constant changes. Therefore, the usage of modern information technologies has seriously impacted working life in organisations in recent years. Nowadays, there is almost no process that is applied without IT support. Therefore, the provision of virtual working spaces and the simplification of communication is what differentiates ESNs from classical Intranet solutions [5]. In this regard, ESNs can be defined as a set of technologies that create added value by connecting members of an organisation through the provision of profile information, updates and notifications [6]. Communication beyond meetings and email traffic enables knowledge sharing throughout the entire company. Hidden knowledge can thus be uncovered and employees across different locations and countries can participate in collaboration. Research and practice provide various reasons for the ESN usage and discuss potential chances and challenges extensively. For these reasons, ESNs are increasingly applied in all business areas. Large companies, in particular, make use of ESNs for internal communication [4]. This development was also predicted by a recent study of the McKinsey Global Institute. In 2006, only 10% of businesses had implemented an ESN. However, this amount had doubled by 2008 and doubled again by 2011. At the end of 2012, almost 50% of the surveyed companies had adopted an ESN, while this share is predicted to be around 70% by the end of 2017

[7]. Additionally, the analysts are forecasting the worldwide revenue of ESNs to strongly increase in recent years. For instance, the ESN revenue for the EMEA region is predicted to rise from US$ 346.4 in 2014 to US$ 1,829.4 in 2019, as shown in Figure 1.
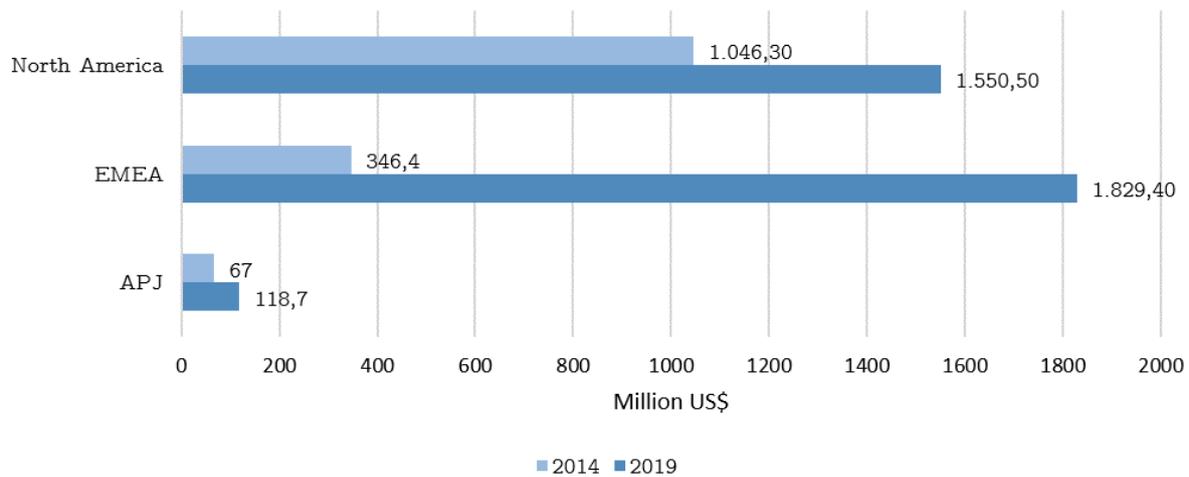

Figure 1 Worldwide Enterprise Social Networks Revenue by Region, 2014 and 2019 [8]

Nevertheless, the expected improvements do not imply the general acceptance and endorsement for the implementation of such networks in the corporate context. Although ESNs are already well applied in large companies and are awarded a high potential to change the corporate work practice, it can be ascertained that the application of ESNs oftentimes does not bring the desired success, yet [9]. In some instances, the degree of utilisation of ESNs in practice falls short of expectations and employee participation is comparatively low. Thus, networks cannot reach their full potential. Expected beneficial network effects cannot appear and the expectations cannot be met from the system. In this matter, the absence of participation particularly weighs heavy, as most companies provide ESNs on a voluntarily basis and develop their full potential the more employees get involved [4]. Besides cultural aspects and a lack of motivation, especially users' concerns regarding information security and data privacy seem to have some influence on the users' intention to use ESNs. Similar to Social Networks beyond the corporate context, ESNs also face risks and threats regarding the collected corporate and personal information. These issues are not only perceived by the respective companies, but also by their employees and potential ESN users [9][10]. As a result, users who perceive privacy concerns using ESNs could avoid the usage and lead to the low participation shares. Consequently, the investigation of influences of users' privacy concerns on the ESN usage should be investigated and is thus, an objective of this study. Therefore, this study aims to identify the relevant information privacy concerns of ESN users, as well as to analyse whether or not these concerns influence ESN usage behaviour.

Regarding this, the first section of this study carves out the research gap and formulates

respective research questions, which are answered in the course of this work. The second section represents theoretical backgrounds. Regarding this, a systematic literature review is performed to extract and identify the most important information privacy concerns to get a good overview over the current literature, as well as to answer the research questions in an appropriate manner. Based on these results, an introduction to information privacy concerns, Social Networks in enterprises and the five factor model of personality can be given, emphasising the identification of users' privacy concerns in the context of ESNs. Thereafter, section 3 covers the creation of a research model and the associated formulation of proposed hypotheses, working out the relationships of users' privacy concerns on the behavioural intention of ESN usage. Section 4 represents the research design and methodologies of both qualitative and quantitative research conducted in this study. Therefore, the results of expert interviews and the resulting modified research model will be presented. Furthermore, the implementation of the employee questionnaire and model testing will be specified. On this basis, section 5 presents the data analysis and evaluation results of the underlying research model, expanding upon the measurement and structural model assessment, as well as on hypothesis confirmation. Finally, the findings of the model testing are discussed, as well as recommendations for future research and practice are provided.

1.2   Research Gap and Questions

The utilisation of software and networks for collaboration and knowledge exchange in companies is enjoying ever growing popularity. Such technologies support employees and teams to handle internal communication efficiently and make sure that every employee receives the right information at the right time [5].

However, upon closer scrutiny of the progress of implementation in practice, inter alia the absence of employee participation prevents companies from extensively realising their objectives. The central research topic constitutes the degree to which the employees are willing to adopt and use the system in their daily work [11]. Especially during the launch phase of ESNs, it is important to stimulate the comprehensive adoption of new technologies. This suggests that companies, as well as researchers should evaluate different reasons for employees avoiding the ESN usage, since the technology acceptance constitutes the fundamental basis for implementing new information systems (IS) [1][4].

One possible reason could be the existence of users' privacy concerns with regards to ESN usage. Due to the fact that in such ESNs, sensitive and personal information is also collected and transferred, the topic areas of information security and data privacy play a decisive role. Similar to public Social Networks, ESNs work with user profiles implying the disclosure of personal information. Moreover, forum and blog entries are visible for every network member, which could lead to a comprehensive perception of transparency of employees' activities [5].

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Therefore, chances and challenges including risks and threats for both employees and companies are already comprehensively examined and discussed in the current literature. Additionally, the influence of privacy concerns on technology acceptance and behavioural intentions has been the topic of various previous research activities and in the course of different technologies and IS. However, users' privacy concerns that arise while using ESNs were not identified, yet. Also, the influence of such privacy concerns on the employees' intention to use ESNs was not a part of previous research.

Consequently, the objective of this study is to investigate Social Networks in enterprises. The paper will focus on users' privacy concerns arising from the application of ESNs and their influences on the usage behaviour, examining risk factors and privacy aspects.

For that reason, this study will analyse the literature and the state of knowledge on ESNs and the respective risk factors and privacy concerns, as well as already validated research models in this area. In this matter, based on the extensive literature review, the study will identify already validated privacy concern models and evaluate them in the context of ESNs. As a result, it can be examined whether or not the identified privacy concerns can also be applied for ESN usage. Consequently, the following research question can be derived, which will be answered in the course of this study:

RQ (1): What are users' information privacy concerns that occur while using Enterprise Social Networks?

To underpin the discussion, this study will set up a research model representing the influences of privacy concerns on the intention to use ESNs, adding inter alia, the influence of personality traits on the perceived privacy concerns to get further model validation. Further model confirmation will be achieved through expert interviews gaining insights into practical implementations of companies, which have already implemented ESNs. Therefore, the identified concerns are checked and a modified research model can be established, based on the current literature and verified by practical insights. Eventually, an extensive employee survey will be conducted measuring the actual influence of privacy concerns on the intention to use ESNs.

In this regard, privacy can be seen as inversely proportional to the technology's functionalities. Thus, it can be expected that the more personalised a technology is, the more it is dependent on individuals' information to be personalised. Therefore, the rising request for personal information is hence, linked to an increase of individuals' perception of threat and concerns and is associated with the urge to be preserved from corresponding harm. As a result, users may avoid the usage of such requesting technologies [12]. Arising from the stated objectives, this paper also attempts to answer the following research question:

RQ (2): To what extent do the users' concerns for information privacy influence the intention to use Enterprise Social Networks?

7 Conclusion and Limitation

While the underlying research provides insights of understanding the influences of users' privacy concerns on the ESN use intentions, the limitations of the study should be duly noted. The first limitation is regarding the selected sample. Even though, the general user sample employed in this study increases the external validity and generalisability of the results, it may not be entirely representative of the user community in all aspects. The employee survey was mainly completed by participants who use ESNs regularly, or at least are already registered in such network. However, this may not include those employees avoiding the ESN usage, for instance, because of perceived privacy concerns. Another limitation is the adoption of already validated scales and constructs. Therefore, the study could only fall back on respective existing models and constructs and adjust them in the context of ESNs. The formulation and development of own constructs was thus, not a part of the research, which may have yielded to privacy constructs even more appropriate in the ESN context. Furthermore, the study was limited to the most relevant identified antecedents to privacy concerns. In order to expand the existing model additional factors such as computer anxiety may increase the variance explained in the dependent variable. The underlying study was limited also due to timely-restrictions in the conduct of the employee survey. To not overtax the participants, the underlying study used a comparatively short scale to measure personality traits, so that as many as possible participants could be generated. In this regard, larger scales such as NEO-FFI and IPIP could enable an in-depth assessment of relationships between personality traits and perceived privacy concerns.

The considerations and approaches of this study are based on the conducted literature review and expert interviews and thus, are basis for the setting up of the research model. Due to the fact that the review evaluates the deployed factors largely based on the quantity of appearances, fairly new research fields may be neglected as they do not occur that often in the relevant literature yet. Additionally, it must be noted that further information about the technical security measures and practices of ESN companies could not be generated. Expert interviewees did not give any detailed figures, as they referenced to the existing privacy guidelines and regulations. Additionally, it must be noted that statements of the interviews should be critically examined, as it is improbable that ESN authorities make sensitive information voluntarily available. Especially, statements about comprehensive security measures may be discerningly considered, as respective interviewees would not rather admit lacks in implemented security measures.

In conclusion, ESNs have been represented as one of the most transformative and innovative technologies for organisations and in particular for their impact on communication and collaboration. Companies are increasingly adopting the use of ESNs in their busi-

ness practices. However, an impeding factor in the adoption and full integration and implementation of ESNs is due to users' concerns for information privacy. An insight of these concerns foster the development of preventative measures to inhibit them. The underlying study sought to explain how users' concerns for information privacy in ESNs influence their behavioural intentions, as well as to identify influential factors such as perceived trust, risk and usefulness regarding the respective network. In addition, the influences of different facets of an individuals' personality on the expression of privacy concerns were considered.

Conclusively, this study carved out the most important users' concerns for information privacy having regard to theoretical and practical applicability of the ESN usage. Therefore, aspects such as the secondary use of personal information, perceived surveillance and intrusion, awareness of privacy practices and the prior privacy experiences could be identified and adopted into the context of ESN usage. Additionally, the perceived trust, risk and usefulness as antecedents and the Big Five personality traits were examined and assessed. On the basis of this, a research model was established, which was verified in the course of an employee survey. Resulting from this, recommendations and solution approaches for future research and practice could be made. By evaluating and discussing the findings of the empirical analysis and comparing those with the preceding statements of expert interviewees, possible explanations for the observed influences could be identified.

Regarding this, the underlying study provides evidence that users' concerns for information privacy affect their intention to use ESNs. However, rather than directly influencing the ESN use intention, the influence of privacy concerns is mediated by users' perception of trust, risk and usefulness. These antecedents show great influence in supporting the ESN use intention and are in turn, also affected by occurring privacy concerns. Furthermore, the study demonstrates that the influence of the Big Five personality traits on the perceived privacy concerns is only moderately existent. Only two of the five examined traits show statistically influences.

In this regard, it can conclusively be noted that extensive security and privacy measures are already implemented by providers, in order to protect private and corporate information used in ESNs. Companies, as well as providers take great care of the comprehensive evaluation of risks and threats and are aware of data privacy regulations and take respective precautions. However, the direct reference to the demand of the employees may be left out. Concerning this, companies concentrate largely on the direct reduction of users' privacy concerns to support employee participation. Respective measures and precautions are actively implemented to mitigate such concerns. Such arrangements are important and mandatory, but may not lead to the necessary employee participation, as indicated by the findings of this study. Therefore, it can be recommended that companies, as well as providers should implement measures and raise awareness to foster trust and

mitigate perceived risks. Additionally, companies should demonstrate the advantages that walk along with the ESN usage, as users who perceive usefulness are more likely to use such network. This study, showed that these factors have more direct influence on the ESN use intention, than the actual perception of privacy concerns.

Either way, the digitalisation will keep on advancing the possibilities and implementations of ESNs and therewith, the importance of extensive employee participation to get hands on respective network effects and to foster the internal communication and collaboration. Thus, users' privacy concerns, as well as other influencing factors and their effects on behavioural intentions will become more and more important in all business areas.

In summary, this study should be considered as an initial empirical approach into the area of privacy concerns influencing behavioural intentions in the context of ESNs. Therefore, some progress has been made in this regard, specifying important insights and leaving some interesting opportunities to pursue for future research.