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Adoption of Online Videos in Organizations: A Multi-Case Comparison

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Abstract

The importance of online videos is increasing constantly. However, research has so far failed to provide an in-depth analysis of what has been driving the adoption of online videos within organizations. Thus, this study analyzes the adoption of online videos through case study research. We collected data from semi-structured interviews in four different organizations. A cross-case analysis shows that top-management and environmental characteristics drive the use of online videos. However, innovation and organizational characteristics do not influence the adoption of online videos in this study.

Keywords: IT Adoption, Online Video, Case Study Research

1 Introduction

Online video (OV) is changing the Internet and media landscape, as demonstrated by such sites as YouTube or Vimeo, which are now challenging even traditional TV and broadcasting (Bloomberg, 2012; ComScore, 2012a, 2012b). However, besides these obvious examples, OV is also becoming a fundamental business technology in almost any industry and any corporation. What has already happened in the consumer market is now about to hit the enterprise and corporate sector, as demonstrated by the following statement: "The amount of video in any organization is increasing at rates varying from 50% to 200% annually" (Andrews, 2012a, 2012b). Thus, the benefits of OV are evident in many business areas (Hua, Mei, & Hanjalic, 2011). However, the literature has so far not analyzed empirically what characteristics drive the use of OV in organizations.

In general, the use and adoption of IT in organizations has been widely discussed in the literature. One important model, which integrates the various theories and findings, is presented in Hameed et al. (2012). Their paper covers the models 'Diffusion of Innovation',

'Theory of Reasoned Action', 'Technology Acceptance Model' and 'Theory of Planned Behavior'.

When it comes to the specific use and adoption of OV, however, there is only one paper which focuses on the diffusion of OV in hospitals (Huang, 2009). But this paper's scope is limited and only researches the extent of hospitals OV use and does not identify the drivers of OV adoption. Thus, we define the research question (RQ) as follows:

What are the main drivers for the adoption of online videos in organizations?

In order to target this RQ, we apply a multi-case study approach applying the model of Hameed et al. (2012). We conducted semi-structured interviews on-site within four different organizations from various industries over a period of 6 months, between March and July 2012. Interviewees are executives and managers who are directly involved in OV projects. Moreover, we have collected secondary data by analyzing the OV presence in the inferred organization. The results and findings are then presented in a cross-case comparison, yielding recommendations for future research as well as for practitioners.

2 Theoretical Framework

One of the quality criteria for judging successful case study research is an underlying theoretical framework (Miles & Huberman, 2005; Yin, 2009). Following this recommendation for effective case study research, we derive such a framework from the literature for collecting and analyzing data and for answering the RQ.

OV in organizations has many uses. Examples include PR, internal communication, marketing, investor relations and e-learning. The literature indeed acknowledges these various uses of OV (Jacobs, 2012; Jarboe, 2009; Scott, 2010). In order for an organization to produce and deploy OV, it requires a soft- and hardware infrastructure. Andrews (2012c) refers this infrastructure as video content management and delivery systems. Therefore, when we speak of OV, we are not only talking about marketing and communication instruments, but also about IT. Given this holistic definition, we apply IT adoption theory to answer the RQ, which aims at identifying the drivers of OV in organizations.

Hameed et al. (2012) propose a framework which integrates the various findings of IT adoption as depicted in Figure 1. According to Hameed et al. (2012), the adoption of IT is influenced by the following characteristics: (I) Innovation, (II) organizational, (III) environmental, (IV) top-management and (V) user acceptance characteristics.

The literature differentiates between the adoption of IT by employees or individuals on the one hand and entities or organizations on the other (Straub, 2009). As the RQ of this study deals with the adoption of OV in organizations (V), user acceptance characteristics are not considered for the data collection and analysis. Thus, for this study, we select the characteristics I-IV, innovation, organizational, environmental and top-management. The following papers and studies have investigated the impact of these characteristics on the adoption of IT within organizations:

Rogers' (2003) diffusion of innovation approach examines the impact of (I) innovation characteristics on IT innovation adoption. Subramanian & Nilakanta (1996) analyze the

impact of (II) organizational characteristics such as centralization, specialization and formalization on the adoption of IT within organizations in the banking industry. Besides innovation and organizational characteristics, the (III) environmental factors also affect the adoption of IT in organizations. Tornatzky & Fleischer (1990) provide evidence on the environmental characteristics with regard to IT adoption. By analyzing 1200 public companies, Damanpour & Schneider (2006) conclude that the (IV) top-management attitude towards innovation influences the adoption of IT as well.

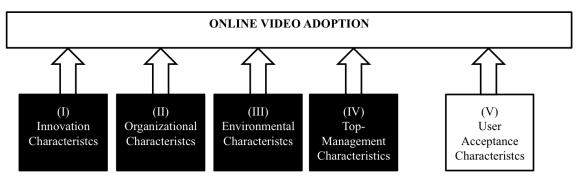


Figure 1: Theoretical Framework for the Adoption of OV based on (Hameed et al., 2012)

In order to answer the RQ, we apply the framework presented in Figure 1 and identify the characteristics I-IV, innovation, organizational, environmental and top-management influencing the adoption of OV in four different case studies. If three or four case studies reveal that a characteristic fosters the OV adoption, we regard this as support of the existing theory by Hameed et al. (2012). Based on this notion, we derive the following research proposition:

The case studies will reveal why organizations adopt OV. Moreover, in analyzing the factors that drive OV use in organizations, we verify whether the existing literature needs to be modified in order to explain the adoption of OV.

3 Methodology

In order to answer the RQ proposed in Section 1, we applied case study research. The decision in favor for this approach is based on two factors: firstly, the RQ in this paper deals with the adoption of OV in organizations, which is a complex social phenomenon involving cultural and organizational aspects. The literature suggests that a RQ dealing with such a context is suitable for the use of case study research (Miles & Huberman, 2005; Yin, 2009). Secondly, the framework proposed in Figure 1, which was derived from the literature, has not yet been applied to the adoption of OV yet. According to Rubin & Rubin (2005), this explorative approach is also appropriate for conducting qualitative case study research.

3.1 Unit of Analysis and Case Study Context

The RQ refers to the adoption of OV in organizations and enterprises. Therefore, we define the unit of analysis as the entire firm. As recommended by Benbasat, Goldstein, & Mead (1987), we selected the case studies according to the criteria of variability and access to interviewees. Therefore, we selected four different companies with various market presences. Moreover, the organizations have different industry backgrounds. The first is a utility company with an international market presence. The interviewee A of this company is a Web Manager and the company has a workforce exceeding 11'209 employees. The second interview took place at a retail company, also with an international market presence. Interviewee B is the Head of Internet, Intranet and Corporate Identity. The company employs more than 75'000 people. The third interview was held at an insurance company with a national market presence. The company's workforce reached 3'748 employees in 2012. Two employees participated in the interview. Interviewee C is Content Master Internet and interviewee D, Project Manager, Corporate Communications. The fourth and last case study is of a media company with an international market presence and over 7'488 people on its payroll. Interviewee E holds the position of Head of Digital Media.

3.2 Research Methodology

As interviews are still the dominant form of data collection in qualitative research, we chose this form for the data collection (Rubin & Rubin, 2005). Furthermore, we chose the form of semi-structured interviews, which enabled the adjustment of the questions to the situation and context of the case study. Each of the four interviews lasted about an hour and was taperecorded and transcribed according to research standards. Moreover, transcripts of the interviews were put into a database and coded according to schema derived from the theoretical framework presented in Figure 1. We coded the transcripts either with yes, the (I) innovation, (II) organizational, (III) environmental or top-management characteristics positively influence the adoption of OV or no they do not. For coding the four characteristics, the following coding schema was applied: (I) innovation characteristics are measured with the willingness to take organizational risks (Premkumar & Ramamurthy, 1995), (II) organizational characteristics are measured with low formalization, specialization and centralization (Subramanian & Nilakanta, 1996), (III) environmental characteristics are measured with the creation, dissemination and implementation of market intelligence (Damanpour & Schneider, 2006; Kohli & Jaworski, 1990) and (IV) top-management characteristics are measured with the emphasis of executives (Premkumar & Ramamurthy, 1995). For managing the case study protocols, the database management as well as the coding process we chose Dedoose¹ software.

4 Results

In this Section, we present the results with regards to answering the RQ of what has been driving the use of OV in each of the four case studies. We present the results of the semi-structured interviews regarding the RQ with direct quotations. Moreover, the results also include a brief interpretation of whether the lead questions on innovation, organizational, environmental and top-management characteristics influence the adoption of OV at the end of each paragraph.

¹ Dedoose is a web-based software that is suitable for mixed and qualitative research: www.dedoose.com

4.1 Case Study: Utility Company

OV has a long tradition at the utility firm. The first public relations project for an image film was launched in 2005. Today, the utility company uses OV as a strategic communication instrument for public relations and sponsoring. Internal communication, such as the streaming of events and e-learning are further uses of OV.

When analyzing the adoption of OV interviewee A mentions the high risk aversion of the topmanagement and executives with regard to (I) innovation characteristics: "...our topmanagement reacts pretty aggressively with censorship if they think anything could go wrong..." Other statements from interviewee A confirm this attitude of the company towards innovation characteristics and a low desire to be innovative. Therefore, we conclude that innovation characteristics do not influence the adoption of OV within the utility firm.

In analyzing the (II) organizational characteristics at the utility firm, interviewee A provides a mixed perspective. Firstly, the Web Manager mentions a high formalization of the decision-making process and the associated negative effects, meaning a decrease in employee satisfaction: "Well the checklist and everything, nobody likes filling out these forms..." On the other hand, interviewee A also elaborates the fruitful exchange across the different departments when it comes to OV projects and initiatives: "Our employees need to network and think across functional structures. We support and value interactions among different departments and therefore host weekly editorial meetings." Organizational characteristics thus result in a mixed perspective regarding the adoption of OV.

Relating to the (III) environmental characteristics, interviewee A also provides some useful insights. The Web Manager declares that the utility firm does not actively monitor the market or competitors: "We do not monitor how our competitors use OV..." However, interviewee A also states that customer feedback and customer needs are important for OV projects and OV initiatives: "In order to get feedback, we target specific customer groups." Similar to the organizational characteristics, the environmental characteristics provide negative as well as positive evidence on the adoption of OV.

Furthermore, the (IV) top-management characteristics are mentioned. According to interviewee A top-management does not value the benefits of OV. Several projects and initiatives were turned down and the budgets reduced: "... we planned to launch a corporate web TV on our intranet, but top-management didn't see the benefits and didn't think we have the money either..." Therefore, we conclude that top-management characteristics do not affect the adoption of OV in the utility firm.

4.2 Case Study: Retail Company

The retail company intensively uses OV in marketing campaigns, sponsoring and PR. The company received publicity through its cooking shows and for promoting wholefood products. Moreover, the company's newspaper division uses OV in its editorial news reports on their website. Overall, the company leverages OV in various fields.

Our analysis of the (I) innovation characteristics with regard to the adoption of OV reveals risk aversion. Interviewee B makes the following comment: "We don't just follow new buzzwords and trends. We always try to analyze each specific case separately. If the business

case doesn't convince us, then we don't do it." Therefore, we evaluate the innovation characteristics for the adoption of OV in the retail company as negative.

Regarding (II) organizational characteristics, we observe the following: the Head of Internet and Intranet mentioned that OV is well coordinated across various departments: "It's not like someone was pushing online videos and everybody else was watching what was going on. Usually, such projects [online video projects] are coordinated across different business units and departments." Despite substantial coordination the business units are independent in launching new OV projects and are able to make decisions without top-management approval. However, the formalization of the company is exceptional, according to interviewee B: "We have strict corporate branding guidelines that regulate how online video projects are carried out..." From these statements we notice a positive (decentralization of the organization) as well as negative (formalization) evaluation with regard to OV adoption.

The retail company intensively observes market trends, the competitive landscape as well as its customers: "One of my objectives is trend scouting. Other colleagues from different departments also carry the same responsibility." With regard to customer needs and the specific communication strategy, interviewee B mentions the following: "... we also need to think about how the content is delivered to the customer. It's like a medicine: You've got the ingredients and then you need to decide whether to produce a pill or if there is some other way the customer wants to consume the final product." Therefore, we conclude that (III) the environmental characteristics of the retail firm positively influence the adoption of OV.

The fourth set of characteristics (IV) top-management also influences the adoption of OV in the retail firm. Interviewee B stated the following: *"The Head of the newspaper division was a huge support for our OV initiatives..."*

4.3 Case Study: Insurance Company

The interviewees C and D mention that after the success of traditional TV and broadcasting, it was only a matter of time before the company was also using OV as a communication instrument. Besides leveraging OV for marketing campaigns, the insurance company also values the advantages of OV in streaming live-events across its various branches in Switzerland.

In analyzing the adoption of OV in this organization, we recognize a willingness to take risks. Interviewee C and D state the following: "Our second attempt was a real mess. Fortunately, the decision makers reacted very positively. Despite what happened, they still supported us going forward with online video projects." We notice that there is a great deal of risk taking in the organization. Hence, we conclude that (I) innovation characteristics positively foster the adoption of OV in the insurance company.

With respect to the (II) organizational characteristics of the insurance company interviewees C and D provide mixed feedback. On the one hand they report a centralized decision-making process with regard to OV projects: "Ultimately, it all [decisions for online video projects] depends on what Pam [head of corporate communications] thinks..." Despite a high level of centralization, the company seems to have a very low level of formality: "Yes, maybe it is legitimate to have a proper business case, with the financials and everything. But, I think

more often than not, it is just a lot of paperwork and a lot of effort for a really small project." Based on these two statements, we conclude that the organizational characteristics can have a positive as well as a negative influence on OV adoption in this case study.

Regarding (III) environmental characteristics, interviewees C and D make the following comments: "We try to think from the customer's point of view. What does the customer want, how do we want to transmit our message and how do they want to receive it." From the evidence presented during the interviews, we notice that market intelligence and trends are closely monitored by the company and influence the adoption of OV. We therefore regard the environmental characteristics as positive.

For the last characteristic (IV) of top-management, we note strong support for OV within the insurance company: "*The head of corporate communications was a big supporter of online video. Our CEO thinks that videos are absolutely vital for us. This helps us to pursue our online video projects. That's for sure.*" This statement is a strong positive evaluation of top-management characteristics regarding to the adoption of OV.

4.4 Case Study: Media Company

The media company uses OV primarily for reporting news on the web. Due to an increasing number of consumers watching OV on their platform, which requires more bandwidth, the company needs to think about revenue. Therefore, it is now possible for other firms to advertise with OV on the news portal. The media company also uses OV for internal communication purposes. However, compared to external communications with its stakeholders, this OV application remains minimal.

Regarding (I) innovation characteristics as a driver for the adoption of OV, interviewee E reports the following: *"Trial-and-error, that is a very successful approach when it comes to online activities."* This statement indicates that the organization is risk friendly, which fosters the adoption of OV. Thus, we evaluate the innovation characteristic as positive.

Interviewee E mentions minimal bureaucracy when it comes to OV initiatives: "*If someone has a new idea and everybody thinks it is great, it only takes about 2 to 3 days and we have a go and we do it.*" Not only do we notice an informal decision making process, but interviewee E also reports flat hierarchies and a decentralized organization: "*We have very flat structure and my colleagues are responsible for their own budgets.*" According to these statements of interviewee E, (II) organizational characteristics positively influence the adoption of OV.

In analyzing the (III) environmental characteristics, we notice a similar positive effect on the adoption of OV. Interviewee E mentions the following: "We've received far better responses from our in-house videos than from video contents from our partners. That is the reason why we are now staffing new video teams. Hopefully, they will come up with new ideas and new videos." The customer feedback clearly results in actionable OV initiatives. Thus, we regard the environmental characteristics as supporting the OV adoption process.

Regarding (IV) top-management characteristics, interviewee E states that the management, which fully acknowledges the importance and relevance of OV and allocates the budget accordingly: *"We [top-management] want to reach three million individual clients with online videos..."* Therefore, we recognize the top-management characteristic of fostering the adoption of OV as well.

4.5 Cross-Case Analysis

The four case studies reveal some similarities and differences as summarized in Table 1. Firstly, we observe that (III) environmental as well as (IV) top-management characteristics influence the adoption of OV in three of the four case studies. Secondly, (II) organizational characteristics do not seem to have a positive influence on the adoption process. Three of the four case studies provide mixed results. The same applies to the (I) innovation characteristics. Two of the case studies do not consider an influence of innovation characteristics on the adoption of OV. Thirdly, the case study of the utility company showed that none of the characteristics has a significant influence on the adoption and use of OV. The contribution of these results and the recommendations for practitioners, as well as for future research, is discussed in the next Section.

	Characteristics			
Company	Innovation (I)	Organizational	Environmental	Top-Management
		(II)	(III)	(IV)
Utility	No	Yes/No	Yes/No	No
Retail	No	Yes/No	Yes	Yes
Insurance	Yes	Yes/No	Yes	Yes
Media	Yes	Yes	Yes	Yes

Table 1: Results of the 4 Case Studies: Characteristics Influencing OV Adoption

5 Discussion and Conclusion

The paper answers the RQ of identifying the drivers of OV adoption in organizations. The findings show that the (III) environmental as well as the (IV) top-management characteristics influence the adoption of OV and thus support the framework proposed by Hameed et al. (2012) and the existing literature on IT adoption (Damanpour & Schneider, 2006; Premkumar & Ramamurthy, 1995; Subramanian & Nilakanta, 1996). However, there are also discrepancies with regards to existing theory. Our evidence does not support the theory in regards to (I) innovation and (II) organizational characteristics. Both are widely acknowledged as supporting the adoption of IT. Contrary to this research, our findings from three case studies indicate that (II) organizational characteristics foster the adoption of OV. Similar to (II) organizational characteristics, the (I) innovation characteristics also evidently do not have an effect on OV in two of the four case studies.

These results question the existing literature and theory of IT adoption and therefore, further investigations are needed. Applying the model of IT adoption to the adoption of OV and to larger sample sizes should provide further evidence on whether the results of this study are reliable and generalizable. Future research may reveal that the adoption of OV cannot be fully

explained by existing IT adoption theory. Thus, the theoretical framework of Hameed et al. (2012) might need to be modified to explain the adoption of OV in organizations.

The present findings not only have implications for future research, but also for practitioners. In order for an organization to leverage the advantages of OV in communication with various stakeholders, top-management support is vital. Therefore, executives should reassess their role in promoting OV in their organizations and increase their support where necessary. Moreover, an analysis of the market environment, of customer feedback, of contacts with partners and of the competitive landscape might provide further leverage for the adoption of OV. One approach to increasing the positive environmental characteristics of an organization is to enhance the interdepartmental dynamics and information exchange, especially with the market research department. Regular formal or informal meetings across departments might therefore foster the adoption of OV.

Concerning the limitations of this paper, it is necessary to consider the fact that we only conducted four case studies in an explorative case-study setup. This constrains the generalization of the results and findings. Secondly, we conducted just one interview in each of the four organizations. This might lead to biased results as the evidence presented might not reflect the views entire within organizations. Despite these limitations, the paper indeed answers the RQ and provides some evidence on the various factors that influence the adoption of OV in organizations.

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