Challenges and Outcomes of Enterprise Social Media Implementation: Insights from Cummins, Inc.

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Abstract
Enterprise social media (ESM) are web-based platforms that improve communication and collaboration in organizations. Although the practitioner literature and industry reports have suggested the potential value of ESM for organizations, there has been limited research that focuses on the implementation process and outcomes of ESM. We conducted a mixed methods case study of a large-scale ESM implementation in a Fortune 500 manufacturing company, Cummins, Inc., and found several major challenges that Cummins faced during the implementation, such as the lack of interest and use by employees, the lack of fit with existing organizational and individual processes, inconsistent performance of the ESM platform, and unfavorable business conditions that affected organization-wide programs and projects. While employees were initially enthusiastic about the ESM, they were not using the platform as much as anticipated after the implementation. We offer a set of lessons from our in-depth case study that organizations implementing ESM should find beneficial.

1. Introduction

Enhancing employee and organizational productivity through effective communication and collaboration among employees has been a perpetual challenge for many organizations. In recent years, organizations have encountered a different challenge—how to motivate the workforce dominated by the new generation of employees who use a wide variety of social technologies, such as smartphones, smart TVs, consoles that allow social gaming, and a plethora of social media, to be more engaged with their jobs and organizations. Indeed, recent research and practitioner literature have identified employee engagement as an important competitive differentiator [1]. Social technologies such as Enterprise Social Media (ESM)—web-based platforms that facilitate a wide variety of social communications—have the capabilities to help organizations address both of these challenges, i.e., effective communication and collaboration among employees, and improving employees’ job engagement [2, 14]. ESM platforms allow employees to “(1) communicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers to act as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited, and sorted by anyone else in the organization at any time of their choosing.” [2, p. 2].

Contrary to the popular belief that use of social technologies in the workplace is a waste of time and a potential distraction, the recent practitioner literature and industry reports have underscored the importance of ESM for organizations. A recent report by McKinsey suggested that ESM will enhance organizational productivity by improving communication and collaboration among employees [3]. The report noted that the potential value of ESM in certain economic sectors (e.g., consumer packaged goods, consumer finance, professional services, and advanced manufacturing) is $900 billion to $1.3 trillion annually. Practitioners have also provided anecdotal evidence of significant benefits of ESM, such as improved communication and collaboration among employees, increased sharing of data and

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1 This article is based on an ESM implementation project at Cummins that was later discontinued. A new ESM platform was deployed by Cummins afterwards and is currently being used by Cummins employees.

2 Employee engagement is defined as “the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional) and active, full performances” [4, p. 700]. Engaged employees are described in prior research “as being psychologically present, fully there, attentive, feeling, connected, integrated, and focused in their role performances” [6, p. 619]. They have a high degree of openness and connection to work and others [5]. They are physically involved in tasks, whether alone or with others; are cognitively vigilant, focused, and attentive; and are emotionally connected to their work and to others in the service of their work [4].
information across the organization, and generation of high quality ideas from stakeholders [7, 8].

While the practitioner literature and various industry reports have noted the value of ESM for organizations, there has been limited scientific research that examines the process of ESM implementations in organizations and associated outcomes. In particular, there is limited scientific evidence that ESM implementations indeed lead to positive employee and organizational outcomes. Given that ESM platforms are different from other enterprise systems that employees use to execute business processes, it is critical to understand the unique challenges that organizations may face while implementing ESM platforms. Our objective is to present an in-depth case of an ESM implementation at a Fortune 500 manufacturing company, Cummins, Inc., and discuss the challenges and outcomes of this implementation. In particular, we provide a comprehensive account of the ESM implementation process at Cummins and discuss a set of lessons from this case that organizations implementing ESM platforms should find beneficial.

2. Background

With over 1.5 billion social networking users globally, the use of social media continues to grow at a rapid pace [3]. While much prior research has focused on online communities outside of companies, there is little literature about the use of social media within enterprises, despite the fact that 70% of companies use social technologies and 90% of those companies report some benefit from using these technologies [3]. Furthermore, Deloitte (2013) predicted that 90% of the Fortune 500 companies would have partial or full implementation of ESM by the end of 2013.

When discussing social media use within a company, it is important to differentiate between external and internal use. External social media use is for communicating with the public; for instance, using social networking sites like Facebook and Twitter to broadcast messages [2]. Internal use, which we refer to as ESM, is the focus of our case study. ESM involve internal communication within the enterprise. Unlike the how external social media use is implemented across platforms (separate sites for blogs, wikis, networking, etc.), ESM integrate various functions into one single platform [10, 2]. This is what differentiates ESM from previous social media use. Furthermore, it is important for us to study ESM implementation because prior research shows that a person’s perception of the utility of a technology differs within the workplace and outside of it [11, 12, 13].

Within an organization, visibility of activities becomes an issue; it is not uncommon for employees to be unaware of what the person next to them is working on. Especially when employees are separated by specialization and departments, there can be a loss of communication, which can lead to inefficiency. This is one of the main reasons ESM is becoming transformational for organizations [2]. By increasing the visibility of activity among workers, there is more communication between departments. ESM allows employees to instantly share published information as well as their work. Functions that can be performed using ESM include messaging other employees, creating text, and sending files. This tool reduces the effort needed to figure out who communicated what, and allows those outside of a certain project or activities visibility inwards [2].

While limited, there has been prior research on ESM implementation, or at least on the various functions of ESM. For instance, there has been some literature on the use of corporate wikis and blogging. A corporate wiki involves the sharing and reuse of knowledge. Pooling knowledge from various authors, a wiki page is a collaboration of work written by different authors [14, 15]. Similar to what was discussed earlier, it is important to distinguish the difference between public wikis (e.g., Wikipedia) and corporate wikis. Whereas public wikis are open across the Internet, corporate wikis usually face more regulations and restrictions, especially in terms of privacy and security issues [14]. Majchrzak et al. [16] found that internal corporate wikis improved work processes, collaboration, and knowledge use. Farell et al. [17] found that internal social media, including wikis and blogs, improved communication and work visibility across divisions. While these two studies identified reasons for using wiki, other studies, such as Danis and Singer [18] and Holtzblatt et al. [19], highlighted the lack of use of corporate wikis. Both studies indicated that employees were hesitant to post unfinished work and thus kept their work on their personal repositories or in other less-visible media.

Another common feature of ESM is blogging. Like corporate wikis, there has been limited research on blogging within an enterprise. Corporate blogging includes publishing content like video and photos and allowing employees to express their opinions. Jackson et al. [20] reported social benefits, such as an enhanced community environment and gaining a better perspective on the organization. Informational benefits identified by Jackson et al. [20] included employees giving more feedback on ideas and helping more with problem solving. Efimova and
Grudin [21] found that blogs provided a platform for employees to express ideas that were previously hidden or unarticulated.

Though prior research has focused on the various functions of social media like wikis and blogging, recent literature has looked at ESM as a whole. Gonzalez and Koch [26] provided a starting point for research on ESM. For instance, the authors describe the underlying principles, such as communication, contribution, and collaboration, as well as provide relevant theories for ESM research. They also discussed the impact of the implementation. For example, they addressed how implementing ESM may help acclimate new hires and influence the organizational culture. Some of the theories that Gonzales and Koch [26] provide are the boundary theory and the theory of IT-cultural conflict [30].

The boundary theory can be used to explain how people have different roles and identities that are characterized by their goals, norms, values, beliefs, and interaction styles. Koch et al. [27] expanded on the boundary theory, adding on the theory of positive emotions to study the emotional impact of ESM. They found that though ESM positively impacted new hires, it created frustration among the middle managers. Thus, enterprises should execute caution when implementing new ESM systems.

The theory of IT-cultural conflict identifies three types of potential conflicts—contribution, vision, and system—that emerge from inconsistency across group member values, IT values, and/or values embedded in a specific IT [30]. A recent study that uses this theory in the context of ESM implementation is Koch et al. [31]. They showed that despite widespread ESM implementations, conflicts may arise between traditional organizational cultures and values embedded in social media platforms.

In addition to the above literature on the different theories than can be applied to ESM, there have also been a few case studies that looked at ESM implementation in a particular company [28, 29].

Denyer et al. [28] explored the impact of ESM implementation at Telco, a large multinational telecommunication company, and how it affects the way people work and organize. Their results showed that ESM implementation did not meet the company’s initial expectations. ESM was supposed to be more social, open, and participative than traditional means of communication, but instead, the authors found less participation and less motivation.

Leidner et al. [29] studied how USAA used ESM to help assimilate new hires. They provided a summary of the uses of ESM by the new employees, and described various challenges and guidelines that may be helpful in future implementations of ESM. They identified both social and work uses that led to benefits like cultural belonging and positive emotions in the workplace. Challenges in implementation included work/life balance, achieving more integration with the IT middle managers, and expanding ESM beyond the new hire program, while guidelines focused on using the enterprise system to improve the relationship between various management levels, blurring the boundary between work and social exchanges, and encouraging usage during the day.

As a social platform, ESM focus is on encouraging collaborations and communication among employees [9]. Thus, with these benefits, ESM implementation is becoming increasingly popular and transformational in various organizations. However, there is little prior research on this area. Although some research has been done on various features of ESM like blogging and corporate wikis, or on external social media use, the impact of ESM implementation in organizations is still relatively unknown. This case study seeks to lessen the gap, and help explain how ESM implementation can impact a business, which in our case is Cummins, Inc.

3. Research Methodology

We conducted an in-depth case study of an ESM platform implementation at Cummins. We collected both quantitative (e.g., multiple waves of surveys from employees who were users of the ESM platform) and qualitative (e.g., interviews of key members of the implementation team, users, and review of documents). Data were collected during the course of the ESM implementation, from its inception to post-implementation. Following the guidelines of positivist case study methodology [22], we conducted a case analysis to understand the dynamics of ESM implementation at Cummins. The interview notes, documents, and survey data sources were initially reviewed by one of the authors, who identified relevant information. After this initial review was completed, the other authors went through the relevant documents and information. The authors developed among themselves a final set of themes that emerged from the analysis.

3.1. Research site: Cummins, Inc.

Cummins Inc., a Fortune 500 corporation, is a global leader in the business of designing, manufacturing, distributing, and servicing engines and related technologies, including fuel systems,
controls, air handling, filtration, emission solutions, and electrical power generation systems [23]. Headquartered in Columbus, Indiana (USA), it employs approximately 46,000 people worldwide and serves customers in approximately 190 countries and territories through a network of more than 600 company-owned and independent distributors and approximately 6,500 dealers. It earned $1.48 billion on sales of $17.3 billion in 2013 [23].

3.2. Data collection procedure and participants

As noted earlier, we collected both qualitative and quantitative data from Cummins during the course of ESM implementation. Qualitative data were collected through interviews of teams working on business critical projects and ESM implementation team members. In particular, we interviewed four members (both managers and employees) of Cummins’ Next Generation Manufacturing Execution System (NGMES) and two members of Corporate Communications. These business units were one of the first units that started using the ESM platform at Cummins. Further, we met with and interviewed the members of the ESM implementation teams during the entire implementation process. While we were not allowed to audio record the interviews, we took extensive notes during interviews. We prepared a set of questions for the interviews [e.g., (a) what are some of the challenges that you face while collaborating? (b) describe a challenging situation in which you wished you had access to someone who had expertise/experience to help you, but did not know who this person might be; (c) what are some of the features of the newly implemented collaboration tools (i.e., IBM Quickr and Connection) that you use regularly? and (d) please provide a few examples of how you use these features to collaborate/communicate). We asked more probing questions based on the answers/comments by the participants. Interviews were conducted between January of 2012 and January of 2013.

Quantitative data were collected through longitudinal surveys of Cummings employees who were part of the pilot implementation before the enterprise-wide rollout of ESM. During the pre-implementation phase, we sent requests to 2,331 employees to participate in the pre-implementation survey that explored their perceptions of ESM for work-related purposes. We incorporated questions related to their perceptions of ESM platform’s usefulness and relevance to their job, social influence, and top management support-related ESM. We received completed responses from 1,108 employees (48% response rate). During the post-implementation phase (three to five months after the implementation), we administered two separate surveys. The first survey was sent to 1,108 employees who participated in the pre-implementation survey. We received completed responses from 211 employees (19% response rate). The second survey was sent to 1,223 employees who did not participate in the pre-implementation survey. We received completed responses from 125 employees (10% response rate). In both surveys, we incorporated questions related to whether and how employees were using the ESM tools, the impacts of the use on their work, and their social media competency (i.e., ability to use ESM effectively).

Among the participants, 58% were female and the average organizational tenure was six years. About a third of the participants (36%) were between the ages of 31 and 40, while almost half (42%) were between the ages of 41 and 60. Participants between the ages of 25 and 30 accounted for 22%. Overall, half of the participants were from the United States and half were considered senior engineers or higher. About a third of the participants were from the corporate communication department.

3.3. Data analysis

Both qualitative and quantitative data analysis were conducted. For qualitative data analysis, the interview notes and other documents were first reviewed by one of the authors who used a data reduction and presentation technique for analyzing, triangulating, and documenting the contents of the notes and documents [24, 25] to identify relevant information representing the three core focuses of this study. After this initial review was completed, the other author went through the relevant documents and information. Both authors reached a consensus to develop a final set of themes that emerged from the analysis. For quantitative data analysis, we checked descriptive statistics and developed charts to understand ESM use behaviors.

4. Findings from the case study

In this section, we present our major findings from the case study (both qualitative and quantitative analysis). We first discuss the entire implementation process—pre-implementation and post-implementation phases. We then discuss the challenges and outcomes of ESM implementation at Cummins based on our interpretation and the triangulation of qualitative and quantitative study.
4.1. Need for ESM at Cummins

As companies evolve, so should the technologies and tools they use. Collaboration techniques are an example of this. As time passes and companies hope to improve the work that gets done within their enterprise, it is important that employees have the best and most effective tools of collaboration. Collaboration technology at Cummins has not been updated since the late 1990s, and was thus in need of ESM. Previous collaboration involved email, instant messaging, and basic forms of web collaborations like file sharing and notes databases. Web conferencing was used, but was ineffective and eventually replaced by Webex. Despite the availability of tools in the past, information was not easily accessible. Employees found it difficult to access the necessary information, and could not recreate or effectively share it. This difficulty served as a barrier to collaboration between employees.

At a time where Cummins was moving to make a transition to a global operations (mid-2010s), collaboration was important, especially when trying to connect with various area business offices (ABOs) around the world. With decisions being made on a global basis, effective and efficient collaboration and connection across the company was necessary. However, the collaboration tools the company employed were holding the company back. Information was maintained by individuals and was not reaching the organizational level; it was also difficult to keep information up-to-date. Furthermore, the inefficiency of information sharing led to unnecessary costs. To solve this problem, the IT department looked toward cost-saving initiatives that would improve collaboration among the company. This led to the current ESM implementation project.

This ESM implementation was driven by various IT groups at Cummins, who felt that this would be a good opportunity for the enterprise. Based on the interview of the implementation team, it was clear to us the implementation was primarily an IT initiative. While others saw it as a pure upgrade of the previous basic collaboration techniques like email and instant messaging, IT employees believed that this was a complete change that would lead to improved interactions among employees. Implementation of ESM would provide a single platform for employees to collaborate and connect, and share information across offices and levels.

After approval to move forward with the implementation, the next step was to do tools should be included in the integrated platform. With a focus on collaboration and knowledge sharing, the IT unit at Cummins was looking for functions that would promote these values. The tools that were to be used needed to have functions such as, but as limited to, corporate wikis, blogs, document sharing, communities/groups, forums, and media galleries. Various vendors made presentations to showcase how their tools fit the criteria for a collaborative and knowledge-sharing platform. Based on the needs of the company, two tools were eventually chosen as the ESM platform at Cummins, IBM Connections and IBM Lotus Quickr.

4.2. Implementation of ESM at Cummins

A pilot implementation of ESM at Cummins was conducted from Fall 2012 to Spring 2013, with a potential enterprise-wide rollout in Fall 2013 (see Figure 1). Before and after the pilot implementation, surveys were sent to employees. Pre-implementation results are discussed here. Post-implementation results will be discussed in a later section.

![Figure 1: ESM implementation timeline at Cummins](image)

The pre-implementation results revealed that while a majority of employees found collaboration to be an important part and even a necessity of their job at Cummins (94% of the participants), many were uncertain about the use of ESM in improving collaboration and knowledge sharing. For instance, only 61% of the participants agreed that social media tools could improve their job performance, strengthen their ties with other employees, and help other members in the company solve problems. A similar percentage of participants (63%) were not quite sure what formal incentive or reward would come as a result of using social networking tools for collaboration, among other purposes. Combined with the fact that top management didn’t seem to express enthusiasm toward use of social networking tools for work-related purposes, this outcome seems to suggest that although employees were willing to try the new ESM tools (82%), they were largely unaware of the potential outcomes and impacts, and were perhaps not expecting too much.

As mentioned earlier, the implementation was initiated by the IT department at Cummins, and was also paid for using the IT budget. As things started to
move forward, other business units slowly became involved. Senior IT executives also began to reach out to various business units and some eventually become involved in the implementation process.

4.3. Challenges of implementation

Through ESM the implementation process, many challenges arose, both internal and external. Internally, IT struggled to get people to actually use ESM. Despite the fact that the main goal of the implementation was to improve collaboration and knowledge sharing, this was actually one of the main reasons for people not using the new tool. This is because the organizational culture was one of not sharing or using other people’s information digitally, so the employees were not ready to use ESM and start sharing their information. During our interviews with the users, many indicated that they were not sure about the “relevance of these tools” for what they did in their jobs. Furthermore, the employees were unaware of the role of social media at the workplace. Many felt that the use of ESM was “extra work” and not necessarily important for their daily tasks. Despite the tool being an integrated platform with various functions, employees compared it to prior basic functions like document storage, Facebook, and LinkedIn. This mindset was also evident in the post-implementation results detailed later on. The post-implementation surveys indicated that about half of the participants were unaware of the social media benefits, and found it difficult to use the new social media tools. Many participants mentioned that they did not have time to “try different features” of the platform and in some cases were “not sure” how some of these features could benefit their work. Furthermore, participants were likely affected by job performance concerns. During the implementation, the system was reported to respond slowly, leaving a bad impression on the participants.

Externally, the implementation had challenges from the beginning. The idea came about in the early 2010s, which was unfortunately around the recession. Business was going down and it was difficult to know which programs and projects would or could continue in this unstable fiscal environment. Businesses that wanted to survive had to be careful about where to place their money, and thus had to determine whether the implementation of a new social networking tool was feasible or worth the cost at the time. This challenge eventually led to why IT funded and led the pilot implementation.

While many of these challenges are salient during pre-implementation and implementation phases, there are some challenges during the post-implementation phase as well. Once finished, it is important to understand the success of an implementation. However, to do so, success needs to be defined upfront. Without recognizing success (or failure), it is hard to determine the impact of the implementation and whether or not the new tool(s) should be kept. For instance, the implementation team indicated during the interviews that it was not sure about how to assess the success of the ESM platform implementation (e.g., adoption and use of the ESM platform). There were no key performance indicators (KPIs) that were considered acceptable measures of success of the platform. A couple possibilities for determining success were discussed during the interviews: (a) number of page views and (b) duration of use, but these seemed unreliable and not insightful. Exploring further, depth of use was considered as a potentially reliable KPI. Since the main goal of the new tool is to improve collaboration and knowledge sharing, success and adoption could be measured by how many bits of information are created and shared, and how these components may change as it goes through various creators and users.

4.4. Implementation outcomes

After a brief pilot of ESM implementation at Cummins, we sent out two post-implementation surveys. The first survey was sent to those participants who completed the initial pre-implementation surveys, while the second survey was given to those who did not respond to the pre-implementation surveys. Similar to how we found through the pre-implementation surveys that the participants seemed a bit hesitant or unaware of the use of social networking tools in an organization, the post-implementation survey showed that half of the participants did not have a high degree of social media competency (i.e., ability to use ESM to produce, extract, and share information). Furthermore, 58% of the participants did not agree with the statements regarding social media benefits. Compared to the pre-implementation surveys that asked whether or not social media tools would improve job performance and strengthen ties with employees, the percentage value declined by about 20% during ESM post-implementation. This seems to signify the possibility that after using ESM, employees found that the benefits they were expecting did not actually manifest.

In addition to finding out the employees’ attitudes toward the new tools, we also learned about their behaviors towards these collaboration tools. Despite wanting to find new ways of collaboration, the majority of the participants rarely, or never, used
the social network tools (IBM Connections and IBM Lotus Quicker). Only about 16% reported using the tools at least once a day, while over half reported using it only once a while, or never (see Figure 2).

With the majority of participants rarely or never using the ESM tools, it comes to no surprise that the majority of them spend less than half an hour each day using the tools. In fact, 30% indicated that they spend 1-10 minutes a day using the social networking tools, while 33% never do. Interestingly, 2% of the participants indicated that they are always using the tools (see Figure 3).

For those that did use the tools, few took advantage of all the features. In fact, only 5% of the participants classified themselves as heavy users, while almost 45% of them stated that they only use a few of the features (see Figure 4). This indicates that although the purpose of ESM is to provide an integrated platform for collaboration and knowledge sharing, users are only using a few, thus signifying a potential need to look at the necessary functions versus the more auxiliary functions.

Breaking social media use into three different levels, “Create/Upload/Post”, “Read/Search/View”, and “Comment/Respond,” we found that users were most likely to use social media for files and documents sharing, across all levels. At the Read/Search/View level, social media as a community was also more likely use. Across all three levels, using blogs, and in particular, ideation blogs, was least common.

5. Discussion

We found that Cummins faced several challenges during the ESM implementation process and the outcomes were not favorable (i.e., employees were not using the platform). In this section, we provide a brief discussion of the lessons (and some additional challenges that were not discussed earlier) that we learned from Cummins’ ESM implementation. These lessons also provide explanations for our findings.

5.1. Needs assessment

Even though ESM implementation is currently a popular trend, organizations should conduct a thorough needs assessment before making the decision to adopt and implement an ESM platform. ESM platforms are fundamentally different from traditional enterprise systems that are used to execute business processes. An organization needs to have a clear understanding of the role of an ESM in its environment. It needs to clearly define the role of ESM in the entire IT landscape and enterprise architecture. Given that ESM platforms are not necessarily and directly a part of core business processes (i.e., this is one of the major differences between an ESM platform and a traditional enterprise system), it is imperative that organizations spend considerable time and resources to ensure that the need for ESM is clearly identified and defined.
Cummins faced challenges with respect to identifying the need for ESM and defining its role in the organization and individual work processes. As noted earlier, ESM implementation started without a proper requirement gathering from business users. The IT unit at Cummins felt that an ESM platform would be a “cool” or meaningful thing to implement. However, employees did not know how to integrate this platform with their core work processes. As noted earlier, many employees were not sure how they could use the ESM platform to enhance their job performance. This is consistent with the boundary and IT-culture conflict theories [27, 27]. We feel that gap analysis and risk assessments were not performed adequately. Business leaders were not involved in the project initially, nor was much employee input prior to ESM implementation solicited.

Overall, it is critical for any organization to conduct a thorough need assessment before implementing an ESM platform in order to make sure there is no conflict between organizational culture and the value embedded in the IT [26, 27, 30]. While it is true for other types of IT, this is a more critical issue for ESM because many business units and employees may not be able to readily recognize how they can actually use an ESM platform to perform their tasks. This is one of the reasons ESM implementations are different from traditional enterprise systems implementations. In the case of Cummins, even the IT unit was not able to recognize and document how business units can leverage an ESM platform. This may not be the case in traditional enterprise systems that support business processes.

5.2. Not an IT initiative

One of the major findings from the case of ESM implementation at Cummins is that ESM implementation should never be an IT initiative. Given that ESM platforms are designed to improve communication and collaboration among employees, business units need to first define the process of communication and collaboration and work with the IT unit to determine how to make this process IT enabled. It is possible that many organizations will not need an ESM platform because the level of need for communication and collaboration is such that an ESM platform may not be suitable. Also, it is important to identify the right group within the IT unit to sponsor the implementation process.

5.3. Business sponsorship from core areas

It is critical for an ESM implementation to have the sponsors, oversight, and steering committee from the core business areas and not from the support areas. In the case of Cummins, the core business areas were primarily engineering and manufacturing groups who were not part of the implementation process. This was one of the reasons the project never got the attention that was needed to be successful. However, getting support from the core business areas is not easy without showing them the value of ESM platforms. We suggest that unless organizations can determine and demonstrate how ESM platforms can be a successfully integrated part of core business processes, it will be difficult to receive support from core business areas. This is a major undertaking because each business area may need an ESM for different purposes and these differences need to be identified, documented, and demonstrated.

5.4. Be selective

Selection of an ESM platform is important for the ultimate success of the platform. Cummins experienced significant performance issues with the tools that it implemented. Organizations need to assess risks associated with each platform that they consider. The implementation team should understand the risk tolerance of the organization. Also, organizations need to be aware of the tradeoff between customization and maintenance. While customization is probably important to ensure the platform supports core business areas, it might be difficult and expensive to maintain an ESM platform that is highly customized.

5.4. Manage release

Individuals involved in the implementation process at Cummins mentioned that the ESM release and deployment process is different from traditional enterprise systems release and deployment processes. Given the unique nature of ESM platforms (i.e., a voluntary system that is not embedded in core business processes), it is challenging to manage the process of diffusion because employees may or may not adopt and use these platforms. Also, we found that social influence was a major factor. If important others were not using the ESM platform, it is more likely that employee will not use it.

5.5. Time implementation

Cummins faced two challenges related to the timing of implementation. First, due to global economic crises, the growth and profitability of the company was below the projection. In fact, there was no increase in revenue between 2012 and 2013, and
net income actually decreased in 2013. As a result there were uncertainties regarding many IT projects, and the ESM implementation project was no exception. There were times when the implementation process was stagnant due to uncertainties regarding the future applicability of the project. Cummins was also going through major organizational restricting and downsizing, which affected the implementation process as well.

While some of these issues are beyond the control of an organization and the implementation team, it is critical that ESM implementations are done at the right time and that there are no temporal gaps and cases of indecision during implementation. Also, the implementation team should be aware of other core organizational projects and determine an appropriate time to implement ESM because organizations may give less priority to an ESM implementation project if other projects were closely related to core business functions and processes.

5.6. Mandate some features

We suggest that one of the major reasons for Cummins’ employees not using the ESM platform was that they were not sure how the platform would help them execute their core business processes. Based on our interviews, we found that many groups were still using traditional communication channels (e.g., email) for document sharing purposes. One of the ways organizations can expedite the diffusion of ESM platform is to make some features mandatory for certain tasks. For example, document sharing and storing could be made mandatory through the ESM system. Also, project status and/or milestone updates can be made mandatory using the ESM platform. Organizations need to decide before implementation if there are features that should be made mandatory and communicate it to employees so that the employees recognize the value of the ESM platform. Management also needs to provide adequate training to employees on these mandatory features.

6. Limitations

Our findings should be interpreted in light of the limitations of our study. First, due to practical limitations (time and resource constraints, and organizational policies), we were not able to conduct extensive interviews of employees who were users of the ESM platform. While we were able to interview a few employees who were part of the pilot group, we were not able to access employees from multiple units and levels to understand the challenges related to the ESM platform. However, the leadership of the implementation team was supportive of this study and they provided valuable insights regarding how the implementation process unfolded at Cummins.

Second, the focus of this article is to offer insights on the implementation process at Cummins. Given that the focus was not theory building or testing, we did not build on one or more specific theories or offer theoretical contributions. We suggest that given the novelty of ESM systems, our study will guide future theory-driven studies on ESM implementation because we offer insights that have rich theoretical implications (i.e., why employees might not use an ESM platform). Finally, much of our analysis was exploratory in nature because we did not have a priori theory and/or a set of hypotheses. Future research should conduct theory-driven investigations of ESM implementation using confirmatory analysis.

7. Conclusion

We conducted an in-depth case study of ESM implementation at a major manufacturing organization, Cummins, and found that Cummins faced many challenges during the implementation and employees were not using the ESM for work-related purposes. We suggest that organizations may not gain favorable outcomes from an ESM if the implementation process is not managed properly and employees are not able to understand how an ESM platform can be integrated to their core work processes. We provide a set of lessons that we learned from this case that we believe will help organizations that are implementing or considering implementing ESM platforms in the future.

8. References


