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Earning a Seat at the Table: How IT Departments Can Partner in Organizational Change and Innovation

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ABSTRACT

Few would argue that the information technology department (ITD) is not an essential part of an organization. It is hard to envision a project that does not need the support of the ITD. Despite this importance, the ITD is not always involved in the management of projects. Often, the ITD is brought into the project late in the planning and development process. In many cases, the inclusion of the ITD in an advanced project stage can result in project failure where early involvement could have prevented it. Why is it that ITDs, while clearly a vital part of project implementation, are not always incorporated in the early stages of organizational projects? Is the ITD's role not understood, or are there misconceptions regarding the ITD's value? This paper seeks to provide a clearer understanding of the role of ITDs in organizations through a conceptual model of ITD organizational integration. The model provides actionable recommendations, demonstrates the organizational value of ITDs, and highlights the importance of including ITDs early in organizational project lifecycles.

KEYWORDS

Collaboration, Inclusionary Project Planning, Information Technology, Infrastructure, Organizational Value, Project Management

INTRODUCTION

Information technology departments (ITDs) have an identity crisis in the typical organizational workspace. In most instances, the role and impact of the ITD are either not clearly understood or not fully appreciated (Gibson, 2014). This identity crisis can stem from any number of reasons – from a personal disagreement to a failed information technology (IT) implementation of a service or product. It can also stem from a lack of understanding between IT personnel and top management (Manfreda & Stemberger, 2014; Sáenz and Aramburu, 2011). Regardless of the reason, organizations will be better served by improving their understanding of ITDs. In real-world scenarios, ITDs impact nearly every part of an organization, with the potential to help identify new services, improve existing services, and improve efficiency and effectiveness throughout the organization. For an organization to realize these benefits, ITDs must first be seen as a valuable asset.

One of the ways to tackle an emerging issue – in this case, the integration of ITDs within an organization – is through the development of a conceptual model (Webster & Watson, 2002). The following paper seeks to develop such a conceptual model, one whose themes are informed by a literature review (Wolfswinkel, Furtmueller, & Wilderom, 2013) guided by the following research

question: what themes exist in literature vis-à-vis: the role of ITDs within organizations? In addition, the paper analyzes the gap found within the literature regarding why organizations continue to struggle with integrating ITDs in their planning and operational processes.

LITERATURE REVIEW

This study was undertaken utilizing a grounded theory methodology (Glaser and Strauss, 1967). Following a grounded theory approach is an appropriate technique when the researcher seeks to develop a new perception of a relatively well-known phenomenon (Stern, 1995). The actual literature review was conducted using Google Scholar and ProQuest with broad search terms such as “‘role of information technology’” and “‘IT’ AND ‘organizations’”. Initial searches were not limited by dates so a sense of what literature existed in this space could be obtained.

As articles were reviewed, patterns, additional search terms, and seminal research articles were discovered. In addition, the “Cited by” feature within Google Scholar was leveraged to find new articles. As search terms were refined, results were then limited to the last ten years and the content was organized into the following initial categories or codes: role of emotions, process alignment, organizational performance, performance, IT project management, IT positioning within organization, objective alignment, and risk management. A further round of review within these initial categories produced a finalized group of categories: ITD position within the organization, calculating the value of IT, risk management and the ITD, and improving communication within the ITD. A summary of the salient literature within these final categories appears below.

ITD Positioning Within the Organization

The discussion of emergent themes in the literature begins with the organizational positioning of ITDs. The ITD accomplishes the desirable outcome of organizational positioning through deliberate integration into core business functions. Instead of appearing as an external part of the organization or a hindrance to growth and innovation, ITDs must create connections between core business values and organizational goals. In their classic paper, Bynjolfsson and Hitt (1995) state, “the contribution of IT is large and statistically significant” (p. 197). Without ITDs, IT cannot be integrated into the organization. Rivard, Raymond, and Verreault (2006) suggest that in order for the ITD to successfully integrate itself within an organization, it must be resource-driven and should strategically position itself in alignment with core business functions. Significantly, they state, “IT support for firm assets was found to influence IT support for strategy” (p. 45).

In many organizations, business processes run through a variety of IT tools, therefore making it difficult to determine how much choice is available to the end user in how they go about completing their work tasks. If an organization requires a particular system for certain tasks, then that is the system selected for use. While this is not an issue when the system works well or is compatible with the type of work that employees are completing, the problem arises when the required system does not align well with the employees’ work. The misalignment between tasks and tools required to complete the tasks contributes to the creation of an adversarial relationship between users and technology implementers; instead of working as partners towards meeting organizational objectives, the two groups clash with one another. Organizations can mitigate this issue by implementing a more collaborative approach (Boudreau & Robey, 2005). Once a collaborative approach is developed, the ITD can begin the process of improving its position within the organization. This transition allows opportunities for innovation within the organization.

There are several ways ITDs can transition their relationship within an organization, one of which is business process reengineering, or BPR (Attaran, 2004). BPR is “a strategic action [that] requires a clear understanding of customers, market, industry, and competitive directions” (Attaran, 2004, p. 587). By aligning with core business functions, ITDs help create a shared vision for the organization and demonstrate the overall value of IT in supporting and executing that vision. One way to maximize

the ITD's role is by utilizing a framework which provides a means for ITDs to assess their value, and consequently provide ways to improve their positioning based on that assessment (Dewett & Jones, 2001). Ramirez, Melville, and Lawler (2010) investigate the impacts of interaction between ITDs and process redesign, finding that "managers should consider investment in IT and process redesign as a means for improving firm performance" (p. 427). They also state, "IT is a necessary complement to process redesign efforts" (p. 427). Additionally, ITDs play a role in supporting "organizational learning" that helps create clear connections between business functions and the work and services that ITDs are providing to the organization (Ruiz-Mercader, Merono-Cerdan, & Sabater-Sanchez, 2006).

Trkman (2008) invokes Goodhue and Thompson's (1995) task-technology fit by affirming, "IT is more likely to have a positive impact on individual performance and be used if the capabilities of IT match the tasks that the user must perform" (p. 127). He continues by citing the work of Karim, Somers, and Bhattacharjee (2007) who articulate, "IT will only have a positive impact on organizational performance if it matches the business practices" (p. 127). This type of buy-in starts at the top; therefore, ITDs need a champion at the management level, and the manager needs to believe in the importance of IT investments – both through resources and infrastructure (Ocasio, 1997; Voudouris, Lioukas, Iatrelli, & Caloghirou, 2012). Ultimately, if the manager has a solid understanding of the importance of both IT and ITDs, they will make decisions that lend support to it, whether that is through building capacity at the personnel level, or through training and other support mechanisms (Van de Ven and Poole, 1995; Voudouris et al., 2012).

Calculating the Value of IT

A second emergent theme in the literature emphasizes trying to determine the actual value of IT for an organization. IT has enjoyed much study as an enabler of organizational efficiency (Black and Lynch, 2001; Melville, Kraemer, and Gurbaxani, 2004; Yakhlef and Hipkin, 2013), and therefore, has been seen as a value-adding proposition. One of the challenges that Soto-Acosta and Merono-Cerdan (2008) highlight is the gap between real and perceived costs of IT, particularly because calculations of virtual business transactions are often ambiguous. To address this gap, de Barros, Ishikiriya, Peres, and Gomes (2015) performed a research study on supply chain management and found that most reported benefits dealt with operational efficiency, integration, and collaboration. This finding supports the notion that ITDs require further involvement in all stages of project planning. Croteau and Bergeron (2001) did a study in which they measured technological deployment based on strategic impact. Specifically, they sought to answer the question: "given a type of business strategy, what profile of technological deployment best help firms enhance their performance" (p. 81). One particularly helpful aspect of their research findings suggests innovation should occur at an organizational level, and leveraging ITD's ability to both facilitate and implement these innovations can contribute to greater organizational performance. Understanding what can improve performance is incredibly valuable to an organization. Hyvonen (2007) "uses the level of IT used by the firm to help understand the relationship between performance measures and strategy" (p. 344). The findings are interesting because if the firm does *not* follow a customer-focused strategy, they will experience high customer performance. These findings are consistent with the belief that one cannot separate ITDs from discussions of strategy and performance measures. Truly, one of the ways the ITD can increase its merit is by communicating value through strategy and performance measures.

Risk Management and the ITD

Risk management's relationship with the ITD is a third theme prevalent in the literature. For any organization, particularly one that is looking to make organizational-level changes, there are risks that impact both internal and external stakeholders. Alhawari et al. (2012) propose a framework, which they call 'RiskManIT' that is meant to "illustrate the role of [knowledge management] processes in enhancing and facilitating risk identification, analysis, risk response planning and execution processes" (p. 54). While IT projects headed by ITDs are the intended focus of their framework, it

does provide opportunities for application and use in other projects in which ITDs are not the lead. Riemenschneider and Mykytya (2000) share findings drawn from conversations with executives who manage IT projects. In this study, the pressure for IT investment was discussed, and one of the ways that managers can justify ITD expenditures is through a tight integration with core business functions. Specifically, when looking for means to better leverage IT, one should consider ways in which the ITD can have its value measured, equated, and used to improve service for the overall organization. The research also highlighted the need for new hires to be “computer literate” when they start work (p. 266).

Espinoza (2014) focuses on a way to leverage the concept of decoupled net present value (DNPV) and how to leverage it as a risk management tool, and provides a useful discussion of risk and its relation to an organization’s willingness to undertake a project that is potentially useful. Liu and Wang (2014) help bridge this gap between strategy and risks. They explain why risk is a critical element when working on IT projects and also provide techniques for mitigating these risks. Again, they frame all of this by aligning these projects to strategic goals of the organization. Mazzei, Flynn, and Haynie (2016) go a step further and demonstrate the need for innovation within organizations. They propose that organizations become “innovation-oriented,” as this can potentially yield higher gains in work performance. It is logical to infer an innovation-oriented organization would rely heavily on the ITD.

Improving Communication with ITDs

Finally, communication emerges as the fourth widespread theme in the literature where ITDs are concerned. In addition to being more integrated with core business functions, ITDs must also work on their own communication within the organization. Reich and Benbasat (2000) frame their discussion around the challenges of attempting to align goals between business and ITD objectives. They suggest that one of the best ways to do this is by being strategic in both the communication and execution of projects while demonstrating that the ITD has a value for the organization. Perez-Arostegui, Bustinza-Sanchez, and Barrales-Molina (2015) introduce the concept of using quality management practices (QMP). This framework acknowledges that an ITD is vital, but is more powerful and efficient when working with other divisions/entities within an organization. Ramos and Mota (2014) present interesting findings in their investigation into the role of communication and ITDs, concluding “there was a disregard of cultural factors as the main agent influencing the success or failure of IT projects” (p. 356). The authors explain that the role of communication is significant for organizational efficiency because “communication is linked to how the organization interacts and how the organizational culture of the company is established” (p. 356). In other words, communication breakdowns adversely impact projects. Communication breakdowns can result in an unintentional lack of ITD involvement; poor intra-organizational communication about the capabilities and value of involving the ITD in the process can lead to a lack of IT use.

One of the contributors to a lack of ITD involvement could be a result of what Tahtinen and Blois (2011) consider a “problematic business relationship” (p. 909). They provide factors that contribute to communication problems, and seek to understand the role emotions from previous bad experiences play in mitigating adverse impacts on overall project success.

Edwards, Delbridge, and Munday (2005) look at the role experts on subject matter play in the overall process, which is an important aspect of communication particularly for higher education IT organizations. In many cases a subject matter expert can drive a project, so understanding how to work with them, leverage their expertise and direct it towards a mutually shared goal is important. Radhakrishnan, Zu, & Grover (2008) provide context and support for managers who are looking to justify or leverage their existing assets in IT. Their study helps demonstrate how ITDs can create value for the organization, additionally finding “firms that focus on IT and take measures to effectively diffuse, absorb, manage, and use IT at the process level enjoy a differential business value” (Radhakrishnan, Zu, & Grover, 2008, p. 1122).

The importance of business relationships is fleshed out by research done by Andersen and Kumar (2006). They examine the role of buyer-seller relationships, which is a useful perspective because, in many senses, one could view the relationship between the ITD and others within the organization as a buyer-seller type relationship. Andersen and Kumar (2006) focus on the role that emotions play in these relationships. One concept they discuss is the “loss-gain frame” (p. 524). This concept encourages focusing on the gains from the positive interaction, and this framing can lead to a more successful interaction. For some organizations, the ITD is not seen as a partner and is seen more as a hindrance or an obstacle to progress and efficiency; to improve these relationships one must try to frame ITDs more positively and build new relationships from there. Andersen and Kumar (2006) provide other suggestions on how to foster better relationships between ITDs and other organizational departments.

For a concise view of the emergent themes reviewed above, please see Table 1 in the Appendix.

ANALYSIS AND DISCUSSION

Having completed the literature review and identifying the key terms (Table 1), grounded theory continued to guide the analysis and allowed a move from literature review to the creation of a conceptual model (Figure 1). Wolfswinkel et al., 2013 suggest five stages when utilizing grounded theory in literature review. The first three, define, search, and select, have been addressed above. The discussion now moves into the final two, analyze and present.

After developing the four emergent themes discussed above, the question remains as to why organizations are struggling with integrating ITDs into initial planning stages and the planning process in general. An identified gap in the literature is that of *actionable steps* for organizations to take that can help maximize and leverage specific resources and capacities inherent to ITDs as they take on new projects. To address this disparity, a five-step conceptual model (Figure 1 below) was developed. The model is designed with the IT management practitioner in mind, and is meant to be viewed as iterative in nature as technology changes daily. Additionally, ITDs must continually stay ahead of the curve and readjust service offerings to align with dynamic needs of the organization. Further, the IT management practitioner must constantly review IT’s positioning within the organization and make the necessary adjustments. As an organization’s growth is not stagnant, it follows that IT must take a fluid approach to changes both internal and external to the organization.

Engage Stakeholders

The first step of the iterative process described in the conceptual model involves the engagement of stakeholders. ITDs must hear from the people they strive to serve. Starting with stakeholders

Table 1. Emergent Themes in Literature: The Role of IT Within Organizations

IT Positioning Within the Organization	Bynjolfsson and Hitt (1995); Rivard, Raymond, and Verreault (2006); Boudreau and Robey (2005); Attaran (2004); Dewett and Jones (2001); Ramirez et al. (2010); Ruiz-Mercader et al. (2006); Trkman (2008); Goodhue and Thompson (1995); Karim et al. (2007); Ocasio (1997); Voudouris, et al. (2012); Van de Ven and Poole (1995)
Calculating the Value of IT	Black and Lynch (2001); Melville et al. (2004); Yakhlef and Hipkin (2013); Soto-Acosta and Merono-Cerdan (2008); de Barros et al. (2015); Croteau and Bergeron (2001); Hyvonen (2007)
Risk Management	Alhawari et al. (2012); Riemenschneider and Mykytya (2000); Espinoza (2014); Liu and Wang (2014); Mazzei et al. (2016)
Improving Communication	Reich and Benbasat (2000); Perez-Arostegui et al. (2015); Ramos and Mota (2014); Tahtinen and Blois (2011); Edwards et al. (2005); Radhakrishnan et al. (2008); Andersen and Kumar (2006)

Figure 1. Model for ITD Organizational Integration



makes the most sense because it is during the initial project phases, specifically in the planning and preparation phases, when there is the greatest potential for impact by stakeholders (Heravi, Coffey, & Trigunarsyah, 2015; Kolltveit & Gronhaug, 2004; Miller & Lessard, 2001). As demonstrated in the previous section, users are more likely to embrace and utilize IT when they see a personal benefit. This engagement can take multiple forms, such as a need-based assessment of the organization or focus groups. In comparison to direct communication with stakeholders, the data collection methods are less important. Direct conversations with stakeholders can often be difficult because of resistance or hard feelings based on past experiences. ITDs must approach these conversations with an open mind and make it clear that they are interested in learning more about the user's experiences and what can be modified. Making an effort to engage stakeholders can also help open the lines of communication between users and their ITD. It will provide an opportunity for them to learn more about the core business functions of the people completing the work, and will likely identify methods the department could implement or adapt that would be helpful for future projects.

Starting with the stakeholders also helps provide some protection for the ITD. One of the things that ITDs must be cognizant of is the perception that they operate outside of the normal structure of

the organization. Often, the ITD is too far removed from processes or business functions. A strong example is when the ITD automates a service or process and develops a solution, but never checks with end users who are going to use the new automated tool during the initial planning and development stages. End users are often only involved in the beta or alpha testing phases, and in most cases, that is too late. Interestingly enough, the very thing that is plaguing the ITD – not being involved in initial planning meetings – is often demonstrated by the ITD as it manages projects. This first step forces ITDs to take a break from their normal position and talk with the stakeholders. Fixing this will be a huge step towards creating the trust and rapport that will be necessary for future projects.

These conversations can also identify gaps in expectations on both sides. For instance, if one asks the stakeholders what services the ITD provides and they list 25 different things, but the ITD thinks they are only providing 10 services, this is a communication breakdown. A disconnect such as this can create the type of breakdowns in communication that plague organizations. By meeting with the stakeholders, ITDs can establish realistic expectations for projects and services. It is entirely possible that the stakeholders have things on the list that really should not be the responsibility of the ITD, but they may not understand that. This first step is the opportunity for ITDs to explain what they do, how the ITD organizes itself, and how users can take advantage of their services.

Describe Services

After collecting the information from the stakeholders, the ITD will need to define and develop the services that are required by the organization. The literature provides several examples of the importance of effective communication, and potential miscommunication occurs when there is a lack of understanding or misconception. Thus, it is important that the ITD looks at how they describe their services so that end users understand what services are being provided. In doing so, IT practitioners can help mitigate misconceptions about role and support. Since they have heard from the stakeholders, the ITD should be able to develop services that are responsive to the particular necessities of the organization. However, when defining their services, it should be done from the perspective of the user. For instance, instead of explaining the technology behind a webinar or conference call, the ITD should explain why a user would want to use a webinar instead of a conference call, e.g. highlighting the main differences in functionality. This presentation approach personalizes the services for the user, and they will be able to look at the service explanation and understand exactly how it can be used to benefit their work. It will also be an internal test for the ITD – if a service cannot be described succinctly from the stakeholders' perspective, it likely is not a service that is necessary for the organization. The ITD can then return to the stakeholders and pivot the service to better address the specific needs of the users.

The first step focused on creating and building rapport, and this step gives the ITD the opportunity to solidify these new collaborative relationships by going back to the stakeholders with information. Returning to stakeholders will present an opportunity for the ITD to demonstrate that not only were they receptive to the concerns and needs, but they also correctly heard what those needs were from the end users. Such an action can be the next step in building a trusting relationship between the ITD and the end users (Seppänen 2014). At the same time, it will be the first way that the ITD can demonstrate how they are aligning with core business functions and maintaining the open communication that is necessary for growth within the organization. Additionally, this empowers the ITD management to get supplementary resources, if needed, because it will provide information to share with upper management. For instance, if end users want financial systems revamped and automated and the ITD needs programmers to make that happen, this is a much stronger conversation to have with upper management compared to the ITD simply asking for more programmers solely because they think they are needed. Just as upper management has to make decisions that take the organization as a whole into account, the ITD must also align their requests for services and resources to the organization. By framing their services from the perspective of the stakeholders, they are strengthening this case and making it easier to map specific business needs to the ITD's involvement.

Identify Stakeholder Champions

In the third step, the ITD is now able to begin moving to a more proactive approach in demonstrating their value. One of the most effective ways to gain support within an organization is from the bottom up. Instead of making presentations about how great the ITD can be, it is much more impactful to have an end user share their experiences working with improved IT systems. In the literature, this is often referred to as a “champion” (Renken & Heeks, 2014). The stakeholder conversations should provide the ITD with a mapping of who does what within the organization. Moreover, after identifying and describing the services, the ITD should then look for champions of their services within the organization.

Often, ITDs struggle to demonstrate or communicate value, but getting someone within the organization to praise different services can carry much more weight than any singular act by someone from within the department, and this champion can be the link between IT services and the end user (Renken & Heeks, 2014). Consider the following scenario from a higher education setting: an ITD offers webinars as a service for faculty to deliver their content. The ITD has been working with one particular faculty member to put together a series of webinars, and both parties considered the project a success. Instead of sending out an email explaining the project, the ITD might consider asking the faculty member to present testimonials about the project. By allowing the “champion” to share their beneficial IT experience, the endorsement will carry a significant amount of weight and will help provide tangible examples of how the ITD can be supportive of the work done by the stakeholders. Everyone is not going to be a staunch supporter of the ITD efforts, but this should not be a deterrent. The focus should not be on the naysayers, but instead on individuals who need or rely on ITD services. Leveraging champions demonstrates value, and success stories are often more palatable when sourced from peers.

Market Services

In the fourth step, everything is brought together into an artifact, e.g. a website or PDF, which provides information about the services, how to use the services and the ITD contact person to get started using the service. Creating and sharing these materials within the organization will be helpful for demonstrating and communicating the value of both the IT and the ITD. Since these will be standardized documents outlining services and next steps, anyone in the ITD will be able to provide this first-tier support. Regardless of how any user contacts the ITD about a project, they will be directed to the right contact person and get the appropriate information. Materials written from the stakeholder’s perspective empower the stakeholder and allow the ITD to be a service provider that is responsive to the needs of the organization as a whole.

This fourth step is one of the areas that ITDs struggle with across many organizations. However, this step emphasizes the marketing of services because it does require proactive action by ITDs. They need to make a concerted effort to make sure the organization understands all of the services supported by the ITD and how these can be used to further the mission of the organization. As organizations become more technology-reliant, it is imperative that ITDs be at the forefront of those innovations and changes. However, more importantly, the end users need to feel that their ITD is a partner in these efforts, including through migrations and transitions that will likely occur within the organization with the introduction of new technology and the phasing out of old technology.

Review and Revise

The final step is arguably the most vital to the process. ITDs are a constantly evolving segment of any organization. Just as IT as a whole is constantly changing, so too must the services. It is imperative that the services supported and provided by ITDs are always aligned with business needs and the strategic goals of the organization. Therefore, it is vital that ITDs regularly review and revise their core service offerings and continually engages stakeholders in that process. If ITDs notice shifts in

the types of requests for support and services, they must look at the services and see if they need to be changed to recalibrate to the core business functions. As the organization changes, ITDs must be ready and able to change with it. In many cases, ITDs will be able to better manage these changes as organizations are typically trending towards the use of more technology.

CONCLUSION, LIMITATIONS, AND FUTURE DIRECTIONS

ITDs are a vital part of any organization whether the organization recognizes this or not. It is up to ITDs to be proactive in demonstrating their value to the organization. ITDs must align their services to meet the specific business needs of the organization, engage stakeholders, and communicate efficiently to be seen as a resource and added value for the organization. This organizational re-alignment is not a one-time, overnight process. Instead, it needs to be an iterative process that continually engages stakeholders in both identifying needs and evaluating the effectiveness of existing offerings. The stakeholders will know what they are missing or lacking and will likely be able to communicate what they need or expect from the ITD. ITDs must be prepared to not only listen to these needs while also possessing the correct management infrastructure that allows for flexibility and innovation to meet these needs. The combination of all of these factors is necessary, and the result should be a tighter integration of ITDs into core business functions and a 'seat at the table'.

One of the challenges in evaluating or identifying ways to get ITDs that 'seat at the table' is that it is hard to quantify the effectiveness or even the core value of ITDs. It is not always clear exactly what the organization lost by not involving their ITD sooner or what the ITD could have done that would have changed the project. This level of uncertainty is a limitation of any research – and any future study would likely focus on a specific organization and thus present challenges for generalizations. However, this should not discourage ITD managers and administrators from attempting to adapt and implement the suggestions presented in this paper. In fact, the opposite should occur. The very limitation is one of the exciting and promising things about ITDs. Since ITDs need to align themselves with their organization's needs, it gives a significant amount of flexibility both to the ITDs and the organization's management. They can collaborate and make the services meet the specific needs of their organization and take into account the nuances that make their organization unique.

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