From salvation to damnation: A case study on the role of a system sponsor in strategic downfall

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ABSTRACT

The positive impact of champions on systems implementation and adoption is well established. The term systems evangelist describes another common but less understood sponsor role beyond systems adoption. Subtle champion to evangelist role changes may hurt company performance, particularly when an executive fills the role. Through a historical case study using the capability building and entrepreneurial action model, the impact of an executive sponsor with daily IS management responsibility is examined. Beyond the champion phase, consistent with theory, the sponsor operates as a system evangelist, promoting use of a system poorly suited to its changing environment. Firm performance consequently suffers. This initial test of the theory demonstrates that system evangelists not only may, but are likely, to drive continued use of performance-impeding systems. Strategies to limit negative evangelist impacts while preserving their benefits are presented. Finally, other executive sponsorship cases that appear to unfold similarly are identified for future study.

Keywords

System sponsor, champion, IS leadership, capability building and entrepreneurial action

INTRODUCTION

Champions, who sponsor systems through implementation or adoption, have been studied extensively. These early stage system sponsors[1] have been found to be an important or crucial factor in systems success as variously defined (e.g. Beath, 1991; Curley and Gremillion, 1983; Rothwell, Freeman, Horlsey, Jervis, Robertson and Townsend, 1974; Runge, 1988). Sponsorship at later points in the systems lifecycle has also been identified but research on post-adoption sponsors is very limited. A review of ERP systems that assessed the importance of twenty roles and activities at six stages in the systems lifecycle found that a system sponsorship role remained among the most important even during the final, infusion stage (Somers and Nelson, 2004). In a study of customer-oriented strategic systems, long-term continuity in the system sponsor role was characteristic of successful systems, and low penetration was described as a direct result of departure of the champion following system introduction in half of the failures (Reich and Benbasat, 1990). In this investigation, the term system evangelist is applied to system sponsors who operate beyond the adoption phase. The system evangelist role is modeled theoretically, and its impact not only on the system, but on company performance is examined.

SYSTEM SPONSORS

Champions assume one or more of several roles to promote systems development and adoption (Curley and Gremillion, 1983). As opinion leaders, they are turned to for information and guidance. As change agents, they prepare the organization for change and advocate for it. As top management surrogates, they project and reinforce senior management support. System sponsors typically persuade rather than decree (Curley and Gremillion, 1983; Runge, 1988), but this does not imply low power. Rather, champions typically have high power and authority, (Reich and Benbasat, 1990; Rothwell et al., 1974; Runge, 1988) and top executives are frequently personally involved in system sponsorship (Reich and Benbasat, 1990).

[1] Herein system sponsorship refers generally to a promotional role at any stage in the systems lifecycle. The role is described throughout this paper. The term sponsor has sometimes been used to connote formal authority and financial backing, neither of which is inherent in its use here.

A FRAMEWORK FOR ASSESSING SYSTEM SPONSOR IMPACT ON FIRM PERFORMANCE

To understand the impact of system sponsors on their organizations calls for focusing on the IT artifact (Orlikowski and Iacono, 2001). The investigation proposed requires a research model that addresses system capabilities and their impacts on the firm, as well as the influence of the system sponsor role on system capabilities and impacts. In their capability-building and entrepreneurial action model (CBEA), Sambamurthy, Bharadwaj and Grover (2003) propose entrepreneurial alertness as a moderator for the links between IT competence, digital options, agility, and competitive actions (Figure 1). This model is of particular interest due to the several stages of independent variables incorporated as predictors, and since its dependent variable, competitive actions, holds promise for explaining variance in firms' financial performance, and thus for understanding how a system might negatively impact financial performance. The model shows IT capabilities as antecedents to a firm's digital options, which in turn enable or place bounds on its potential for agility with customers, partners and in its operations. Finally agility influences the number and complexity of competitive actions. Entrepreneurial alertness is a moderator of each of these relationships. The components of each construct are further defined in Tables 3 through 9, which map the constructs to an initial case study.

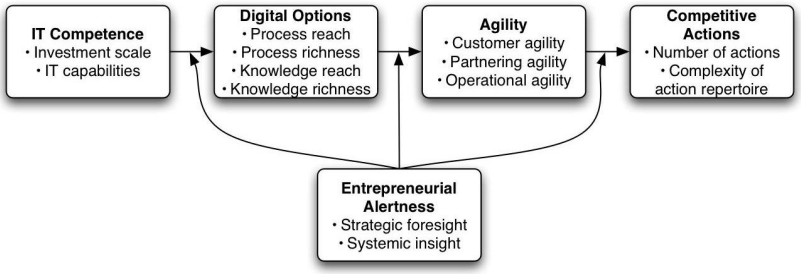

Figure 1: Capability-building and entrepreneurial action (Sambamurthy et al., 2003)

Sambamurthy et al. (2003) further propose a process of coevolutionary adaptation, an element of which is that digital options increase entrepreneurial alertness. Contrary to the expectations of this model, several cases where increased systems capabilities caused a decrease in knowledge richness have been identified. For instance, at Batterymarch, systems automated analysis and trading roles, simultaneously cutting the company off from the knowledge richness previously informed by human sensing of the environment (Gill, 1995). Similarly, at Digital Equipment Corp., the XCON system appears to have closed the company's eyes to the personal computing trend. Other systems are under investigation.

Extending the model to reflect system sponsor impacts

Prior work demonstrates that system sponsor role initially satisfied by the champion may continue past systems adoption (Reich and Benbasat, 1990; Somers and Nelson, 2004). To understand the post-adoption roles of sponsors, two other theoretical models are considered: the well-known technology acceptance model (TAM) (Davis, 1986), which predicts system adoption, and the longer term IS continuance model (Bhattacherjee, 2001) which predicts continued use. The common dependent variable in these individual-level models enables consideration of how the system sponsor role changes to influence individual use as the time horizon is extended.

TAM proposes perceived usefulness and perceived ease-of-use as mediating variables for the roles of systems characteristics and other external factors on intention to use and usage behavior (Figure 2). Systems champions are one of the determinative external factors in the model. The presence of systems champions to fervently promote systems through rollout has been shown to be an important or essential factor in systems success. Systems champions are typically in the upper echelons of an organization and are seen as knowledgeable of both the system and the supported organizational functions. Through their public support and enthusiasm for the system, they promote change, influencing perceived usefulness and perhaps also perceived ease-of-use to drive system adoption.

Per the IS continuance model, following systems adoption, whether users' beliefs about system performance are confirmed drives their ongoing perception of system usefulness, satisfaction with the system, and intent to continue using it (Figure 3).

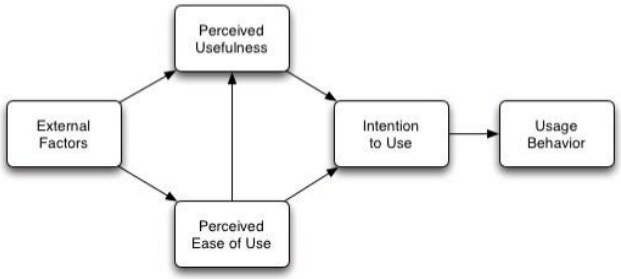

Figure 2: Technology acceptance model

(Davis)

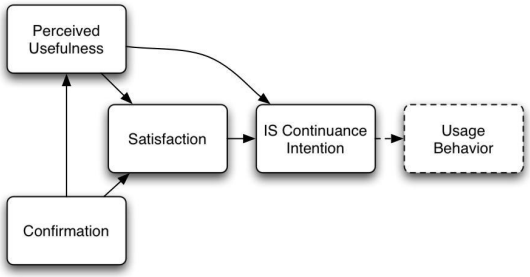

Figure 3: IS continuance model

(Bhattacherjee, 2001)

In the short term, when TAM is in operation, the system sponsor has two primary levers for influencing use intention: perceived usefulness and perceived ease-of-use. The sponsor can selectively promote system successes, features designed for ease-of-use, and users' initial facility with the system, contrasting each with the pre-system adoption alternative to increase intent to use and use. After adoption, when the IS continuance model dominates use intention, selectively promoting system successes remains a good strategy since perceived usefulness continues to influence a user's decision process. The sponsor might also impel systems evolution to deliver new capabilities that add to the systems' perceived usefulness. Post adoption, a second factor, confirmation, is also relevant. To influence confirmation, the sponsor might seek to increase the system's perceived performance, or to reduce expectations for it so that the comparison of the two is favorable. While not explicitly modeled in the continuance model, a third factor is also at play. Since one of the possible roles of a system sponsor is to be a top management surrogate, the degree to which users feel system use is mandated is also paramount. If a firm mandate is perceived, there is no choice for the user to make. If the mandate perception is less strong or absent, perceived usefulness, and confirmation become influential.

The research model relating these constructs is presented in Figure 4. While the upstream and downstream constructs and relationships are relevant to the inquiry, the bolded constructs and relationships are of primary interest. The long-term system sponsor works after system adoption to maintain the new system use status quo. Because the sponsor promotes stability, the role may have a negative effect on digital options and entrepreneurial alertness, both of which rely in part on openness to change.

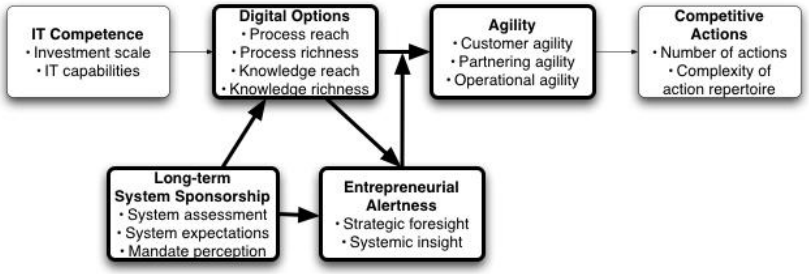

Figure 4: Research model

This paper extends the CBAE research framework and prior casework in several ways. First, a long-term system sponsorship role not yet well addressed in the literature is examined. This system evangelist role and the shorter-term system champion role are compared to develop a theory of the impact of long-term system sponsorship. Second, an initial empirical test of the extended CBAE model is provided. Third, examples of negative impacts digital options on entrepreneurial agility are explored.

RESEARCH APPROACH

When company strategy is tightly coupled with strategic system development, use and evolution, as in the case to be examined, understanding the company and industry context is essential to appreciating the role and impact of the sponsor on the company. Systems so coupled with strategy are too complex for realistic experimental recreation, and in the field, experimental control over phenomena so integral to the health of a company cannot be exercised. To understand the processes in their complexity, a case study approach is selected. Since variables of interest cannot be manipulated in the field, the longest possible time horizon, the entire strategic systems lifespan, including present status where systems use is ongoing, is selected to increase the likelihood of observable, documented natural controls that allow theory testing. The lifespan time horizon also adds to the richness of contextual information for understanding later developments from the context of earlier ones. That the systems studied are not all in current operation adds insights: reasons for their demise can be probed.

It is difficult to identify ongoing cases where system sponsorship is driving strategic downfall. If the problem were easy to spot, it would not likely be allowed to continue. For that reason, a historical case approach is adopted. Yin (2003) notes historical case studies need differ from contemporary case method only in their exclusion of observations and interviews as data sources. Cross-validation between sources supports the conclusion that the facts relied on are a faithful representation of case aspects considered. Given the high profile of the case addressed herein, many published interviews are available. The impact of bias introduced into the records relied on is minimized through use of a variety of sources and source types along with a comprehensive framework that forces consideration of a broad array of questions, not just those selected by source document authors.

The current study is the first of several planned of firms dissimilar in industry, time frame, and information systems thrusts, characteristics that serve to maximize analytic generalizability of the theoretical links now explored in an initial case.

MRS. FIELDS ROI SYSTEM

Mrs. Fields Cookies was well-known within its industry and throughout the IS community for its Retail Operations Intelligence system (ROI), the brainchild of company founder Debbi Fields' technical wizard husband Randy Fields. Randy admired his wife's successful practices including her attention to detail. He intended to leverage her expertise with the ROI system. In his words, "We felt that every store needed to run the way Debbi ran her first store. What we did was take Debbi's operational ideas and embody them in a computer" (Mrs. Fields Automates, 1988). The system was intended to give the couple immense control over the stores so the many new outlets would be as committed to quality and customer service as Debbi's first stores. Automation at Mrs. Fields was extensive (Schulman, 1990). The ROI system would tell each store manager how much of each product to bake when, provide hourly forecasts for customers and sales, produce a staffing schedule, generate supply orders, interview job candidates, and diagnose equipment problems, among other functions. Store-level system output was highly dynamic. While a day's initial forecasts were based on several days with similar characteristics, the forecasts would be updated to account for particularly robust or poor traffic or sales early in the day. ROI would offer strategies for meeting the targets it set such as suggesting complimentary or seasonal products to each customer to raise the average transaction value, or giving free samples if transaction volume fell below target. At the corporate level, the system also guided new store siting and paid invoices, in addition to reporting on store-level operations. As Randy explained, "Function by function, what we're really doing here is reorganizing the way you manage a business" (Mrs. Fields Automates, 1988).

SEEING THE ROI SYSTEM THROUGH THE THEORETICAL LENS

Long-term system sponsorship

As a prerequisite to considering Randy Fields a long-term system evangelist, it is appropriate to confirm that he championed the system in the short-term according to at least one of three possible champion activities: opinion leadership, change agency and top management surrogacy (Curley and Gremillion, 1983). Definitions and evidence are presented in Table 1.

Randy Fields as System Champion			**Assessment: Qualifies**
Role and eval	**Description**	**Evidence for**	**Evidence against**
Opinion leader: STRONG	Provide systems information and guidance	Randy Fields was featured in his systems role by dozens of articles in trade press, information systems press and general business press, firmly establishing himself as an opinion leader within his industry and outside of it. The MIS director, Paul Quinn, noted similar levels of Randy's influence inside the company, saying that within the company, "We're all driven by Randy's philosophy that he wants the organization to be as flat as possible." (Richman, 1987)	None identified.
Change agent: STRONG	Advocate for the system to induce adoption	Randy not only induced change in his company, but also pioneered a new IS use concept: "Randy Fields has created something entirely new--a shape, if not *the* shape, of business organizations to come." (Richman, 1987) Randy's substantial change impact was also seen in extensive media coverage.	None identified.
Top management surrogate: STRONG	Project and reinforce top management support of the system	As Mrs. Fields' chairman who spent roughly a third of his time managing the MIS function, he clearly projected top management support (Schulman, 1990).	Randy was not a surrogate, but top management in his own right.

Table 1

That Randy's sponsorship role persisted for years beyond system adoption causes him to be labeled a system evangelist. The theorized longer-term sponsor actions are considered in Table 2.

Randy Fields as System Evangelist			**Assessment: Qualifies**
Role and eval	**Description**	**Evidence for**	**Evidence against**
System assessment: STRONG	Seek to increase the perceived performance of the system	Samples from Randy: "We have substantially expanded the number of stores that we can operate with a limited number of people. … The labor scheduler reduced personnel costs as a percent of sales by more than 2%. … All automated systems, from headquarters to store, have added 3%-5% to pre-tax margins." (Mrs. Fields Automates, 1988)	Not applicable.
System expectations: NOT APPLICABLE	Reduce expectations for the system so the comparison of performance to expectations is favorable	Not applicable.	Not applicable.
Mandate perception: HIGH	Convey directly or indirectly that system use is mandatory	Randy was chairman and the system was his pet project, characteristics that could indirectly convey a mandate. In 1987, he acted directly, firing managers who refused to take direction from the system (O'Brien, 1990).	Not applicable.

Table 2

The impact of these actions will be discussed in the context of downstream variables.

Digital options

Process reach, process richness, knowledge reach and knowledge richness define the digital options of a firm. Each is considered in turn to set the foundation for understanding how ROI impacted company performance.

Process reach

Process integration through the ROI system was extensive, as presented in Table 3.

Process Reach		**Assessment: High**
Definition	**Evidence for**	**Evidence against**
Degree to which an organization has integrated processes enabled by information technology	The goal of every ROI store-level application was to reflect the skills and experience of Debbi Fields and her senior headquarters staff in a decision support system used to guide every aspect of the store's operation (Schulman, 1990). In Randy's words, "At the store level, what we said was, 'Put a computer in that makes every single decision for the store,'" (Mrs. Fields Automates, 1988). When the company had expanded to 500 corporately owned stores, each one was run about the same way as the first using the same strategies that Debbi implemented thanks to the ROI system (Richman, 1987). Integration was promoted by use of a single database to prevent proliferation of incompatible systems (Richman, 1987; Schulman, 1990). The system was used extensively by management and executives to control operations. System-enabled processes extended past more obvious automation targets (purchasing, sales forecasting, scheduling) to processes typically defined by the roles of humans like interviewing job applicants. (Schulman, 1990).	None found.

Table 3

The broad nature of process automation, which even extended to applicant interviews, and reliance on a single integrated database establishes the ROI system as exhibiting high process reach.

Process richness

The system delivered moderate process richness (Table 4).

Process Richness		**Assessment: Moderate**
Definition	**Evidence for**	**Evidence against**
Quality of information collected in performing processes, its transparency to other processes and systems, and the organization's ability to use process data to reengineer processes	Executives within and outside of the industry hailed the ROI system as having high quality information to facilitate sales planning and other business objectives. This task was made simpler by the use of a single database to facilitate information passing between sub-systems (Schulman, 1990). Sample praise follows. Nancy Martin of Coopers & Lybrand: "Mrs. Fields' Cookies is the best example of the integrated use of information technology [available in 1990]. Other corporations have spots and pieces of technology, but haven't integrated [expert systems] technology to meet objectives. (Strategic Use", 1990). Supermarket executive Richard Schulman: "At store level their integration of financial reporting and sales planning is quite advanced. The tools and information displays give every store manager access to his own store's sales history and current trends. In the best cases I know of, this data is only available at the headquarters level. I know of no supermarket chain that has daily information so readily accessible to management throughout the organization, and from any location" (Schulman, 1990).	The system's goal was to ensure compliance with Debbi's existing processes, and those followed remained stable. System output was not used to reengineer processes.

Table 4

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Information quality and transparency was very high. By enabling tight centralized control with extensive integration, the ROI system let the organization stay relatively flat with few layers of hierarchy. Randy believed that small organizations were more able to be creative, and he intended for ROI to manage the routine aspects of the business to enable greater creativity from managers (Seglin, 1996; Strategic Use", 1990). While this might be thought to magnify Mrs. Fields' ability to use ROI output to reengineer processes, no evidence that the company did so is apparent.

Knowledge Reach

ROI enabled just a handful of centralized controllers to manage operations at hundreds of widely distributed cookie stores, and it was also used at the executive level for operations management, leading to the conclusion that it exhibited high knowledge reach. Evidence is presented in Table 5.

Knowledge Reach		**Assessment: High**
Definition	**Evidence for**	**Evidence against**
Comprehensive-ness and accessibility of knowledge available for transfer and sharing	Controllers used ROI to closely monitor inventory, operations, and sales to curtail operations problems and theft (Richman, 1987). ROI allows executive management across operations. In speaking of "the nature of the CEO," Randy explained: "[ROI] means looking at operations simultaneously … so that you don't have to manage a collection of things as a whole, you can manage them towards individual tolerances at the same time." (Strategic Use", 1990)	System did not incorporate environmental sensing like economic trends, competitive trends, food consumption trends, etc.

Table 5

Knowledge richness

Low knowledge richness findings are summarized in Table 6.

If the entire industry were blind to the impact of operating environment trends, the ROI system might be exonerated. However, David's Cookies founder and chairman David Liederman, arguably the Fieldses' chief rival given the similarity of their strategies, concluded the individual cookie store business was on the decline from 1985 (Weisman, 1990). He acted then, diversifying into related businesses (Galante, 1986). The Fieldses did not.

Two years later, the Fieldses' steadfast faith in the system's power beyond the conditions for which it was developed is blatant in their late response to market changes. In 1987, they acquired La Petite Boulangerie, an unprofitable bakery chain which was to incorporate the Mrs. Fields line. The bakeries were three times as large as Mrs. Fields stores and they had a far broader product line (Brown, 1989). Randy's financial turnaround plan was to immediately cut headquarters staff from 53 to 3 (Richman, 1987) and to install ROI (Mrs. Fields Automates, 1988). In the following months, he fired store managers who resisted using the system (O'Brien, 1990). With these actions, the system designed to automate 1970s cookie store operational strategies was confidently applied to a new, unfamiliar business line, albeit with some initial system modifications, while staff experienced with the business environment and its requirements were removed. In particular, those managers who chose not to use a system they must have believed did not meet their needs were eliminated. Only later did the Fieldses send out senior managers to run the stores for two month periods to drive further development of ROI for the new business line (Walton, 1989).

Thus while the system was originally intended to impart tacit knowledge and was apparently used for post hoc sensemaking with regard to real estate mistakes, unquestioning faith in ROI led the company to insulate itself from sources of environmental information crucial to sensemaking. Following the departure of both Fieldses by 1993, the ROI system ceased to play a prominent company-defining role. At that time, an outsider was installed at the helm. His new, more successful strategies were not based on ROI-enabled control but included disposing of poor-performing stores, realizing greater purchasing economies of scale, and acquiring snack companies (Liddle, 1998).

Knowledge Richness		**Assessment: Low**
Definition	**Evidence for**	**Evidence against**
The role of the system in supporting sensemaking, perspective sharing and tacit knowledge development	The system made hourly sales forecasts and tracked progress against them, recommending the same strategies Debbi had used to combat any deficits (Richman, 1987), thus sharing her knowledge. The Fieldses wanted to impart Debbi's tacit knowledge to store managers through their interactions with the system, at least for a time. Early on, the system intentionally did not directly capture point of sales data as automation was thought to detract from a manager's ability to understand his or her operations (Mrs. Fields Automates, 1988). Randy intended for the ROI system to free staff from drudgery so they could engage in higher value activities such as sensemaking: "Over time what will happen is that everyone will be able to move up one notch by virtue of the fact that they will be able to shunt over to the computer more and more of their workload." (Mrs. Fields Automates, 1988)	POS interfaces were added (Schember, 1991) although Randy had previously explained this could cause store managers to "lose control". This decision seems to indicate the need for centralized control outstripped the competing need for well-informed managers. When asked about future prospects, rather than citing trends captured by the system or observed outside of it, Debbi justified her market optimism by saying cookies make people feel good (Richman, 1987). Despite Randy's intentions that the system would allow people to "move up a notch" as their work was automated, the system-enabled flexibility spawned job deskilling in the face of a shortage of skilled store managers (Strategic Use", 1990). Newly hired managers were screened by ROI with regard to their people skills, enthusiasm and commitment. Experience, education and analytic skills were downplayed (Walton, 1989). Since new hires would have fewer relevant skills or experiences to tap into for making store decisions or grasping the subtleties of their operating environments, it became less likely that the stores would prove a valuable source of environmental information from outside of the ROI system or that store managers would directly contribute to Mrs. Fields sensemaking activities. When Mrs. Fields Cookies transferred 79% of ownership to creditors, Debbi blamed problems on youthful indiscretion and real estate mistakes (Levine, 1993). Of the many concurrent drivers of lower profitability (e.g. recession, increased competition, healthier eating, more costly real estate, heavy debt burden and other factors), real estate costs were the only one made visible by the system. Randy also relied on the system to explain weak performance, ignoring that factors outside the system could play a role (Gill, 1995).

Table 6

Agility

Customer agility

The ROI system does not appear to have facilitated customer partnerships to identify opportunities for innovation and new strategies.

Partnering agility

ROI appears not to have been exploited for partnering agility. (Table 7).

Partnering Agility		**Assessment: Low**
Definition	**Evidence for**	**Evidence against**
System-enabled ability to leverage assets, knowledge, and competencies of business partners including franchisees, among others	None found.	The ROI system was not used to attract franchisees initially (Prendergast, 1992), nor is it now (Mrs. Fields Famous Brands, 2003).

Table 7

ROI has a history of collecting information from its stores, but as has been shown, the emphasis was control. No leverage of franchisee assets, knowledge or competencies is manifest.

Operational agility

Evidence of moderate operational agility is included in Table 8.

Operational Agility		**Assessment: Moderate**
Definition	**Evidence for**	**Evidence against**
System induced speed, accuracy and cost economies in the exploitation of innovation opportunities and new strategies	Sample cost economies: ROI's labor scheduler reduced labor costs as a percent of sales by more than 2% (Mrs. Fields Automates, 1988), La Petite Boulangerie headquarters staff was from 53 to 3 thanks to systems capabilities (Richman, 1987), and all of the company's automated systems added 3%-5% to pre-tax margins (Mrs. Fields Automates, 1988). Enabling flexibility vs. franchising was a system goal, and enabling centralized control could have provided for operational agility.	The system was used to maintain the operations status quo. Randy identified control as any system's first goal and named it as a requirement for growth. He felt that the same information that led to better control would drive better decision-making (Richman, 1987) and thus did not build other information feeds into the system before relying on it to make decisions.

Table 8

Given the level of centralized control, it seems reasonable that certain changes could be made quickly and accurately. For instance, consumer preferences for healthier products could drive changes to the product mix, sales forecasts, baking schedules, equipment maintenance plans, and even hiring priorities immediately after a system update. Despite this potential, the store-level operations strategy never was substantially changed.

Both Randy and Debbi exhibited high entrepreneurial alertness in their initial actions, but then fought change (Table 9).

Entrepreneurial Alertness		**Assessment: Low**
Definition	**Evidence for**	**Evidence against**
A firm's ability to explore its marketplace, detect the unknowns, and identify opportunities for action	Debbi seized an opportunity for entrepreneurship with a new concept despite limited education and a lack of experience (Levine, 1993). Randy's vision for ROI enabled a heretofore untested expansion strategy, an alternative to franchising that let the organization stay fairly flat.	Did not identify the unknowns long after competitors had. Did not break away from initial implementation of the core vision (Collins and Porras, 2000).

Table 9

The Fieldses' strategies were very successful initially. For instance, the company earned 18.5% in 1986 (Richman, 1987), which was the top of the industry range (McKanus, 1983). However, once the system was in place, continued entrepreneurial alertness is not apparent. The ROI system was the only major innovation attributed to the company, and its performance was weak in 1988 and subsequent years.

Randy Fields' plan to build a tool to optimize staffing decisions with linear algebra developed into a suite of more than 20 applications that made virtually every management decision for every Mrs. Fields store and automated many headquarters tasks. Given the broad system capabilities and the system goal of eliminating tedium in favor of creative activities, it seems surprising that the company failed to respond to major environmental shifts. The failure becomes understandable in light of the change-discouraging system evangelist role and its impacts on sensemaking activities and entrepreneurial alertness.

Randy was a vocal proponent of the ROI system, promoting its capabilities and successes not only within the company, but also in numerous interviews reported in the trade and general business press and in scholarly publications. As the company's chairman, he was not only able to mandate compliance, he showed himself willing to enforce it by terminating employment of non-compliant managers. His sponsorship role continued well beyond systems adoption, and was apparent throughout his Mrs. Fields tenure.

OBSERVED RELATIONSHIPS

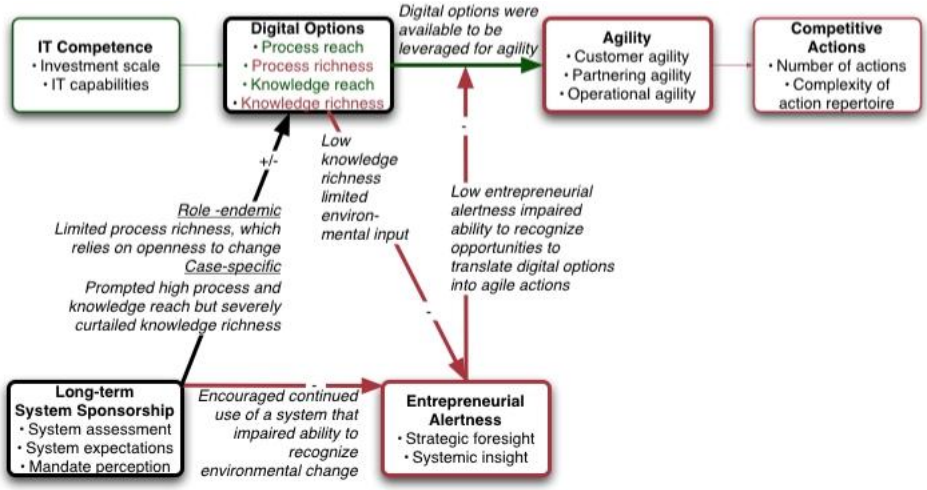

Figure 5: System evangelist impacts

The ROI system's high process reach and consequent knowledge reach enabled remote and consistent management of hundreds of stores, which differentiated Mrs. Fields from its rivals. The system supplied volumes of high quality data in a single database for transparent use between processes. However, CBEA expects that high quality, transparent data may be used for process reengineering. At Mrs. Fields, such change was hampered by the system evangelist role. It was so powerful as to determine which digital options were enacted. Randy believed Debbi had hit on the right strategies with her first stores, and developed ROI to ensure that they continued to be followed. ROI had low knowledge richness because of the boundaries placed on the information gathered by it, which were also determined by the system evangelist. Randy believed that the information needed for control was the same information needed for strategy decisions. With this perspective, there was no clear impetus to incorporate additional environmental input or to look outside the system to sense the environment, and the firm's entrepreneurial alertness and agility were consequently impaired. New competitive actions were stifled until the system was relegated to a supporting role.

DISCUSSION

In the case studied, the long-term system sponsor is characterized by his zeal for and complete faith in the system. He is sure the system gives Truth and he is no longer seeking confirmation. He wants everyone to benefit from the system, which is made possible by complete and continual use. For this reason, the long-term sponsor is labeled a system evangelist.

Champions and evangelists appear to have similar roles in companies: both promote systems use and in fact, the two roles may be filled by the same person. However, the core impacts of these roles are diametrically opposed because they occur at different points in the systems life cycle. A systems champion induces change to encourage adoption. His role is to publicize the system's usefulness and ease-of-use – the TAM factors. Change is inherently risky, and the champion helps to show the benefits exceed the cost of change.

In contrast, the evangelist's role is to promote continued use of the system beyond initial adoption. The evangelist wants to inhibit change from the systems use status quo. During this stage, users are theorized to compare their expectations for the system to its performance to determine whether or not to continue using it. While usefulness to one's own job might be readily assessed by the user, system-wide performance is less visible to individual users. The evangelist can provide system-wide success information.

Because the evangelist is promoting maintenance of a new status quo, the role might appear to be risk minimizing. Using a high process reach system like ROI optimizes at the micro-level, and the evangelist supports following the known, successful micro-level path rather than risking the unknown. With automation, a tremendous amount of precise data about a company's decisions is also available to senior executives, which may give false confidence in decisions.

Given the longer-term nature of the evangelist's duties, it is likely that more substantial system-impacting environmental change will occur during his or her tenure than during the champion's. While life's eternal questions may have eternal answers, the system evangelist operates in an environment where any particular truth is fleeting as the environment changes.

During the system evangelist's tenure, the system may continue to optimize at the micro-level, but become out of sync with its operating environment. Insulated by the system from the macro-level environment, the evangelist continues promoting the system's successes and its continued perceived usefulness so expectation disconfirmation is less likely.

The differing impacts of system evangelists and champions are driven by Proust's anathema:

> That double-headed monster of damnation and salvation – Time.
> — Samuel Beckett (Proust, 1931)

IMPLICATIONS

Given that a system evangelist may pose a grave threat to companies, one might consider eliminating the role. However, departure of the sponsor after implementation and adoption has been blamed for low system penetration (Reich and Benbasat, 1990). Instead, ways to benefit from long-term sponsors while minimizing the risks are next considered.

Successful systems continue to evolve according to environmental input, especially from users. (Maidique and Hayes, 1984; Reich and Benbasat, 1990) This exceeds both Schein's refreezing (1961) and system maintenance roles by promoting use via increasing usefulness in alignment with the environment. Naturally environmental alignment relies on receipt of environmental input, which was impaired by the system in the case examined.

Many studies define multiple roles held by different people who promote systems and other innovations (Earl and Feeny, 2000; Maidique, 1980; Rothwell et al., 1974). Throughout his Mrs. Fields tenure, Randy Fields typically assumed each of the systems promotion and innovation roles. As companies grow, these duties are more typically split across roles (Maidique, 1980). The concurrence of the champion, business innovator and chief executive roles appears to encourage adherence to a detrimental system as it conceals poor fit between the system and its environment.

A strong environment sensing function must be maintained separately from the evangelist so the need for change will be recognized even as the evangelist actively inhibits change. Heed must be paid to environmental sensing by people at the same or higher authority and influence level as the system evangelist, so the latter's emphasis on internal stability does not preclude change when it is required. An effective evangelist will spur system evolution to maintain system usefulness in light of new environmental circumstances.

When faced with a changing environment, strategy, environment and culture should be brought back into alignment (Wilkins and Dyer, 1988). When the system embodies the strategy, the system evangelist locks it in. When the evangelist is at the top of a company like Randy Fields was, he may also play a strong role in organization culture setting. Under these circumstances, the change management task is a behemoth.

CONCLUSION

System evangelists may prompt continued use of systems that impair company performance, particularly when the evangelist is a high-level executive. While developing and testing a theory of how system evangelists impact corporate performance, this study has deepened our understanding of the role of environmental shifts in causing a productive system to become counterproductive, and has identified system evangelists as a driver of these backlash systems. The need for an environmental sensing role separate from the system evangelist has been identified, and new support for the requirement to continually align a system with its environment has been provided. Finally, this initial test of the capability building and entrepreneurial action model determined that it is a strong fit only after it is extended to consider the role of the system evangelist.

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