The push and pull of innovation: A start-up case study

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ABSTRACT

This case study examines the opposing forces of innovation and legitimacy that play on new entrants into a market. New entrants in any market aim to provide an innovative product or solution in order to attract buyers. However, there are many situations where innovation may not be as valued as the new entrant expects due to various reasons, including a perceived lack of legitimacy. A case study involving a start-up software company providing a solution to the retail industry is examined, illustrating the strength of the requirement for legitimacy in order to be successful.

Keywords: Innovation, isomorphism, legitimacy, software company, innovation adoption

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INTRODUCTION

Innovation is an important driver for the economy (Fleming, King, & Juda, 2007), and even though the United States of America is still the leading country in innovation (PRO Inno Europe, 2011), there is still continued pressure for further innovation, including a call to action from the White House (National Economic Council, Council of Economic Advisers, & Office of Science and Technology Policy, 2011). While not all innovation can be seen as necessary or even positive (Abrahamson, 1991), the development and adoption of new products and processes does allow for improved efficiencies and increased chance of organizational survival (Damanpour & Schneider, 2006).

Organizational theory may assist in constructing a framework for analyzing innovations. Institutional theory provides an relevant backdrop to innovation discussions, as the force of isomorphism (DiMaggio & Powell, 1983) may be a strong factor in many innovation adoptions. There can be internal pressures to innovate, in the form of strategic pressures and operational effectiveness pressures. Externally, isomorphic pressures may pull companies in the direction of certain innovations, due to coercive, mimetic or normative forces (Tschoegl, 2010).

These forces are prevalent for both the innovator and the adopter of the innovation, and may be more so in the technology space where adopters need to rely on external cues due to insufficient knowledge. The adopter will require a certain level of legitimacy in order to have the confidence to adopt a new innovation. The innovator must provide future customers with reassurance that the company and the product are legitimate thereby providing the perception that the risk has been lowered.

This research will examine a case study of a start-up software company operating in the retail industry. The case study will provide insight into the software company’s internal process of gaining legitimacy and thus gaining customers. The exploration of the case study company’s environment allows for further examination of both prospects and customers, to highlight their search process for new innovations, the ensuing legitimacy measures, and the decisions that can result. A final piece is the opportunity to examine an institution that plays a major role in the dissemination and coordination of prospects and vendors in the retail industry, the National Retail Federation (NRF). This institution has had a strategy to broaden its role from that of conference holder to an established professional organization, thereby increasing its isomorphic role in the industry.

This research will provide a contribution in the following manner: first, the case study allows for in-depth examination of the phenomenon under study within its context. The process of identifying and adopting an innovation is well suited to this methodology, and the case study may result in the development of hypotheses suited for further research. Second, the case study allows for the study of the progression of all aspects of the company, and not just the observation of one moment in time. Third, due to the industry chosen and the power of the institution under study, this research will provide an in-depth analysis of the isomorphic forces found within this institution within a non-coercive environment, which has not been widely researched, and may develop to further research examining other institutions.
LITERATURE REVIEW

Innovation definition and typologies

The definition of innovation must be examined from a number of viewpoints, in order to create a complete picture of what an innovation is or can be. A common requirement in the definition of innovation is the element of newness, whether it be new in form or approach (van de Ven, 1986). This newness may be found at any level of the organization, including an individual department (Slappendel, 1996). The value that innovation brings to an organization (Wijnberg, 2004) either directly or indirectly is a further approach to locating and analyzing innovations by controlling for those small and somewhat common innovations. Another viewpoint is that of the resultant change caused by either the creation or the introduction of an innovation. Thus, organizational change can be seen as driven by innovation as “all adaptation, whether evolutionary or revolutionary, requires innovation” (Gupta, Tesluk, & Taylor, 2007, p. 885). In its broadest sense, any change in an organization can be seen as being driven by an innovation.

Nonetheless, during organizational research it is quickly evident that innovation typologies are valuable and required in order to distinguish various innovation characteristics. A major innovation distinction is between that of product and process innovations (Damanpour & Gopalakrishnan, 2001). Product innovations typically are innovations aimed at developing or improving a product, while process innovations result in changes to organizational processes. Similar to this distinction is the technical versus administrative distinction (Daft, 1978), with technical innovations concerning new products or services, while administrative innovations are aimed at internal, administrative functions and processes relating to internal policies and procedures (Damanpour & Evan, 1984). It may be noteworthy that the distinction between process and product innovations may be more appropriate in this day and age than the division between technical and administrative innovations, as all current innovations tend to have some technical element to them, while in 1978 there was a clearer demarcation between technology and the remainder of an organization’s activities.

A further distinction concerns the degree of change that an innovation brings to an organization, with the selections being incremental or radical. An innovation that slightly impacts an organization or market can be deemed incremental, while a radical innovation is “major in scope and breadth, involving strategic innovations or the creation of new products, services or markets” (Koberg, Detienne, & Heppard, 2003, p. 24). However, even this bifurcated distinction may be too simplistic, as is indicated by the presence of cumulative innovators, who take an innovation generated by another organization and add an additional element, for either external markets or internal use (Murray & O'Mahony, 2007). Cumulative innovations can be seen as occupying a space between radical and incremental innovations, indicating a spectrum versus two alternatives.

While typologies are valuable in their ability to provide categorizations useful in innovation research, a potential difficulty lies in the interpretive nature of these classifications (Downs Jr & Mohr, 1976). That is, organizations can interpret innovations differently depending on both the organization’s composition as well as the innovation’s intended use. For example, the motivation for selecting an innovation may be different for a research and development department versus an accounting department. As well, a small organization versus a large organization may be motivated by different concerns for the same innovation.
Damanpour and Wischenevsky (2006) proposed that further research distinguish between innovation-generating organizations and innovation-adopting organizations. This categorization distinguishes between those organizations that generate innovations for use by others and those that adopt innovations developed by others for internal benefit. This distinction may prove valuable as it provides researchers with the ability to develop hypotheses and results that may be more consistent at the organizational level. However, this can prove to be a misleading categorization, as many innovations are generated for use by the organization itself, without any thought or objective of putting it on the market.

Thus, it may be more valid to add a macro-categorization of innovations based on the ultimate goal versus adoption and generation. The categorization of internal innovation, aimed at internal goals versus external innovation aimed at external goals may be clearer for both academic research and for practitioners to understand and therefore provide clear responses. This categorization is very similar to the process versus product categorization, yet the focus is now on the goal of the innovation versus the use.

Historically, innovation research has been irritated by the confusing ambiguity of its results (Downs Jr & Mohr, 1976). Empirical studies researching the same organizational attributes in relation to innovation activity have produced exact opposite results (Damanpour, 1992) leading to a skepticism regarding the generalizability of results. Based on these results, calls have been made for multilevel theory analysis (Gupta et al., 2007), as well as calls for disregarding the lure of studying innovation at the organizational level to respond to the aim of generalizing to other organizations, but instead to analyze each innovation combined with the organization individually (Downs Jr & Mohr, 1976). This linking of the innovation with the decision allows for the complexities of the organization as well as acknowledging that not all innovations are created equal nor adopted equally. For example, an organization may produce an innovation based on its strategic direction as well as adopt an innovation due to isomorphic pressures with no common bond between the two actions.

Organizational Theory

A source of theoretical understanding may be found in institutional theory, which emerged as a response to the rational, economic viewpoint. While it is acknowledged that organizations must seek economic gain in order to survive, institutional theory recognizes that they must also seek social success through the accumulation of legitimacy and power, resulting in a tendency for organizations to become more homogeneous (DiMaggio & Powell, 1983). As institutions ‘reduce uncertainty by providing a structure to everyday life’ (North, 1990, p. 3), they provide an easy path for organizations to follow as they attempt to respond to a continually changing environment.

Organizational theory may assist in constructing a framework for analyzing innovations. Institutional theory provides an relevant backdrop to innovation discussions, as the force of isomorphism (DiMaggio & Powell, 1983) may be a strong factor in many innovations. Coercive isomorphism is found when institutions set standards or dictate requirements, such as government regulations. Mimetic isomorphism is present in situations of high uncertainty, where the selection of an innovation may be driven by the image of successful companies who appear to be certain, and therefore provide a model for other, less certain, organizations. Normative isomorphism is seen where there is an implicit or explicit standard associated with the organization or its members, influencing the structure or the workings of an organization.
Herd behavior explains a variant of isomorphism analyzed at the individual level, proposing that people may copy the decision of others in an effort to reduce their uncertainty level (Banerjee, 1992). In contradiction to rational decision making (Simon, 1955), herd behavior proposes that decision makers will disregard their own information and choose to accept another’s decision as being more valid than their own. The result is that decisions may be made that are detrimental to the individual due to lack of knowledge as to whether the other’s decision is a good one as herd behavior has no requirement for knowledge about the validity of the previous decision.

The bandwagon effect refines the discussion on isomorphic behavior through the theoretical explanation of innovation decisions as the result of pressures on organizations to adopt the same innovation due to the volume of previous adopters, again, independent of whether they believe the innovation is truly of value to their organization or not (Abrahamson & Rosenkopf, 1993). If the decision is influenced by external organizations such as consultancies or business media it may be labeled a fashion, indicating the broad reach of a fashion, and the necessity of independent organizations to spread the fashion. If the communication scope is narrow or within a group of organizations, a fad may be evident, reliant on connections between organizations for diffusion.

However, in contrast to isomorphic pressures, competitive forces push for differentiation in organizations (Norman, Artz, & Martinez, 2007) in order to reap economic benefit. Nonetheless, the goal of differentiation must be balanced with the goal of appearing legitimate to institutions as well as to the marketplace (Deephouse, 1999). Research has shown that organizations that achieve this balance and are both different yet still similar enough to appear legitimate perform higher than those at either end of the spectrum. While differentiation can be seen to be in opposition to isomorphism, the opposite of legitimacy may be identified as stigmatization (Hudson, 2008).

METHODS

The case study involves a start-up software company, RetailSoft (fictitious name). Research was conducted from August, 2009 to July, 2010 and covered a variety of sources. Primary contact was with two of the company founders as well as the Vice President of Sales. The researcher was involved in meetings, sales opportunities and had frequent discussions with the three noted above, including obtaining information about their current customers and prospects. Additionally, research was conducted at the Annual NRF Retail Show in January of 2010. Finally, documentation was used that was provided by RetailSoft, including their 2008 business plan, as well as documentation publicly available from NRF (National Retail Federation, 2010). A phenomenological approach to the data was utilized, as phenomenology aims to describe an experience common to the participants from which ‘general or universal meanings are derived, in other words the essences or structures of the experience’ (Moustakas, 1994, p. 13).

THE COMPANY AND THE PRODUCT

The company began in 2007 while two of the founders were still employed at a multinational retail software vendor widely recognized as a leader in the retail software world. They had noticed that their retail customers were repeatedly requesting features that would enable
them to easily communicate electronically with their stores with the ability to track and measure responses and therefore compliance with directives. While some of the larger software packages addressed this feature, none had the specific workflow that was being requested. Thus, the founders felt they could exploit this opportunity by creating a technological solution. From the beginning the goal was to build a company that would quickly gain market share in order to attract and then be bought out by a larger software company as was frequently occurring during this time period (Léger & Quach, 2009).

As is frequently the situation with start-ups, the founders of the company provided internal finances via bootstrapping (Brush, Carter, Gatewood, Greene, & Hart, 2006). Bootstrapping involves minimizing the financial requirements to allow the use of internal funds in order to avoid the need for external financial support. In this situation, two of the founders kept their paid employment at the large retail software company while the CEO’s husband, a programmer, began developing the software. This bootstrapping method allowed revenue to be brought in during the development phase. Once the software had been developed to a prototype stage, the two founders left their jobs and officially began the new company. They hired a Vice President of Sales and a supporting technical person to round out the team, using contract employees for other functions such as finance and marketing, resulting in five full-time employees including the founders. Once the product was visible and working, they obtained venture capital funds. By waiting until their product was in a beta stage, this allowed them to increase the value of their company and reduce the share that the venture capital company obtained in exchange for the funds.

Their target market was mid-size retailers who had between 5 and 100 stores. While their software could handle larger store numbers, at that size there was usually an incumbent software vendor in place who could either handle the functions offered by the new company or dissuade the retailer from purchasing an add-on software. Additionally, the smaller size retailers frequently had the specific issues that RetailSoft could address with their solution due to internal processes that were not as complete as larger retail operations.

The RetailSoft solution addressed the communication and workflow issues commonly found in retailers with multiple stores. An example of a situation would that the Head Office would develop a new sales and marketing activity, and would send out emails to the stores. Head Office may have targeted email lists, but due to the typical high levels of turnover at stores, email lists were frequently out of date, increasing the opportunity for a blast email to be sent out to all store employees. From the Head Office perspective, the message had been sent, but they did not know whether the directives had been followed or even read without involving more personnel. From the stores’ perspective, emails were sent to them in droves and there were many instances when the store was not clear as to the individual employee’s required involvement or responsibility. If the store contacted the Head Office via phone or email for clarification, it could take an extensive period of time before the correct person was reached to find an answer.

Thus, both Head Office and the stores would frequently find communication difficult to complete. Regional Store Managers were required to frequently visit the stores in person to check up on the stores’ compliance with Head Office directives as well as clarify Head Office requests. As the goal for all retailers is to keep store staff on the floor in order to service customers and sell product, a solution that would decrease the store staff’s administrative time, decrease their frustration with Head Office and also enable Head Office to know if the stores were compliant through a feedback loop seemed to be a sure winner.
SALES, DELIVERY AND MARKETING

When RetailSoft entered the market, they used their social networks to gain their first customers, as is common with entrepreneurial companies (O. Jones & Jayawarna, 2010). By using her social networks, the CEO kept marketing costs to a minimum while gaining legitimacy by having customers. The customers were lured by a low introductory price in exchange for providing feedback to the developers of the software.

The software was not installed at the customer site but was accessed via the internet. This model, known as Software As A Service (SAAS), allowed for continued improvement of the product without requirements for updates, and also kept costs very low for the prospective customers as there was no requirement for new hardware to support the software. This can be seen as a bonus for small and medium sized companies who may not have the internal resources or funds for an in-house solution (Susarla, Barua, & Whinston, 2009). A third bonus of the SAAS model was the lack of a lengthy implementation process which would have required additional internal RetailSoft employees. When a new customer was signed, the software could be configured within days with input from the customer. All of the work would be done online by one person, reducing the requirement for resources to be on-site during the implementation. This allowed RetailSoft to continue growing with limited financial and personnel resources. Finally, an additional benefit of the SAAS model is that it was based on low-cost, monthly fees based on the number of users. This created a positive view of the investment required by the buyer as the monthly fees were very low, and the recurring charges created a positive cash-flow view for RetailSoft. Thus, even though RetailSoft did not charge the typical software fee per user up front, they were guaranteed monthly revenues which would allow them to continue growing the company based primarily on revenues.

The founders of RetailSoft each had over ten years of experience in the retail industry and were well versed in the retail technology selling channels. The main method for selling technology solutions into the retail marketplace is via the National Retail Federation (NRF) (National Retail Federation, 2011a). This assertion was provided not only by the employees of RetailSoft but by retail company executives who were interviewed as part of this study. All respondents named the Annual NRF show as the primary source for gaining information on new and existing retail technology solutions. NRF is an international non-profit trade association with four association groups under its banner that aim to provide guidance and assistance for its members. While it does not have a regulatory role, it aims to disseminate best business practices to its members.

A key area for NRF has been in providing its members with guidance on selecting technologies, obliging providers to conform to its standards. Additionally, the Annual NRF show provides an avenue for easily comparing vendors in a similar environment, allowing prospects to view assorted technologies and companies in a short time period, thereby pressuring new entrants such as RetailSoft to conform to the implicit and explicit standards of the successful and legitimate software vendors.

Historically, there had been other trade shows in the United States where retail technology was a focus. The RetailSoft Vice President of sales had been in the retail marketplace for approximately 20 years and had seen the rise and fall of many trade shows, with only NRF still standing as a national and international trade show crossing all retail boundaries. During the year, there are regional and industry segment specific tradeshows (for example, focused on restaurants or convenience stores), but NRF is the single source for all retail
technology products. As such, its attendance has been historically large even during the recent recession, with over 22,000 attendees at its 100th year celebration in 2010 (National Retail Federation, 2011b).

For RetailSoft, NRF is the place to be seen. Even with a very limited marketing budget, the CEO was compelled to gather the forty to fifty thousand dollars required to book a booth, furnish it with marketing signs and materials and provide travel and expense monies for employees during the show in New York City for two years running. As the CEO stated after their second year at NRF, everyone watches to see who’s there, so the fact that “you were there one year and you actually came back and were there again was huge” (phone interview May 6th, 2010).

From the other side of the fence, retailers also look to NRF as a source for innovation adoption ideas. Of the eight retail company executives interviewed, all listed the NRF show as the foremost and frequently the only source for locating potential technology adoptions. The only other source mentioned was learning of new technologies from non-competitive peer retailers if and when that relationship was present.

RetailSoft’s marketing push began before the NRF show in order to increase awareness of their product and therefore increase traffic at their booth. Many retailers set up appointments with various vendors to see products first-hand and speak with company representatives. The results of this process benefit both the buyer and the seller. For the buyers, they can examine multiple technologies quickly and efficiently with less formality than a scheduled demo at their site. For the seller there is the opportunity to perform demos with much less investment of time and money as all parties are meeting at a neutral location.

At the 2010 NRF Annual show, RetailSoft had multiple demonstrations scheduled. They also had many companies drop by their booth without pre-arrangement and receive an abbreviated introduction to the software. Also, current customers were scheduled to be at the booth at the same time as prospects, increasing the legitimacy of the software and the company. However, results from the 2010 show were not as positive as initially hoped for, and no sales were made at the show or related to the show.

In discussions with retail executives who had examined RetailSoft’s product offering but did not purchase it, all were impressed with the software’s capabilities. Many, however, used RetailSoft as a tool to push the established vendor to provide more features at a better price. Specifically, one executive was quite aware that his company did not have an intention to purchase RetailSoft, even though there were numerous demonstrations and discussions. RetailSoft was indicative “of the new breed and obviously also came across as a company that was interested in trying something new and we kind of wanted to contrast that with the two stalwarts in the industry who were proven and had very mature software” (phone interview, August 24th, 2009).

A customer of Retail Soft’s had originally completed a trial with a competitive vendor to RetailSoft, due to its large presence within the retail industry. The legitimacy the competitor had obtained through volume was strong enough to warrant a 90-day trial period, even though the product did not seem to meet the customer’s needs. Only after the trial had failed did the retailer consider RetailSoft for their solution, perhaps indicating that the effectiveness and efficiency needs overrode any legitimacy requirements, particularly since the original legitimate provider had failed.

At the time of publication, RetailSoft is still in business and is slowly increasing its sales. However, the business is well behind projections with only thirteen customers after four years in
business. The initial goal had been to grow large enough to be a take-over target for a larger software company within 5 to 10 years, and certainly the five year goal will not be met. It remains to be seen if the ten year span will prove out.

**DISCUSSION**

This case study highlights the effect of the forces of innovation and legitimacy on a small software company. The push of innovation is required for differentiation in the marketplace, but the pull of legitimacy in part negates the acceptability of an innovation into the marketplace. This balance of legitimacy and innovation is a very fine line and must be navigated with care.

As the Annual NRF show has now been in existence for over one hundred years, it certainly has institutional normative isomorphic pressures, which more strongly affect the new companies hoping to attract business. The look of the booth, the manner in which the salespeople dress and even their ethnicity (E. Jones, Moore, Stanaland, & Wyatt, 1998), all count towards the perceived level of legitimacy. Existing companies already have legitimacy and therefore may be able to stretch their innovativeness in either appearance or product, but a new company must obtain legitimacy to be considered.

The tendency for prospects to wait for legitimacy cues when considering new technology can be due to a number of factors. First, it may be due to the high failure rate of software firms (Li, Shang, & Slaughter, 2010). If a retailer commits to a software for use in its internal processes, there can be a fear that if the software company is small it may go out of business. This would especially be true in the case of RetailSoft and its SAAS model which results in RetailSoft housing the software, increasing the negative consequences to the customer if RetailSoft went out of business.

The SAAS model itself may have also contributed to a perceived lack of legitimacy. As retail companies are responding to heightened competition (Zhu, Singh, & Dukes, 2011), technology investments are seen as a necessary investment but a high risk (Fiorito, Gable, & Conseur, 2010). The SAAS model is quite innovative and not commonly used by other larger software firms. While the model changes the cost structure from costly up-front license costs and maintenance costs of standard software licensing contracts to a per-month fee structure, the model requires usage of third-party internet providers which can be seen as increasing the complexity and risk (Susarla et al., 2009) and thereby decreasing legitimacy.

The choice of the small to medium sized marketplace for their product may have also lead to difficulties in giving the impression of being legitimate. While RetailSoft did attract some early adopters, their stature or volume wasn’t enough to create a fashion or develop the software as a norm within the retail world. If a technology innovation can gain the stature of fashion, its growth can be exponential in the short term (Wang, 2010), which would lead to the company growing and increasing its value. However, perhaps with buy-in from larger companies within the retail industry, normative pressures may have been established.

**LIMITATIONS**

All case studies have limitations due to the strict focus on the specific case. While RetailSoft was observed for almost a year and both customers and prospects were interviewed, there still may have been other forces present that affected how the software was received by the marketplace as were discussed in the sections above. Additionally, generalizations cannot be
made based on the case study, though intriguing observations have been presented that may be worthy of further study.

CONCLUSION

RetailSoft provided a case study that illustrated the difficulties of taking a new product to market. The need for legitimacy seemed to preclude the attractiveness of their innovation software solution. While this research does not rule out other factors in the innovation adopters’ viewpoint, the isomorphic pressures on the retailers and RetailSoft played a large role in the innovation adoption decision. The Annual NRF show affords an opportunity to examine these pressures in action on both established companies and newcomers to the marketplace.

REFERENCES


