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24 x 7 @ Full Speed: Accelerated Time to Market

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ABSTRACT

"It's only a web site. What could be so difficult about that?" This quote is from the cafeteria of a start-up business funded by a North American retailer, after the disastrous 'Black Friday' of 2000, during which its web site experienced systemic failure. This case describes the dynamics, complexities and consequences of fast tracking an e-Business strategy with a small start-up. This consumer electronics retailer created one of the most visited retail websites, from concept to operation in six months. Market analysts were predicting a major increase in online sales whilst consumers were adopting the Internet at a rate faster than any previous technology. Meeting the multi-channel demands of the dynamic and competitive environment required operational balance, stability, innovative flexibility, organizational fit, and the alignment of resource capabilities with technology. This case challenges the reader to comment on how a large company positioned itself and integrated the necessary competencies to compete successfully in this developing market by fostering an SME.

Keywords

E-Business, Case Study, SME, IS Strategy, Implementation

DISASTER & RECOVERY

Thursday, November 23, Thanksgiving Day was the official start of the 2000 Christmas holiday season. While most Americans spent their day with friends and family, the executive and technical staffs of SellWell.com¹, an e-Tail start up, were trying to recover from major database failures preventing customers from shopping.

The trigger seemed to be the massive increase in transaction volume - far beyond projected figures. Customers had swamped the site. In the prior weeks and months, managers and technicians had worked to stabilize the systems and create contingency plans. However, the patches did not work and no one could pin point the cause.

The only work-around was to "flush" all connections to the databases when the number of transactions built up. This required continuous monitoring and "flushing" when the volume indicator reached 80%.

Holiday Shopping

In the United States, Black Friday², the day after Thanksgiving, is the biggest shopping day of the year. Retailers prepare for this day all summer - tuning their product offerings to match trends and shifts in demand. Black Friday, along with the rest

¹ Sell Well and SellWell.com are fictitious names used to protect confidentiality.

 $^{^{2}}$ This is the day that retailers cover their fixed costs for the year so they are no longer losing money (in the red) and instead are in profit (in the black).

of the holiday season, was particularly important for this dotcom spin-off, the Internet start-up operation of a US\$15 billion parent company, a retailer of consumer electronics and entertainment.

To manage the crisis, the CIO and Director of Systems Operations created three teams of managers, engineers, developers and business users not only to "watch and flush", but also to monitor events, changes and patterns in the hope of nailing the bug. These teams operated in three eight hours shifts. Within each team, a select group of technicians, which the teams called "finger monkeys", was responsible for operating the control consoles.

Most of the people were new and had not mastered SellWell.com's inner workings. For example, the CIO had joined the organization in August from a catalog shopping service turned Internet retailer. Before that, he worked for a prominent financial firm. In both of those engagements, he had worked with the newly appointed Director of Systems Operations who had joined the organization only a week before Thanksgiving. Not only were the technical people new, so were most of those on the business side.

BACKGROUND INFORMATION

Industry Trends

Since the early 1990s, new technology-driven business models had been evolving in parallel with adoption of the World Wide Web. One promising model was e-Tailing, or 'direct to customer electronic retailing' (Weill and Vitale 2001) via the Internet. The later half of the 1990s saw the rise of pure play online companies such as Amazon.com, Yahoo, Buy.com, eToys, Pea Pod and many others that followed.

The dotcom boom also saw the birth of a new creature - the 'Online Consumer' - first defined in the '1998 Consumer Technographics North American (U.S. and Canada) Benchmark Study' conducted by Forrester Research (McQuivey 2003). This emerging breed doubled in numbers from 25 million households in 1998 to 50 million two years later. With a booming economy, media attention, and the increasing pervasiveness of the Internet, the average consumer was moving online.

The last two years of the 1990s saw growth accelerate. Michael Pastore, in his November 1998 article for Cyberatlas, reported that Shop.org and the Boston Consulting Group were projecting growth in excess of 200% per year and that revenues would surpass \$13 billion by 1998 (Pastore 1998). One year later, Pastore wrote that Forrester Research was predicting 17 million households shopping online in 1999, each spending \$1,167 and driving online retail sales to \$20 billion. The projection to 2004 was for a steady increase to 49 million households with average spending climbing to \$3,738 and revenues reaching \$184 billion³ (Pastore 1999).

Also in 1999, the Consumer Electronics Manufacturers Association (CEMA 1999) forecast the online sales of traditional consumer technologies such as TVs, DVD players, VCRs, computer hardware/peripherals and camcorders, would reach at least \$14 billion or 13% of the total industry by 2002.

Product	Browsing online and buying offline	Browsing and buying online
Computer Hardware & Software	29%	37%
Home Office Products	18%	5%
DVD, VCR, or Camcorders	12%	2%
Video Game Hardware & Software	11%	5%
Cellular Phones & Pagers	11%	0%

Table 1. Percentage of cybershoppers who browse and then buy offline compared with those who browse and buy online

 $^{^{3}}$ Interestingly, the actual sales in 2004 are difficult to calculate. A very conservative estimate is \$69.2 billion (U.S. Census Bureau 2005) but this excludes industries like travel, financial services, ticket sales and auction sites such as eBay (The Economist 2004).

Interestingly, the study showed that some people were shopping online to review specifications and prices but then buying in a store. Companies offering such combined channels adopted the 'bricks and clicks' business model (Weill and Vitale 2001). For home video equipment, more than 12 percent of customers used this approach. Other categories showed similar increases (see Table 1). "The Internet and traditional retailing are working together in consumers' views; they don't see them as separate realms." said Todd Thibodaux, VP of Market Research at CEMA (CEMA, 1999b). The 'Online Consumer' identified by Forrester Research in 1998 had begun to evolve.

By 1999, traditional retailers, who had been reluctant to put resources into the Internet delivery channel, saw that they could not continue to 'wait and see' and ignore the growth posted by the pure play e-Tailers in 1997 and 1998. There was too much at risk in not adopting, or at least experimenting, with the technology-driven business paradigm. The Internet was empowering consumers with access to product information and easy price comparison⁴.

Competitive Market

The consumer electronics and in-home entertainment segment of the retail industry was already a highly contested sector. The growing popularity and affordability of in-home entertainment, such as TVs and Stereos in the '50s and '60s, further increased in the '70s and '80s with the introduction of new products such as Cassette Recorders, Personal Audio Players (for example, the Sony Walkman), VCRs and CD Players. Large chains of department stores created separate departments for electronics and appliances. Specialty retailers had spread across towns and cities.

In the late '70s and early '80s, a new wave of electronic entertainment took the market by storm. Personal computers and video game consoles became affordable for the ordinary consumer, which in turn allowed video gaming at home instead of the video arcade. The average home began to acquire a collection of technology products and appliances. One slogan that became popular was 'every home should have one'. Specialty retailers such as Circuit City, Silo, Best Buy, and the parent company, Sell Well, grew significantly, as consumers demanded a mix of entertainment products.

The early and mid '90s saw the Internet support consumers purchasing products online. By 1999, Sell Well not only competed with Circuit City, Best Buy and Silo, but also with department stores such as Sears and Montgomery Wards, discount retailers such as Walmart, software retailers such as Electronic Boutique and Egg Head Software, catalogue music retailers such as Columbia House, pure play online retailers such as Buy.com and Amazon.com, and direct on-line vendors such as Dell. Sell Well also had to deal with customers informed by product information sites of companies such as Sony and IBM.

Business Information

From its 1967 beginning as a single store operation, Sell Well became a leading North American consumer electronics retailer, with total revenues of \$12 billion and net earnings of \$347 million for fiscal year 2000. Its subsidiaries operate 1,100 stores in both the U.S.A. and Canada.

By the end of 1999, Sell Well decided to join the Internet world by transforming its existing 'brochure-ware site' into a comprehensive e-Tailing site. It would use a 'bricks and clicks' model to exploit its established fulfillment channels of shops and distribution centers. Sell Well created a separate e-Commerce company to operate the Internet retailing that would offer customers cross-channel services such as store pick-up and return, online catalogue services for customers' research before going to a store, discounts through electronic coupons and in-store 'kiosk ordering' in case the store ran out of stock.

In a January 2000 news release, the company announced the Internet initiative. The President of the new e-Commerce company commented: "We believe that the consumer electronics market on the Internet will be substantial, and this e-Tailing operation is uniquely positioned to seize market leadership. We intend for this operation to be the best consumer resource on the web for technology and entertainment products and services." A related announcement revealed a large-scale strategic partnership with a major technology vendor. In exchange for technology support, the vendor received premier advertising positioning.

Six months later, the Internet retail site officially launched. In the first phase, customers could access only a portion of the company's merchandise. All features and access to the full merchandise offering were to be available just before the start of the holiday season.

⁴ See The Economist (2005) for how this is still re-shaping industries.

Operating Structure

In a true dotcom fashion, SellWell.com was a separate company from the large bricks and mortar operation of the parent. Sales estimates put it at about the size of a large format or "super" store - small in comparison to the parent company's overall operations but unique in its full autonomy. It had its own marketing, merchandising, and various other operating and customer support functions (see Appendix, Figure 2). As a separate organization, it saved the brick and mortar operations from interruptions and disruptions. The separation allowed the new small organization to start from scratch and discover what worked best, bypassing any constraints presented by existing structures, procedures and the culture of the parent. Furthermore, it provided a way of attracting top business and technical talents by offering stock options.

Creative flexibility was present in every area of the business, driving the culture and outlook towards work. The facility housing SellWell.com had a colorful, modular cutting-edge design filled with music, recreation and fun. However, due to the lack of space, major parts of the Technical Operations Group were located at the corporate facility several miles away. Attending meetings and getting teams and team members together became a challenge, especially during the frequent winter snowstorms.

Due to the urgency and tight delivery schedule, consultants and contractors helped to create the site and establish operations. Business and technical people represented almost every large IT/IS subcontractor - Accenture, Rainier, Spherion, Microsoft, Software Architects, Modis, Talent, Borne, Compaq, etc. The contractors outnumbered the permanent staff. To meet the speed to market requirement, the site's host would be at an interstate vendor who could assist with rapid setup, technical expertise, security and other needs.

Issues and Challenges

SellWell.com's implementation plan drew on a proven marketing and sales approach developed over the years for the traditional retailing channel. This aggressive approach allowed no slack for operational or technical challenges and rushed the technical design, selection and development into production in six months. This resulted in frequent troubleshooting cycles that repeatedly shifted functionality and technical foundations and consumed vital time and resources in the effort to establish stability. As the holiday season approached, testing and quality assurance cut corners to get the site to market. Significant time and resources were committed to revising and trouble shooting the site's functional modules.

Both online and traditional competitors were launching campaigns whilst development was taking place. SellWell.com had to react and often change the site's specifications. Half way through the development, the parent company decided that SellWell.com must synchronize its promotional activities with those of the 'brick' based campaigns, which varied geographically by product, price, and timing. This was an effort to create consistency between the activities of the electronic and traditional channels. Therefore, SellWell.com had to react to competitors' campaigns and the campaigns of an aggressive multinational parent, while it dealt with the already complex work of stabilizing the fragile web site for the holiday season. "If only we were given more time" was a commonly heard phrase.

Most of the technology issues stemmed from the absence of environmental controls, ineffective coordination between the development teams and loose management of software packages. For example, one developer would use a version of code to implement a new feature in one package, while another revised the same code to correct a problem in another package. Without standardization and strict enforcement of development guidelines, developers from different consulting firms reverted to their idiosyncratic methods and processes.

A full build of the site took eight hours. The build was a manual process that collected, compiled, packaged, and deployed new features and/or fixes for software errors. This meant that a bug fix for the production site took at least eight hours to apply. Add the time needed to develop, test, and approve the fix, and the time stretched to days instead of hours. This was not a satisfactory level of service for a customer-facing system. Furthermore, it prevented the business from quickly responding to competitive market changes.

IMPLEMENTING STABILITY

In September 2000, the majority of people were working on initiatives to stabilize and prepare the site for the holiday season. One August initiative of the Development Operations Team was to clean up code and data. A September initiative by the Systems Operations Team aimed to improve infrastructure performance. As comprehensive as these preparations were, they did not address environmental controls and organizational or procedural issues.

In response to the lack of focus on management issues, the recently hired Senior Technical Consultant conducted a comprehensive analysis of the entire Systems and Development Operations and presented a set of recommendations to

improve management control. Those recommendations formed the Software Delivery System (SDS) initiative, intended to bring stability and focus into the reactive and increasingly chaotic environment.

The recommendations were:

- To form a Software Architecture Team to establish software development standards
- To create a Release Management Team and release procedures to coordinate the entire software delivery and data synchronization process
- To improve the version control process and use a robust configuration management system
- To simplify the management of the site through the implementation of a comprehensive Site Management System
- To create test models as part of a set of QA test criteria in the code promotion process
- To create a consolidated project website, or developers' portal, that would propagate information and distribute important utilities and components to development, systems and business teams.

Due to time and resource constraints, only a portion of the SDS initiative received approval. These included the Software Architecture Group, Release Management Team, developers' portal, and the redefinition and restructure of the Quality Assurance practices. Active discussions about the merits of implementing the rest of SDS continued for a few weeks before the Director of Systems Operations paved the way towards site and operational stability by providing the necessary resources to complete the remainder of the SDS initiative. This placed added focus on the Site Management System (SMS) that controlled the distribution and management of software components to the website and the backbone systems.

On November 13, a code freeze aimed to stabilize the site for the Holiday Season. Everybody worked hard to ensure an excellent customer experience for those visiting the site and few customers experienced problems until November 23 - Thanksgiving Day.

Keynote, a web metric service organization, issued a special "Black Friday" report on web retailers' performance (Keynote Systems 2000). According to the report, Sell Well was struggling with site availability at less than 50%. For customers who did find the site, the average response time was 10.65 seconds, exceeding the "8-second rule", which stipulates that users will click away from a site if the page does not download within 8 seconds. Many online retailers experienced similar problems that day.

Throughout the holiday season, the 'watch and flush' teams vigilantly monitored the site, fixing problems as they appeared. The maximum daily transaction rate hit 7,000 orders, with total web site visits over the season in excess of 13 million (see Table 2). After the 'freeze' lifted in January of 2001, SellWell.com had survived the greatest test of its existence.

Year	Total Holiday Season Visits	Peak Transactions per Day	Average Dollar per Transaction	Average Site Availability
2002	56,500,000	33,400	\$150	99.68%
2001	22,389,000	14,900	\$100	99.56%
2000	13,735,000	7,000*	\$85	79.89%

Table 2. Web site holiday season statistics⁵, SellWell.com 2000 to 2002. *The site fails at around this figure

During this unstable time, this young organization faced overwhelming difficulties as it fought to gain control over the web site and stabilize its operations. It learned about and implemented new technology, processes, structures and skills, each reinforcing the other. One technology initiative was the centralization of the infrastructure in support of the new Software Delivery System (SDS) initiative. The Director of Systems Operations re-architected the entire infrastructure, consolidating functions into industry-proven integrated systems. Another technology project proposed by SDS was the implementation of the Site Management System (SMS), beginning at the start of 2001. By June 2001, partial builds of the site became a reality. A full build, if required, took less than ten minutes with a single click of a button! However, the most remarkable capability

⁵ These are not the actual figures. Instead, the pattern is apparent but to protect confidentiality there are substantial random errors in the figures.

came in August with the first site rollback. The Site Management System facilitates partial or full site rollbacks to any previous release. This allows for very quick recovery while maintaining full synchronization between data and system components in multiple environments. This supported the development and web teams' creative experimentation and accelerated processes for testing, release and deployment.

Implementation of the Release and Deployment Process (RDP) had begun a few months earlier, in November 2000. The Developers' Portal published details about each release in advance, allowing developers to discuss this information, update it, and finalize it before receiving deployment approval. In time, this process integrated tightly with SMS and identified potential issues, while capturing knowledge about changes and eliminating guesswork.

There was a major re-structuring of roles and responsibilities. The Front-end and the Back-end Development Groups became responsible for development coordination and code handling through SMS and RDP. The Release Management Team, Data Management, Systems Operation and Architecture Groups clarified and re-aligned their functional and service boundaries. As the re-alignment took place, stress reduced as everybody's work became more meaningful, with clear starting and ending points, and defined hand-off procedures and conditions. "Now, you feel that you don't have to do everything, as you are assured that your colleagues will not drop the ball when you hand it off", said one developer. Business operatives received comprehensive rules of engagement to obtain services from the Technical Operations Group.

Recognizing the need for advanced software development and project management, executives established training programs for all personnel. This increased knowledge and familiarity with the technology and delivery processes. Training in groups helped people build relationships supporting the new structural arrangements, particularly for task-dependent roles requiring hand offs. It became much easier to communicate functionality, delivery, and performance implications.

Prior to the implementation of SDS, undocumented changes could be applied to production with little testing, often with destabilizing effects. Numerous trouble-shooting activities then attempted to re-stabilize the site. However, applying bug fixes often overwrote previous undocumented fixes, destabilizing the site again. Despite its late application, the implementation of the SDS initiative allowed the necessary controls to eliminate these sorts of calamities. SMS led SellWell.com to much-needed stability but required supporting standards, policies, and procedures along with changes to the Release Management Team, Developers' Portal, QA Test Criteria, Configuration Management System and the Release and Deployment Process.

THE NEW ERA

In October 2001, the parent company decided to merge SellWell.com into its regular operations, with the web site having been stable during the 2001 Holiday Season. Key business and technical personnel integrated into the Sell Well IS and business units to assimilate the learning, while the rest remained in the new Web Operations Group to operate the web site and develop the next generation.

Reducing the time to market made SellWell.com run before it could crawl, but run it did as the volume of transactions soared. After its first year of operation, SellWell.com ranked among the fastest growing and most visited Internet retail sites in the world.

Bricks and Clicks

Since the holiday season of 2000, the convergence of Internet and traditional retail channels, now known as 'Bricks and Clicks', proved productive (see Table 3). Most organizations tried co-branding and partnership activities between 'click'-based and 'brick'-based organizations in an effort to capture elusive profitability. Amazon.com, an e-Tailing giant that has reported only one profitable quarter in its existence (Abrams 2002), started pursuing co-branding alliances with Toys-R-Us, Borders Books, and others to strengthen its cross channel position (Flint and Spieler 2001). Other e-Tailers such as Buy.com and eBay were also seeking synergistic partnerships with complementary / supplementary brands and suppliers in a similar approach. Smaller operators merged into bigger operators, and many closed as the dotcom bubble burst

	Bricks & Clicks Opera	itions	Pure-play Online Op	erations
	Best Buy	Circuit City	Amazon.com	Buy.com
Revenue	\$12,494,000,000	\$ 10,599,406,000	\$2,762,000,000	\$590,965,000
% over Last Year	24%	13%	69%	49%
Net Income	\$347,000,000	\$196,472,000	(\$1,411,200,000)	(\$96,984,000)
% over Last Year	61%	51%	-96%	-20%
Earnings per Share	\$1.09	\$0.96	(\$4.022)	(\$0.56)

Table 3. Sample comparative financials of consumer electronics retailers 1999 (company reports)

The emerging Online Consumer had also experienced a transformation. In a Forrester Research report, James L. McQuivey (2003) noted that they 'multiplied' – increasing in numbers as more consumers adapted to the online channel. They then 'mainstreamed' – began to resemble the average U.S. population. Finally, they 'matured' – became skilled and discriminating in their use of the web (see Table 4).

	1998	1999	2000	2001	2002	2003
Total US households	100.0	101.0	102.1	103.2	104.3	105.5
Connected to the Internet	25%	33%	43%	57%	61%	64%
Profile of online households	1998	1999	2000	2001	2002	2003
Average age	40.5	41.0	41.5	44.9	45.0	46.6
Male	57%	56%	53%	49%	50%	49%
College degree	49%	46%	44%	42%	42%	41%
Mean HH income (US\$)	\$60,624	\$59,489	\$62,520	\$62,095	\$62,244	\$64,063
Agree with the statement: "Technology is important to me"	47%	43%	41%	33%	31%	30%
Hours online per week for personal reasons	N/A	7.2	9.9	9.5	9.0	8.5
Average years online	1.6	2.2	2.5	3.1	3.5	4.5
Have broadband at home	1%	2%	6%	10%	17%	23%

Base: US online households

Source: Forrester's Consumer Technographics 1998-2003 North American Benchmark Studies

Table 4. Basic online consumer statistics, 1998 to 2003

The mature Online Consumer became a demanding 'Multi-Channel Consumer', fully embracing the web without abandoning efficient offline channels. This maturation is indicated by the steady increase in the types of media consumed online, banking activities conducted online, and purchases performed online (see Table 5), all without an observed decrease in the activities performed in the traditional channels. Consumption of online and offline products and services had increased, complementing and supplementing each other.

1998	1999	2000	2001	2002	2003
0.9	1.3	1.3	3.2*	2.7	2.9
N/A	6%	18%	27%	32%	35%
22%	27%	50%	49%	51%	51%
1.9	3.2	4.4	6.6	7.5	8.1
Base: US online households					
dia cons r.	umption	slightly o	differentl	y this a	ccounts
ohics 199	98-2003 N	North Am	erican Be	enchmar	k Studies
ŗ	0.9 N/A 22% 1.9 Gonline H dia cons	0.91.3N/A6%22%27%1.93.25 online householdia consumption	0.9 1.3 1.3 N/A 6% 18% 22% 27% 50% 1.9 3.2 4.4 Sonline households dia consumption slightly of the second s	0.9 1.3 1.3 3.2* N/A 6% 18% 27% 22% 27% 50% 49% 1.9 3.2 4.4 6.6 Sonline households dia consumption slightly differently	0.9 1.3 1.3 3.2* 2.7 N/A 6% 18% 27% 32% 22% 27% 50% 49% 51% 1.9 3.2 4.4 6.6 7.5 Gonline households dia consumption slightly differently this a

In comparison with its competitors, Sell Well had better capabilities in satisfying multi-channel consumers. It had the virtual marketing reach and online service delivery of its web site along with support from the bricks and mortar operation to integrate in-store fulfillment. By illustration, the purely online delivery channel contributed only 1.6 to 1.8 percent of total revenue, which translated into sales of US\$300 million for 2001.

Problems in fulfillment often cause e-Businesses to fail. For SellWell.com, the 'brick'-based fulfillment channel worked: home deliveries were largely on time, stores handled pick-ups efficiently while returns and exchanges operated flawlessly. The difficulties faced during the turbulent holiday season of 2000 may have proved catastrophic if not for the reliable fulfillment channels. Despite the problems and limitations in receiving customers' orders at the front-end, fulfillment of orders received was timely at the back-end.

CONCLUSION

Migrating to e-Commerce is not straightforward and requires more than a little inventiveness and technical know how. Numerous corporate, venture capital, and self funded start-ups set up shop peddling their ideas online in the hope of capturing prime mover advantages in the virtual marketplace. However, the consequential dotcom bust demonstrated that e-Commerce was not without challenges. On reflection, there are two critical lessons from Sell Well that may be useful to other organizations considering an SME approach in their move to e-Commerce.

SMEs can flexibly respond to what customers dictate

This case has shown that fast tracking an e-Business solution can present tremendous complexities and challenges, reflecting a profoundly difficult undertaking with unpredictable outcomes. The time scales, competitive pressures dictated by dominant customers (primarily the parent company) and dynamic nature of online retailing confounds solving problems that would be easy to fix under normal conditions. "It is like heading into the unknown at an accelerated timescale. You are motivated to do things fast and you get tripped by so many unpredictable results leading you to continually deviate from your intended direction", said the Director of Systems Operations.

One of the few advantages of being a small organization is flexibility. A small organization is able to make decisions quickly and has a simple structure. If it is a start-up company, then it also has less cultural history prescribing the way it does things. Strategically, SMEs can use flexibility either to pre-empt competitors seizing a sustainable advantage or to exploit an opportunity that presents itself (Evans 1991). This case illustrates how SellWell.com rapidly changed direction as it moved from a development focus to a production focus. Within a few months, the turn around was complete. However, SMEs are often hampered in the strategic use of IT by their leadership's lack of understanding (Levy and Powell 2005). SellWell.com

avoided this with a President and senior staff that brought with them a substantial background in the strategic use of IT. With the effective selection of IT-receptive leadership, an SME can use flexibility to drive change in e-Business.

SME growth affects IT alignment

SMEs can expect IT alignment to change as the organization grows. Running in parallel with the project life cycle was the growth of SellWell.com as a business. With the site's transition from development to production came the need to impose more processes and sophisticated structures. Underpinning these changes was the IT infrastructure and Software Delivery System. Figure 1 presents an MIT90s (Scott Morton 1991) analysis to show how these changes reinforce each other to deliver a new alignment that solved a clearly articulated problem. Operational evolution ushered by growth caused parts of the organization to be in poor fit with other parts, which led to conflict and poor performance⁶.

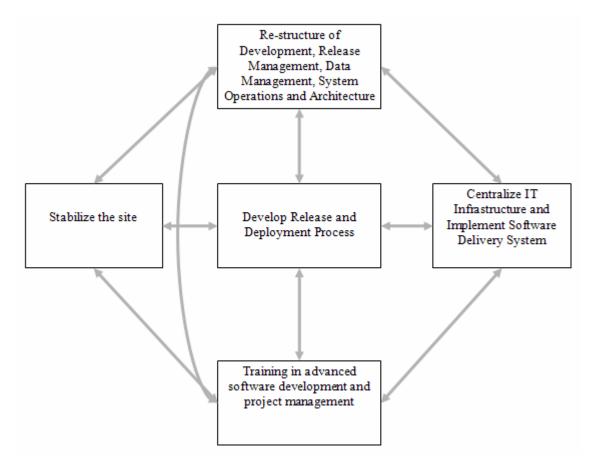


Figure 1. Growth required a new alignment

SMEs go through five clearly defined stages in their growth (Churchill and Lewis 1983). In this case, SellWell.com moved directly from "existence" to "survival". Here it struggled to build a web site in a tightly prescribed time with a changing specification. The IT, structures, people and process were all supporting rapid development and optimized to align with each other. The third stage, "growth", began with the start of the holiday season. Few SMEs would experience such a dramatic growth. The requirement was for a complete re-alignment as shown in Figure 1. Stage four, "take-off", took place in the parent company, with the assimilation of the people and technology into Sell Well itself.

⁶ This is just as Miles and Snow (1978) would predict.

FUTURE RESEARCH

Measuring cross-channel effectiveness is a challenge. One solution is to measure the percent of revenue on one distribution channel, such as the online store/catalogue, influenced by aspects of another channel, such as a retail store, and vice-versa. Without systems and processes to capture this information, there is no effective way of measuring cross-channel performance. Until then, we can only speculate on the effectiveness of a multi-channel strategy.

QUESTIONS TO THE READERS

Given the increasing popularity of the "Bricks and Clicks" model, several questions come to mind:

- 1. Would SellWell.com have continued its success if left as an independent company?
- 2. How would this arrangement have been beneficial for both the parent and SellWell.com?
- 3. What operating models are appropriate for small and medium sized business units to take full advantage of their autonomy and yet contribute to a parent's capabilities?
- 4. Did Sell Well make the right decision to move early despite the uncertainty and un-proven business model?
- 5. Should they have waited for the dominant retail business model to emerge?

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APPENDIX

