E-TECHNOLOGY FOR BUSINESS TURNAROUND: SUSTAINABILITY, GROWTH AND INNOVATION

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Abstract

Modern for-profit organizations require frequent changes in business direction and streamlining of business models, tools, workflows and processes. Since 1998, manufacturers that did not undergo a full corporate revision or did not exploit Internet technologies ceased to exist. All inclusive business process reviews and technology-assisted corporate renewals must be completed at least once a decade, as integrative turnaround initiatives. The objective of this paper is to examine a role of eTechnologies in the recent turnaround of Stork Craft Manufacturing Inc. and to provide a roadmap to usage of eTechnologies for corporate sustainability, growth and competitive advantage. It is argued that any for-profit business seemingly trapped in some form of complacency, may perform a full comeback and re-gain its global market share by conducting a strategic evaluation of their organizational workflow and adopting the best business management practices. Through corporate eras of renaissance and innovation at Stork Craft, this paper presents strategic building blocks to corporate success and lists key technologies that enabled eBusiness growth from 7% to 50% of the corporate business, in four years time. Using data obtained from 500 customer testimonials, the effectiveness of the change induced by eTechnologies is additionally analyzed. Success factors that further organizations to the next developmental level as well as business investment traps that cause a corporate stagnation or decline are identified.

In 1998, when Asian low cost labor decimated North American mass production of furniture, the entire furniture-making industry commenced its metamorphosis. Asian operations were able to offer the finished product in its sellable state to end consumers for less than the cost of the raw materials alone in the international markets. In the early 2000s, many North American companies could no longer rely on domestic manufacturing. Off-shoring became a method of survival, which unequivocally impacted on domestic supply and distribution chains. By that time, Stork Craft Manufacturing Inc. (Stork Craft)[1] has been in the furniture-making business for approximately 60 years. Despite manufacturing off-shore, having a loyal customer base and employing marketing strategies of scale and scope, the organization could no longer compete. Its systems were obsolete, business processes cumbersome and the customer service disconnected from the business initiatives.

The organization needed to undertake a full corporate re-do. There are four distinct stages to the organizational lifecycle [2] as identified by Daft: (1) entrepreneurial stage of the organization's birth and rebirth; (2) collectivity stage of development of organizational goals and strategies; (3) formalization stage of establishing formal control systems, policies and procedures, and (4) elaboration stage of skilled problem-solving and business units revitalizing. Organizational strategists contemplate the optimal duration of each stage by trying to establish minimally accepted benchmarks of corporate performance that would signal the beginnings of the organizational decline. In this paper, it is argued that once the organization reaches its elaboration stage, in order to stay competitive, it must plan to revitalize before a decline happens. It is suggested that organizations try to prevent rather than remedy severe losses of market share and attempt to avoid freezes of operational capabilities.

[1] www.storkcraft.com
[2] Daft, L., Richard. Organizational Theory and Design. 8th Edition. Mason, Ohio: Thompson & South-Western, 2004. 324-325.

Through its 60 years of existence, Stork Craft changed its leadership, ownership and business direction several times. In line with Dunphy's radical transformational strategies[3], new leadership teams severed the existing management and re-launched the organizational lifecycles, securing up to a decade of unprecedented growth and prosperity, only to fall into a trap of organizational complacency. In the 1990's the company's leaders failed to re-examine external influences, ignored competitive forces and passed on new technologies.

The most recent period of decline at Stork Craft, augmented by the industry changes from 1998, was quite significant. In mid 2000s, this reputable organization was unable to compete and once again changed its leadership. By understanding a cyclical nature of organizations and introducing formal corporate reviews as part of their technology-assisted makeover 2005-2009, Stork Craft was able to perform a healthy renewal.

In this paper it is argued that technology-assisted makeovers do not only turn businesses around and yield cost-cutting strategies, but also offer a "true competitive advantage" and create a "global presence," as coined by Callon[4].

Renaissance: Facelift, Innovation and Experimentation

Daft's stages of organizational lifecycle —from rebirth to active problem solving—are here collectively called renaissance. Renaissance marks an era when the company became remunerative (2005), embraced innovation (2008) and became ready for experimentation (2009). In this paper, the period of Stork Craft's technology-assisted makeover 2005-2009 is thoroughly examined. Objectives of this initiative were to develop the strategic solutions for IT, eCommerce, Customer Service and Supply Chain, while ensuring seamless operability, enabling growth and being profitable.

The first step in the technology-assisted makeover was to evaluate corporate workflow. Corporate business process review (CBPR) is partitioned into unit-specific business process reviews (BPR) to lower the functional complexity of corporate affairs. Within business units, functional workflows may still be heavily intertwined with cumbersome procedures and manual steps. Whenever the complexity of a functional unit exceeds easily memorable linear procedures, Pressman advises "decomposition"[5] and compartmentalization of issues into more manageable functional groupings.

In 2005, Stork Craft utilized two main distribution channels: (1) truckload distribution in Canada, which constituted over 90% of the company's business and (2) eCommerce drop-ship distribution in the US, which constituted circa 7% of the business. The company's main distribution centers were strategically positioned across North America but did neither communicate nor employed consistent operational procedures. Business was conducted from the company's headquarters either manually or relying on cumbersome data-processing. The organization utilized obsolete technical systems deployed in a client-server environment. Unmanageable daily operational hurdles revealed that advanced commerce solutions were needed. Missed service level agreements (SLA) and compliance charges absorbed profits. Supply chain workflow relied on collaboration of several business units that lacked an understanding of compound inter-dependencies and unit-specific accountability. Key business operations were outsourced which constrained the corporate influence on the company's critical activities.

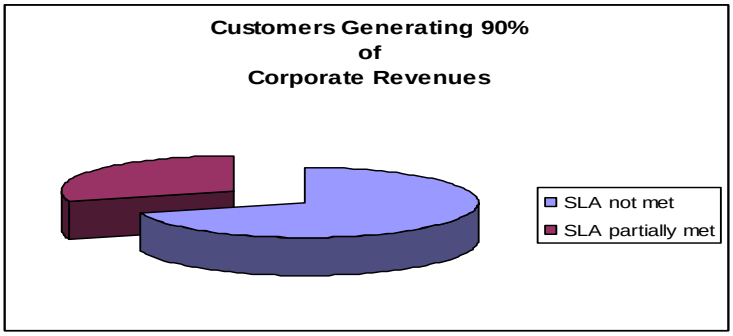
Out of 10 surveyed business partners that constituted 90% of the corporate revenues, 7 declared that the 2005 operations of Stork Craft "did not meet their Service Level Agreements" and 3 declared they "met 60% of the 3-week fulfillment window, on-time, but the merchandize delivered was not the right merchandize", (Exhibit 1).

[3] Dunphy, D. and Stace, D. "Transformational and Coercive Strategies for Planned Organizations" in Daft, L., Richard. "Organizational Theory and Design". 8th Edition. Mason, Ohio: Thompson & South-Western, 2004.

[4] Callon, J.D. Competitive Advantage Through Information Technology. New York: McGrow Hill, 1996. 150-157.

[5] Pressman, R. Software Engineering. A practitioner's approach. Fourth Edition, New York: McGrow Hill, 1997.

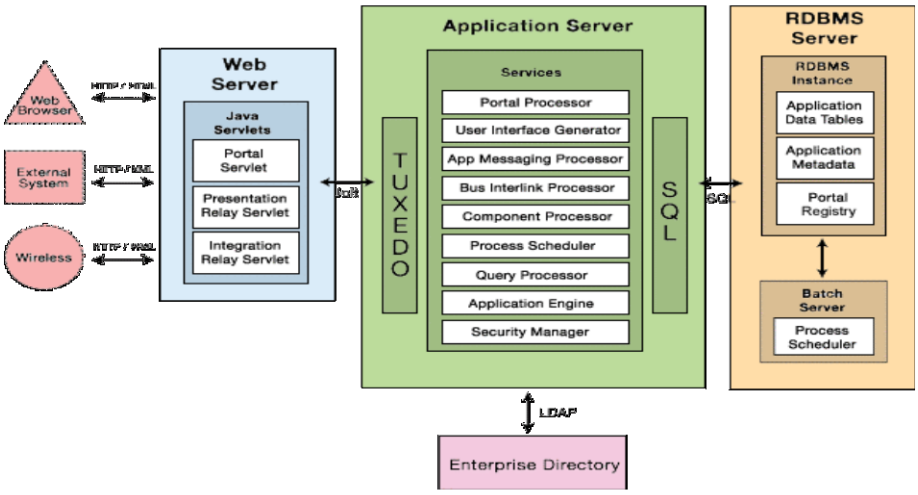
Exhibit 1



The selected turnaround approach was to: (1) build a business infrastructure for a regulated environment; (2) streamline old and patent new business solutions using eTechnologies; (3) re-train the corporate workforce to operate with eTechnolgies, and (4) perform frequent customer evaluation surveys to exceed SLA expectations and establish a ground for innovation.

A new enterprise-level business infrastructure was designed[6] and implemented for a secure, robust and scalable growth-promoting environment. Any server-centric Internet Architecture Platform (n-tier), deploying the applications to end-users through a Web browser would provide an adequately robust business environment. It is recommended that tiers include web server(s), application server(s) and database server(s) accessed by users anytime, from anywhere over the Internet. A viable n-tier architecture is shown in the Exhibit 2. A platform may be developed as a proprietary architecture or an out-of-the-box solution (PeopleSoft, Microsoft Dynamics, SAP, others).

Exhibit 2



http://www.peoplesoft.com/corp/en/products/technology/pia/code.asp

Once the infrastructure was implemented, a 360° business process review was conducted to replace remaining manual and semi-manual data-processing with fully automated eSolutions. Business processes were streamlined and aligned with technical systems for zero compliance charges.

While technical capabilities and procedural correctness are mandatory to succeed in today's marketplace, they are inadequate to separate an organization from its competitors. To gain a competitive advantage in eCommerce,

[6] Infrastructure Design by Jeremic 2005 (Dell's Top 10 Businesses Award '05)

organizations need to re-invent their way of doing business. By employing a new revolutionary drop-ship business model for eCommerce[7], Stork Craft was able to (1) reduce eBusiness fulfillment time from 3-4 weeks to 2-3 days; (2) increase shipping accuracy from 60% to 99% or better, and (3) decrease operating costs by 40%. By yearend 2007, eCommerce channel grew from circa 7% to 50% of the company's business. eCommerce business successfully integrated the largest US retailers such as Wal-Mart, Target, Amazon, BabiesRUs, United Consumers Club, Sears, K-Mart, CSN Stores, and others.

Newly developed operational capabilities dramatically improved customer satisfaction within the first two years of the technology-assisted makeover. Based on the feedback of 500 surveyed customers, shipping capabilities now met or exceeded their expectations (Exhibit 3).

Exhibit 3

External Stakeholders Surveyed 94%
(470 out of 500 Customers)

Solutions	Before the New Business Infrastructure, Old Drop Ship Model	After the New Business Infrastructure, New Drop-Ship Model
On-Time Shipping	60%	**99% or better**
Shipping Accuracy	45-75%	**99% or better**
Shipping Expectations (in days)	15-28	**2-3**

External Stakeholders Surveyed 0.06%
(30 out of 500 Customers)

Solutions	Before the New Business Infrastructure, Old Drop Ship Model	After the New Business Infrastructure, New Drop-Ship Model
On-Time Shipping	60%	**90%**
Shipping Accuracy	45-75%	**90%**
Shipping Expectations (in days)	15-28	**2-3**

Based on the Stork Craft Customer Surveys 2005-2007

In their detailed responses, 490 out of 500 customers (0.98%) prioritized speed, quality, flexibility and dependability as their top performance objectives in meeting service level agreements (SLAs), which are coincidently among four key performance objectives[8] of Slack's operational know-how.

In terms of eBusiness operations, the organization reached its excellence but its eBusiness support (B2B customer service) and parts service front lines (B2C customer service) were still disconnected from the business. As Turban reports, in order to maintain its competitive advantage the organization needed to streamline all business processes[9].

Stork Craft's eBusiness support group provided B2B client services to drop-ship operations and struggled with the volume of delivery related inquiries. For customers that did not have electronic data interchange (EDI) capabilities, a proprietary multi-brand B2B sales reporting portal was developed. The application featured schedule-based delivery reporting, inventory management and sales tracking. Tracking reports were sent automatically to the customers' e-mails, within 24 hours of shipping. Per customer request, internal groups were also able to quickly retrieve customer records, preview the sales history and predict future needs.

Out of 10 largest Stork Craft's B2B customers that were surveyed, 7 indicated that the new reporting services "exceeded their expectations" and 3 indicated that they "met their expectations". Moreover, 95% of the customers declared that the content of reports was more significant to them than the method of delivery. Pre-scheduled reports with easy-to read shipping information were automatically emailed to customers, informing them of the number of shipments released within the previous 24 hours. Zeithaml and Bitner argue that "content"[10] is one form of customer satisfaction and support Slack's operational excellence parameters as top satisfiers. In support to their views, without

[7] eBusiness Model Developed by Jeremic 2006
[8] Slack, N., Chambers, S., Johnston, R. Operations Management. Third Edition, Essex, England: Pearson Education Limited, 2001.
[9] Turban, E., McLean, E., Wetherbe J., Bolloju, N., Davison R. Information Technology for Management (3rd Edition). Hoboken, New Jersey: John Wiley & Sons Inc., 2002.
[10] Zeithaml, V. A., Bitner, M. J. What is Customer Satisfaction? *Services Marking (*3rd Ed.), New York: McGraw-Hill, 2003. pp. 86-99

having a dependable reporting service, content itself would be meaningless—it would be delivered obsolete or would not reach the customer at all.

Parts services processed requests and customer complaints semi-manually. Parts orders were dispatched on a four week schedule, often more than once. Ptak and Schragenheim argue that when an organization understands the needs of its customers and aligns its business process to meet those needs, it enjoys market advantage over the competition[11]. These authors further reveal that to maximize customer experience the performance measures used across the organization need to be customer focused. To address the parts service inefficiencies, the proprietary Customer Relationship Management (CRM) solution was developed to tie together parts, warehouse, packaging and shipping operations. The solution was more than just "a software application" [12]. It encompassed re-engineering the business procedures and re-training the personnel to use a new web-based proprietary system.

Following the implementation of the CRM solution, another customer survey was conducted to evaluate usage satisfaction. Out of 500 surveyed customers, 450 declared that the improved services "meet their expectations" and 50 declared that "there is room for improvement" [as the item they expected to receive was unavailable and backordered].

Personnel training, motivating and empowering to act as change agents was part of the cultural change. Employees were not only required to re-learn their jobs and do certain tasks in a pre-arranged way, but also to become accountable for their performance and act as part of the corporate family. Any corporate-wide change such as a technology-assisted makeover must include adequate user involvement, education and communication, lack of which is recognized by Langenwalter as the top 'reasons for [corporate] failure'[13].

An important part of the renaissance was also a constant revision of business directions while taking into account environmental forces. By 2007, the organization fully developed its eCommerce business and the proprietary logistical model for eCommerce[14] that resulted in over 1M in cost reductions. Capital generated from the new stream promoted investments, mergers and acquisitions. The organization adopted new business directions to (1) acquire at least three new brands over 18 months time; (2) own warehousing operations and save on third party warehousing costs, and (3) gain ownership in offshore manufacturing. eTechnologies were utilized to ensure a seamless integration of acquired brands into the company's operations. Centralized n-tier architecture promoted a multi-brand supply chain management with reduced IT operational and maintenance costs.

The last stage of Daft's organizational lifecycle is examined through Stork Craft's eras of innovation (2008) and experimentation (2009). A multi-part balance within an organization ensures a business to remain effective, through connecting the technical core and support, administrative body, and middle and top management.[15] With (1) its superior n-tier business architecture, (2) new eBusiness solutions, (3) re-energized leadership team and (4) revitalized customer service, Stork Craft attained a solid balance.

Stork Craft used its opportunity to innovate by building an eCommerce business in Canadian markets. Over the past 3 years, eCommerce business in the US has developed from circa 7% to 48% of the business. The newly conceptualized objective was to launch an eCommerce business in Canada and earn 2% of the corporate business in its first year of operation. In 2008, the company partnered with one of the largest Canadian retailers, Wal-Mart, to launch a co-branded eCommerce website and establish the first drop-ship operations in Canada for both companies[16]. By spring 2009, the program's objectives were fully met; Wal-Mart Canada eShoppers were able to purchase their first items on-line and have them drop-shipped to their home. Both companies met their financial

[11] Ptak, C.A., Schragenheim, E. ERP Tools, Techniques and Applications for Integrating the Supply Chain. Boca Raton, Florida: CRC Press LLC, 2000. 86-87.
[12] Ragins, E.J., Greco, A.J. Customer Relationship Management and e-Business: More than a Software Solution. Review of Business. Winter 2003: 25-30.
[13] Langenwalter, G.A. Enterprise Resources Planning and Beyond. Integrating your entire Organization. Boca Raton, Florida: CRC Press LLC, 2000.
[14] eBusiness Logistical Model developed by Jeremic 2007
[15] Mintzberg, Henry. Organizational Design: Fashion or Fit? Harvard Business Review 59 (January-February 1981): 103-116.
[16] Jeremic-lead initiative (CIO 100 Honoree Award '09)

projections. Stork Craft's innovation revitalized Canadian distribution outlets by introducing Wal-Mart Canada to the eCommerce scene.

Experimentation occurs after re-vitalization. Being the final stage in Daft's organizational lifecycle, re-vitalization should lead back to rebirth. When experimentation occurs instead of rebirth, organizational traps may emerge. Generally they stem from inapt innovation and—if poorly controlled—lead the organization to stagnation or decline. It is not recommended to attempt multiple large scale innovation projects, at the same time, within a single organization.

Role of Customer Surveys in Corporate Makeovers

Throughout the paper, customer testimonials affirm that increase in their satisfaction is directly proportional to the level of technical prowess and innovation. Organizations going through an era of rebirth and performing a technology-assisted makeover must engage their customers in evaluating the effectiveness of a change. According to Frenzel[17], customer feedback should include both formal and informal evaluation of customer satisfaction with services provided in relation to service level agreements; informal evaluations that are usually performed anonymously bring invaluable information about the true customer experience.

Without constant customer validation of organizational choices, organizations may deploy the inward-out solutions that meet their budgetary and time constraints, but still fail to meet their customers' expectations.

A New Cycle Begins at Least Once a Decade

To avoid traps of complacency and review what other factors, not just eTechnologies, influence their business, organizations need to regularly review their internal corporate positions relative to external forces. Any sufficiently large corporations that went through several organizational lifecycles would need to re-examine the following business factors: (1) transfer pricing; (2) opacity factors; (3) structure of debt; (4) active holding companies and (5) political risks.

Business Re-Evaluation for Risk Avoidance		
Rules	**Risks / Opportunities**	**Desired Direction**
Transfer Pricing	Subsidiaries charge each other transfer pricing for the goods and services traded between them. This price should accurately reflect actual costs and incremental cash flows.	Minimize foreign exchange fees and transactional costs among international subsidiaries by paying the net amounts monthly, instead of paying on each of the gross payables.
Opacity Index www.opacity-index.com	A composite measure of how macroeconomic, legal, corporate and government policies along with corruption affect the cost of capital in a foreign country.	Examine the O-factor levels, presence of tax on foreign investments and risk premiums. The tax equivalent will uncover the effect of oppacity as a hidden tax. Through direct opacity rating of the country, risks premiums reveal the cost of borrowing.
Structure of Debt	Cash flow risk reduction can be lowered by international diversification. Hedging strategies can be used to change the structure of long-term assets and liabilities.	Can you utilize interest rate swaps to obtain a better stream of interest payments at fixed rates in exchange for floating rates? By changing a currency denomination of your assets and liabilities, you may re-structure your debt, save costs and gain access to new markets, maturities and currencies.
Holding Companies	Leverage to control a large amount of assets with a relatively small investment, unlike the investments for mergers and acquisitions.	A pyramidal structure of your holding company, that is having one holding company control other ones, may magnify your earnings but losses too.
Political Risks*	Host country may take actions hurtful to foreign investors or can freeze the company's assets due to shortage of hard currency.	Investing in developing countries have good potential ROI, but high political risks. Investing in any country with fully developed financial markets bare less risks, but inherently lower ROI for the industry.

*Adopted from Fred R. David, "Strategic Management', Political, Governmental and Legal Forces, 85-90.

Each of these factors may have an equal share of opportunities or risks if neglected.

Summary and Conclusions

[17] Frenzel, C.W. Management of Information Technology. Second Edition. Boyd and Fraser Publishing Company: A Division of International Thomson Publishing Inc, 1996.

The technology-assisted makeover of Stork Craft companies may serve as a roadmap to improvements for any company in a similar organizational crisis. From this turnaround experience, it becomes apparent that a business know-how, streamlined processes and eTechnologies work together to create a competitive advantage for modern manufacturers. Contemporary business solutions deliver most value if they are customer-focused and web-based. Cutting-edge eTechnologies that replace old Windows-based client/server applications provide simple access, easy maintenance and low total cost of ownership. To maintain their competitive advantage organizations are encouraged to foster an environment of continuous improvements with cyclical all-inclusive corporate revisions; they are reminded to promote teamwork within the organization. At their revisions, to benefit from opportunities and minimize risks, mature corporations need to minimize experimentation and additionally re-examine transfer pricing, opacity factors, structure of debt and political risks surrounding their investment beds. Manufacturers and distributors must consider their suppliers and customers as partners in the makeover process and solicit their feedback as often as possible. Patenting new business models while being obsessed with superior customer service, results in growth of an organization's competitive advantage. At the same time, it means increasing the chances of uninterrupted customers' loyalty.

References

1. Callon, J.D. Competitive Advantage Through Information Technology. New York: McGrow Hill, 1996.

2. Daft, L., Richard. "Organizational Theory and Design". Eighth Edition. Mason, Ohio: Thompson & South-Western, 2004.

3. Dunphy, D. and Stace, D. "Transformational and Coercive Strategies for Planned Organizations" in Daft, L., Richard. Organizational Theory and Design. Eighth Edition. Mason, Ohio: Thompson & South-Western, 2004.

4. David, F. A. Strategic Management. Eighth Edition. Upper Saddle River, New Jersey: Prentice-Hall, 2001.

5. Frenzel, C.W. Management of Information Technology. Second Edition. Boyd and Fraser Publishing Company: A Division of International Thomson Publishing Inc, 1996.

6. Langenwalter, G.A. Enterprise Resources Planning and Beyond. Integrating your entire Organization. Boca Raton, Florida: CRC Press LLC, 2000.

7. Mintzberg, Henry. Organizational Design: Fashion or Fit? Harvard Business Review 59 (January-February 1981): 103-116.

8. Ptak, C.A, Schragenheim, E. ERP. Tools, Techniques, and Applications for Integrating the Supply Chain. Boca Raton, Florida: CRC Press LLC, 2000.

9. Pressman, R. Software Engineering. A practitioner's approach. Fourth Edition, New York: McGrow Hill, 1997.

10. Ragins, E.J., Greco, A.J. "Customer Relationship Management and E-Business: More than a Software Solution". Review of Business. Winter 2003: 25-30.

11. Slack, N., Chambers, S., Johnston, R. Operations Management. Third Edition, Essex, England: Pearson Education Limited, 2001.

12. Stork Craft Informal Customer Surveys 2005-2007.

13. Turban, E., McLean, E., Wetherbe J., Bolloju, N., Davison R. Information Technology for Management (3rd Ed.). Hoboken, New Jersey: John Wiley & Sons Inc., 2002.

14. Zeithaml, V. A., Bitner, M. J. What is Customer Satisfaction? *Services Marking (*3rd Ed.), New York: McGraw-Hill, 2003. pp. 86-99.

15. www.opacity-index.com

16. www.peoplesoft.com

17. www.storkcraft.com

About the Author

Irene Jeremic is the Chief Information Officer and Head of eCommerce, IT and Sales Support Services for Stork Craft Manufacturing Inc. As a business leader in process management and supply chain optimization as well as an expert in eTechnologies, Jeremic was approached by Stork Craft Manufacturing to perform a technology-assisted makeover for their companies. Drawing upon her multidisciplinary educational background and over 15 years of experience Jeremic developed several proprietary business models in support to Stork Craft's corporate renaissance. She is additionally credited with establishing award-winning business solutions—now legacy in the areas of eCommerce, Sales, Customer Service and Information Technology. Jeremic is also a distinguished speaker at CIO Summits. She has an engineering background, holds a computer science degree from the Simon Fraser University and an MBA degree from Athabasca University. Contact her at irenej@rogers.blackberry.net.