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"IT APPLICATIONS IN REAL ESTATE APPRAISAL SERVICES"
(A BUSINESS PLAN)

By

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EXECUTIVE SUMMARY[1]

To remain competitive in the 1980s, real estate appraisal companies had to provide quality services to their clients. In the 1990s, quality was not sufficient in the advent of mass appraisal services demanded by certain clients. As the 21st century unfolds, quality and mass production services are not enough. Speed in the delivery of appraisal services is the third element demanded by current and prospective clients. In the next ten years, Information and Communications Technology will revolutionize the process of the delivery of appraisal services. This paper presents how information management provides the avenue to stay in the appraisal business. An integrated information system assists companies in achieving a faster delivery of appraisal services. Thus, fully utilizing the benefits of the company's Information and Communications Technology system in the delivery of timely and relevant information for all stakeholders of the company. This can be done by having the systems and processes of the company under one common information and communications technology infrastructure. Thereby creating a more efficient, faster and hence, profitable appraisal company that is best suited for the 21st century.

A well-managed information system provides the following major advantages:

- Access information and analyze patterns and trends
- Decrease cycle time and produce new services before your competitor does
- Deliver up-to-the-minute collections and production statistics
- Immediately correct mistakes before the finalization of an appraisal report

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[1] Taken and interpreted from Bill Gates' "Business @ the Speed of Thought"

An appraisal company's success will depend on a proper information management system. This includes how well it gathers, manages and uses information. Hence, the formula that provides for better appraisal performance is:

Appraisal Knowledge & Experience + Information = Better Performance

Knowledge and experience developed in an appraisal business needs the Information provided by Information and Communications Technology to service clients of the 21st century for better appraisal performance.

I. CONCEPT

The speed at which appraisal services will be provided will be increased by digital technology and the flow of digital information. Companies are no longer simply automating old processes. The potentials and opportunities of using technology to move information quickly in real-time to everyone in the company is immense.

The Internet creates a new universal space for information sharing, collaboration, and commerce. The Web is changing business processes, replacing paper process with collaborative digital processes. Groups of people can now use electronic tools to work together as fast as a single person can act and with the insights of the whole team.

There are a number of advantages for a company that utilizes a web-based relational database information management system. This system will be providing a well-integrated flow of information to the right part of the organization at the right time. Moreover, the company will have the ability to run smoothly and efficiently; to respond quickly to emergencies and opportunities; to quickly get valuable information to the right people in the company who need it; and the ability to quickly make decisions and interact with customers in a timely manner.

The three major elements of an appraisal business are: *business development, knowledge work* and *business operations*. These are also the three corporate functions that embody these elements. And to make digital information an intrinsic part of your company, here are fifteen key steps:[2]

For *knowledge work*:

1. Communication within the company should be over e-mail so that the appraiser can act on the information with speed.
2. Comparables should be chosen from a database online and by sharing insights with other appraisers.
3. Understand the client's requirements and be ready to personalize services for individual clients.

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[2] Interpreted from Bill Gates, "Business @ the Speed of Thought"

4. Use the computer for business analysis and shift ordinary appraisal work into high-level thinking work on product innovation, services and profitability.
5. Create virtual teams that can share knowledge and build on each other's ideas. Capture corporate history as notes of experience for use by anyone in the future.
6. Convert every paper process to a digital process, eliminating administrative bottlenecks and freeing the appraiser for more important tasks.

For *business operations*:

7. Eliminate single-task jobs such as encoding or change them into value-added jobs that use the skills of an appraiser.
8. Create a digital feedback loop to improve the efficiency of the appraisal service. Every employee should be able to easily track his contribution.
9. Use digital systems to route complaints immediately to the people who can improve the services of the company.
10. Use digital communications such as telephony and video conferencing.
11. Redefine the nature of the appraisal business: Should the company become larger and more substantial or smaller and more intimate as the customer situation warrants?

For *business development*:

12. Give away information in the Internet as a promotional tool and in order to save time.
13. Set up a website for international presence and promote the website with easy click-to-link facility to the company's website
14. Use digital transactions in the website.
15. Use the website to help clients to solve problems by themselves, and reserve personal contact to respond to complex, high-value client needs.

The successful companies of the next decade will be the ones that use digital tools to reinvent the way they work.

II.   OBJECTIVES

Overall, the company should intend to build a common infrastructure that will unite all systems and processes of the appraisal business. This will mean releasing relevant information and allowing the company to be more efficient. Thus, the company can grow faster and become more profitable. The success of employing this system will depend on the ability to gather, manage and use information. Information work is thinking work and when thinking and collaboration are significantly assisted by computer technology, the company will have an efficient digital system.

An Efficient Appraisal Service Digital System

Knowledge Work

Business Operations ⟷ Business Development
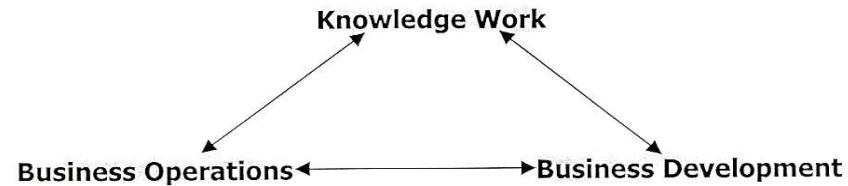
The immediate availability of accurate appraisal information changes strategic thinking from a separate, stand-alone activity to an ongoing process integrated within the regular business activity of the company.

Information flow is the primary differentiating factor for the appraisal business in the digital age. Most of the work in the appraisal business is the thinking work applied by an appraiser on the data gathered to arrive at a value. These appraisers need as much data as senior managers but often they have less. Unproductive meetings, or meetings that largely involve status updates, are signs of poor information flow.

The company's objective should be to have a <u>simple, reliable, and affordable way of sharing information and resources, increasing productivity, and maximizing technology investments</u>.

Perhaps most appraisal companies have already taken their first steps in the use of individual Internet connections for email use and research through stand-alone personal computers (PCs). However, these are not enough.

The next step is to introduce a network system in connecting the computers in the company. When computers are networked, documents can be sent from any networked computer to any networked printer. Moreover, files can be shared without ever touching a floppy disk.

Networking has a number of advantages: the network system will help streamline business operations; effectively manage costly resources; and increase communication within and between offices. Moreover, better information can expand the roles of business development officers from closing deals to being *business managers*. Bringing together the right information to the right people will dramatically improve the company's ability to develop and act on strategic business opportunities. Integrating data with partners or alliances not only streamlines reporting processes, but also raises the business discussions to a more strategic level.

Digital information enables process breakthroughs that are impossible and messy with paper systems. All paper forms of the company should be available from the company's secured intranet. Starting with form-intensive areas such as purchasing, human resources, companies should develop programs to replace them with digital forms. A self-service approach can handle 90 percent of employee administrative needs.

III.   BUSINESS DEVELOPMENT

To prepare for change, an appraisal company will need to make digital information flow pervasive in the organization. If done, one will be prepared for the three fundamental business shifts that will occur as the result of all the digital inflection points:

1. Most transactions between the company and their clients, partners, alliances will become self-service digital transactions. The company's competitors will have to evolve to add value or they will not be able to compete.
2. Client service will become the primary value-added function in the appraisal business. The appraiser's involvement in the service will shift from routine, low-value tasks to a high-value, personal consultancy type of work on important issues – problems or desires – for the client
3. The pace of transactions and the need for more personalized attention to clients will drive appraisal companies to adopt digital processes internally for efficiency reasons. Companies will use an integrated information management system to regularly transform their internal business operation to adapt to an environment that constantly changes because of client needs and competition.

The Internet will help the company achieve friction-free agreements by putting them in direct contact with prospective clients and by providing more information about each other. As the Internet drives down the cost of transactions, competitors will evolve to add new value along the supply value-added chain of real estate appraisal services. Only a few appraisal companies will succeed by providing services at competitively driven prices. A service approach will demand arming appraisers with digital information tools to connect with clients and manage these relationships

A successful Web site requires the creation of a new client experience that takes advantage of the unique capabilities of the Internet. Success on the Web requires high-level corporate understanding of the Internet's capabilities. The majority of the company's interactions with clients on the Internet will involve support rather than sales. Moreover, it is very important for clients to have good experience from the use of the company's website. A good website can help turn Business Development Officers of the appraisal company into consultants.

As PCs continue to drop in price and more companies are connected, the Web lifestyle will move most client transactions online. The Web lifestyle changes the way appraisal

businesses relate to clients. The PC-TV convergence will create a new user experience and a new programming and advertising medium.

The Web redefines the boundaries between organizations and between people and organizations; it allows a company to structure itself to be more efficient. The Web work style makes it possible for employees to telecommunicate with employees, partners or alliances at other locations. The Web enables big companies to appear to be smaller and more flexible and smaller companies to become effectively much bigger than they are.

Time to market is shrinking. Using digital information to be first to market can radically improve the company's competitive position. The most important "speed" issue is often not technical but cultural. It's convincing everyone that the company's survival depends on everyone moving as fast as possible.

IV.   KNOWLEDGE WORK

Bad news must travel fast. The company's ability to respond to unforeseen events, good or bad, is a prime indicator of its ability to compete. Strategically a major function of the CEO is to look for bad news and encourage the organization to respond to it. The employees must be encouraged to share bad news as much as good news. The flatter the corporate hierarchy, the more likely it is that employees will communicate bad news and act upon it. Personal initiative and responsibility thrive in an environment that fosters discussion.

Everyone must embrace bad news in order to learn where one needs most improvement. Sometimes, the company's best source of learning is from unhappy clients who provide relevant feedback to the company. The company should have policies and a business structure in place for responding to client complaints with quick and comprehensive solutions.

Knowing your numbers is more than balancing the company's books each month. It's being able to use data for business development as well as for financial purposes. A number on a piece of paper is a dead piece of information; a number in digital form is the start of meaningful thought and action. Quick, accurate numbers make it possible for clients' actions to drive an immediate response from the company and from its stakeholders

Analytical software enables the company to shift human resources from simple data collection to value-added client service and support where the human touch makes a profound difference. The company should apply software analysis first to those aspects of the appraisal business that one is most able to act on the results. For example, one should consider how the move from target prospecting to mass prospecting would change the business development approach of the company. The management of the company should foster knowledge sharing through policies, rewards, and specific appraisal jobs that establishes a knowledge-sharing culture.

Teams should be able to act with the same unity of purpose and focus as a well-motivated individual in the company. Every new appraisal job should directly build on the learning from any similar appraisal undertaken. Training should be available at the employee's desk as well as in the classroom. All training resources should be online, including systems in providing feedback on the training systems of the company

Every business faces a risk-reward horizon. Taking calculated risk and supported by digital information flow may be the single biggest way to create major appraisal job requirements

V. BUSINESS OPERATIONS

The appraisal company should develop processes that empower people. The more the employees understand the inner workings of the appraisal process, the more intelligently they can run the system. Tying compensation to improved quality will work only with real-time feedback of quality problems. The simple task worker in the organization will become redundant. Their jobs will be automated or combined into bigger tasks requiring knowledge worker. The company should look at how portable devices and wireless networks can extend the information systems into the field during site inspection. Moreover, all office equipment will need regular maintenance to extend their economic useful life.

The company should attack process problems from a variety of perspectives and use technology to create streamlined processes periodically. By redesigning processes to deliver optional information flow; the company will solve the most important business problems. Process problems boils down to simplification and, having the least number of employees engaged in the least number of handoffs. Business leaders, and not IT staff alone, must own decisions about processes involving technology. A lousy process will consume ten times as many hours as the work itself requires. A good process will eliminate the wasted time; technology will speed up the remaining real work required. Complexity is the death of all reengineering projects, especially those that involve technology.

The CEO of the company must understand the usefulness of IT as all the other business functions of the organization. The responsibility for strategic use of IT cannot be delegated to the Chief Information Officer (CIO) alone. The CEO must regard information technology as a strategic resource of the company in generating profits. The CIO has to be an integral part of the development of business strategy and must be able to articulate in plain language what IT can do to help execute that strategy. This implies that IT training costs of the company should be considered as a wise form of investment of the company for future profit.

VI. RECOMMENDED OPEN SOURCE SOFTWARE

For the installation of your free web-based relational database management system it is recommended that the company should use the following open source software:[3]

Red Hat Linux 7.2 – the market leading, most trusted Linux distribution (http://www.redhat.com)

MySQL – the world's most popular Open Source Database, designed for speed, power and precision in mission critical, heavy load use (http://www.mysql.com)

Apache – substantially faster, more stable, and more feature-full than many other web servers; (http://www.apache.org)

PHP 4 – a widely used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML; (http://www.php.org)

Star Office 6 – an affordable alternative in office productivity suites that runs on multiple operating systems, including Solaris[tm] Operating Environment, Microsoft Windows, and Linux. (http://www.staroffice.com)

VII. REAL ESTATE APPRAISAL SOFTWARE

Here is a list of various sources of real estate appraisal software that are available in the Internet:[4]

1. The REALM – an industry operating system offering clients access to commercial real estate software applications and e-business tools.
   a) ARGUS Financial Software - the industry standard real estate software tools for cash flow and investment analysis, lease analysis, property valuation, due diligence, asset management, and budgeting.
   b) DYNA Software - DYNA is a leading worldwide Windows®-based software tool for real estate investment analysis and budgeting, specialized for institutional real estate use.
   c) CTI – (1) *Horizon* is a global asset planning system that generates property and portfolio cash flows; (2) The *CTI Commercial Property Management System* manages all types of commercial properties including office, retail, industrial and land under development; (3) The *CTI Portfolio Accounting System* was designed to support the complex needs of the commercial real estate industry and fulfills the accounting requirements of

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[3] These are the open-source software presently being used by Cuervo Appraisers, Inc.
[4] This list was researched from the Internet

private and public real estate organizations, including both REITs and UPREITs; and (4) *SingleStep Lease Entry (SSLE)* uses the power of Lotus Notes to manage and document the lease negotiation process.

    d) Newstar Solutions, Inc - Property Management Software and Home Building Software.

(http://www.therealm.com)

2. Software For Real Estate Professionals – Software for Residential Appraisers. (http://www.sfrep.com)

3. HomePuter ® FPS 88 – Real Estate Appraisal Software. (http://www.homeputer.com)

4. Photolocator – Database for digital images. (http://www.photolocator.com)

5. Day One – Software for creating, delivering and managing real estate appraisals. (http://www.day1.com)

6. RealWorks® - Software tools designed to automate the storage and analysis of commercial real estate information. (http://www.realworks.com)

7. Real Estate Appraisal at RWM.net - Real Estate Appraisal Web Site help for Appraisers. (http://rwm.net/appraiser.htm)

8. RE Buz – Real Estate Industry Search Engine. (http://www.rebuz.com)

VIII. TECHNOLOGY IMPLICATIONS ON PROPERTY VALUATION[5]

1. There will be a reduction of regulatory requirements for appraisals by banks on houses due to the growing availability of real estate databases and information technology;
2. Banks will be using non-licensed appraisers for simple collateral assessments;
3. Appraisers who were once relied upon for their independent knowledge and judgment are now being forced to conform their opinions to computer-generated adjustment grids, regression analysis, and statistical norms;
4. Many large lending institutions have moved to "intelligent" appraisals where the computer decides which comps are appropriate.
5. Interior inspections are now seldom required;

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[5] Derived from John S. Baen and Randall S. Guttery John S. Baen and Randall S. Guttery, "The Coming Downsizing in Real Estate: The Implications of Technology"

6. Mass appraisal firms will be charging a little more than half the fee they generally receive;
7. Many inefficient real estate services are likely to be eliminated;
8. The trend is toward less human involvement, fewer appraisers and lower fees.
9. Electronic Data Interchange or paperless appraisals via Internet will flourish;
10. Click to link to digital photos and satellite imaging that will be available online will replace the printing of pictures and Site Plans on appraisal reports;
11. Floor plans sketching and area calculations will be done by CADD programs and digitizers;
12. Electronic Transmission will be the norm for the delivery of appraisal reports;
13. Access to country courthouse records will be done online;
14. Artificial Intelligence computer-generated appraisals will be increasing:
15. Integrated computer software that merges report forms, sketches, maps. photos and demographic information is now being used by many appraisers;
16. Marshall and Swift has made available a Replacement Cost Estimator;
17. Environmental reports are available online;
18. Portable, hand-held computers can now produce property inspection reports from the site;
19. Collaterals are now assessed nationwide via statistically-based models:
20. Availability of flood maps and on-line flood certification services;
21. Availability of Property Information databases;
22. Reduction in commercial appraisal fees by more than 35%;
23. Geographic Information Services desktop services. demographics and neighborhood identification programs are available online:

IX.   NEW APPRAISAL BUSINESS ACTIVITIES

1. Home Inspection Services.
2. Business Valuation Services.
3. Environmental Assessment Services.
4. Investment and Disposition Consulting.
5. Lead based Paint assessment. inspection. abatement and other related activities.
6. Ad valorem tax consulting and property owner representation.
7. Future refinements and use of computer-generated appraisals, and
8. Creation of "spot check" audits. whereby mortgage originators perform traditional appraisals to measure the accuracy of Artificial Intelligence.

X. CONCLUSION

As with other business management strategies, information management and technology will require the honest, constructive, knowledgeable and imaginative performance of the people in an appraisal company. The employees of the company should be empowered to solve problems on their own and if supplied with the tools needed, creativity and initiative will emerge. The good performance of an appraisal company is more important than the income derived from its business. The contribution made to society to meet some vital needs justify the role of real estate appraisal services, and the ultimate reward of such performance.

XI. AKNOWLEDGEMENT

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