

11-5-2005

Reengineering RIT card transactions: A Study of RIT identification card transactions

Debra A. Spencer

Follow this and additional works at: <http://scholarworks.rit.edu/theses>

Recommended Citation

Spencer, Debra A., "Reengineering RIT card transactions: A Study of RIT identification card transactions" (2005). Thesis. Rochester Institute of Technology. Accessed from

This Thesis is brought to you for free and open access by the Thesis/Dissertation Collections at RIT Scholar Works. It has been accepted for inclusion in Theses by an authorized administrator of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.

Reengineering RIT Card Transactions

A Study of RIT Identification Card Transactions

ROCHESTER INSTITUTE OF TECHNOLOGY
Department of Hospitality and Service Management
Graduate Studies

M.S. Service Management
Presentation of Thesis/Project Findings

Name: Debra A. Spencer SS# _____ Date: 11/5/05

Title of Research: RIT Card Transactions: A Study of RIT
Identification Card Transactions

Specific Recommendations: (use other side if necessary)

Thesis Committee: (1) James W. Jacobs, Ph.D. (Chairperson)

(2) _____

OR (3) _____

Faculty Advisor: _____

Number of Credits Approved: 4

11/4/05
Date

J. W. Jacobs Jr.
Committee Chairperson's Signature

Date

Committee Signature

Note: This form will not be signed by the Department Chairperson until all corrections, as suggested in the specific recommendations (above) are completed.

cc. Department Student Record File – Original

ROCHESTER INSTITUTE OF TECHNOLOGY
Department of Hospitality and Service Management
Graduate Studies

M.S. Service Management
Statement Granting or Denying Permission to Reproduce Thesis/Graduate Project

The Author of a thesis or project should complete one of the following statements and include this statement as the page following the title page.

Title of Thesis/project: Reengineering RIT Card Transactions: A Study of RIT
Identification Card Transactions

I, Debra A. Spencer, (grant, deny) permission to the Wallace Memorial Library of R.I.T., to reproduce the document titled above in whole or part. Any reproduction will not be for commercial use or profit.

OR

I, _____, prefer to be contacted each time a request for reproduction is made. I can be reached at the following address:

Date 11/5/05 Signature Debra A. Spencer

Index

	Page Number
Chapter One – Proposal	
i. Introduction	1
ii. Problem Statement	2
iii. Purpose of the Study	2
iv. Hypothesis, Null and Alternative Hypothesis	2
v. Methodology	3
vi. Consequences	3
vii. Limitations	4
viii. Summary	5
ix. Definitions	6
Chapter Two – Literature Review	
i. Introduction	7
ii. Literature Review	7
iii. Transaction Information	8
iv. Internal Process Overview	9
v. Process Improvement Alternatives	10
vi. Reengineering Advantages	11
vii. Process Reengineering Analysis	12
viii. Summary	13
Chapter Three – Methodology	
i. Introduction	14
ii. Data Collection Method	14
iii. Model of the Analysis Process	21
iv. Summary	22
Chapter Four – Analysis and Findings	
i. Introduction	23
ii. Analysis and Findings	24
iii. Summary	29
Chapter Five – Conclusions	
i. Introduction	30
ii. Conclusions and Recommendations	30
iii. Summary	33
References	

Figures and Graphs

Page Number

Chapter Three Figure 1	RIT Identification Card Survey	19-20
Chapter Three Figure 2	Analysis Process	21
Chapter Four Figure 3	Respondents by Type	23
Chapter Four Figure 4	Identification Number Issue	25
Chapter Four Figure 5	Self-Service Terminal Usage	26
Chapter Four Figure 6	24-7 Access Usage Frequency	27

Chapter II

Introduction

The current system for processing RIT identification card transactions is very labor intensive and costly. RIT utilizes a manual process as well as a web-based technology. The current process requires form completion and manual intervention by the user and the employee processor. During the past five years the economy has taken a downturn requiring all organizations to work smarter, not harder. In an attempt to achieve the working smarter objective the literature review for this study focuses on process reengineering

Literature Review

What does process reengineering mean? Anytime discussion is raised regarding process reengineering some people think reduction in work force. There are some very interesting definitions that relate to process reengineering and business processes; they are:

1. Reengineering, a.k.a. process innovation and core process redesign, is the search for, and implementation of, radical change in business processes to achieve breakthrough results. (Stewart & Davis, 1993)
2. A business process can be defined as a set of recurring activities that produce something of value for a customer and consequently contribute toward value for the enterprise and its stakeholders. (DeMaio, 1995)
3. Business process reengineering typically focuses on three key elements: identifying the organization's distinctive competencies, assessing its core processes, and reorganizing jobs horizontally by process. (Tullar, 1998)

4. A process is “a lateral or horizontal organizational form that encapsulates the interdependence of tasks, roles, people, departments, and functions required to provide a customer with a product or service.” (Kettinger & Teng, 1997)

It is plain to see there are some very different and very similar ideas when it comes to reengineering a process. This study will not initially address the reduction in force issues but will instead focus on the process and how to streamline that process while making effective, efficient changes. Much of the literature on this subject talks about starting with your desired outcome or the “future” and working your way back to the present reality. Since we don’t know our future, we will begin with our present reality.

Transaction Information

RIT has been doing “The Card” functions basically the same for the past 11 years. The forms haven’t changed; the process or procedures haven’t changed. What has changed is the volume of transactions. RIT’s card transactions account for fifty thousand items per year. This includes students, faculty, staff, alumni and adjunct faculty. This number is even further magnified by the fact that the Cashier’s Office processes approximately eighty percent of all of these transactions. Transactions average approximately forty seconds, however there are other circumstances that lengthen these transactions. Whenever a “The Card” user pays with a credit card this transaction may take up to one minute and fifteen seconds. The process is not consistent, and has a large margin of error. When transactions are not posted properly this creates aggravation for the client and rework for the staff. An example of this occurs when a client’s card is swiped to add the dollars to the magnetic stripe on the card. This process also may be done manually without the card, which also allows for a margin of human error. When this encoding process doesn’t work problems are created. The problems may be traced back to

human error through an ineffectual swipe, or a damaged or demagnetized card. RIT needs to look to eliminate or reduce these errors in order to provide our clients with efficient and effective services. The demagnetized, lost, and damaged card issue creates additional stress for students.

Internal Process Overview

At RIT we tend to develop technologies independently, which provides very limited assistance to an organization in need of seriously reengineering its business processes. (Sanders, 1997) RIT internal departments often take the independent path. An example of this is RIT's Web payment processing. One office proceeded with this process without obtaining buy-in or feedback from other departments. Since the Internet is the present and the future, it would have been a wise, prudent business decision to involve interested parties at least on a high level. RIT should have a centralized rather than decentralized motivation when dealing with innovations or implementations of processes or services. By encouraging centralized processes, RIT would obtain buy-in and feedback before moving forward with a process that may require changes down the road. This is not to say that processes should not be dynamic, but utilizing all of the avenues open to RIT will help reengineer the process and improve the overall process's flexibility and efficiency.

There are many ways in which technology can improve flexibility and efficiency to meet customer demand. (Dellecave, 1995) The technology exists in the current marketplace for self-service kiosks. One of the beauties of this specific technology is that it is available 24 hours a day, 7 days per week. There are many companies that offer such advanced equipment. In fact, there is an automated teller machine that is produced by Interbold® that actually cashes a check for the specific dollar amount including dispensing any coin change in the dollar amount. While one may say, "Wow!" the down side is this technology has been around for at least the past 10

years and is just now being used in this geographical area. While currently not available at RIT, technology available through partnership situations could be a viable option as a possible alternative to the current manual processes.

Process Improvement Alternatives

There are several different approaches relating to payment processing that may be taken regarding process improvements. Process improvements relate to process redesign through defining the way an organization delivers products and services. Information is available on a study, which developed a modeling framework that integrates an object-oriented method and a business workflow analysis method. (Mentzas, 1999) Another example is presented by a knowledge-based system (KBS) that addresses the requirements for knowledge that can be supplemented to reduce redesign cost and cycle time, which positively impacts reengineering efficiency. This study employs the methods and tools of reengineering to redesign the process itself. (Nissen, 1998)

The paper form that RIT currently uses needs to be explored and reviewed. Our society is moving to a paperless, placeless society driven by the Internet. The question begs an answer, then why not at RIT? Why is RIT so entrenched in a paper driven process. Is it an audit or control issue or is it simply because this is the way we've always done it and we are too comfortable to review the process. One of the issues facing reengineering is that senior executives still consider cost control their top priority, ahead of customer satisfaction or superior technology. (Henkoff, 1994) If one takes the opportunity to look at the "big picture" it is obvious that changes to processes will positively impact the bottom line. The entire process needs to be evaluated from start to finish. Actually as stated earlier, maybe it is wiser to start where you'd like to end up.

Still another approach would be to partner with a vendor who is able to offer a viable, solution that has already been tested and is functioning successfully elsewhere. One such vendor is JSA Technologies. JSA Connect is an on-line real time alternative that uses a web-based technology to off load manual, labor intensive tasks. Their particular product has a capacity of 1,000 transactions per hour. This compares to a manual maximum of 60 per hour. There are many colleges that are currently using this vendor. Some of the colleges using JSA are Harvard, OSU, SUNY Buffalo, SUNT Albany, Syracuse University, and Cornell. After this study is complete RIT may find this to be a viable alternative to the current way we perform the card functions.

Reengineering Advantages

In the Engineering Economist, (Wouters & Kopczak, 2000) state that companies can work together along the supply chain to improve their financial performance by better coordinating activities, by redesigning products, by reengineering activities, and by relocating activities to the company that performs the most efficiently. This theme is echoed in various articles. In “Charged with Change” by Tom Dellecave the author details the challenge of change within an organization. The emphasis here is on Information Technology (IT) and utilization of that technology to a successful end. The article goes on to emphasize using the human resource capital throughout the entire process. This allows the process to be refined along the way. In this study people will be extremely instrumental. The human aspect will be used to advise, suggest, and monitor change to the existing process of “The Card” transactions. Questions will be asked in the survey, but the desire is to make the survey somewhat interactive asking for input relative to improvements and suggestions for change. An interactive atmosphere will allow the results and outcome to be open ended. The suggestion(s) for reengineering of the “The Card” should be

something new, not a preconceived notion of what one person believes the solution ought to be. After all RIT has a very diverse, knowledgeable population that this study will proactively utilize for their ideas and input.

Ideally process reengineering can help identify and eliminate waste and inefficiency, while increasing client satisfaction with the “The Card”. Business processes are under increased scrutiny as companies take a closer look at their financial performance. (Gillooly, 2003) The recent trends in process reengineering are so interesting because it brings together the review of a process or procedure with the reality that companies can be highly innovative. Innovation can be found within the organization, such as home-grown systems or externally found through the Internet or other canned technological solutions. Reengineering can give an organization an internal vision across operations, and individual business units that can standardize processes that share information allowing the organization to make more informed decisions. The benefits extend outward to customers as requests may be fulfilled in real time or with a minimal amount of effort on the part of the client. Does the process change have to be dramatic or can it be a subtler change that still presents a positive perception to change the clients and the user’s opinion of increased efficiency or productivity? Focusing on business process reengineering, radical redesign of business processes for dramatic improvement may not always need to be radical. Perhaps slight changes or tweaking the existing system will yield enough of a process change to be effective.

Process Reengineering Analysis

Over the past ten years there has been a rise in reengineering processes. Focusing on some of the key lessons learned over the past half-decade in business process reengineering, will enable us to understand how companies succeed by using this management trend. The ability of

reengineering to deliver extraordinary gains in speed, productivity, and profitability is something that cannot be overlooked in today's fast paced society. Much of the reading has related to a placeless society, which translate to the ability to do transactions anytime, or anyplace. Process reengineering lessons should take the history together with the future in order to create an optimal innovation for the organization.

It is of the utmost importance to look at an entire process for reengineering, not just one piece. If business is to survive in this environment, it must find methods to increase productivity dramatically and deal with change with ease and flexibility. Process reengineering has become popular for entire companies. Business survival often requires reengineering business from collections of fragmented tasks held together by traditional controls into interrelated processes driven by customer purpose and organizational direction. Consideration must be given to internal versus external resources. Discussion on how the organic aspects of processes aid any reengineering changes is discussed in length. (Sanders, 1997) This is why this study will look at the entire process from the point or origination to the end user(s) of the "The Card".

Summary

The literature investigates business process reengineering methods, techniques, and tools and places them within an empirically derived reference framework. Mapping of reengineering techniques and tools is inherent to the process. It is important to understand the process from beginning to end including all of the touch points along the way. Streamlining the entire process will result in both financial and efficiency improvements for the Institute. Michael Hammer, a former professor at MIT who runs a Cambridge, Massachusetts, business education firm that bears his name says: "To succeed at reengineering, you have to be a visionary, a motivator, and a leg breaker."

Chapter III

Introduction

RIT currently uses a very paper driven, labor-intensive process for depositing money on identification cards. Alternative options must be explored; in fact the entire process needs to be reviewed for efficiencies and improvements. The improvements may include elimination or redesign of forms, or introducing of an electronic format. Reviewing the RIT card transaction processes and procedures may assist in this effort. Changes to making deposits on the card that are positively perceived, as service enhancements should positively impact the entire RIT community.

Data Collection Method

Data collection methods vary a great deal. There are methods that deal primarily in experimentation, and subsequent recording of results, and repeating the experiment over and over to validate the results of the experiments.

This study will clearly define the issues for data collection. The setting for the study will be on the RIT campus. The data will be obtained at the cashier's office, which is a location where food and flex deposits are made to accounts. The reason for one location is to validate the information obtained through the users whether via the web, over the telephone, or in person. This location is responsible for conducting approximately eighty percent of the Institute's total food and flex transactions. Utilizing this location should yield a large enough sample as well as a diverse sample base.

The population for this study will include a cross sectional representation of candidates. Students, faculty, staff, and alumni will all be asked to participate in the food and flex card-reengineering study. In this particular case, there is a distinct advantage to working on the RIT campus.

The data collection will be focused on observations as well as interviewing users of the card. Interviewing non-card users may be helpful to gain insight as to why the card is not used, as well as reengineering opportunities that are the primary focus of this study. The sample will consist of at least every third card transaction. It is not possible for the sample to include every person that comes to the Cashier's windows to process food and flexible spending transactions because of the transaction volume and the nature of daily operations in the cashier's office. The desire is to obtain a large enough collection of data in order to validate the study for senior management in the Finance and Administration Division.

The food and flex transaction process in this case will be the main focus of the study. The transaction process includes form completion, monetary payment, balancing, reconciliation, and problem solving as errors arise. Questions related to improvements for the card or overall process improvements for the card are an integral part of this study's focus. Questions such as:

Is the card perceived as necessary on campus?

What should the card be able to do on campus?

Is the paper form necessary?

How can the form be redesigned for more efficient processing?

Is the implementation of point-of-sale equipment necessary?

Will RIT need to make a significant capital investment of either hardware or software in order to accommodate recommendations?

All need to be part of the analysis in order for the data collection to be as clear and concise as it can possibly be. These issues will be addressed in the recommendations and conclusion area of the study.

The primary types of data collected through the survey questions are qualitative in nature. Gaining perspectives from interview candidates will be extremely helpful in compiling the data

and looking for potential next steps. Interviews will be the method of data collection, and will be interactive clarifying and probing for information for potential suggestions or areas of service enhancements. It is important to note here that the most difficult part of the study will be compiling the data, and understanding the interviewee's perspective. There could be a reason that people do not want to use the card now or ever. For example if the person does not want to record their identification number, currently social security number of the user, because they are apprehensive about identity theft. While this person may not be a user, their idea could help in the reengineering process for the card. The method of payment cash, check or charge transaction type is not really relevant to process reengineering of these transactions; although alternative point of sale service delivery options may be explored.

The observation method of collecting data is an important aspect of the study. Since the office in the administration building does eighty percent of the card transactions, the observation option is very important. The options of observation will be that of the complete observer or the participant as observer. Participant observers become "immersed in the culture as an active participant and records extensive field notes (Trochim, 2002)." The participant observer method allows this study to take full advantage of the working situation in order to maximize data collected and participation. The study of the card in this environment allows transactions to be observed in the natural setting. This method does require extensive recording and analyzing of the data. The complete observer methodology may be utilized while other employees within the cashier's office are servicing card transactions. Trochim suggests that when using qualitative measures a combination of data collection methods may be useful.

This leads to potential threats to the validity and reliability associated with the observation and interview methods of data collection. The observer may be viewed as intrusive. There is a desire for privacy when dealing with financial transactions. The participants need to be reassured

that the privacy of the transaction will be maintained and held in close confidence. Understanding the nature of the questions, and that they relate to a reengineering process is imperative to the reliability and validity issues. In the academic environment people are somewhat conditioned to actively participate in studies. It will be important to be sure to clarify any questions from participants relative to the survey questions. A potential source of bias would specifically relate to someone trying to second-guess what the survey is trying to achieve. The bias situation should be limited because of the varied methods of data collection, observation and interview.

Data collections for this study will be extremely labor intensive and manually done. In an ideal situation the study could be performed interactively, however the necessary resources are not available at this time. The data collection of observations and necessary interviews will be compiled into an analysis that will be the basis for the findings and recommendations of the study.

The quantitative piece of this study will be centered on analysis of the answers to the questions in the survey. Trochim (2002) references the open-ended question of any other comments or suggestions and states that these responses may be placed into “simple categories” based upon themes of response. The key difference to making qualitative data quantitative is to assign a numeric data based upon the types of answers and the importance to the overall reengineering process. Both the observations and survey items will be assigned a value of importance to the overall study. Although this survey is qualitative, the assigned values in the survey will assist in identifying issues and ranking of importance to the observer. The research may indicate an entirely different set of priorities to the user. These discoveries will aid in the recommendation and conclusions of the study.

The observations and completed surveys should provide ample data in order to obtain a base of information that will allow for meaningful findings and recommendations. It is the intent of this study to review all of the data in order to effectively implement changes relative to card transaction processing and completion. Reengineering of any process isn't necessarily always the popular path, however over time the impact of such a study can help an organization refocus and redirect valuable man hours to more meaningful, less labor intensive tasks.

A sample of the data collection survey has been inserted in this document in order to clarify the interview process.

Figure 1

Identification Card Survey

Please circle your current primary affiliation with RIT

FacultyStaff Student Alumni Other(Specify) _____

Do you use your RIT identification Card to pay for transactions on campus?

Yes No
 (3) (1)

If so, how often per week?

1	2-4	5-6	7-9	10 or more
(1)	(2)	(3)	(4)	(5)

Please respond to the following, select one only.

- 1 Strongly Disagree
- 2 Somewhat Disagree
- 3 Disagree
- 4 Neutral
- 5 Agree
- 6 Somewhat Agree
- 7 Strongly Agree

Depositing money on the card is convenient.

 (1) (2) (3) (4) (5) (6) (7)

I use my card because I do not have the cash, check, a visa or master card.

 (1) (2) (3) (4) (5) (6) (7)

I use my card because RIT only accepts master card or visa & I have another card i.e. Discover

 Yes No

I don't use my card because I do not like placing the full identification number and/or credit card number on the RIT deposit form.

 (1) (2) (3) (4) (5) (6) (7)

I don't use my card because the form itself is too cumbersome to complete.

(1)
 (2)
 (3)
 (4)
 (5)
 (6)
 (7)

I don't use my card because transaction(s) and transaction details are not available on-line, real time.

(1)
 (2)
 (3)
 (4)
 (5)
 (6)
 (7)

I don't use my card because there isn't any advantage for me to use the RIT identification Card.

(1)
 (2)
 (3)
 (4)
 (5)
 (6)
 (7)

I would use an on site self-service terminal to deposit cash or bank card type transactions, view account history, and or access account balance information.

(1)
 (2)
 (3)
 (4)
 (5)
 (6)
 (7)

___ Other: (Please specify) _____

If RIT had 24 hour 7 day access to place money on the card, would you use it:

_____ More Often (5)
 _____ Less Often (2)
 _____ Not Applicable (1)

Any other comments specifically related to the RIT identification card:

Thank you for your participation in this survey. If you have any questions, please e-mail me directly at dasbur@rit.edu.

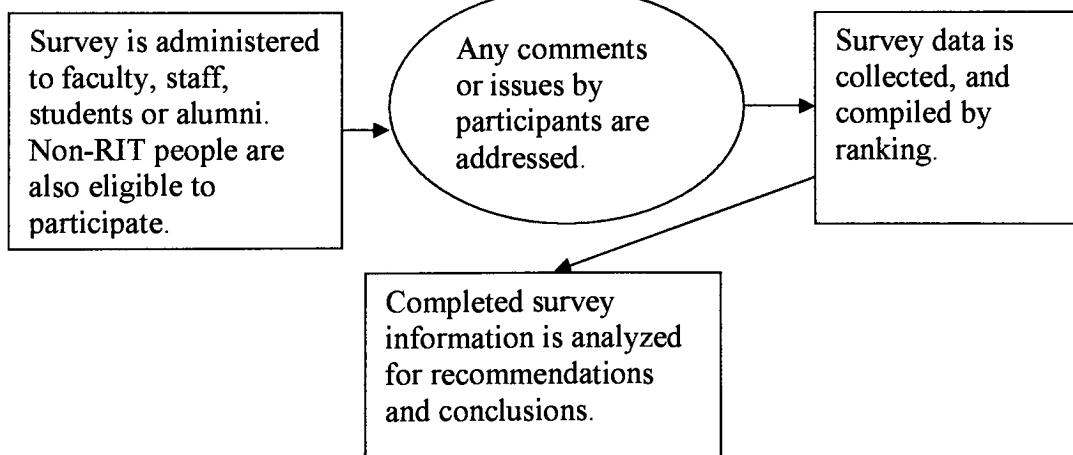
Debbie Spencer

Model of the Analysis Process

Once the data has been collected and compiled, the analysis process begins. All of the data will be compiled and the information will be reviewed based upon qualitative data analysis. Additionally, while the participants are taking the survey any questions they have will be addressed. The survey has a few open questions asking for input as well as suggestion from the participant. This information will be extremely valuable to the observer and the overall conclusions of the study. Any comments or observations will be recorded by the observer and may become part of the study. The data collection and subsequent analysis are key elements to the study and its findings and recommendations.

Analysis Process

Figure 2



Summary

Alternative options for processing transactions must be reviewed for efficiencies and improvements. The improvements may vary from changes to the form, to introducing of an electronic format. Reviewing the RIT card transaction procedures will assist in this process. The qualitative analysis method used in this study will provide an opportunity to identify inefficiencies in the processing of “card” transactions and identify alternative methods of processing in order to add value through service enhancements.

Missing Page

Missing Page

Missing Page

Missing Page

Missing Page

Missing Page

Missing Page

Chapter V

Introduction

The purpose of the study is to (1) Identify inefficiencies in the processing of “card” transactions, and (2) Identify alternative methods of processing transactions in order to add value through service enhancements. After compiling and reviewing the survey data some of the inefficiencies are clearly identified, and through additional research, alternative methods are identified that will add value through service enhancements.

Conclusions and Recommendations

A service enhancement focus for the study is that RIT currently offers a web-based method of depositing monies to the card using a Mastercard® or Visa® credit card. Unfortunately this process has a major disadvantage. This service is available to student clients, and is not available to faculty or staff members unless they know to use the “myRIT” portal, which utilizes an internal RIT computer account and password. In addition, the end-users of the food and flex system do not have a way to review transaction history on-line, in a real time environment. This disadvantage is technology based. Technological solutions may include a self-service kiosk that would accept any form of payment, cash, debit or credit card. Business partnerships, or a further enhanced fully functioning web based solution may be other alternative solutions. These options reduce the human interaction while adding 24-7 accessibility and flexibility.

One possible approach would be a business partnership solution. RIT could partner with a vendor who is able to offer a viable solution that has already been tested and is functioning

successfully elsewhere. There are vendors such as JSA Technologies, Wells Fargo, IBM, Interbold, Avaio, and others that offer many possible alternatives and solutions. One potential answer is presented by JSA Technologies. JSA Connect is an on-line real time alternative that uses a web-based technology to off load manual, labor intensive tasks. Their particular product has a capacity of 1,000 transactions per hour. This compares to a manual maximum of 60 per hour per worker. There are many colleges that are currently using this vendor. Some of the colleges using JSA are Harvard, OSU, SUNY Buffalo, SUNY Albany, Syracuse University, and Cornell. RIT may find this to be a viable alternative to the current way we perform transaction with card functions. The decision will need to be made based on a cost-benefit analysis of the technology relative to gains in efficiency and value-add service enhancements for the overall client base.

The self-service terminal is an amazing technology. These kiosks are used to check people in at airports or even to cash checks. Meridian Kiosks Company responded to an initial inquiry about kiosk solutions. Basically the hardware is available in a full size or space saving model. Netstop Pro responded relative to the software solution for the kiosk. The technology exists to implement the desired technological solution. The costs are dependent upon the system requirements and design. While currently not available at RIT, self-service terminals would be a viable option as a possible alternative to the current manual processes.

The survey identified that the card is convenient for use and as a method of payment. There is some resentment among participants that the card is the only way to pay on campus. The card may be able to serve as a payment method both on and off campus. This avenue has not been fully explored. Wells Fargo offers a card in connection with the University of Northern

Colorado that serves many purposes. The card acts as an ATM card, works at point-of-sales terminals both on and off campus, and may be tied into direct deposit of student payroll as well as direct deposit of excess financial aid payments. This would be an interesting strategy that addresses many issues voiced in the comments section of the survey. Regardless of which opportunity is explored and implemented, there are many technological opportunities available depending upon the strategy and overall objectives for the card.

Changes to the overall systems that utilize the card should be reviewed in a coordinated effort within the Institute in order to insure long term objectives are being considered. Dr. Albert Simone, President of RIT, has a vision to move the college's reputation from "good to great". Any changes done should include or at least address that vision. Any service enhancements should consider a value-add perspective as well as eliminating service inefficiencies.

Any alternatives need to be part of an Institute strategy not developed in a vacuum, buy-in by all interested parties is key to the success of any objectives. An example of the vacuum strategy is RIT's web payment processing. One office proceeded with this process without obtaining buy-in or feedback from other departments. Since the Internet is the present and the future, it would have been a wise, prudent business decision to involve interested parties at least on a high level. RIT should have a centralized rather than decentralized motivation when dealing with innovations or implementations of processes or services. By encouraging centralized processes, RIT would obtain buy-in and feedback before moving forward with a process that may require changes down the road.

The paper form that RIT currently uses needs to be explored and reviewed. Our society is moving to a paperless, placeless society driven by the Internet. Is the form part of an audit or control issue or is it simply because this is the way we've always done it and we are too

comfortable to review the process. As small as this change seems, this may be the one that is well received by the client base as a service value-add, as well as an inefficiency that has been improved and enhanced.

Summary

RIT may adopt several different solutions when dealing with this issue. RIT may decide to:

- (1) Do nothing leave the process as is.
- (2) Decide to change the process incrementally after doing a study and obtaining approval from all the interested parties.
- (3) Decide to reinvent the entire process, which may require a significant financial investment.
- (4) Attempt to redesign the existing system with internal changes that may be supported and implemented quickly.
- (5) Review alternatives that may include self-service terminals, and or partnering outside of RIT to develop and expand identification card functionality and accessibility.

In a recent edition of an on-line magazine, CRMguru.com, an editor's note titled "Out on a Limb" by Robinson, the author states, "If you're not willing to go out on a limb and invest in the long-term, then the future looks dim." She goes on to say that former Vice President Al Gore "urged companies to re-engineer their thinking and their business processes to accommodate new technology and exploit opportunities without building a foundation for future disasters." The world has all of this great technology, but business operations and processes are behind the

times. In any case reviewing the RIT card process transactions should yield some interesting results that will offer areas for further improvements.

References

- Dellecave Jr., T. (1995, September 18). Charged With Change. *Information Week*, 545, 100-102.
- DeMaio, H. (1995, Winter). Information Protection and Business Process Reengineering. *Information Systems Security*, 3, 5-10.
- Fitzsimmons, J.A. & Fitzsimmons, M.J. (2001). Service Quality. In Scott Isenberg (Ed.), *Service Management*, (p.47). New York, New York: Irwin/McGraw Hill.
- Gillooly, B (2003, February). A Symbiotic Relationship. *Optimize*, 8.
- Henkoff, R. (1994, April 18). CEOs Still Don't Walk the Talk. *Fortune*, 129, 14-15.
- Kettinger, W.J., & Teng, J.T.C. (1997, March). Business Process Change: A Study in Methodologies, Techniques, and Tools. *MIS Quarterly*, 21, 55-80.
- Mentzas, G. (1999) Coupling Object-Oriented and Workflow Modeling in Business and Information Process Reengineering. *Information Knowledge Systems Management*, 1, 63-86.
- Nissen, M.E. (1998, December). Redesigning Reengineering Through Measurement-Driven Inference(*). *MIS Quarterly*, 22, 509-535.
- Sanders, R. (1997, April). If Marx Has Been A Business Process Reengineer. *Records Management Quarterly*, 31, 258-264.
- Senge, P. et. al. (1999). *The Dance of Change*. New York, New York: Doubleday.
- Stewart, T., & Davis J. (1993, August 23). Reengineering: The Hot New Managing Tool. *Fortune*, 128, 40-46.
- Trochim, W. M. K. (2002). The Research Methods Knowledge Base. Retrieved March 20, 2003, from <http://trochim.human.cornell.edu/kb/datatype.htm>
- Tullar, W. (1998, December). Compensation Consequences of Reengineering. *Journal of Applied Psychology*, 83, 975-980.
- Wouters, M. & Kopcak, Laura R. (2000) The Economic Evaluation of a Joint Supply Chain Innovation. *Engineering Economist*, 45, 189-205.
- www.jsatech.com/base.php?section=Products/JSA.asp