

Spring 3-19-2013

# A Study of the Impact of Changing Business Processes and the Implementation of Computerised Systems on a Small Business' Customer Relationships – a 2 Year Case Study on a Micro-organisation

Emma-Jane Phillips

*University of Northumbria*, [emma-jane.phillips@unn.ac.uk](mailto:emma-jane.phillips@unn.ac.uk)

Follow this and additional works at: <http://aisel.aisnet.org/ukais2013>

---

## Recommended Citation

Phillips, Emma-Jane, "A Study of the Impact of Changing Business Processes and the Implementation of Computerised Systems on a Small Business' Customer Relationships – a 2 Year Case Study on a Micro-organisation" (2013). *UK Academy for Information Systems Conference Proceedings 2013*. 30.

<http://aisel.aisnet.org/ukais2013/30>

This material is brought to you by the UK Academy for Information Systems at AIS Electronic Library (AISeL). It has been accepted for inclusion in UK Academy for Information Systems Conference Proceedings 2013 by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# **A STUDY OF THE IMPACT OF CHANGING BUSINESS PROCESSES AND THE IMPLEMENTATION OF COMPUTERISED SYSTEMS ON A SMALL BUSINESS' CUSTOMER RELATIONSHIPS – A 2 YEAR CASE STUDY ON A MICRO- ORGANISATION.**

**Emma-Jane Phillips**

*University of Northumbria, Newcastle, UK*

Email: emma-jane.phillips@unn.ac.uk

**Mark Hurrell**

*University of Northumbria, Newcastle, UK*

Email: mark.hurrell@unn.ac.uk

**Peter Phillips**

*University of Teesside, Middlesbrough, UK*

Email: p.phillips@tees.ac.uk

## **Abstract**

*This paper examines the impact of rolling out computerized systems within a micro organization focusing specifically on the impact of the roll out on customer relationships.*

*The findings are based on a 2 year case study on one micro-organization (PA) based in the North East of England, examining the nature of the implementation and the additional factors that affected the outcome and eventual detrimental impact on the relationship between the organization and the customer base. The results of the study indicate that the radical change to the business process combined with implementation of new technology and communication strategies had a negative impact on the perception of the customers toward the organization and the owner specifically.*

*The primary research findings are based on observational evidence and interviews of the customer base, the researcher worked within the organization and were party to the business logic applied to the decisions made during the deployment period.*

**Keywords:** Business Organization, Micro organization, CRM.

## **1.0 Importance Of Effective CRM Within a Micro-Business**

Customer Relationship Management (CRM) is founded in the basic paradigm of effective marketing. The aim of CRM is to enter into an mutually beneficial relationship with customers,[1] it moves beyond the standard transaction relationship into the forecasting realm, allowing the company to predict the customers feelings and purchasing potential in order to provide products and services before they are requested, thus staying one step ahead of the customer in providing their needs. [1].

CRM is the establishment, development and maintenance of long term relationships the result in mutual benefits to the parties involved, the requirements of the customer are achieved by placing the customer's needs at the heart of an organization through business strategy, staffing, technologies deployed and business processes. [3]

### **1.1 Customer Satisfaction As An Element of CRM**

Deploying technologies (IT) within an organization can improve the effectiveness of company relationships with customers [5] however; the implementation/deployment must be effective in order for the potential benefits to be realised. IT enhances customer relationships primarily by enabling companies to customize the products or services delivered to the customers by innovative CRM [6]

The determination of effective CRM is partially based on the perception of the customer, the customer satisfaction is based on their perceptions of the performance of the company against their expectations where the 2 (two) elements are in balance or the performance exceeds the expectations then a customer is 'satisfied' or 'highly satisfied' but if the balance is not met and the result is flipped then the customer is 'dissatisfied' [7]

Initial implementation of effective CRM normally requires changes to business processes within an organization to effectively integrate the new systems required, resulting in the associated need for effective leadership and enhanced communication towards the customer base. [8] The leadership is a key requirement in order to ensure the strategic direction of the CRM project and in order to set and monitor the performance, empowerment and motivation of the personnel involved. [9]

## **1.2 Customer Perception And Experiences**

CRM strategies are only effective if the outcome is a positive outcome from the customers perspective. The perception of the customer is paramount and an organization that is 'customer focused' must be able to demonstrate that this is the case. Newell [10] examines a variety of case studies in the area of CRM using customer knowledge to deliver effectively products and services; a key case study examined was the case of Blockbuster. Blockbuster identified that the key priority of their customer base was an ability to rent their first-choice of movie when a store was visited; the industry norm at the time was approximately 80% of customers achieving this target, and the company required a higher success measure. A system called "Center stage" was implemented to improve the performance of stock availability of first-choice titles, the system worked by examining the customer data and identifying demand trends for specific film titles which would enable the company to stock the relevant levels in stores to improve availability, a commercial advantage over rival firms and a factor that the company believes is significant in their gaining status, and maintain status as a market leader.

If a CRM strategy is failing to influence profitability or is negatively impacting on the customer experience so that returning custom is reduced or lost after a 'reasonable' period of time then the company is failing. Companies in this situation should examine as a priority the methods that are underpinning their CRM focus, adopting alternative processes in an attempt to regain customer relationships. The situation for these companies is a hard one to recover from, such companies may find that they have a number of customers that are unprofitable and these customers need to be removed and replaced with those that turn a profit, for customers in a service industry such as the company examined as part of this study removal of long term customers will not be easy and may enhance the negativity of the remaining customers who would perceive this treatment in a threatening light, risking the profitable trade. If a CRM strategy can be shown to positively impact upon the profitability then it may be deemed a success but only if the situation holds in the medium to longer term, in the case of PA it can be seen that the longer the customer remains with the company the less profitable they become as the class sizes reduce to a loss making situation but these customers are key to the success of the company as they enable the company to show a clear advancement track for the lower level customers, striking a balance between the levels requires skill full management. Companies in a healthy profit/loss situation should avoid complacency, CRM requires constant review as the demands of the clients and customer base

change and evolve, CRM strategies are iterative and continually evolving.

### **1.3 Requested Intervention**

A request was received from PA to investigate and analyze the existing business process and identify ways that could increase the profitability of the organization. The business should have been a successful business, generating a healthy turnover based on the customer numbers and fee scale however, the company was not turning a profit and was being heavily subsidized by the private accounts of the owner and company directors, the owner had been given a period of time in which to turn the business around or close it down to prevent further financial drain on the directors.

### **1.4 Research Method Deployed**

During the study 3 research techniques were deployed:

- Interview with staff and customers
- Observation of processes
- Examination of documentation and systems utilized

The study took place over a period of 2 years during which time the primary research undertook a minor role within the organization in order to gain greater access to staff and students and to work with the systems and to reduce the bias that is generated when someone external to the systems observes them.

## **2.0 Background To PA As An Organization**

PA (the Company examined in this paper) is a micro-business and has experienced financial difficulties over the past 4 years; the non-executive company director is married to the owner of the company and has subsidized the company during this time from a personal account, often paying staff salaries from this account when the company funds were insufficient.

The company, in addition to providing training, has a shop element which sells equipment needed for the classes from a counter during times when the administration staffs are on-site, during this time bill payments are also processed and queries responded to.

The company works in the entertainment/training sector and currently employs 11 members

of staff on a zero hour contracts as teachers or support staff, although the contracts are zero hour contracts each member of staff is provided with expected hours of work at the start of the term, which are subject to change depending of class numbers.

The business processes of PA are segmented into 3 main areas:

- Staffing.
- Class organization.
- Sales of equipment.

At the time of the study conception the business operated on primarily paper based processes with some online presence and the company employed 2 primary teaching staff and one administrator to work out of the center for 1 (one) day and 2 (two) evenings a week (additional teaching was undertaken by the owner), by the end of the study this had expanded to 1 (one) primary teacher on a self-employed basis, 2 (two) unqualified teachers on zero hour contracts, 5 classroom assistants under the age of 16 and paid cash-in-hand, 2 (two) part time receptionists, 1 (one) office manager and 1 (one) part-time member of teaching staff in addition to the owner who also undertook primary a teaching role

## **2.1 Original Business Issues Identified.**

Customer perception of PA was extracted by a combination of customer interview and questionnaire analysis (discussed in section 2.2). Examination of the business processes took place using a combination of documentation analysis, where possible, interviews with employees and observation of the organization processes over a period of 18 (eighteen) months.

The initial analysis of the business process took place over a period of 6 (six) months, during and the key documentation examined included:

- Staff contract of Employment
- Customer Spreadsheet
- Company accounts
- Timetable
- Company website

Examination of these documents resulted in an understanding of the way the organization managed its business, however, key process detail was missing and therefore in-depth interviews with the owner and key staff were undertaken to add clarification to the documentation

A number of elements were identified as points of risk for PA as an organization.

#### Payroll process

- Staff record their own hours each month and submit, hours are not routinely checked and may be submitted on an adhoc basis
- No formal recording of pay rates for each employee
- Pay slips are not generated
- Staff are not informed of deductions made for tax and national insurance
- No P45 issues
- Not all staff are paid through the books, class assistants and 'covering' staff are paid 'cash in hand'
- Owner does not draw a formal salary but draws down funds from the business account at irregular periods throughout the year.

#### Class management

- Class registers are manually maintained, new students or departing students are not recorded by the systems till the end of the billing period and the class registers are only checked sporadically.

#### Payment management

- Payments made are not always recorded against a student
- Cheque payments take excessive time to be presented

#### Stock management

- No formal stock management process in place
- Stock levels out of date and inaccurate
- Stock sales not consistently recorded
- No record of 'tuck shop' sales
- Stock goes missing
- Excessive stock is held and not turned over in a timely fashion
- Customers order stock without payment and may change mind after item received into

stock

The issues identified ranged in impact, some resulted in organizational challenges but were deemed not to place PA at risk, however, some processes were more significant, the key risk was around the payroll and payment processes. Examination of these processes against the company accounts indicated that there was a discrepancy between the accounts submitted to company house and the reality, employee staff was found to be incorrectly calculated and the errors were not consistent with some employees having excessive deductions made and others insufficient deductions. Employees who were under 16 were not considered for deductions even though they are subject to the same tax rules as other employees.

## 2.2 Original CRM State

At the start of the study a customer questionnaire was issued to a sample of the customers of PA. The sample was identified by placing a notice on the notice board and reception desk asking customers to complete a questionnaire, the customer remained anonymous but there were some optional identifies for classification purposes, this included an age range indicator, gender flag and an indicator if the participant was a student or bill payer (the majority of students are under 18 and only those over 15 were permitted to participate). The questionnaire examined the way the customers interacted and related to PA as a service provider, it addressed areas such as bill payment, communication methods, service provision and customer satisfaction. The same questionnaire was issued at the end of the study to determine any changes in attitude

Communications with the customer base was identified to occur through 4 (four) primary methods:

- Telephone communication
- Email communication
- Face to Face interactions
- Notice Board/Message Sheet

Communication Method	%
Phone	43
Email	33
'catch teacher'	20
Leave message	4

**Table 2.2 Table indicating primary communication methods for customer of PA (sample size of 75 customers)**

There were 4 (four) methods of communication and the primary method for customers communicating to PA was by phone, general notices would be displayed on the notice board.

When the bills were issued (via post) a newsletter was attached which would communicate the key dates for the term, policy updates, uniform changes and the like but written communication was normally one directional, from the organization to the customer.

PA operated a '0845' number via a business line which was held at the home of the company owner, this number would be answered during office hours and outside of these hours an answering service would pick up the call, the owner of PA was the primary individual interacting or communicating with customers outside of the class, they reported that the response time to messages left on the answering machine was one working day, this timeline is supported by 85% of customers with the remaining 15% indicating that the response would be within 72 hours.

### **2.3 Recommendations to PA relating to Changes in Business Processes.**

As a result of the findings summarized in sections 2.1 and 2.2 a number of recommendations were made to PA relating to changes to the organizational processes deployed. There was no recommendation in relation to the software deployed as the recommendations were business process related only.

#### Payroll process

- Staff should be issued with contract of employment with a clear indication of remuneration and associated roles and responsibilities
- Hours to be worked should be agreed in advance for the teaching period
- Weekly timesheets should be submitted
- Payslips with deductions clearly indicated should be issued to staff
- All staff should be formally on the books
- Salaries should be paid on a fixed date each month by BACS transfer
- All payments for salary or expenses to go through the formal payroll process.
- The owner should be treated as an employee and receive remuneration via payroll
- A float of 1 (one) terms full expenses (staff, hire, insurance, and the like) should be held in the accounts at any one time

### Class management

- Database of students and classes should be maintained
- Students should formally enroll onto classes and registers checked weekly
- Emergency contact details should be available to staff taking classes
- Where students have medical issues this should be indicated on the class register in case of staff cover.

### Payment management

- All payments should be recorded electronically and be allocated to both a student with a payment category (class fees, stock purchase, examination fee etc)
- Payments should be processed within 5 working days of payment being received.
- A clear payment policy should be introduced to include details on any penalties for late payment and refunding processes for class cancellation.

### Stock management

- Inventory management should be put in place with processes for purchasing and maintaining stock levels documented
- Formal stock takes should take place on a monthly basis
- All stock sales must be recorded at point of sale
- Provision of tuck should be reconsidered or revamped
- Orders for stock should take place on a regular basis, initially a monthly order will minimize postage
- Where customers require items to be ordered in, a deposit or full payment should be taken, this will reduce financial risk to PA

## **2.4 Customer Satisfaction Bench Marks**

In order to determine the effectiveness and impact of the process change within PA a bench mark of customer satisfaction was undertaken.

Customers were asked to rate a number of customer service and satisfaction elements surrounding their experiences of PA. The details are summarized in the table 2.4 below. The rating system was 1 – 5 where 1 (one) was very poor/unacceptable and 5 (five) was outstanding/exceeds expectations. Where a score of 1 (one) or 5 (five) was awarded respondents were asked to expand on the comment and explain or illustrate their grading. This data was fed into the results as qualitative feedback.

Question area	Average grade
<b>Communication</b>	
Ability of teaching staff to respond to queries	3.5
Response time for queries when raised with the owner	1.5
Range of Communication methods	3
Ability of support/admin staff to respond to queries raised	2.5
The use of notice board to update customers	3.5
Approachability of the owner	2
<b>Payment processing</b>	
Accuracy of the bill	2.5
Processing the bill payments	1
Notification of additional charges for exams etc	2
<b>Administration</b>	
Knowledge of the admin staff on the class structure/uniform etc	2.5

**Table 2.4 – Overview of initial survey findings based on a sample of 75 customers**

Figure 2.4 has been collated and summarized from a larger pool of questions but the indicates concerns over communication and the payment of the processes, the qualitative responses indicated that the primary concerns map onto areas identified in previous sections, the primary concerns raised being around processing of cheque payments and issues of communication with the owner. Analysis of the detail however, indicates a bi-polar distribution with some customers being very happy with the communication and supporting processes, these

customers pay via cash payments with older students and were found to have little need for communication with the staff, additionally these customers reported that they gained most information from the notice board rather than direct communication with staff at PA.

Element	Detail	% of respondents
Communication Preference	Phone	43
	Email	33
	‘catch teacher’	20
	Leave message	4
Checking website	Never	7
	At least 4 times a month	73
	Twice a week +	20
Use online banking in general	Yes	86
	No	14

**Table 2.5 Primary communication by customers when interacting with PA (sample of 75)**

Figure 2.5 indicates the communication methods utilized by the customer based at PA.

In addition throughout the study, as elements were introduced by the business, customers were interviewed about their views or concerns about the changes, these interviews were customer led and informal, they were to be used in conjunction with the interviews with the owner to determine if each side understood the view point of the other.

Initial findings indicated that of the 75 respondents (out of a possible sample size of 214) 43% used phone communication as their primary way of interaction, 33% used email, 20% 'caught' the owner between classes and the remaining participants relied on messages being left at the reception desk as their primary method. All but 2 (two) respondents used a combination of the possible options (for example, sending an email then phoning, or leaving a message then trying to catch the owner between classes). At the start of the study the only online presence that PA had was a website that was used as a primary source of information, this included:

- Class timetables
- Uniform lists
- Prices
- Staff information
- Information on further training options
- Photos of students.

Of the participants, 5 (7%) indicated that they did not have access to the internet and had never seen the website, the remaining participants indicated that they checked the website more than 4 times a term with 20% checking the site at least twice a week. Any changes to classes or notification of cancellations were published on the website and then a printed copy was placed on the notice board on the weekend. 14% of participants indicated that they did not use online banking and 7% indicated that they no longer paid by cheque due to the uncertainty about when it would clear.

The customer feedback supported the observation by the researcher that some of the business processes employed by PA were resulting in negative feeling within the customer based. Addressing these processes would serve to improve customer experiences and the efficiency of PA as a business.

## **2.5 Original Concerns To Be Addressed By Implemented System**

One of the fundamental issues identified during the research, carried out onsite, was the lack of business knowledge within PA. The principle business manager within the company was the owner who acknowledged they had little training in business organization and gained most of their knowledge from online resources and services such as ACAS. There was no actual business model in place and no clear indication of what the base line running costs were to simply 'open the doors'. Classes were being costed on the basis of teaching staff costs and room rental, additional costs such as administration fees, office rental, wear and tear of equipment was not considered and therefore the costs were not covered resulting in deficit in the business accounts that was not identified.

In order to reduce costs was the overtime payments paid to staff performing additional teaching or duties such as exam coaching, this was reduced from hourly rate plus £5 per hour to 60% of the hourly rate on the basis that 'the work was less' however, the students were still charged a fix coaching fee which was due regardless of attendance, this resulting in staff being unwilling to work on the exam coaching days (typically a Sunday).

As identified in section 2.3 a number of areas were identified where the business processes were flawed or could be improved, these areas were examined and 4 (four) elements were identified as being areas where change would be most effective, these elements were:

- Payment tracking
- Stock control
- 'scholarship' program
- Communication

### **2.5.1 Payment Tracking**

Customers had indicated that the limited payment methods were an issue, the payment trend within commercial organizations is to move toward accepting credit or debit card payments however, the organization could not process such payments as they were not operating in their own premises and did not meet the banking criteria to implement such facilities.

Recording of the payments made were identified as flawed, the process to note down the payments was that for those who paid weekly a tick was placed against their name on a sheet, payment was taken by the reception staff and entered into the till and then a till receipt was issued. The reception area was often very busy, almost chaotic at times; there was only one member of staff behind although at peak times helpers would step in to run the shop element, this resulted in weekly payments not being ticked off on the sheet although payments would be entered into the till which resulted in the customer being flagged as behind on payments.

Those customers who paid on a termly basis at the 2 (two) payment points handed in a payment slip which measured 1 (one) inch by 5 (five) inches, again the payment would be taken at the till and a till receipt issues, these payment slips would be placed into a plastic wallet for the owner to update records later. During the initial observation period of 2 (two) weeks, it was noted that 15 (fifteen) customers queried the fact that they were flagged as not paying but they had a till receipt to indicate they had paid.

### **2.5.2 Stock Control**

PA did not have any stock control methods in place. Stock was purchased and held but the levels were not recorded. Stock would be out during the time the reception/shop area was manned, smaller items and some uniform items were on display and customers would take what they wanted and pay at the desk, the owner would take items from stock for their children who were also students, these items would not be recorded.

Where stock level replenishment process was not formalized, a note would be logged to indicate what items are required to be ordered where staff felt the level was too low. If a customer requires an item that is not in stock they order the item at the desk and then had the option of paying in advance or waiting for the stock to arrive, the owner would then place the order. The owner placed a 100% markup on the items cost price, this resulted in the equipment and uniform appearing to be expensive to customers who looked online, the mark up was required as the owner had to include the postage in the costing and also the fact that any items purchased may not fit and therefore would have to be placed into the stock. By placing orders each week for a varying number of items the owner was not able to mitigate the postage cost across many items and by not being aware of what stock items were held or the location of the stock items would often be duplicated resulting in problems when uniforms changed and the old stock could not be sold on.

### **2.5.3 'Scholarship' Program**

PA ran a scholarship program for those students who wished to pursue a career in the area they serviced; the original concept stated that all scholars must adhere to certain stipulations about classes taken, attendance, appearance and attitude. The scholars could take unlimited classes but must take 5 (five) core classes as stipulated in the terms, for this they would pay a set fee each week, be given a special uniform to indicate to the tutors that they were scholars and would be permitted to pay weekly. The program proved popular, there were 3 levels of scholar depending on the student's level but the principle behind was that there were a fixed set of classes that had to be taken as core and then the student would be able to take any additional classes they wished.

During the early analysis of the business it became apparent that the original concept of the scholar program had been mutated. Rather than being a route into professional training it became a way of getting unlimited classes, the core class structure was not enforced and the scholar students were taking in excess of 15 (fifteen) classes a week for a set fee of £22. The average class fee was £3.50 which resulted in students paying £22 for £52.50 worth of classes. The original scholar program was funded in part by the non-scholar students; the core class requirement ensured that only students who were dedicated and likely to take studies further would become scholars, by removing the core class requirement the program became unsustainable. New classes that were added to the time table required 10 (ten) paying customers in order to cover the staff and room hire costs, if the classes were filled with scholars then no additional revenue would enter PA and this resulted in a net loss prior to the background running costs being considered.

During the 2 (two) year study, a total of 18 (eighteen) new classes were started and 25 (twenty five) classes were cut with the reason given that they were not profitable, the classes were popular but only with scholars and therefore they lost PA money.

### **2.5.4 Communication and Customer Relationships**

The relationship between the customer and the owner was identified as an issue. The lack of business understanding resulted in PA not fully understanding the importance of the customer relationship within the service based sector.

Another issues that was identified based on analysis of the customer base was a perception of

‘favoritism’ to some students over others, this perception was the main issue that was flagged during interviews with customers, the view was also supported by staff when interviewed although staff played down the impact of this perception. When raised with the owner the owner became very defensive, the view was held that if customers didn’t like how the business operated they could go elsewhere. This automatic defensive attitude showed a clear disregard of customer relationship management, the concept of ‘the customer is always right’ is not one that was considered and this issue became more apparent throughout the study as the issues from the new system roll-out manifested.

The customers felt that the communication between PA and themselves were lacking, the initial analysis indicated that the notice board was the primary source of information but this was not maintained, the flow of information relied on the informal processes of customers sharing information between themselves, this would be effective where the customers remained in the building during classes but where customers were not the ones taking the classes but simply paying for them (attended by their children) and were therefore not in attendance information was not passed on.

### **3 Systems Implemented and Impact on Customers**

In order to address the issues raised in section 2.5 a number of systems were introduced; these were accompanied by a number of changes to the business processes. The systems implementation was carried out over a period of 12 (twelve) months, the business process changes were implemented over a slightly longer period of 14 (fourteen) months. .

#### **3.1 Payment Handling**

Analysis indicated that the area of payment handling required a number of fundamental changes. The way that payments were handled within PA changed on 2 (two) levels, the process and the systems employed:

1. Online computer system replaced till
2. PayPal option was introduced to enable credit/debit card payments
3. BACS transactions were promoted
4. Payment handling process amended
5. Online system implemented to enable customer to check bills, maintain personal details and class enrollments on line.

The system was deployed mid point during a term at a time when limited payments were anticipated in order to allow for a period of ‘bedding in’. A number of advantages were identified with the system however, a number of issues were reported and observed which reduced the customer satisfaction levels, these are outlined in table 3.1 below:

Process	Advantage	Reported issues
Till replacement	<ul style="list-style-type: none"> <li>• Payments automatically recorded against customer.</li> <li>• Receipt emailed out</li> <li>• Ability to see payments made and due online</li> </ul>	<ul style="list-style-type: none"> <li>• Poor internet performance when using a ‘dongle’ (transaction time moved from average of 2 mins per transaction to 7) time reduced to 5 mins average when use of wireless was negotiated</li> <li>• Not all customers have email access</li> <li>• No overall view of bill available only monies due to current date however, charges were post dated.</li> </ul>
Introduction of PayPal option	<ul style="list-style-type: none"> <li>• Enabled customers to pay by credit or debit card</li> </ul>	<ul style="list-style-type: none"> <li>• High transaction charge to business, average of £2.56 per transaction totaling £352.75 in the first 3 months</li> <li>• Service withdrawn after 3 month period</li> </ul>
BACS transfers	<ul style="list-style-type: none"> <li>• Enabled customers to use online banking</li> </ul>	<ul style="list-style-type: none"> <li>• None identified</li> </ul>
Payment handling process change	<ul style="list-style-type: none"> <li>• Human error element reduced</li> <li>• Introduction of ‘late fee’ encouraged payments to be made on time and was clearly indicated to customers</li> </ul>	<ul style="list-style-type: none"> <li>• Little training provided on new system</li> <li>• A number of errors reported by customers as the amount paid was still manually entered and may not tally with amount paid due to human error.</li> <li>• PA assumed system was always correct regardless of customer statement</li> <li>• Not all online receipts were issued due to network interruption.</li> <li>• Only 84% of transactions were correctly identified with a processing member of staff</li> <li>• Late fee was incurred incorrectly in some cases</li> <li>• Late fee was charged even when classes were cancelled, customer reported this as a double standard.</li> </ul>
Online system introduction	<ul style="list-style-type: none"> <li>• Enabled customers to book onto new classes</li> <li>• Enabled customers to see what bill is due</li> <li>• Enabled customers to</li> </ul>	<ul style="list-style-type: none"> <li>• Data not current</li> <li>• Not all customers had access to internet</li> <li>• Did not allow dual account logons for single students (where parents</li> </ul>

	maintain own record	<p>were separated and required separate access rights)</p> <ul style="list-style-type: none"> <li>• All staff used the same logon regardless of access need</li> <li>• All staff had access to the system regardless of if it was needed</li> <li>• Sensitive data was available to all staff (concern raised by 5 customers as staff included other parents)</li> </ul>
--	---------------------	--

Table 3. 1 Advantages and reported issues with the deployed systems within PA

### 3.2 Stock Control

The area of stock control raised concerns in the following areas:

- Stock levels were not accurately recorded
- Stock was unaccounted for
- Storage space for stock was limited
- Turnover rate of stock did not warrant the outlay incurred in maintaining all sizes and options.

In order to address the issues identified a number of process changes were put in place:

- Only core uniform items would be held in stock, no high cost items would be held
- Items that were identified as ‘slow turnover’ items would not be held even if uniform, a sample would be purchased for sizing and then ordered in as required.
- All orders from customers must be paid for in advance
- An online stock application to be implemented to managed stock orders and sales

On a business level this improved cash flow, expenditure outlay on items was reduced and an accurate view on levels was available. A full stock take was performed prior to the implementation of the system however, this stock take was flawed, it was performed 4 (four) times with different figures each time so the data underpinning the system was flawed.

Observation of the stock system and feedback based on customer and user feedback indicated that there were a number of issues with the system which needed urgent addressing:

- Flawed initial stock take
- Stock could not be categorized appropriately which resulted in an ineffective search tool and poor system performance

- Staff did not accurately record stock sales if exact item could not be found on the system
- System was online not client based and therefore the internet access issues resulted in poor performance
- Not all transactions were recorded
- Customer perception of system was poor
- Excessive delivery time for stock ordered in

During 4 (four) reception days when payments were due the average transaction time was 21(twenty one) mins, teaching staff had to step in and process items such as tuck which were not stock controlled and the queue maintain a min of 7 customers waiting in line for a period in excess of 3 (three) hours. The customer feedback was one of frustration and resulted in PA requesting that customers not purchase items on payment due days and encouraging online payments.

Customers felt that their concerns over payments and stock were not being heard, the situation was compounded by the time it took for stock to arrive after order. As customers had to pay in advance they felt that the items should be there within the week, the supplier used by PA delivered in 24 (twenty four) hours and therefore this was reasonable however, in order to reduce the postage the company would not place orders the week they were made, holding on for a larger order before placing it. This resulted in customers having to wait for items they had purchased, if the item went out of stock at the suppliers the customer would not be informed, they would chase up the order and be told that it was out of stock, as they had paid already they were not able to source it themselves, this resulted in the customer who had been there long term no longer placing orders with PA but sourcing it themselves direct from the supplier and splitting the postage while paying considerably less for the item due to PA marking up 100%.

A complaint made by the customers during interview after system implementation was the fact that the uniform changed 3 (three) times in the past 3 (three) years, therefore some customers waited 8 (eight) weeks for a uniform item only to find the uniform was changing.

### **3.3 Scholar Program**

The scholar program was not profitable. The program was revised so that it no longer offered

unlimited classes for the existing fee, but a fixed number of 5 or 6 classes (depending on the level) an additional charge of £5 per week was charged to obtain unlimited classes, this generated an addition £455 per week for PA for no additional output. This change was primarily a business process change; the payments continued as weekly and were processes as standard payments.

### **3.4 Communication**

Significant changes were made to the way customers were communicated with; these changes had a significant impact on the customer's feelings toward PA.

During the roll out of the new systems PA converted to 100% electronic communication. Paper based processes were no longer used, the owner was increasingly hard to isolate for conversations and email was the primary communication method. The company maintained a website which contained details on classes, staff, procedures and other useful information, this would often however, not be updated with key information, PA moved away from the static web presence to utilize social medial

#### **3.4.1 Social Media**

PA created 2 (two) Facebook sites:

- A company 'Page' – 300 'likes'
- An account for the owner (dedicated purely to the workings of PA) – 152 'friends'

In addition a Twitter account was created

The logic behind the use of social media was to allow information to be conveyed in a speedy fashion, this was used as an electronic notice board, notifications of class changes were posted, work opportunities were posted, and it was a well considered approach.

Analysis of the social media side of the business indicated that there was no consistency between the sites, twitter was not updated often, the owner facebook page was deemed as the primary account and updated most frequently however, it was not the most popular of the facebook presences, the company page was updated but not often and when classes were cancelled not all sites were updated. The web presence became 'forgotten' and was updated sporadically yet this was the site that was visible on a Google search.

The result of this inconsistency was that they customers were not all informed of situations, this resulted in some not being aware of class changes or cancellations, not all customers had internet and only 67% used facebook and the reliance of social media as a communication methods caused increasing frustration.

### **3.4.2 Phone communications**

PA use a 0875 number for all phone calls, as indicated in section 2 this number was at one point directed to the owner's home, and during office hours would be answered, those outside of this time would be sent to an answering machine, and this resulted in a communication method that was effective.

During the first year of the study PA rented office space and employed a part time office manager, the 0845 number was redirected to the office however:

- The office was not staffed every day
- Office staff were part-time
- Office staff could not deal majority of queries
- Messages were picked up every 2 (two) days on average returned, where feasible, within 2 (two) days of the message being picked up (where possible, responses would be emailed as the owner reported they did not have time to call everyone and email meant a record would be held.)
- Maintaining an 0845 number was expensive
- Business rates for phone lines incur higher charges than standard call lines.

Interviews with the customer base indicated that they perceived that the move to office premises had negatively impacted on communications. Analysis after implementation of new processes indicated that 57% of customers would not call PA, exploration as to the reasons underpinning the response showed that the low level of phone answering was a primary reason, customers felt there was no point in calling if they had to just leave a message and wait 4 (four) days for a response.

### **3.4.3 Email Communication**

Customer reported that email communication was not satisfactory:

- 32% of customers reported dissatisfaction with the way queries were handled.
- Documentation analysis of the emails sent by PA indicated that 'Email Etiquette' was not often followed
- Staff responses were deemed to be offensive and antagonistic. A sample of the communications sent evidenced phrases such as "you just do not understand what you are looking at, you are not the professionals and are not in any position to understand what is taught", "I am the expert not you" and similar terms

When interviewed, the owner indicated that they were aware that they could be misinterpreted and that they should possibly not generate reactive emails but to consider a third party to proof read any emails that could be contentious, they also indicated that they felt that if people didn't trust them to do their job they should find somewhere else.

#### **4.0 Impact of Implementation on Customers**

Analysis of the customer experience in relation to the changes implements indicates that there is a general feeling of discontent. Organizationally the changes have been implemented with a varying degree of success however; many of the issues could have been resolved or minimized by ensuring the customer base 'bought into' the need for change.

The key areas of customer frustration are:

- System performance is slow
- System is unreliable and inaccurate at times
- Customer concerns are not being addressed
- Assumptions made by the company about the customer are flawed and exclude some customers (social media, email access for example)
- PA openly charge the customer £2 per student per term to 'fund the cost of the new systems' customer feel this is a business cost and not something they should pay for
- Communication is poor and customer feel 'out of the loop'
- Customers do not feel valued
- Customers feel 'gagged' and unable to openly express their views

During the later phase of the case study customers were vocal in their frustration at the system, often discussing issues between themselves. In a communication to all customers, PA informed the customer base that if they did not stop "discussing PA in negative terms" they would be asked to remove themselves and the student from the company. Customers have indicated that many would move to another provider but many of them have attended

for 10 (ten) years or more, students attending classes from the age of 4 (four) and therefore the customers wish to move but the students have formed relationships with other students that they do not wish to sever. The threat was made real to the customers when a customer was accused of 'bad mouthing' PA and the owner banished the student from the classes without a chance to say goodbye to any other students, the customer was never told what they were accused of or given a right to reply and when interviewed was unable to state what had happened other than the fact they received an email telling them their student was no longer welcome at PA effective immediately, they had attended for 6 (six) years taking a total of 19 (nineteen) classes a week.

#### **4.1 Customer Views After a Period of Bedding-in**

The study continued for a period of 6 months after implementation to allow for a period of adjustment and system bedding in. Interviews during this time were used to determine the perception of the customers on the systems and to determine if there was an improvement of attitude towards the new processes.

The initial hostility towards the changes was decreased:

At the start of the implementation 85% of customers reported they were "unhappy" or "very unhappy" with the changes, this decreased to 48% after 6 months, however, in the second sample 93% of respondents reported they felt it was not acceptable to charge the customers for the new system with only 24% claiming to be aware it was in lieu of a fee increase.

#### **4.2 Impact on Customer Turnover**

The sector PA operates in has a fluctuating customer base; During the period of the study the overall figures remained constant (within 5% of quarterly figures) though there was a high rate of turn over where the students were under 8 (eight). The customer base was monitored during the final 12 (twelve) months of the study, 6 (six) months prior to the systems being fully implemented and 6 (six) months after the completed roll out.

In order to determine the impact on long term customers the scholar program was monitored, by examining these students the transient figures would be excluded from analysis.

During the initial system deployment period (6 months) 5 (five) new scholars were recorded as joining, 26 full scholars downgraded to mid level with limited classes and 5 left the program, 4 of whom left PA. In the final period no additional scholars were recorded, 6

downgraded to mid level and 7 left PA (excluding the student who was asked to leave).

There was a range of reasons cited for leaving:

- Leaving to join vocational schools
- Attitude of the owner
- Lack of professionalism
  - Poor communication relating to class cancellation
  - Issues with payments

The net loss to PA was £257.50 a week.

#### **4.1 Conclusions**

It is not possible to say for certain that the implementation of CRM/IS systems and the change in processes was detrimental in isolation to PA however, the findings indicate that the combination of IS implementation, poor communication, and the personality of the owner did impact negatively on the customer relationship. The lack of business understanding and the importance of customer base management contributed also as there was no impact analysis on the proposed systems, simply a deployment schedule.

The requirement of the CRM deployment being classified as a success is a combination of company profitability and customer 'happiness' although some customers were reporting satisfaction with the changes the long term customers (where key profitability lies) were not happy and therefore the CRM and IS applications are a failure.

## **5.0 References**

- [1] T, K, Panda. (2005) *Creating Customer Life Time Value through Effective CRM in Financial Services Industry*
- [2] European Commission. Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (Text with EEA relevance) (notified under document number C(2003) 1422)
- [3] Berry (1995), "Relationship Marketing of Services, Growing Interest, Emerging Perspectives," *Journal of Academy of Marketing Science*, 23(fall), pp. - 236-45.
- [4] Constantinos J. Stefanou, Christos Sarmaniotis, Amalia Stafyla (2003) "CRM and customer-centric knowledge management: an empirical research", *Business Process*

Management Journal, Vol. 9 Iss: 5, pp.617 – 634

[5] Karimi, R., Somers, T.M., Gupta, Y.P. (2001), "*Impact of information technology management practices on customer service*", Journal of Management Information Systems, Vol. 17 No.4, pp.125-58.

[6] Dewhurst, F., Martinez Lorente, A.R., Dale, B.G. (1999), "*Total quality management and information technologies: an exploration of the issues*", International Journal of Quality & Reliability Management, Vol. 16 No.4, pp.392-406.

[7] Parasuraman, A., Grewal, D. (2000), "*The impact of technology on the quality-value-loyalty chain: a research agenda*", Journal of the Academy of Marketing Science, Vol. 28 No.1, pp.168-75.

[8] Galbreath, J., Rogers, T. (1999), "*Customer relationship leadership*", TQM Magazine, Vol. 11 No.3, pp.161-71.

[9] Pinto, J.K., Slevin, D.P. (1987), "*Critical factors in successful project implementation*", IEEE Transactions on Engineering Management, Vol. 34 No.1, pp.22-7.

[10] Newell, F. (2000), "*Loyalty.com: Customer Relationship Management in the New Era of Internet Marketing*," McGraw-Hill, New York, NY.