BPM AT CALL CENTRE OPERATIONS: A CREDIT CARD PERSPECTIVE

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ABSTRACT

A call centre manages customer queries by telephone. Information Technology (IT) has recently replaced many of its manual processes and time-consuming activities. Business process management is backed by IT. This adaptation leads to a radical improvement in overall process performance and service quality, cost, and cycle time. This research studies the business process management approach that incorporates automation in the call centre operations of the credit card department of an internationally reputed bank operating in a developing country. This paper presents both the previous and new business processes, and discusses benefits and shortcomings of the new initiatives. The study observes that the newly implemented processes significantly decrease operation costs, and improve customer services through real-time service and reduction of waiting-time, and also enable measurement and management of key performance indicators of the call centre.

Keywords: BPM, Information Technology, Credit Card, Call Centre, Banking Process

INTRODUCTION

The changes in business processes from product-centred to service-oriented have taken place in the last few years. We currently live in a service-based economy (Ma et al. 2011), in which services are delivered through technology, such as the internet. Technology has significantly changed our ways of providing and receiving services. Because of the availability of technological facility to organizations, customers have high expectations and service organizations are facing severe competition in the market place. Financial institutions, such as banks, are no exception. These institutions have quickly adopted the technological infrastructure to meet the high expectation of customers and to cope with changing behaviour. Delivery of this new service creates huge changes in business processes and practices (Verma et al. 2000).

This paper presents an investigation of the approaches and steps adopted by one of the largest commercial banks in the world for redesigning and upgrading its call centre in a developing country, for the improved management of its credit card products and services. The bank has branches all over the world but focuses on South Asia, Africa and the Middle East where it has more than a hundred physical outlets to serve the fastest growing, and attractive, credit card market. The bank manages several billion dollars in assets and has been recognised as one of the leaders in the credit card market in these regions. The bank, especially its credit card department, constantly endeavours with various managerial, marketing and operational initiatives, to increase its customer satisfaction by providing quality services, and reducing

waiting time, through the introduction of modern technology in business process management. Waiting time is an important key performance indicator (KPI) of its service initiatives and deliveries. However, improvement of services requires efficient and effective management of business processes, from desk to call centre operations. The bank's target is to provide superior call centre services by implementing an innovative, effective and efficient process that exceeds customers' expectations. The bank needs to regularly monitor and improve operational procedures in the call centre to achieve the highest possible service quality, satisfy its continuous commitment to a high quality assurance program. The call centre essentially becomes the first point of contact for the customer and has been established as one of the core parts of the bank's operations in interacting with customers and satisfying their service needs. The call centre receives inbound calls from regular and potential customers looking for assistance from service agents. These calls are frequently managed using queuing models, especially in peak periods. Various types of queuing models have been used (Ancker and Cafarian 1963; Garnet et al. 2002; Halfin and Whitt 1981; Hasija et al. 2005; Koole and Mandelbaum 2002) to support the varied nature of call centre operations. These models focus primarily on calculating and forecasting customer waiting time but they lack the ability to capture dynamic interactions between customer service representatives (CSRs) and the customers. To overcome this shortcoming, Chokshi (1999), Klungle (1999) and Ma et al. (2011) propose a number of simulation models to plan call centre operations. However, the literature still lacks a suitable call centre operations model from a credit card perspective.

This paper covers daily operations in a typical call centre to satisfy the queries of customers to fulfil their banking and credit card-related needs. It also gives a concrete understanding based on real-life banking operations about the expected workloads of the CSRs to handle customers. In particular, this paper critically analyses operational efficiencies and effectiveness of redesigning and automating the bank's call centre. This research focuses on modelling the previous business processes of the call centre from the service delivery perspective of credit cards. It then investigates the current processes that have significantly improved customer service, and have reduced waiting time and process costs. In the rest of the paper, we first present various concepts and definitions of business process management (BPM) and integration issues of information technology (IT) to BPM. We then describe the previous call centre operations, documentation processes, and credit card operations. A brief description is provided on the research approach, followed by the redesigned processes and their benefits and shortcomings, and finally the conclusion.

BUSINESS PROCESS MANAGMENT

A business process is a collection of related and structured activities or tasks that use organisational resources, transforms inputs into outputs, and produces a useful service or product. It is the procedure of accomplishing specified tasks and achieving organisational objectives in a steady, repeatable and reliable fashion. Since the late 1980s, Business Process Management (BPM) has been a widely discussed topic in the Information Systems (IS) discipline (Houy et al. 2010; Lee and Dale 1998; Zairi and Sinclair 1995). BPM is a systematic approach to continuously and consistently managing, as well as improving, an organisation's operations. However, it has been defined inconsistently in IS literature (Armistead and Machin 1997). In general, BPM is a management principle for sustaining competitive advantage (Hung 2006). More specifically, BPM has been defined as a combination of methods, techniques and software tools to design, control and analyse business processes in order to maximise value creation (Aalst 2004). It involves people, organisations, applications, documents and other sources of information. Smith and Fingar (2006) observe that BPM not only encompasses the discovery, design and deployment of business processes, but also establishes executive, administrative and supervisory control over them to ensure that they remain compliant with

business objectives. On many occasions, Business Process Reengineering (BPR) has been synonymously used for BPM, but the two are not conceptually and semantically the same (Armistead and Machin 1997). BPR refers to one-off radical changes in the existing process using a re-engineering methodology, whereas BPM is concerned with managing business processes on an ongoing basis (Armistead and Machin 1997) as well as continuous improvement (Ko et al. 2009) through business process automation (BPA), business process improvement (BPI) and BPR techniques. BPM contains five different IT constituents (Küng and Hagen 2007). They are: 1) Process Modelling: designing and executing the models using an information system that may or may not involve human action; 2) Process Engine: driving the process-dependent applications by IT; 3) Real-time Monitoring: tracking the running processes using an IT system; 4) Performance Measurement: measuring performance indicators using an information system; and 5) Business Rule Management: extracting business-related rules from software.

BPM AND INFORMATION TECHNOLOGY

Information technology (IT) / Information systems (IS) help organisations to redesign business processes, to automate business activities and tasks, and to enforce business rules. IT is one of the most important contributors to process change (Akhavan et al. 2006), helping organisations to achieve their business objectives, and is regarded as one of the key 'enablers' of process improvement initiatives. However, IT-driven process improvement initiatives are not always successful as sometimes they are seen as obstacles to innovation (Chan and Land 1999). Davenport and Short (1990) introduce an IT-driven approach to process management termed as 'the new industrial engineering'. According to them, an organisation needs to select a package of information technologies that support new or redesigned business processes, and have the capability of supporting process improvements activities. Davenport and Short (1990) also observe that information technology (IT) can help managers to increase control over enterprise-wide process management. Information technology plays an important role in the design of banking products and services. Many of the existing banking systems lack flexibility; they require intensive maintenance, and the processes supported by these technologies are complicated and cumbersome (Mentzas 1997). Problems of the existing retail banking systems and key requirements of the new systems as collated by Mentzas (1997) are shown in Table 1 below.

Table 1 - Challenges for redesigning the banking business, Source: Mentzas (1997)

New key requirements	Problems within existing retail bank structure
Focus on specific customer needs	Lack of segment-driven marketing
Pricing as a key component of value	Lack of understanding of costs and profitability
Attract talented people	Competition with other companies that use high technology
Develop capacity to adapt market needs	Large, hierarchical slowly-moving organisations

IT-related investments are treated as one of the important investment decisions in the banking sector. Most of the banking systems are confined to an account-oriented approach rather than a client-oriented or service-oriented approach. In order to retain existing customers and to attract new, in the current competitive market, a bank needs to shift focus from an account-oriented to a service-oriented approach. This requires huge changes and improvements in the banking IT infrastructure. Banking processes must be linked to information systems, a shift from traditional ways of accomplishing objectives (Maull and Childe 1994).

CALL CENTER OPERATIONS

A call centre is served by trained customer service agents to respond to customer requests for information and services. Its operations encompass a variety of functions such as help-desk support, customer service, technical support, contact-centre service, and telemarketing. This study focuses on the service process management of a call centre from a banking perspective, specifically in particular a credit card department. The call centre system receives all the inbound calls and put them in a queue. The customer service agents pick up and respond to one call at a time. They are trained to scrutinise the nature of the request, and determine whether or not the requested information and services can be provided. For example, transaction details can only be given to account-holders of the bank. The call centre uses the Tax Identification Number (TIN) of customers as the primary security feature, in addition to other pre-stored confidential security information.

The nature of inquiries in the call centre is very diverse; some may be as simple as requesting a balance or as complicated as an explanation of interest charged in a credit card account. However, the bank has identified frequently-asked questions as shown in Table 2 below.

Table 2 - The Bank's Call Centre Operations

General	Credit Card	Branch Banking
Foreign Current Exchange and Deposit Rates	Card Activation-New & Renewed	Loan Account Inquiries
Current Marketing Programs	Card Block (e.g. Lost/Stolen Report)	Loan Related Certificate Request
Balance Inquiry	Card Re-instatement	Stop Payments of Cheque
Transaction Details	SafetyNet de-enrolment/re-enrolment	Issuance of New and Replacement TIN
Address/Telephone Number Amendment	Fund Transfer within the Same Master	ATM Replacement Request
Change of Statement Cycle/Date	Utility Bill Payment	Pay Orders and Demand Drafts
Duplication Statement by Mail	Transfer from Card to Bank Account	Bill Payment
Customer Complaints Follow-up	Credit Card Bill Payment	Bill Transfer

Service agents provide information on the spot as most of these are interactive phone conversations. Customer requests occasionally require generation of information through carrying out of transactions or a similar level of activities. First-line service agents are generally not empowered to conduct such transactions, and cannot therefore provide such information immediately. These calls are forwarded to Customer Service Representatives (CSRs) to initiate the transaction that triggers a number of documentation steps as shown in Figure 2 and discussed below.
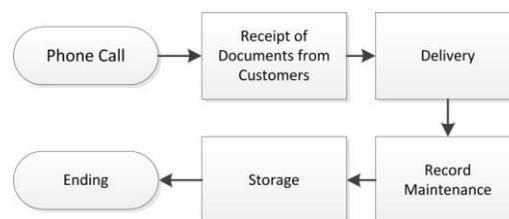

Figure 2: Call Centre Documentation Process

Receipt of Documents from Customers

Customers provide instruction over the phone and fax supporting documents, which are recorded in the Courier Control Sheet.

Delivery

All completed forms including the Courier Control Sheet are delivered to the relevant department either by fax or through the bank's internal mail, which is also acknowledged by the receiving department.

Maintenance of Records

The call centre maintains records of transaction instructions relating to amendments to card/bank accounts, replacement requests for ATM card/PIN/credit cards, and requests for PO/DD. The call centre also maintains correspondence records that include but are not limited to instabuys transfers, reversal sheets, rewards redemption forms and any other documents that are faxed to other departments, for a period of three months. After this, they are forwarded to archive. The acknowledgement of receipt from the relevant department is also filed.

Storage

Processed transaction forms are held in files to prevent damage, and stored in designated areas in the call centre. Documents such as computer reports are also filed in date order and retained in the same area.

CREDIT CARD OPERATIONS

Credit card information is always susceptible to fraudulent activity. Customer service representatives (CSRs) must verify customer ID before processing any enquiry over the phone to maintain security and confidentiality of credit card information. In addition to TIN verification, CSRs must check three static and one dynamic piece of information for a simple query, but they need to check five static and one dynamic for a sensitive enquiry such as card replacement, address/contact number change, reward redemption, card activation/blocking, etc. Static checks include but are not limited to: mother's maiden name, date of birth, addresses, contact phone number, employment details, and supplementary card; dynamic information checks include last transaction, last payment, last cash advance, branch from where the card was collected and transaction amount, etc. The CSR proceeds with necessary action after a successful security check. In cases of failed in security checks, the CSR advises customers to contact the Product Service Officer (PSO) at the nearest branch, and also updates reasons for failure on the necessary software. A number of significant activities of the call centre in relation to the credit card operations are briefly described below.
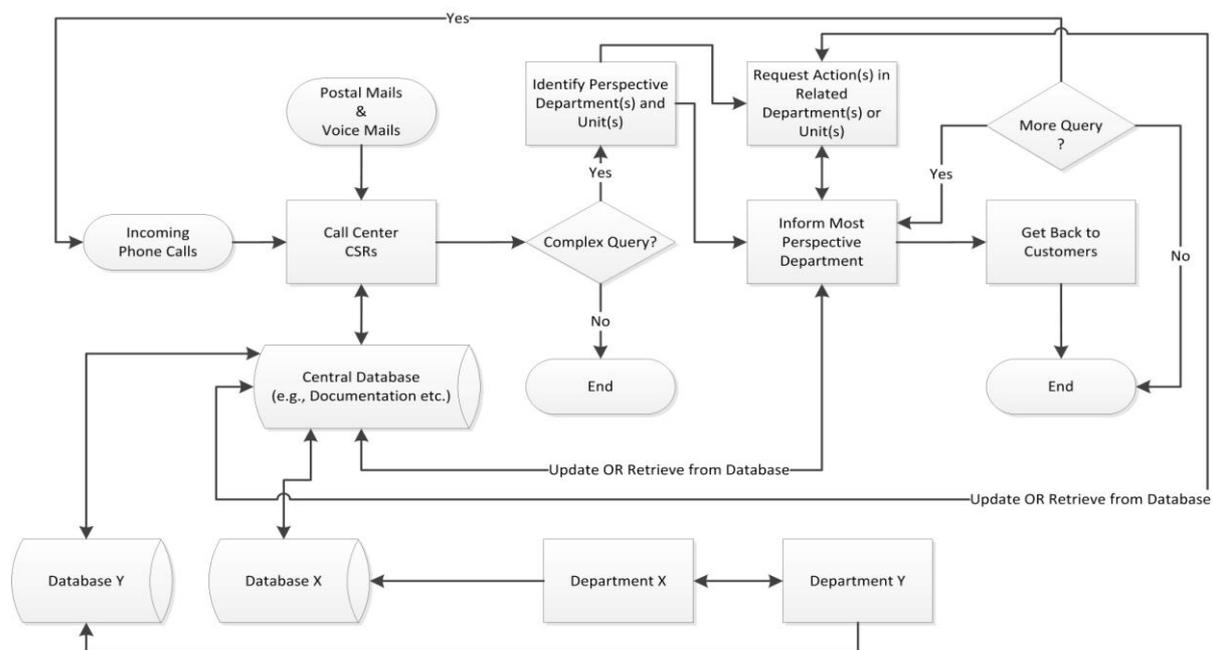

Figure 2: Phased-out Call Centre Process

Card Activation

The bank normally sends all embossed cards to cardholders in a deactivated status. After receiving them, cardholders contact the call centre to activate the cards. The cardholder enters the card number over the phone after which the call centre transfers the call to the CSR, which performs security checks from the software screen; cards are activated only after a positive security check. In a case of security check failure, the CSR informs the call centre manager (MCC).

Lost/Stolen Report and Replacement

Cardholders telephone the call centre to report a lost/stolen credit card and to request a replacement card. After satisfying security checks, a CSR puts the necessary 'Block Code' on the card account based on the type of loss or its delinquency status. In a case of regular non-delinquent accounts, the CSR asks the cardholder if any replacement is required. Such a request can be taken only from the primary cardholder and only if the card is a photo-signed card (i.e. having a photo on it). Delinquent customers are advised to contact 'Collections' for settling dues and advised that their card can be replaced only after clearing dues. The CSR notes the details on the standard Lost/Stolen card replacement E-Form, which is then forwarded to the respective unit for issuing a replacement card.

If a card is reported lost/stolen by a third party, the CSR blocks the card immediately for security reasons and customer notes are updated accordingly. In the case of a third party report, a card replacement request is not taken over phone, the customer being advised to send written information to the branch for replacement.

Change of Address/Phone Number

Primary cardholders may request changes of address and telephone numbers. In the credit card environment, address/phone number-change requests require special attention, to prevent possible fraudulent activity later. Since a PIN (Personal Identification Number) is mailed to a customer's address, great caution is taken while receiving such a request over the phone. An address/phone number-change request is not valid unless it comes from the primary cardholder; supplementary cardholders are not authorised to advise any change of address.

When a cardholder calls the call centre to change their address, the CSR performs security checks, updates the software, and write notes accordingly. The CSR fills out the standard address/phone number-change form and signs off the E-Form, which is forwarded to the respective unit for maintenance.

A call back verification is conducted by contacting the customer at the contact number available in the system. If this has been changed, the new phone is tried. Only after proper validation, the address change request is forwarded to Cards Ops (Cards Operation Unit). Call back verification is tried for three days. A list of customers who cannot be reached will be mailed to Cards SQ (Service Quality) for follow-up. Such instructions are not forwarded to Cards Ops.

Real-time responses to these types of queries are the key to increasing customer satisfaction without compromising confidential and security issues.

RESEARCH APPROACH

This research follows Yin's (2009) case study research methodology to investigate the impact of IT integration in the call centre operations-management initiatives of the credit card department of a large multi-national bank in a developing country. However, the study also incorporates a mix of data collection strategies and approaches, drawing on the suggestions of Yin (2009), Creswell (2009) and Tesch (1990) which potentially increase our confidence level to produce research findings and recommendations. Data collection includes four approaches, namely observation, secondary data from existing documents, informal and unstructured discussions and interviews, and formal and structured interviews. At the outset, we investigated existing theories and practices to critically analyse and identify the role and contribution of BPM in call centre operations. This helped in the conceptualisation of potential benefits and risks for redesigning IT-driven business-process management in the call centre operations in general. We then investigated and analysed the process manual of the call centre of the bank's credit card department and other related information available from secondary data sources. This was followed by informal and unstructured interviews of call centre operational staff, and finally concluded with formal and structured interviews of the operational and tactical level managers.

PROBLEM SCENARIO

The bank gained a substantial share of the credit card market soon after its introduction in the studied country. A package of factors such as superior quality service, product brand, good will and reputation helped the bank to easily penetrate the consumer market and to increase the customer base exponentially. This imposed a significant hurdle in ensuring continuous high quality service to existing and potential customers. Both branch- and head-office are struggling to respond in time to customer queries. To increase customer satisfaction, the bank set up a call centre to provide back-up support services for the whole country from a central location. This rapidly improved customer satisfaction level despite the services being managed manually. Since then the bank has run a series of marketing campaigns, which have generated a large number of calls from both existing and potential customers, as shown in Figure 3.
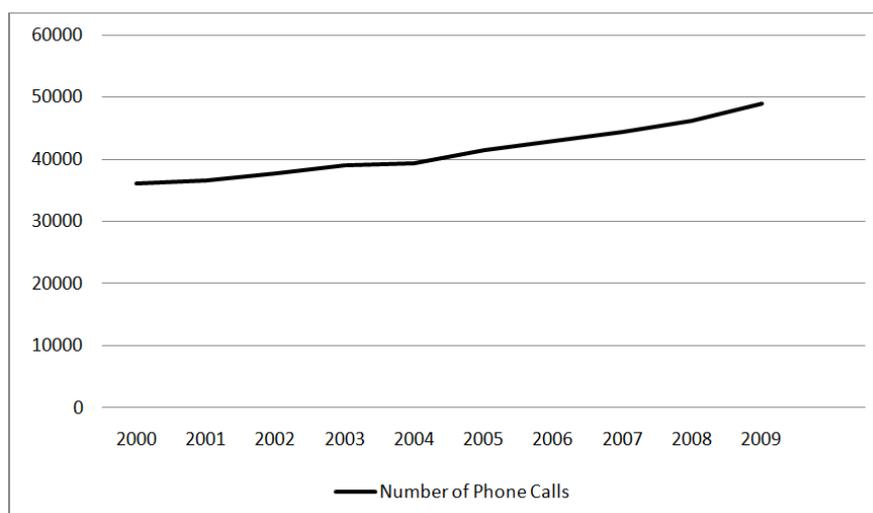

Figure 3: Yearly phone calls at the call centre

The bank has not significantly increased its call centre staffing level to cope with the increasing number of calls, and experiences difficulties in managing calls because of insufficient capacity, and the resources to handle them. It has no alternative but to reject more and more phone calls, as shown in Figure 4, transferring many of these calls to voice mail. Customer services

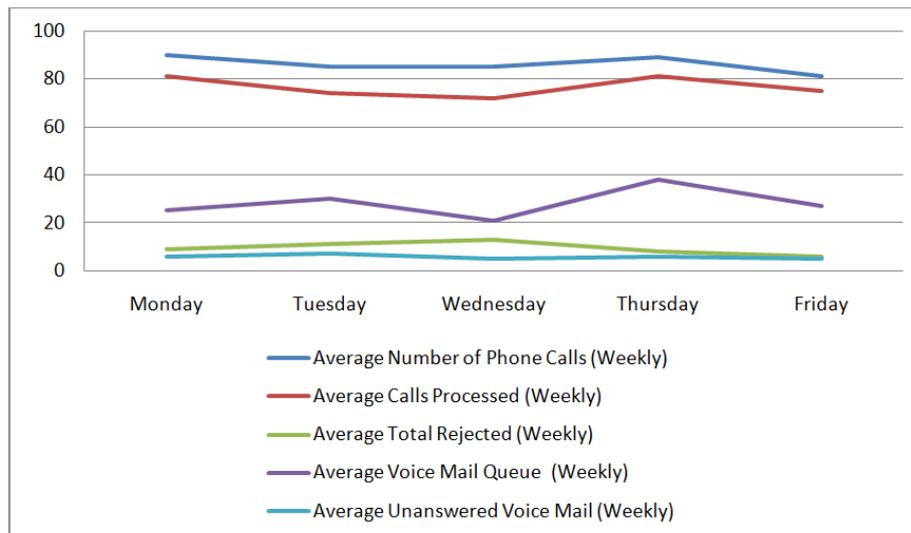representatives are still not able to respond many of these calls, triggering customer dissatisfaction.

Figure 4: Weekly Call Patterns

Overall capacity of the call centre and corresponding subsystems that are targeted to establish customer service are in a stressful situation. Due to evolving capacity shortage and further deterioration of the situation, the bank looks for opportunities that will not only resolve the problem but also potentially lead to a competitive advantage. As a result, pressure mounts on the senior managers to find efficient ways of expanding call centre capacity. They examined a number of options, such as increasing the number of customer service representatives for some parts of the call centre; increasing the number of computers and related equipment; installing a suitable call log and data entry system; outsourcing a number of call centre functions and activities, especially data entry, checking, quality control and information processing; increasing training facilities for the call centre staff, etc. However, while these may increase productivity in the call centre, other sections of the bank still faces a similar capacity problem.

REDESIGNED PROCESS

The bank decided to deploy Interactive Voice Response (IVR) technology in areas with a large number of calls. IVR technology is used to control functions where an interface can be broken down into a series of simple interactions and allows the customer self-service. Customers can find answers interactively using telephone keypad and speech recognition from predefined frequently-asked queries. This technology also responds to both pre-recorded and dynamically generated audio to further direct users on how to proceed.

Since installation of the IVR technology for a number of credit card functions, the bank is able to effectively continue its call centre operations 24/7 because many of the callers' queries are resolved without CSR involvement. It also allows a CSR agent to deal personally with those complex queries and demanding service areas in which they need to provide more thoughtful, investigative and transaction-oriented information. Thus customers receive personalised service when they really need it. This interaction is likely to be more fulfilling and rewarding also for the agent, as opposed to dealing with basic inquiries that require boolean type responses. Furthermore, IVR enables prioritisation of customer problems, issues and requirements. In the credit card query environment, each customer has different types of queries and priorities, and the IVR prioritises and moves calls from the generic to the specific queue. Moreover, since IVR does not depend on the number of available CSRs it is able to handle thousands of

customer calls concurrently. In addition to interacting with customer databases, IVR also logs call details into its database for auditing, performance measurement and future IVR system enhancement. Initially, IVR technology is used for the services of Utility Bill Payment, Cash Advance, Credit Card Payment and Fund Transfer. Adaptation of IVR system for these services is briefly described below.

Utility Bill Payment

Customers initially fill out a Utility Setup form and supply a photocopy of their most recent utility bill. The bank uses separate set-up forms for cardholders and accountholders. The Cardholder Forms are forwarded to Customer Services of the Cards Division. Cards Operation verify signature of the cardholder only if security details have not been checked earlier. They then load the card number, utility service provider and their consumer number. Information on the utility service provider is generally available in the bank's system and is retrieved from there. On completion of this set-up process, an accountholder can access Utility Bill Payment through the IVR for this particular provider. The system allows paying in full or part of the billing amount at any time subject to available funds. During the payment process, after successful validation of TIN in the IVR system, an accountholder selects the 'Utility Bill Payment' option. A customised menu of the IVR system then presents all the preloaded utility service provider and consumer numbers for the accountholder who then selects the desired provider and enters the payment amount. IVR repeats the utility provider's consumer number and the payment amount, and requests confirmation from the cardholder. The transaction is then completed subject to the currency of the cardholder account and the availability of sufficient funds. The system then confirms transaction status to the accountholder.

Cash Advance

The bank sets up an IVR system allowing customers to transfer funds from the local currency credit card to a transactional local currency bank account. In this transaction process, a cardholder must first validate their TIN. After successful validation, the IVR system allows the caller to select the 'Card to Bank Account Transfer' option from the interactive menu, immediately responding with the cardholder's available cash limit. The caller then enters an 11-digit account number to which they wish to transfer the fund, and enters the transfer amount. IVR repeats the account number and the transfer amount and requests confirmation by the caller. After receiving confirmation, IVR generates an authorisation for the desired transfer amount, subject to availability of sufficient cash limit in the card. IVR then confirms status, i.e. success or failure of the requested transaction, to the caller.

Credit Card Payment

The IVR system is set up to transfer funds from a transactional account to a credit card of the bank, so that a cardholder having a transactional account can process payment through the system through fund transfer. However, this transaction is limited to a local currency bank, to a local currency credit card, or from a USD RFCD (Resident Foreign Currency Deposit) account to an international credit card. During the credit card payment process, after successful validation of TIN, the IVR system presents the 'Credit Card Payment' option such as 'Visa Card' and 'Master Card' for local currency transactional accounts and only 'Visa Card' for USD RFCD account. The accountholder selects the desired option, enters the 16 digit credit card number, and the payment amount. IVR repeats the card number and payment amount, and requests confirmation from the accountholder. The transaction is then committed or rolled back subject to the correctness and currency of the credit card number, and availability of sufficient funds. The IVR then confirms the transaction status with the cardholder.

Fund Transfer

The IVR system supports fund transfer between bank accounts having the same master and local currencies. An accountholder, after TIN validation to the 'Fund Transfer' option from the PABX Accounts Menu, is transferred to the IVR system, enters the recipient account number, which must be a transactional account, and then enters the transfer amount. The system plays the account number and transaction amount, and requests confirmation from the accountholder. It then commits or rollbacks the transaction subject to the validation of the type of bank account and availability of sufficient funds, and confirms the transaction status with the accountholder.

According to the adopted process, a PABX system first receives the phone call and filters credit card- and non-credit card-related calls. This PABX supports both IVR and scheduling functions (i.e., a typical call centre queuing model). A non-credit card-related call is directly transferred to a scheduler for queuing and to be responded to by a CSR. A credit card-related call is again filtered for standard and non-standard query. A non-standard query is put to a scheduler for queuing the call to be responded to by the CSRs. Thus, complex and non-standard incoming calls are responded to by the CSRs, when they are transmitted through the trunk lines. A standard credit-card call is transferred to the IVR system, which provides standard messages and guides the caller through a menu to select the requested service. IVR stores call details in the connected database for auditing, performance measurement and future IVR system enhancement. The associated databases, especially those with IVR, record many gigabytes of call-by-call data each month. IVR records the call identification number, time required to select an option, most frequently selected option, action taken, time elapsed since the previous action, numbers of arrivals and abandonments, average service time, CSR utilisation and the distribution of delay in the queue, enabling further customer satisfaction initiatives. An integrated view of the adopted IVR system for the above described four processes is represented in Figure 5 below.
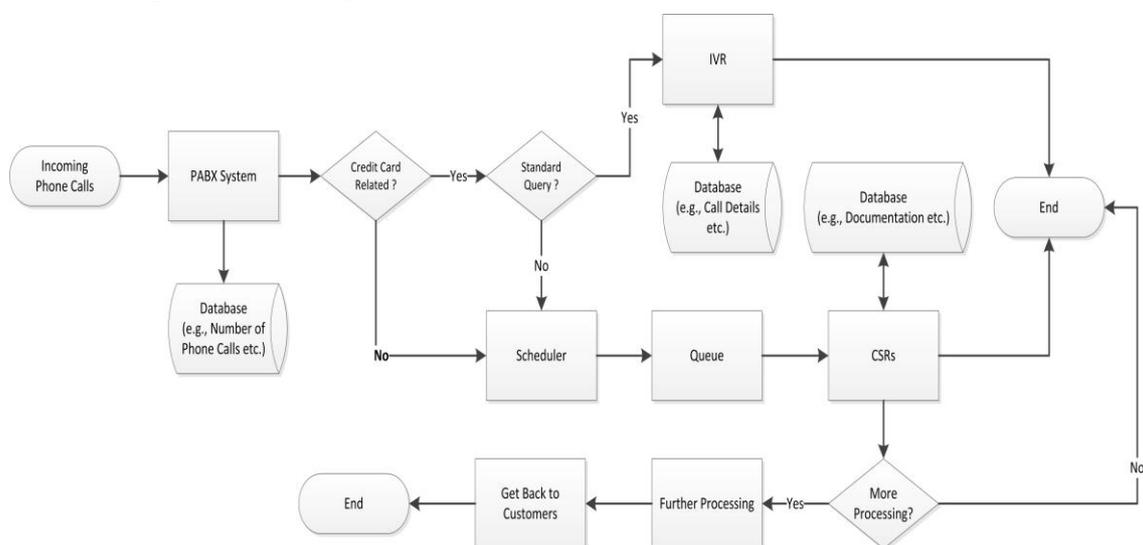

Figure 5: Adopted IVR System

BENEFITS OF THE NEW PROCESSES

The IVR system significantly improves the quality and performance of call centre operations, especially in reducing waiting time, employee productivity, and service quality. These are briefly described below.

Reduction in Waiting Time

Customers' waiting time has been reduced substantially as many of the frequent credit card queries are now being handled by the IVR system. Four standard credit card queries are handled more efficiently and effectively by the IVR system than a CSR. The goals of CSRs are now to make them available for customers with complex and non-standard queries.

Improvement of Employee Productivity

The new automated process has more clear documentation than the previous manual one. This provides the facility of more visibility and accessibility by the CSRs from any remote location. The exact roles of the CSRs are now clearly portrayed in the process manual. In addition, IVR handles and completes the most frequent and standard credit card operations. Dealing only with non-standard queries in the new process, CSRs are now more productive.

Improvement of Service Quality

The new process improves many aspects of customer service. Customers now have 24/7 real-time access to automated services and can make as many queries as they want at their own convenient time. Most importantly, process automation makes the system more robust and reduces the possibility of human error.

SHORTCOMINGS OF THE NEW PROCESS

The call centre redesigned its old process using the IVR system. Technologically superior, the new system will contribute a lot in enhancing overall customer satisfaction. However, the system has some pitfalls. The initial experience of customers was not very rewarding, some finding it difficult to interact with the system. There may be many reasons behind this, such as the bank failing to understand the technological skills of the customers, and the poor design of the system. Although many features were integrated with the newly designed system, the process lacks flexibility and cannot provide the unique benefits of talking with a human being. Moreover, the system was introduced without proper communication with the customers, who sometimes feel insecure continuing transactions with a voice-guided system. Services have also been disrupted on some occasions due to high traffic during peak hours. The bank should have made reliability tests of the system before implementation.

CONCLUSION

Business process management is always a difficult task. The application of information technology to improve service quality has been a major driving force behind business process re-engineering during the past decade. Manual systems have been replaced by IT-supported automated processes to increase efficiency and effectiveness of customer service. In this case study, we have observed that a reputed multi-national bank in a developing country has quite successfully automated the targeted segments of call centre operations using an IVR technology to enhance quality of service for credit card holders. Many of the time-consuming manual activities have been eliminated and automated by the IT-supported new business process. The new process successfully improves quality of customer service, enhances employee satisfaction and productivity; increases transparency and visibility; and boosts organisational profitability and reputation.

During analysis, design and implementation of the new business process, the bank did not properly develop the to-be process models for the call centre operations, which resulted in a number of poor design issues. Because of lack of proper communication and initial support,

many customers experienced difficulties in using the automated services and became reluctant to use them. The bank clearly failed to realise that customer awareness and confidence about the new process should have been a key step in its implementation. They should have developed a simulated business process model before undertaking implementation to overcome such issues and concerns.

The call centre now records a large number of performance data in a number of databases. This data can be analysed to carry out 'what-if' analysis, measure system performance, and undertake initiatives for quality control and continuous process improvement.

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