

TESIS^ APPROVAL STATUS FORM

JUDUL: SALES FORCE AUTOMATION

SESI PENGAJIAN: 2004/2005

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QA76.9.S88 .N49 2004



0000037130

Sales force automation (SFA) / Ng Yeap Lam.

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This report is submitted in partial fulfilment of the requirements for the Bachelor of Information and Communication Technology (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA
2004

ADMISSION

I admitted that this project title name of
SALES FORCE AUTOMATION (SFA)

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citations.

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DEDICATION

To my beloved parents for their selfless love and my sibling for their advice and support. I would like to express my warmest gratitude to my supervisor for her innumerable guidance throughout the thesis.

ACKNOWLEDGEMENTS

I would like to thank Kolej Universiti Teknikal Kebangsaan Malaysia for offering this course.

I would like to thank Faculty of Information and Communications Technology for their continual kind words of encouragement and attention to detail, which helped through the punishing workload in a very tight schedule.

Special thank to my supervisor Associate Prof. Norhaziah Mohd. Salleh for her invaluable editorial support and comments. I sincerely direct this appreciation for her enormous concern, innumerable pieces of advise, patience and rightful criticism.

I would like to thank Mr. Wong Wai Lum, director of Cheong Meng Paper Boxes Manufacturing Sdn Bhd for his kindness in freeing his precious time to attend to my interview request.

My deepest gratitude also goes to my fellow course mates for their willingness to share their ideas, knowledge and resources with in completing this project. Their ideas make the project more practical and more presentable in the real environment.

I would also like to thank to my beloved parents and brothers that constantly giving me support and motivation until at the end of my project.

ABSTRAK

Laporan ini menerangkan pembangunan aplikasi jualan yang terdapat di pasaran. Projek ini bertajuk "Sales Force Automation" dengan nama singkatan "SFA". Aplikasi SFA merupakan satu alat bantu yang berupaya menjangka jumlah jualan bulanan. SFA juga boleh diklasifikasikan sebagai pengurusan hubungan antara pelanggan. Sistem yang ada di pasaran sekarang tidak menggunakan aplikasi perkomputeran. Oleh itu, banyak masalah bertimbul. Untuk mengatasi masalah dan membantu meningkatkan jualan, SFA telah dibangunkan. SFA bertindak sebagai pembekal servis yang bertumpu pada aplikasi "hosting". Aplikasi "hosting" mempunyai kaitan rapat dengan perniagaan. Antara modul-modul utama yang terkandung dalam SFA ialah "account", "contact", "lead", "opportunity", "case", "solution", "competitor", "event calendar", "document", "sales analysis" dan "employee management". SFA juga membantu sesebuah organisasi meramal dan menjangka keuntungan secara tepat. Lantaran itu, syarikat tersebut dapat merancang dan menguruskan sumbernya dengan lebih baik. Metodologi yang dipilih untuk membangunkan aplikasi adalah "Unified Process". Teknik-teknik seperti temuduga, soal-selidik dan perbincangan telah digunakan untuk menyelesaikan pelbagai jenis domain masalah. "Microsoft Visual Studio.NET" telah digunakan untuk membangunkan aplikasi ini. "MS SQL Server 2000" berfungsi sebagai pelayan pangkalan data. Malah, "Crystal Report" digunakan untuk menghasilkan laporan analisis jualan. Sesungguhnya, projek ini dapat membantu pengguna dalam membangunkan dan melaksanakan strategi perniagaan. Lantaran itu, organisasi dapat berkembang maju dan berdaya saing.

ABSTRACT

This report tends to focus on the development of sales application in the market, named 'Sales Force Automation' or for short 'SFA', which also acts as a tool to create and forecast quarterly marketing sales with costs and performance tracking capabilities. It also can define as a Customer Relationship Management system. The centralized customer tracking systems do not take advantage of computerization to help the sales people with the process of selling. As a result, Sales Force Automation is an application service provider that focuses on providing and hosting applications related exclusively to business functions. The major modules in SFA are account, contact, lead, opportunity, case, solution, competitor, event calendar, document, sales analysis, and employee management. It also allows the company to forecast revenues accurately, possesses a clear, reliable understanding of near-term future events, and can focus their resources accordingly. The Unified Process has been chosen as the methodology to develop the SFA. Techniques such as interview, questionnaire and discussion are used to gather the different requirements from different problem domain. Microsoft Visual Studio.NET – ASP.NET is used to develop this application while Microsoft SQL Server 2000 is acted as the database server. Additionally, crystal report is used as a tool to generate reports for sales analysis. In conclusion, this project will help the users to developing and implementing business strategies and supporting technologies that close the gaps between an organization's current and potential performance in customer acquisition, growth, and retention.

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LIST OF ACRONYMS AND ABBREVIATIONS

Abbreviate	Definition
CASE	Computer-Aided System Engineering
CMIW	Cheong Meng Industrial Work
CMPB	Cheong Meng Paper Boxes Manufacturing Sdn Bhd
COP	Corrugated Offset Packaging Manufacturing Sdn Bhd
CRM	Customer Relationship Management
DBMS	Database Management System
DTS	Data Transformation Services
ERD	Entity Relationship Diagram
GUI	Graphical User Interface
HPC	Handheld Personal Computer
IDE	Integrated Development Environment
IIS	Internet Information Services
IPC	Internet Protocol Communication
JIT	Just-In-Time
KUTKM	Kolej Universiti Reknical Kebangsaan Malaysia
MA	Marketing Automation
OMG	Object Management Group
OOD	Object-oriented Design
PDA	Personal Digital Assitant
PSM	<i>Projek Sarjana Muda</i>
ROI	Return On Investment
SDLC	System Development Life Cycle
SFA	Sales Force Automation
SQL	Structured Query Language
TCP/IP	Transmission Control Protocol/Internet Protocol
TDS	Tabular Data Stream
UP	Unified Process
UML	Unified Modeling Language
WAP	Wireless Application Provider
WBS	Work Breakdown Structure
XML	Extensible Markup Language

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CHAPTER I

INTRODUCTION

1.1 Preamble/Overview

This chapter gives an overall introduction of Sales Force Automation (SFA). It will discuss on the project overview, problem statements, objectives, scopes, contribution, and project expected output.

Sales automation software is a type of application to automate the business tasks of sales, including order processing, contact management, information sharing, inventory monitoring and control, order tracking, customer management, sales forecast analysis and employee performance evaluation. Sales automation software is interchangeable with CRM software [Bryan Foss, 2].

The main intention to develop SFA is users can immediately boost the profitability of the organization by increasing revenues and reducing operational costs. This can be achieved if the sales pipeline is completely transparent and continually updated in real time. SFA enables everyone in organization possesses a clear and reliable understanding of near-term future events, and can focus their resources accordingly.

Mismanagement of the sales process will lose lots of opportunities. However, SFA enables sales staff seize all sales opportunities by interact more effectively and proactively with the customers. Every lead is immediately recorded and routed to the right person, and tracked through the pipeline in real time, so that no opportunities are ever missed and no competitive challenge goes unnoticed.

Additionally, SFA can empower everyone involved with easy access to sales information for service to be dispatched speedily. The amount of information revealed depends on the security access awarded to them. Cumbersome tasks like information search and administrative work should be reduced so that employees can focus their specialties on more important matters on hand.

The SFA application is provided for sales representatives, managers and executives. Sales representatives are able to keep track and analyze the daily activity such as sales and productivity. Managers gain visibility into the entire performance of sales representatives. Executives get fast and accurate answers to critical business questions, and keep track the latest information such as approval of new member, company and supplier.

1.2 Problem Statements

A principal reason for most businesses fail is the exponential increase in the volume of data that must be incorporated into existing systems. However, the usual techniques for warehousing and managing data are simply not effective for such high volumes of information. Besides that, sales teams do not know precisely what the others are working on. Sales team may be conduct less communication with their potential customers when deal with too much cumbersome tasks.

In most cases, the centralized customer tracking systems are not accessible to users unless they are in their respective offices. Many sales people travel with a personal copy of the data, which have to update while on the road, and then have to synchronize when get back to the office. This is a very inefficient way to be working. Thus, web-based sales force automation is needed to allow sales team instantly access to sales information.

Additionally, most companies unable forecast the sales for each month accurately and consistently. Hence, the company cannot estimate the monthly profits in order to survive among the competitors. Besides, the sales teams do not know whether they are doing well are falling behind without a sales pipeline. The sales report that manually produced out may be inaccurately and unattractive without the aid of pies, charts, and graphs.

1.3 Objectives

Objectives of Sales Force Automation development are listed as below:

1. Enable the company to quickly identity and acquire new customer
SFA allows the company to focus its limited marketing resources on the most promising target markets with the highest potential value.
2. Obtain a better understanding of the customer on their wants and needs
SFA allows the company gathers and accesses information about customers' buying histories, preferences, and complaints, so that the sales team can better anticipate the customers' needs.

3. Optimize and streamline a company's sales cycle
SFA helps in determining feasibility, profitability, and delivery dates, while understanding the constraints of the entire supply, production, and logistics chain across multiple channels and enterprises.
4. Seize all opportunities effectively
SFA eliminates missed opportunities by automatically routing, assigning, and escalating leads appropriately to the right person, and continuously tracked through the pipeline.
5. Forecast sales with greater accuracy and consistency
SFA forecasts the monthly sales more effectively with opportunity management, so the company can get a clear picture of how a given sales period is likely to turn out.

1.4 Scopes

The 11 core modules of Sales Force Automation system are listed as below:

1. Accounts Management
Accounts are the companies and organizations involved with users' business such as customers, competitors, and partners. For each account, user can store related contacts, opportunities, activities, cases, and attachments.
2. Contacts Management
Contacts are all of the individuals associated with the specified accounts. SFA facilitates more consistent and effective customer communication. SFA also provides mail sending service between

sales team and customer to allow an easy-manage customer relationship between sales team and contacts.

3. Leads Management

A lead is a prospect or potential opportunity. When leads are qualified to a prospective customer, SFA allows user to convert this lead via a wizard to the company database within account and contact management.

4. Opportunities Management

Opportunities are the sales and pending deals that user want to track. By adding opportunities, user is also building the pipeline, which will contribute to the particular sale forecasting.

5. Cases Management

A case is a detailed description of a customer's feedback, problem, or question. The organization can use cases to track and solve customers' inquiries, and maintain complete case histories with instant access to all customer communication including email, notes, calls, and more.

6. Solutions Management

A solution is a detailed description of a customer issue and the resolution of that issue. The collection of the company's solutions is sometimes referred to as the solution knowledge base. Anyone in the company can create new solutions, but only administrators can edit and delete solutions.

7. Sales Forecast

A forecast is the best estimate of how much revenue the company can generate in a quarter. This amount is divided between Forecast Amount - the amount company can confidently close, and Best Case Amount - the total amount of revenue the company might possibly generate.

8. Sales Analysis

Use standard or customized reports to gain critical, up-to-the-minute insight into company sales pipeline, forecasting, performance against competitors, and win / loss reviews. User can also customize the reports to access exactly the information needed, and subtotal and limit the data to help analyze trends and get a concise picture of what's happening in the organization.

9. Documents Management

Document library allow user attach an unlimited number of any type of files, easily expanding the amount of information associated with the deal. The attached files are accessible to sale staff working on the deal, keeping all critical information on hand for easy reference or circulation.

10. Event Calendar and Tasks Management

This module allows user creates and tracks activities for your leads, accounts, contacts, opportunities, and cases. Activities can be schedules for completion by or on a certain date. A month-by-month view of all activities will be presented to user.

11. Administrative Work desk

Develop a user setup system for administrator to add user, edit or delete user and assign role to the user. The SFA enhances the security by assign the user access rights to different levels of user.

1.5 Contributions

The SFA establishes the consistent customer management for small or medium business companies. The real-time, company-wide access to detailed

account data enables collaboration between sales, service, and marketing personnel. With instant access to all customer communication and data, user can collectively manage customer relationships across entire organization.

The complete visibility into the sales process enables each member of the sales team to know precisely what others are working on, facilitating collaboration that yields more productive selling. SFA allows user to track, measure, and report on company's strategic goals or milestones to help quickly locate and eliminate bottleneck that lengthen the sales cycle.

Additionally, SFA can forecast the revenues accurately. Since the sales pipeline is completely transparent and always up-to-date, everyone in the company from sales department has a clear understanding of upcoming demand and can plan accordingly. It is easy for company to recognize the market trends by analyze current and historical sales data.

SFA is also increasing the qualified leads and ensure no leads are drops. SFA provides the ease with which leads are captured, qualified, and routed to the appropriate sales representatives. Integrated marketing and sales functionality ensures complete visibility from leads to close opportunities and guarantees that all your hard-earned leads get timely follow-up.

Furthermore, SFA improves the sales productivity because it enables the sales team to close more business in less time. Sales team can evaluate their performance by average sales cycle, win rate, and deal size over time with effectiveness analysis and forecasting. SFA also allows user effectively schedule their tasks and events, and track priorities and due dates by Calendar and Task management.

1.6 Expected Output

The expected outcome from this project will be the complete web-based sales management software engineered to provide a scalable, customizable, easy-to-use solution for any sales or prospect tracking. The SFA is easily installed on any standard web server and compatible with SQL Server database. SFA can be accessed by any intranet or internet enabled platform regardless of operating system from anywhere in the world.

The summarization of expected outcomes of SFA is listed as below:

1. Simple and user friendly system.
2. Effective & efficient way to store and achieve relevant information.
3. creates awareness amongst the company employees
4. Review sales analyses in a graphical view.
5. Shorten the Sales Cycles and enhance the sales productivity.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Literature review is a background study about the knowledge and information needed to develop this project. It helps the developer to discover some of the existing features offered by similar system. Another important purpose of literature review is to sufficiently equip the developer with some knowledge of the strengths and limitations of several development tools [Pressman Roger S, 8].

Literature review involves a lot of research and case studies. Fact-finding techniques include searching information from library or through the Internet, observe current existing SFA and so on have been applied to acquire related information. The shortages and strengths of current system are identified as a mean to develop a SFA system that overcomes the demerits as well as maintains the strengths of current system.

This chapter will discuss on the literature review of the SFA system. Similar systems will be chosen for review of the features and concept of their SFA systems. The two pioneers of SFA systems that are chosen for case study are ACT! 2000 and GoldMine. Case studies help the developers to gain basic idea and know tools required, methodology, techniques from similar application.