

Proposal for a service-oriented customer relationship management curricula and teaching modules in a technological university

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ABSTRACT: In light of the growing service sector, it is most likely that students at the Department of Business Administration will enter the service industry to seek employment after graduation. This proposal outlines the teaching module of comprehensive Customer Relationship Management (CRM) curricula. The hope is that this review will improve the methodology, content and technique of teaching in a bid to help students exploit their learning after graduation. This includes soliciting new customers, keeping old customers, providing service to customers, deepening the relations between business and clientele and providing innovative, tailor-made customer service. Further, students will also learn how to manipulate CRM information systems or technology. Hence, students will find jobs more easily after graduation by being able to use data mining in the CRM system, and be able to draw up a company's strategies for sales, marketing and services.

INTRODUCTION

This study was based upon the following two reflections regarding current technological and vocational education. First, the focus is on the cultivation of skills, but the link to *practice* is neglected. The goal of cultivating skills is one of the centrepiece goals of technological and vocational education. However, it is only through a great amount of practice that knowledge can be turned into improved skills. Unfortunately, theoretical teaching is the basic mode, while practice teaching is merely regarded as a secondary pedagogic link. Practice teaching lacks funds, equipment, teaching material, data, etc. The students' skill drills and experiments are not adequately backed up. Consequently, curriculum design plays a crucial role.

Second, the present system of technological and vocational education still centres on theory and lacks an intermediary curriculum module to help transform knowledge into the expertise needed in the workplace. It has been a basic principle of vocational education to establish a knowledge and capability structure to cultivate talent based on the requirements of the workplace and to construct a teaching mode focusing on a capability-oriented curriculum system. However, this principle contradicts the characteristics of a comprehensive college education, which concentrates on a complete theoretical system and an all-round knowledge architecture. Therefore, the teaching activities for technological and vocational education should be reviewed and reformed.

AIMS

Because production costs in Taiwan have skyrocketed in recent years, a large number of manufacturing businesses have moved overseas. As a result, the service industry as a proportion of all industry has been expanding day by day. In light of the trend of a growing service sector, it is unavoidable for the students of the Department of Business Administration to enter the service industry to seek employment after graduation. However, there is more, often than not a discrepancy between the educational content of schools and the basic skills demanded of job seekers by the tertiary sector of the economy. Therefore, a study of service sector-oriented curriculum planning, an all-important issue, was one of the objectives of this research. The other objective was to help students cultivate the capabilities required by industry so that they can continue to learn and develop their expertise [1]. The proposal is presented in Figure 1.

CRM CURRICULA

At home and abroad, most CRM teachers think that, in quality management work, CRM is most proactive in evaluating performance. It is also a tool for a business' strategy development but is not regarded as a goal [2]. The course aims to teach students that, in order to plan a CRM strategy, it is essential to focus on the customer's values and to collect information about their requirements and, based on this, to further analyse the relationship between the *degree of*

importance and the degree of satisfaction for each requirement [3]. Meanwhile, it is worth noting that a customer's requirements do not always remain the same, and are definitely not under the control of a business [4]. Consequently, a business has to diagnose and consider these factors on a regular basis and draw up a sensible strategy to ensure the success of its marketing activities. Therefore, in addition to concentrating on the teaching of CRM-related theories, the database module often included in CRM also plays a crucial role in the course.

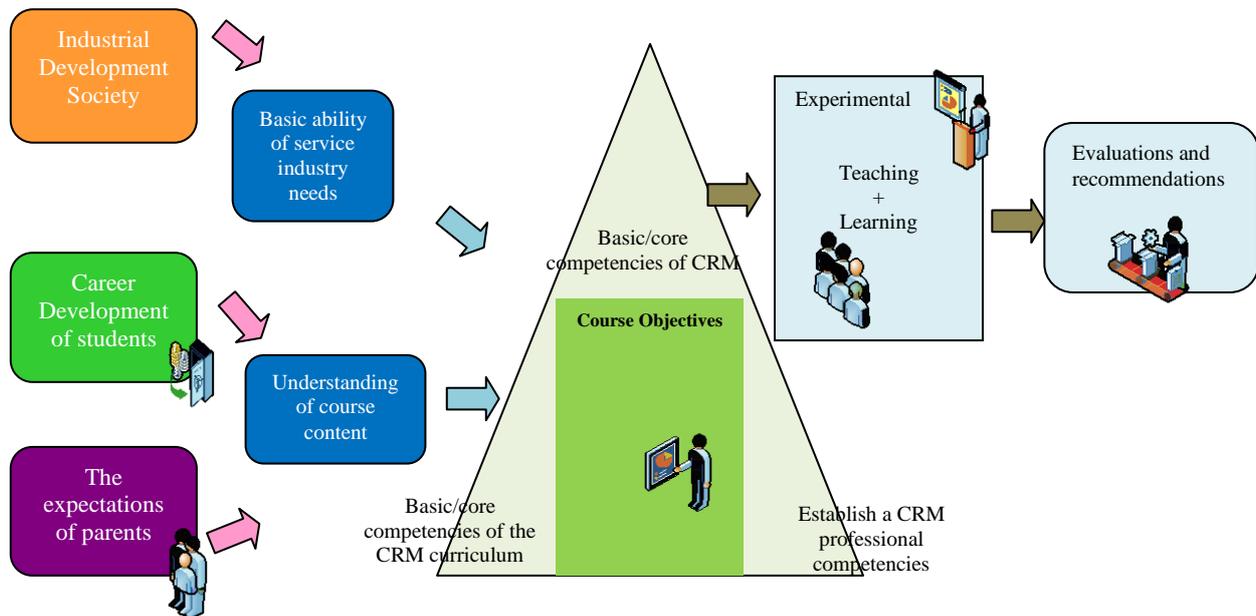


Figure 1: An overview of CRM curricula development proposal.

Definition of Customer Relationship Management (CRM)

The term CRM means the integration of marketing, customer service, etc, using information technology so as to provide the customer with a tailor-made service and raise the customer's degree of satisfaction and loyalty in a bid to improve the quality of customer service and achieve the goal of boosting a business' operational performance. Its nature is to execute a corporate strategy, the objective of which is to maximise the customer's long-term value and concentrate a business' sales, marketing and customer service on the clientele. Generally speaking, an ordinary business uses CRM to:

- boost corporate operational performance,
- improve service quality, and
- develop different product combinations for different markets.

Technique of CRM

The database module, often used by CRM, generally needs to possess the following techniques so as to make it suitable for proactive analysis work.

- Information Storage:** A data warehouse is an integrated data bank, the data of which are from a wide range of sources, and is about various subjects. It serves as an auxiliary tool for inquiries, reports, resources distribution, decision making and analysis.
- Information Analysis:** Data mining supports *finding relevant patterns in a huge database and automatically extracting predictions*. The primary objective is to make use of data mining to establish a model to predict the customer's behaviour.
- Information Application:** Following a series of information analyses, a business garners information that benefits decision-making. This is saved in a database so as to support processing tools and decision-making systems. These systems obtain real-time, dynamic information of great value from the data warehouse, and can serve as a crucial foundation for decision-making.

Combination of Core Spirit and Technique

CRM itself is a notion, as well as a technique, so its usage needs some creativity. This is because CRM is not a brand-new concept. In past times, businesses also attempted to build good relations with their customers by using all kinds of methods, with a view to achieving an interactive marketing relationship.

However, with today's ever-advancing information technology, the approaches to CRM have reached new levels by making use of databases to deepen businesses' understanding of customers and to build long-term interactive

relationships with them, forming the so-called database marketing. Yet it is worth noting that making good use of this type of information depends on how a business ponders, arranges or reshuffles these four factors:

- A. Customer grouping management;
- B. Value positioning;
- C. The role of added value;
- D. The sharing of rewards and risks [5].

METHODOLOGY AND INSTRUCTIONAL DESIGN

Methodology

The method of action research was used in this study in the first year. The research issues were explored in this study, according to the action research method, accompanied by focus group interviews to collect data on the opinions of the service sector regarding the basic abilities and expertise required by CRM.

Action Research

One of the primary objectives of the action research method is to enrich educators' expertise. In addition to obtaining related knowledge and capability by research, it is most important that the researcher constantly reflected on the research technique and educational issues. Only through the researcher's reflection can an individual's growth be achieved. Therefore, action research eventually should be able to make reflections on the research results or the research process.

Action research usually consists of five steps: diagnosis, analysis, giving feedback, acting and evaluating. In this study, the reform driver in action research refers to the teacher, so the teacher himself or herself is also a tool. The teacher collects information about any questions, feelings, requirements, etc, the industry has concerns about the service sector course, using a set of diagnostic methods such as those used by psychologists: methods such as inquiry, recording arrangements, listening, etc. The collected data are then analysed so as to grasp the major issues of the industry, the CRM learning condition of the students, and the forms in which they emerge. Through the analytical process, the focuses, problems and possible actions are determined.

Action research also involves large-scale participation, in which the teacher shares the collected and analysed data with his or her peers. So, in the third step of giving feedback, all those who teach the CRM course should take part to help with, and develop a feasible project for, the course module. After evaluation and selection, the fellow teachers and the project-executing teacher will select a specifically feasible project to carry out.

The final step of action research is to evaluate the effect of the action project. That is, to use the data collected in the beginning as criteria to compare the situations before and after (that is, continue to use the original teaching and experimental teaching) to evaluate whether the action has helped improve the situation.

In action research, the teacher is the researcher and begins with the dissatisfaction, doubt and anxiety. In the process of teaching, further questions or doubts arise. This leads to defining and coping with the problems through reflection and observation. Further, because the research environment is the actual teaching environment, it is beneficial to the actual teaching and course design problems this study was intended to solve [6]. Generally, the advantages of action research are:

- A. Research analysis can be done by the teacher at a factual educational scene.
- B. Action research can help improve educational practice.
- C. The teachers can develop more effective methods to apply their technique.
- D. It helps the teachers confirm problems and issues systematically.
- E. Research groups can be set up.

The objective of educational action research is to make one's teaching more refined and solve the educational problems facing him or her. The research problems in action research originate in specific educational scenes with the goal to solve specific problems without the intention to infer. The reason why one conducts action research is to collect data systematically so as to select the necessary course reform, according to the results of data analysis, in a bid to provide scientific means for the course and teaching design to be systematically reformed.

Therefore, for this proposal, action research has at least three strengths. First, it homes in on the problem and is reliable. The teacher-researcher defines the problem objectively and selects an appropriate course design action with his or her fellow teachers according to the type of problem, rather than making judgments based merely on intuition [7]. Second, it possesses validity. After the teacher-researcher and his or her fellow teachers adopt a solution, they will further examine the validity of these projects. Third, because fellow teachers take part in every phase of action research, the resistance against course reform (new course module) is expected to be reduced. This will benefit the students a great deal.

Focus Group

The focus group method is a way of collecting information by allowing the interviewer to set his or her own topic and by using an interactive discussion by a group of people. In the process of a group interactive discussion, the researcher tries to guide the focus of the discussion in the direction of interest, leading to an in depth discussion. This method was used to collect information about the basic and professional capability the service sector expects CRM providers to possess. The study included group focus interviews of the industry and the academic world, with the final goal of establishing general and professional capability indicators.

The process provides opportunities to garner abundant, complicated information from individuals. In the face-to-face process, under the guidance of an experienced interviewer, the interviewees unknowingly share their internal experience and opinions, delving into their own memories to reveal a whole raft of thoughts. These abundant, precious data include the interviewees' tacit knowledge [8].

Instructional Design

A Model of Pedagogical Reasoning and Action presented by Shulman in 1986 is used as the instructional design method [9]. Shulman believed that teachers will use their knowledge to make decisions and carry them during the preparation phase before teaching and during the act of teaching. Shulman analysed the process of planning teaching, activity implementation, reflection on teaching, and re-comprehension of the course before, during and after teaching:

1. *Comprehension*: The teacher fully comprehends the teaching goals, the content and structure of the subject, and relevant concepts inside and outside the subject.
2. *Transformation*: Through the four steps of preparation, representation, choice and adjustment, according to his or her grasp of the knowledge of the subject, the teacher transforms the teaching materials into teaching content that the learner can comprehend and absorb.
3. *Instruction*: After aforesaid thinking, the teacher conducts effective teaching in the classroom through the interaction between teacher and students using management, representation, interaction, grouping, training, humour, asking questions, and other lively forms of teaching.
4. *Evaluation*: During the teaching interaction, the teacher examines the learners' degree of comprehension, and after teaching a unit or lesson, tests the learners to find out their comprehension. Meanwhile, the teacher evaluates his or her own teaching and makes adjustments according to the evaluation.
5. *Reflection*: The teacher reflects on his or her responses and the learners' via methods such as retrospection, reconstruction, critical analysis and attempts to understand them and, hence, generates a new comprehension. That is, through reflection, the teacher will experience a new recognition and understanding of the teaching goals, teaching materials of the subject, the learning of the learners, the teacher's pedagogy and the teacher himself or herself.

OPERATION PROCESSES

A literature review is undertaken to explore and generalise the current situation of the service sector's CRM course design. Then, in-depth interviews of fellow teachers and businesses are used to grasp the current learning situation and requirements of the service sector's present CRM courses. First of all, the content of the operation and procedure is described in detail phase by phase as follows, based on Shulman's model of Pedagogical Reasoning and Action - comprehension, transformation, instruction, evaluation and reflection [9].

Phase 1: Comprehension

It is necessary to fully comprehend the investigation results of the talent requirements of the service industry, from the present situation of students' knowledge of basic CRM, and the basic CRM talent requirements demanded by industry. Then, the researchers or teachers can establish indicators.

Phase 2: Transformation

Based on the results of his or her understanding of the subject, as well as on the results of factual investigations, the teacher transforms the teaching materials into an appropriate form by carrying out the four steps of preparation, representation, selection, and adjustment and modification so that the learners can comprehend and absorb the content of the teaching materials. In other words, so as to achieve the eventual goal of producing indicators of basic abilities, teaching units, teaching activities and materials, and the development of the content of a CRM course suitable for technological and vocational schools.

Phase 3: Instruction

Based on the results of the factual understanding and the indicators set up after investigation, the teacher develops the test scale and course module following discussion in seminars or consultations with experts. Meanwhile, traditional

methods of instruction are still employed and the learning profile established so as to be used for comparison purposes in the third year.

Phase 4: Evaluation

After pondering over the aforesaid, the teacher teaches the course module and establishes the learning profile in the classroom using management, representation, interaction, grouping, training, humour, question raising and other lively forms of instruction. Methods such as teacher-student interaction, team collaboration, inquiry learning are used. In the process of teacher-student interaction, the teacher examines the learners' degree of comprehension. After teaching each unit, the learners' degree of comprehension is tested and the after-class test scale implemented.

Phase 5: Reflection

The teacher reflects on his or her own, and the students' responses via such methods as retrospection, reconstruction, critical analysis, as well as explains them according to evidence so as to establish a new comprehension. In other words, through reflection, the teacher attains a new grasp and understanding of the instructional objective, teaching materials, learners' learning, and teacher's teaching, and the teacher himself or herself. In doing so, the course module can be refined.

ANTICIPATED CONTRIBUTIONS

Contributions to National Development and Other Aspects of Applications

As mentioned above, the knowledge required of the management talents of the domestic industries have yet to reach maturation, and the country's technological and vocational education courses usually passively follow the curricular content of ordinary universities. As a result, the instructional objectives of so-called *practical applications* are unable to be achieved. Hence, knowledge of practical applications fails to inform businesses' core areas of competition, let alone providing for the possibility of upgrading industries. Through the proposal's curricular-reform planning and development, the objective of technological and vocational education can be reached and the industries' manpower requirements can be met. It is expected that the results of this research will contribute to the transmission and extension of commercial techniques in terms of the cultivation of management talents for domestic businesses. As well, it will have a long-term positive effect on the national development of service-oriented business operations and management.

Researchers Participating in this Research (Teachers)

First of all, the features, strengths and drawbacks of CRM can be applied to the establishment of knowledge transmission models and the upgrading of related techniques for school-industry collaboration so as to improve the mutual support and co-operation mechanisms of the industries and the academic world. Second, the research can help reinforce the teachers' capability in the service industry's CRM instruction and facilitate their professional growth. Third, as seed teachers, they can provide research viewpoints as referential information for businesses' manpower development and management or for staff's further professional education.

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