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The Functionality and Usage of CRM Systems

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***Abstract*—** Modern information and communication technologies offer a variety of support options for the efficient handling of customer relationships. CRM systems have been developed, which are designed to support the processes in the areas of marketing, sales and service. Along with technological progress, CRM systems are constantly changing, i.e. the systems are continually enhanced by new functions. However, not all functions are suitable for every company because of different frameworks and business processes. In this context the question arises whether or not CRM systems are widely used in Austrian companies and which business processes are most frequently supported by CRM systems. This paper aims to shed light on the popularity of CRM systems in Austrian companies in general and the use of different functions to support their daily business. First of all, the paper provides a theoretical overview of the structure of modern CRM systems and proposes a categorization of currently available software functionality for collaborative, operational and analytical CRM processes, which provides the theoretical background for the empirical study. Apart from these theoretical considerations, the paper presents the empirical results of a field survey on the use of CRM systems in Austrian companies and analyzes its findings.

***Keywords*—**CRM systems, CRM system adoption, CRM system diffusion, CRM functionality, Market study.

I. Introduction

CUSTOMER Relationship Management includes a wide range of topics, which focus on all customer-oriented processes in a company [18], [7], [31], [8]. The information and communication technology components of a comprehensive CRM strategy are integrated into CRM systems that enable the automation of business processes in the areas of marketing, sales and service in order to build and maintain profitable long-term customer relations [28], [18], [44], [32]. The effective management of customer information has become more and more crucial in CRM [32]. In this context CRM systems can therefore be seen as technological enablers [28], [17], [42], [12] that have led to a significant economic revival of CRM, which was boosted by the availability of integrated CRM solutions.

The market for CRM systems is quite wide and heterogeneous. On the German software market alone, over 100 different CRM systems and providers can be identified [42]. Due to the large number of different application areas, many standard software products offer specialised functionality for individual CRM processes or specific industries. However, integrated global solutions are also available on the market [41], [16]. An analysis of empirical studies on available CRM solutions [24], [20], [42], [15], [25] confirmed the diversity of functions of the offered software. Due to this diversity, the selection of CRM systems is becoming increasingly difficult for companies as their complexity increases as well [21], [26]. Companies also find it difficult to select the appropriate software due to the wide variety of functions and the fact that not all individual business processes can be supported without expensive customizing of the software. Against this background, we will discuss whether CRM systems are in operation in Austrian enterprises and which features of CRM systems are actually used in daily business.

Most available studies focus on the supply side, i.e. they only describe the software functionality of CRM systems. Detailed studies discussing the actual use of CRM systems in businesses and examining their software features are unfortunately quite scarce. To fill this gap, the present paper looks at the functionality of modern CRM systems focusing on the areas of collaborative, operational and analytical CRM, and their use in a business environment. The study also introduces a classification of CRM functions and outlines the results of a market study, conducted in 2007, on the use of CRM systems in Austrian companies. These aspects will provide an overview of the current situation and expected future trends.

II. Theoretical Background

Due to the steady development of information and communication technologies, CRM activities have become much easier to plan and implement over the last years [10]. However, CRM is a complex term which includes several areas within an organization and cannot be reduced to technology aspects [9], [26]. Comprehensive CRM strategies include many customer-oriented tasks [5] which range from the individual response to customer requests to customized products tailored to customer needs. In order to ensure smooth processes, qualified employees and the support of powerful software solutions are required [36]. CRM systems provide the technological infrastructure to implement CRM strategies [28], [14], [17], [42], but they only play a subordinate role. In a holistic CRM concept the support of information systems alone does not automatically lead to an improvement of customer relations [26], [46], [33], [12].

In practice, the introduction of such systems is often a substantial challenge for companies because of the high complexity of the business processes and the information systems themselves [21], [42], [43] – as a result, many CRM projects failed or could not fulfill the expectations [1], [9],

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[21], [35], [37]. Moreover, legacy systems which already exist in the enterprise (e.g. call center systems, CAS systems, data warehouses) as well as the migration of data and system functions must be taken into consideration [17]. For a holistic view of the customer, CRM systems can also be integrated into other information systems (e.g. ERP systems) in order to exchange data and set up a central data source for all processes and departments [14], [29], [17], [46], [49]. The operational areas of the systems can differ depending on the company's CRM strategies and the functionality of the software application. However, most CRM systems are used to support and optimize customer-related processes in a business environment [30], [41], [47].

Following [17], this paper regards CRM systems as technological enablers which are designed to combine island solutions and to support business processes in the areas of marketing, sales, and service. They serve to integrate and provide access to all customer information and contact channels on the basis of a central database. Based on the setup and structure of CRM systems, their functions can be classified into three different areas, namely collaborative, operational and analytical CRM, which are connected to each other through a learning system ("closed loop architecture") [46], [30], [18], [12], [11], [19]. The backbone of all CRM activities is usually the operational component as it covers the main CRM processes in the front office [28], [6]. Depending on the company's needs, these operational modules can be extended with appropriate components from analytical or collaborative CRM.

III. Research Process

In order to determine the CRM functionality currently available on the software market and to investigate the actual use of these software-packages in enterprises, the study follows a three tiered research design. First of all, a literature survey was conducted on the topic of CRM systems. In a second step, a classification of the functionality of CRM systems is introduced. This classification provides the theoretical background for the collection and interpretation of market data to shed light on the actual use of such information systems in Austrian companies.

A. General Literature Analysis

To provide a general definition and description of CRM, a comprehensive literature survey was carried out at the beginning of the study. This survey involved all relevant literature including online sources, published papers and field studies. On this basis, the objectives of CRM systems were identified, classified and summarized.

B. Classification of CRM Functionality

The second step of the research design includes the identification and classification of the currently available functions of CRM systems. The research process was divided into two sub-categories:

- **Literature survey (vendor studies):** The categorization of CRM functions is based on recent market studies on the vendor market for CRM software. On the basis of the categorization of software functionality presented in these studies, an initial classification model was developed. This was further refined by taking recourse to the theoretical descriptions of CRM systems in the relevant literature. By basing the classification model both on the literature as well as the results of field studies, the resulting categories include well established functions as well as recently emerging features. In the design of the classification model, it was ensured that the overall structure of the categories (see Table 1) matches that of the vendor market studies (e.g. [20], [24], [15], [42] to allow a comparison between the supply and demand side.
- **Internet research (vendor):** In a second step, a comprehensive Internet survey was carried out to get an overview of the current software market. The primary objective was to obtain up-to-date information on the vendors and the software solutions on offer. Together with the results of a previously conducted survey on software vendors the findings were analyzed and missing functions were added to the classification model.

C. Market Study (Demand Side)

A survey of Austrian enterprises aims to reveal whether CRM systems are used to support business processes, and if so, which functions are mainly used in day-to-day operations. In addition to the current usage, the companies were also asked to predict future trends concerning CRM systems in their businesses.

- **Subjects of the market study:** For the review of the use of CRM systems, a population of 620 Austrian companies was selected. This selection was based on the annual rankings in "Goldener Trend", in which the Top Austrian enterprises are listed. Since the ranking did not contain eMail contacts of all listed enterprises, telephone research was necessary to obtain all eMail addresses for the online survey.
- **Market research (demand side):** The data was collected via a standardized online survey based on an electronic questionnaire. The use of an electronic questionnaire reduces the survey period, increases the response rate and simplifies the analysis of the results. The resulting sample contained 121 fully completed questionnaires which accounts for about 20% of the survey population. The data were analyzed using the statistics package SPSS. The analysis focused on the identification of significant differences and their correlation with factors like the business sector involved and the size of the enterprise.

IV. Classification of CRM Functionality

Based on the components of a CRM system, a wide range of functions can be identified. Next to integrated information systems, which support all areas of enterprises including processes concerning customer analytics or back-office support, there are also standard software products which specialize in certain business areas/processes (e.g. Sales Automation, Call Center Solutions) or offer solutions for specific industries [3], [4], [49]. However in regard to

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customer relations, all systems have the key objective to provide customer information at the right place and time, to support customer processes and encourage the development of long-term relationships between customers and enterprises [44]. The categorization of functions into different components of a CRM system (collaborative, operational and analytical CRM) in this paper follows the relevant literature (e.g. [46], [30], [18], [12], [11]). In terms of CRM systems, the focus in literature and practice is mostly on operational CRM, which is also supported by a majority of the currently available standard software products. Following a holistic CRM concept, the classification model also includes functions of the collaborative and analytical modules of CRM software. The final classification categories integrate the results of various market studies (e.g. [20], [24], [15], [42]) and Internet research (see Table I).

TABLE I
CLASSIFICATION OF CRM FUNCTIONALITY

collaborative CRM	*Contact Management*		*eCRM/Internet*		*Customer Interaction Center*	
operational CRM	*Marketing Automation*	Campaign Development	*Sales Automation*	Order Management	*Service Automation*	Helpdesk
		Campaign Execution		Sales Force Support		Complaint Management
		Campaign Controlling		Product Configuration		Service Requests
analytical CRM	*Marketing Analysis*		*Sales Analysis*		*Service Analysis*	

A. Collaborative CRM

Collaborative CRM covers the control and integration of all communication channels between the company and its customers [46], [30]. Via "Customer Touch Points", which interface directly with the customer, a continuous dialogue between the enterprise and the customer can be established [22]. This dialogue is the basis for an interactive learning relationship in terms of relationship management [37]. Due to the use of different communication channels, it is possible to optimize the exchange of information between the customer and the enterprise [18], [40], [19]:

- **Contact Management:** Contact management includes all tools for managing and maintaining customer contacts (e.g. addresses, contact persons, status of the relationship). In most cases all customer data are recorded and stored in a central database in order to provide these data for all customer-oriented processes in the company.
- **eCRM and Internet:** Due to the integration of the Internet into CRM processes, customer data from online activities can be integrated directly into the central database. Thus, a variety of modern CRM activities are supported (e.g. online availability checks, user tracking, real time customer identification, virtual shop assistants). In addition, the planning and implementation of online catalogues and shops are based on Internet technology, i.e. they depend on real time communication networks inside and outside the company.
- **Customer Interaction Center:** The Customer Interaction Center is the base and headquarters for customer service. All contact channels are brought together in a multimedia communication center which uses modern technologies such as computer telephony integration, automatic call distribution, call guides or the automatic preselection of customer requests by topic areas or the language of the customer.

B. Operational CRM

The operational component of a CRM system deals with the design, planning and implementation of operational CRM activities and offers tools which support day-to-day business in the areas of marketing, sales and service (e.g. campaign management, sales force support or complaint management) by automating all processes associated with customer relations [26], [45], [13], [18], [12]. The main task is to support customers on the basis of information from the central CRM database or back-office solutions [16]. In most cases the operational and analytical component of the CRM solution are integrated in a closed loop system which shares the customer data [19], [23], [50].

- **Marketing Automation** is responsible for managing and supporting all customer-related marketing activities. The central aspect in marketing automation is campaign management, which focuses on providing the customer with adequate information at the right time, though the appropriate channels, in order to ensure a continuous interaction with the customers [17], [10], [49]:
  - **Campaign Planning:** A CRM system can provide support both in the planning of marketing activities (e.g. objectives of a campaign, dates and milestones, process definitions, automatic channel selections) and the preparation of the actual campaign itself (e.g. finance plans, target definition).
  - **Campaign Execution:** During the conducting of a campaign, information systems offer applications which provide appropriate content for the selected communication channels. In addition, the system can be used to automate the execution and management of campaigns (e.g. rule-based execution, personalization of content, event-triggered content).
  - **Campaign Controlling:** Campaign controlling deals mainly with the monitoring and analysis of ongoing or already completed campaigns. The results and findings of the analyses can be used in the planning of later campaigns.
- **Sales Automation** includes the support of all sales activities associated with individual customer contact. The focus of so-called Computer Aided Selling systems is on supporting the internal and external sales processes (e.g. opportunity management, product configuration, order management) through information and communications technology [1], [17], [48], [49]:
  - **Order Management:** A central sales function of a CRM system is order and supply management, which covers the planning and implementation of all sales activities. The functionality palette includes assistance in the processing of customer requests (e.g. lead and opportunity management), the sales process (e.g. contract terms, pricing) as well as the tracking of orders.
  - **Sales Force Support:** Sales force support provides streamlining opportunities for companies as order entry

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and the planning of sales activities can be done online and the data is directly available for the sales department. The sales force is also supported by functions which matches appointments and activities in real time (e.g. sales frequency optimization, route-planning, visit reports, visit frequency), thus the available time for each customer visit can be optimally exploited.

- **Product Configuration:** The main purpose of configurators is the individual matching of products and services to the wishes and needs of a customer in the context of a sales call. Configurators can be used both for the individual design of the products and for the presentation of product combination possibilities or product alternatives.

- **Service Automation** supports the service department of a company, which is a key success factor for the maintenance of long-term customer relationships. Depending on the processes and parties involved, CRM systems offer functions for the customer field service as well as the companies' service back-office. While the field service employees primarily need administrative support (e.g. recording of service requests, request administration, product data), employees at the helpdesk tend to use more advanced communication applications (e.g. contact histories, automatic call distribution) to simplify the contact with the customers [2], [17], [39], [40], [49]:
  - **Helpdesk:** The helpdesk is often the first point of contact for customers in service requests. The incoming requests can be automatically assigned to the appropriate staff (e.g. on the basis of expertise). To find an appropriate solution for the customer's problem, various functions are available such as automatic problem identification, case based reasoning or databases with previous cases and solutions.
  - **Complaint Management:** Complaint management is an important medium which generates feedback from customers and can be used to increase the customer satisfaction through a positive image of the enterprise. CRM systems can assist the complaint process through the systematic collection and categorization of complaints and the automatic management of customer requests.
  - **Service Requests:** With this component of the service process, the role of a CRM system involves all service activities in the context of a service center. The primary objective is to offer a quick and straightforward solution to the customer's problem. The information system can support the administration of service data including historical requests and service contracts as well as the administration of the service staff.

C. Analytical CRM

Analytical CRM can be seen as a link between front-office and back-office and focuses on the preparation, simulation, analysis and optimization of customer-related decision-making processes based on customer data [46], [45], [13], [49]. These data are gathered in marketing, sales or service processes [30], [19], [44], [50]. The information about customers, products and markets are often systematically stored in data warehouses for the later use of analytical tools (e.g. OLAP, Data Mining) to analyze these data (e.g. simulations, forecasts, segmentation of customers) [26]. These analyses can form the background for further CRM activities as the results deliver valuable findings about the market, customer behavior or possible future trends and they are a key performance indicator providing actual operating figures [28], [17], [50]. Referring to the areas in the operational business three fields of application can be distinguished:

- **Marketing Analysis:** The analytical components in marketing deal primarily with the evaluation of current campaigns. To review campaign success, various dimensions can be taken into consideration (e.g. cross/upselling analyses, click-stream analyses). In addition, functions which measure customer satisfaction (e.g. churn analyses, share-of-wallet analyses, customer retention rate) are often included in software packages.
- **Sales Analysis:** Analyses of and reports on sales activities provide indicators for the optimization of sales processes (e.g. sales-pipeline analyses, shopping-card analyses, sales cycle analyses) as well as indicators concerning lost orders and future sales potentials. Thus, these data represent a key element in the planning of future sales activities.
- **Service Analysis:** The analyses of service processes includes the evaluation of the different services and products (e.g. service cycle analyses, damage analyses, quality analyses) as well as controlling functions whose role is to monitor the processes and staff (e.g. human resources, product shortages) in combination with forecasting and warning systems to avoid possible bottle necks.

V. Results of the Study

Since the defined categories are still quite large and contain a range of functions, further sub-classes were identified using the findings of the market studies and internet research. As a result, the study introduces 132 functions in 15 different categories. In the following, the paper presents a summary of the results of the market study concerning the popularity of CRM systems, the use of the various functions as well as possible future trends.

A. Use of CRM Systems in Enterprises

Based on the current vendor market data, five software companies were selected, all of which have a large market share and support a maximum number of the identified functions. In order to ascertain the prevalence of CRM systems in Austrian companies and the penetration of the major software vendors on the Austrian market, the categories surveyed in the field study were compared. The survey showed that about 38% of the surveyed enterprises do not have any CRM system in use (see Fig. 1). Reasons which were cited by the companies include the lack of resources (25%), no demand in the company (25%) as well as too complex requirements (23%) and high costs (19%). Negative experiences (2%) were rarely the reason for not implementing a CRM system. About half of the companies (47%) which

have CRM systems in use implemented standard software and 15% use self-developed systems. Among the major vendors of standard software, SAP has the biggest share with ca. 24% ahead of update (17%) and Siebel (12%). The CRM systems from Oracle and Microsoft are less common (3% each) among the respondents.

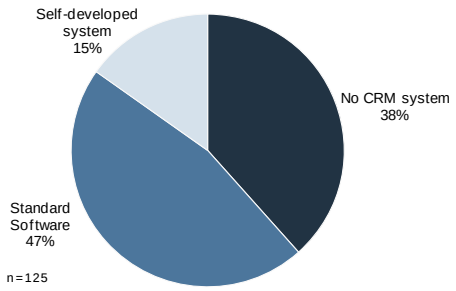


Fig. 1 Use of CRM systems in enterprises

B. Functionality of CRM Systems

Overall, the survey showed that the functions of operational CRM are most commonly used (37%) in the surveyed companies. About 35% of the enterprises use collaborative CRM functions while only 28% employ analytical functions. The following outline of the results gives an overview of the various subclasses. It should be noted that the sample, i.e. the number of returned questionnaires, can differ in each category due to the fact that not all surveyed enterprises use all the functions in each class (see Fig. 2).

1) Collaborative CRM

The most frequently mentioned feature in collaborative CRM was contact management (88%). It is interesting, however, that while contact management is very widely used; other areas of collaborative CRM (e.g. Customer Interaction Center, eCRM/Internet) are only rarely used (between 21% and 26%).

- **Contact Management (n=63):** The function of address management, which represents a standard functionality in most CRM systems, is the most widely used item (89%) in this category. About three-quarters of the companies (73%) also use information systems to record contact histories. In this connection, planning and administration functions are also employed such as appointment management (58%), document management (47%) and the administration of contacts in partner companies (47%).
- **eCRM/Internet (n=15):** The survey reveals that eCRM systems are rarely used for communication purposes (e.g. forums/chat 7%). By contrast, they are mainly employed for the identification of customers on the Internet and the collection of customer data (60% each) via forms, questionnaires or online registration tools. About half of the respondents (47%) have implemented eCatalogues and eShops. Some of the surveyed companies also use shopping-card management tools (33%) or information systems which offer the possibility of electronic payment (20%) to the customers. On the other hand, secondary CRM processes like order tracking (7%) do not tend to be supported.
- **Customer Interaction Center (n=19):** In addition to traditional call center functions, such as the recording and management of calls and contact histories (74%) or the use of conversation guides (37%), the surveyed companies also use monitoring capabilities for the evaluation of the service staff (32%). Although Customer Interaction Centers offer a great number of automated processes, these functions (e.g. IVR, Fax on Demand, CTI, automated eMail preselection) are only used by about 26% of the respondents. On the other hand, the general integration of back-end solutions or ERP systems is quite common (42%).

2) Operational CRM

Looking at operational functionality, companies seem to favour the operational support of the sales department in the form of sales force support (60%) or order management (55%). More than half of the surveyed companies also use CRM systems for marketing support, such as for conducting campaigns (52%). However, only about one-third of the companies have a CRM system in use to manage and plan such campaigns. Features relating to the service area are less important for the respondents, like the management of service requests (18%) or helpdesk support (16%). Only complaint management (40%) is relatively widespread.

- **Campaign Planning (n=24):** The majority of companies (75%) use information systems for the selection and analysis of the different target groups. But also the planning of schedules and activities is widespread (67%). More than half (54%) of the surveyed companies plan multistage campaigns with the help of CRM systems. About one-quarter uses CRM systems for pipeline analyses, channel selection, process definitions or cost planning.
- **Campaign Execution (n=38):** Monitoring and data management are used by the majority (79%) of enterprises. Also tools to personalize the campaigns are frequently cited (74%) by the respondents. Such campaigns can be executed manually or in an automated form through rule-based systems. About one-third of respondents (32%) use automatically controlled campaigns. The campaigns are rarely triggered (21%) automatically (e.g. event based). Moreover, the survey shows that 21% of the enterprises use an information system to provide appropriate content for the selected campaign channels.
- **Campaign Controlling (n=24):** The most common functions in the context of campaign controlling are success and impact analyses (63%), analyses of possible follow-up actions (58%) or the recording of operating figures (54%). In addition the campaign costs (42%) and the affinity of registered customer contacts (38%) are recorded and analyzed by a good number of respondents. By contrast, automatic management of upcoming events (e.g. real-time-marketing) is not widespread (8%).

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- **Order Management (n=40):** A core function of most operational CRM systems is the management and preparation of offers (63%). But also the tracking of orders (58%) is becoming increasingly important. About 45% of the study participants use CRM system to identify and analyze of sales potentials or for forecasting purposes. These functions tend to go hand in hand with opportunity management (35%) and lead management (30%). Finally, tools for pricing, contract management or the definition of sales objectives are used by about one-third of the surveyed enterprises.
- **Sales Force Support (n=44):** The recording of customer visit reports and the management of sales activities (70% each) seem to be the main areas of sales force support. Further functions in common use support the precise planning of customer visits (59%), the allocation of sales territories to the sales staff (55%) and the optimization of the visiting frequency (48%). On the other hand, online support at the customer's location, the planning of routes or the administration of incentives are less popular (20% each).
- **Product Configuration (n=13):** Product configurators figure prominently (62%) in sales conversations with the customers and enable the automatic generation of offers according to the needs of the customer. During customer visits, configurators are also used for the presentation and adaptation of product combinations (23%), dynamic pricing calculations (23%) and for the analysis of product alternatives (38%). Again the survey shows that interactive sales systems (8%) and a high degree of automation have not yet gained wide popularity.
- **Helpdesk (n=12):** The most widely used function in this area is the recording, processing and analyzing of contact histories (92%). Half of the enterprises use a CRM-System for multilevel support architectures. However, just as we saw in the sections above, the automation of processes is not widespread. Consequently, only few companies employ automated processes such as the automatic categorization of incoming problems (25%), automatic request assignment (25%), automatic solution finding (17%) or case-based reasoning (8%).
- **Complaint Management (n=29):** The recording of complaints (72%) and their subsequent categorization (69%) as well as the administration of previous complains (76%) are the most commonly used functions to support complaint management. Further tools which are used by more than 50% of the respondents involve the analysis of the reasons and backgrounds of complaints (55%) as well as controlling functions (52%) to ensure customer satisfaction.
- **Service Request (n=13):** For the management of service requests, nearly two-thirds of respondents (62%) use CRM systems to manage service histories and equipment data. Similarly tracking functions (e.g. tracking of service contracts) are used by 54% of the surveyed enterprises. This should be seen in close connection with function of order management discussed above. On the other hand, systems for billing of service requests (46%) and the control of the service staff (38%) are employed by a smaller number of respondents. Finally, some of the companies also apply a CRM system for returns management (31%).

3) Analytical CRM

The primary focus of analytical CRM is the support of the sales processes. Note that we already observed the same emphasis in both collaborative and operational CRM. Two-thirds of the surveyed enterprises use analytical CRM functions to analyse sales data. About one-third carries out marketing analyses on the basis of information systems and ca. 23% of the respondents apply these systems in service analyses.

- **Marketing Analysis (n=24):** For the study participants, the support of analyses concerning the target market and potential customer target groups are the most frequently used aspects (71%). Slightly more than half the respondents (54%) use tools to analyze customer satisfaction or to conduct a customer value analysis. Furthermore, cross-selling and up-selling analyses are relatively common (46%). In the context of eBusiness and the Internet as modern communication channel, the survey showed that 29% of the surveyed companies also analyze Internet activities (e.g. online behavior, click-stream analyses). By contrast, analyses of the share-of-wallet (4%) or churn-management (17%) are not commonly used by the respondents.
- **Sales Analysis (n=48):** The most frequently used function in this area is the analysis and monitoring of sales figures (81%). Another focus is on the success of the marketing activities (58%), which is closely linked with lost order analyses (35%). Data from sales analyses are used by 42% of the respondents to forecast future sales scenarios. Tools for the analysis of the sales cycle (31%), product-portfolios (25%) or sales pipelines (25%) are not in frequent use in the majority of cases. Some companies also use the results of shopping cart analyses (25%) or assortment analyses (15%) to plan future sales activities.
- **Service Analysis (n=17):** 60% of respondents considered customer complaints to be of prime importance. Another major area of service analyses is continuous quality improvement based on the monitoring of service processes (41%), quality analyses (35%) and failure analyses (29%). Approximately 30% of the survey participants indicate that a CRM system is used to monitor the service staff. Moreover, about 12% of the surveyed enterprises carry out service cycle analyses. Finally, ca. 18% use forecasting and early-warning tools.

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VI. Discussion of Results

The findings of the study show that in more than 60% of the surveyed companies a CRM system is already in use to support their CRM activities. Over three-quarters of these systems are standard software packages. The rest are proprietary information systems which were especially designed and developed (see Fig. 1). According to the findings the implementation of CRM systems apparently was connected with the size of the company as these information systems are more frequently used in large enterprises. This confirms the hypothesis that current CRM systems and their associated processes are highly complex and often are not suitable for small businesses. This is also reflected by the reasons, why CRM systems are not in use. The findings show, that the lack of resources and the high complexity of the implementation are the main reasons for not conduction such projects. Price on the other hand is rarely considered a problem. However, it seems that the implementation and customization of standard software is the most common way to support customer-related business processes. This result is possibly influenced by the fact that most of the well established vendors of ERP systems added CRM functions to their systems in the last few years [42].

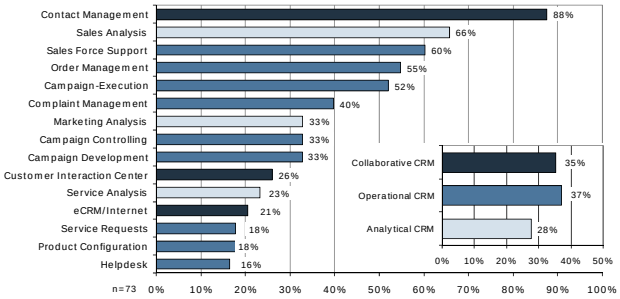


Fig. 2 Use of CRM functions in enterprises

Regarding the three areas of CRM (collaborative, operational and analytical CRM), the study finds that operational functions (support of marketing, sales and service) are the most commonly used tools (see Fig. 2). Most of the surveyed companies concentrate on the support of their sales processes where 66% of the respondents also use results of analytical CRM functions to plan and monitor their sales activities. Although tools for sales analyses are widespread, analytical CRM in general is less frequently used by the surveyed companies. However, the most frequent features can be found in the category of collaborative CRM involving all contact management activities which affirms that customer contacts and addresses are vital for a successful management of customer relations i.e. are the basis for further CRM activities.

Comparing the subclasses in collaborative, operational and analytical CRM, the study reveals that in all three areas the support of sales processes is particularly prominent (management of sales activities, sales force support, monitoring of sales processes). The most widely used functionality involves contact and customer management (e.g. customer identification, address management, appointment management) as well as order management (e.g. preparation of offers, order tracking, sales analyses) functions. Both areas are closely connected with customers and main elements of the sales process which represents the main process in most companies. On the other hand, functionality supporting service processes (e.g. helpdesk, service requests) are not commonly used in day-to-day business except in complaint management which is quite surprising, as the common tenor emphasizes the importance of after-sales service. In addition, the survey shows that fully automated processes (e.g. automatic campaign management, interactive sales systems, automatic solution finding) and online supporting tools (e.g. product configurators, online order management, computer telephony integration) have not yet been widely accepted. The study also reveals that functions of CRM systems which support the monitoring and controlling of the staff and back office processes (e.g. time recording, financial planning, forecasting systems) are not common. Generally it seems that in most cases only small parts of the CRM systems are actually in use in the day-to-day business although extensive software solutions where implemented to support CRM activities. One of the reasons could be the fact that most of the enterprises still lack of a holistic CRM strategy i.e. they only implemented an information system without considering the companies processes, culture and acceptance for such systems.

For the future, the findings indicate a clear positive trend for the use of CRM systems in Austrian companies. Especially small and medium sized enterprises seem to be becoming more and more aware of the potentials for using information systems to support their activities and plan to expand their use of CRM systems. This is a trend which is increasingly supported by the software industry which offers special solutions for this growing market [42]. Regarding the CRM areas the results indicate that companies are planning to expand the use of CRM systems especially in the area of analytical CRM, where the greatest potentials for improvement are expected (see Fig. 3).

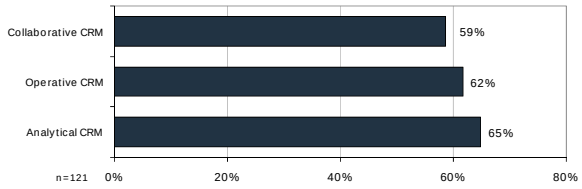


Fig. 3 Future use of CRM functions

In addition the awareness of one-sided implementations has grown over the last years, as the importance of a customer-related strategy has become commonly accepted. This is reflected by the expected future benefits of the companies where the focus lies mostly on non-technological benefits such as market share, turnover and customer satisfaction. In general two major driving forces regarding the development of CRM in Austria can be identified – general market conditions and the competitive situation on the markets.

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VII. Conclusion and Outlook

The study on the usage of CRM systems in Austrian enterprises sheds new light onto the market for information systems supporting sales, marketing and customer relations. According to the results, CRM systems support a wide range of functionality which is continuously expanded by the developers to support customer-related processes. The study proposes a classification model for CRM software which is based on both literature and empirical results and can be used for further studies on CRM systems. According to this, the classification was the starting point for the present field survey on the usage of CRM systems in Austrian companies.

In this paper we present and analyse the results of the survey regarding the actual usage of CRM systems and the usage of the different functionalities in the areas of collaborative, operational and analytical CRM. The research results show that not all enterprises currently use CRM systems in day-to-day business. Especially enterprises with less than 50 employees have not implemented information systems to support their customer-centric processes. When it comes to the three areas of CRM the study reveals that they are not equally supported by information technology i.e. the acceptance of information systems are not generally present in all CRM areas in the surveyed companies. In other words, although extensive CRM solutions have been implemented, most of the enterprises only have small parts of these systems in actual use. The most popular applications are sales support and customer management – service support is not widespread. In particular automated processes are still not commonly accepted by the user which could be due to a possible general problem of technology acceptance in Austrian companies – this could lead to further interesting studies on IT acceptance. On the other hand, mostly small and medium enterprises plan an increased use of CRM systems in the future which shows that there are substantial potentials for the future development of CRM in Austria.

Therefore this paper can serve as a basis for further research as well as valuable feedback for developers of CRM software as the results reveal which features are in frequent use and which ones are not widely accepted by their customers.

While the study can serve as a starting point for further research (e.g. the influence of the use of CRM systems on the company performance or studies on the technological acceptance within enterprises), it also has some limitations. First of all it only provides a snapshot of the current market situation. In order to identify developments in the use of information systems supporting customer-related processes further research on CRM activities and processes as well as future trends is needed. Moreover, the wide area of small and medium-sized enterprises, which are expected to be the future market for information systems, was not explored and leaves room for further studies. In the future we intend to set up a panel study to observe the developments on the market – especially regarding the acceptance of CRM-Systems in companies. In addition, it is planned to expand the research area to a bigger population including small and medium-sized enterprises in order to cover the whole Austrian market.

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