

CRM AND SCM APPLICATIONS IN
MANAGEMENT INFORMATION SYSTEMS



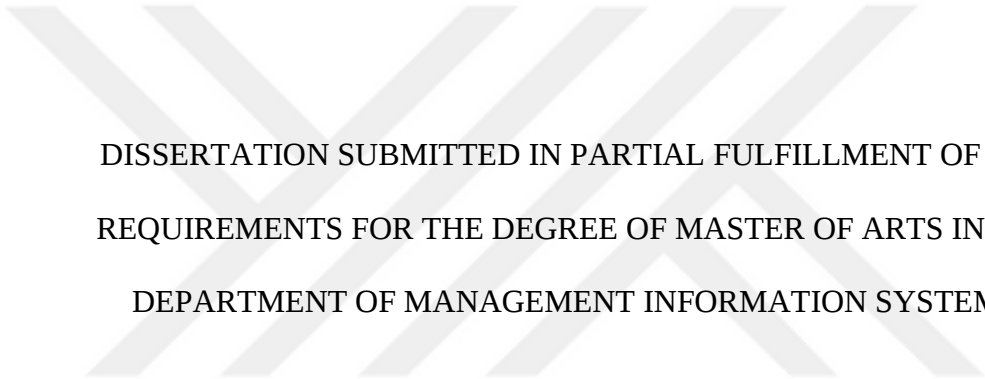
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SEPTEMBER, 2022

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MANAGEMENT INFORMATION SYSTEMS

BY

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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19/09/2022

ABSTRACT

Customer Relationship Management (CRM) system is a type of software that lets people arrange their communication information and improve their relations with available and potential contacts. Supply Chain Management (SCM) system is a type of software for controlling the influx of the products and services and involves all operations that convert unrefined supplies into finalized goods. There are many types of CRM and SCM software. In addition, CRM and SCM systems have many advantages and disadvantages. CRM and SCM systems have a remarkable effect on social media, and can affect them either positively or negatively. Certain features of social media platforms have progressed rapidly, while others have lagged behind in comparison. If the progress in social media platforms can be improved, the number of their users can be significantly increased. Social media is potentially dangerous for children under the age of 13, due to the large amount of inappropriate content which are being shared by irresponsible users. Such content may have adverse effects on the psychological development of children and adolescents. Current social media platforms still lack adequate screening and reviewing methods to minimize the occurrence of inappropriate content. In this research, I will try to identify the strengths and weaknesses of social media platforms and propose various solutions for their improvement.

Key words: Customer relationship management, CRM, supply chain management, SCM, e-CRM, e-commerce, enterprise systems.

ÖZET

Müşteri İlişkileri Yönetim Sistemi (CRM), insanların iletişim bilgilerini düzenlemelerini ve mevcut ve potansiyel kişilerle ilişkilerini geliştirmelerini sağlayan bir yazılım türüdür. Tedarik Zinciri Yönetim Sistemi (SCM), ürün ve hizmetlerin akışını kontrol etmeye yönelik bir yazılım türüdür ve rafine edilmemiş malzemeleri nihai ürünlere dönüştüren tüm işlemleri içerir. CRM ve SCM sistemlerinin birçok avantajı ve dezavantajı vardır. CRM ve SCM sistemlerinin sosyal medya üzerinde hem olumlu hem de olumsuz olarak dikkate değer etkileri vardır. Sosyal medya platformlarının bazı özellikleri hızla ilerlerken, diğerleri nispeten daha yavaş gelişmektedir. Sosyal medya platformlarındaki ilerleme geliştirilebilirse, kullanıcı sayısı önemli ölçüde artırılabilir. Sosyal medya, sorumsuz kullanıcılar tarafından paylaşılan büyük miktarda uygunsuz içerik nedeniyle 13 yaşın altındaki çocuklar için potansiyel olarak tehlikelidir. Bu tür içerikler, çocukların ve ergenlerin psikolojik gelişimleri üzerinde olumsuz etkilere neden olabilir. Mevcut sosyal medya platformları, uygunsuz içeriğin oluşumunu en aza indirmek için hala yeterli tarama ve inceleme yöntemlerinden yoksundur. Bu araştırmamın temel amacı, sosyal medya platformlarının güçlü ve zayıf yönlerini tespit etmek ve iyileştirilmeleri için çeşitli çözümler sunmaktır.

Anahtar kelimeler: Müşteri ilişkileri yönetimi, CRM, tedarik zinciri yönetimi, SCM,

e-CRM, e-ticaret, kurumsal sistemler.

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1. INTRODUCTION

1.1 Background

A CRM is a customer relationship management appliance that lets people arrange their communication information and improve their relations with available and potential contacts (Guay, 2022). Supply Chain Management is the management of the influx of the products and services, and involves all operations that convert unrefined supplies into finalized goods (Fernando, James, & Kvilhaug, 2022). CRM includes all operations to get hold of clients and sustain a connection with them (Gessner, 2021). Few businesses use CRM and SCM together, but they have separate distinctions (Garibay, 2021). To illustrate, marketing and sales teams primarily use CRM; but manufacturing, supply chain and distribution teams mainly use SCM (Garibay, 2021). The main similarity between the two business management solutions is the way they enable organizations to follow the information and knowledge connected with their business processes and use them in the decision-making processes (Garibay, 2021).

2. TYPES OF CRM

There are several types of CRM (Suhari & Hadiono, 2020). The first type of CRM is Operational CRM (Suhari & Hadiono, 2020). Operational CRM covers the areas related to business method automation and includes front office services (Suhari & Hadiono, 2020). The second type of CRM is Analytical CRM (Bajpai & Bajaj, 2020). The function of Analytical CRM is to “store and analyze knowledge about the entire company” (Bajpai & Bajaj, 2020). The third type of CRM is Collaborative CRM. Collaborative CRM can also be defined as Strategic CRM (Bajpai & Bajaj, 2020). It

enables companies to gather, stock, arrange and share client knowledge obtained from various sources (Bajpai & Bajaj, 2020). It uses mutual effect, channel and document management to improve client satisfaction by increasing the number of available methods for purchasing goods and services (Bajpai & Bajaj, 2020). There are six methods for purchasing goods and services through collaborative CRM software (Johnvian, 2022). An example for collaborative CRM is “Zoho CRM” (Johnvian, 2022). Zoho CRM is “the best of all collaborative CRM software for pricing and features” (Johnvian, 2022). The beginning price of Zoho CRM is free (Johnvian, 2022). Another collaborative CRM software is “Salesforce Essentials” (Johnvian, 2022). Salesforce Essentials is the “best for internal and external collaboration” (Johnvian, 2022). The trial of Salesforce Essentials is free for 14 days (Johnvian, 2022). “Freshsales” is another collaborative CRM that’s defined as the “best CRM to see team members’ deal statuses at a glance” (Johnvian, 2022). The beginning price of Freshsales is free (Johnvian, 2022). An alternative collaborative CRM is “Pipedrive” (Johnvian, 2022). “Pipedrive has the best shared sales pipeline filters and notifications” (Johnvian, 2022). The trial of Pipedrive is free for 14 days (Johnvian, 2022). Another collaborative CRM software, “Hubspot CRM”, is “the best free collaborative CRM with premium upgrades” (Johnvian, 2022). The beginning price of HubSpot CRM is free (Johnvian, 2022). “Insightly CRM” (Johnvian, 2022) is “the best collaborative CRM for sharing project updates” (Johnvian, 2022). The beginning price of Insightly CRM is free (Johnvian, 2022).

3. ADVANTAGES AND DISADVANTAGES OF CRM

There are many advantages and disadvantages of CRM (Thakral, 2021). One of the major advantages of CRM is its capability of letting the consolidation of client data and setting the foundation for profound senses (Thakral, 2021). Another advantage of CRM is its ability to accelerate the sales transformation operation (Thakral, 2021). The third advantage of CRM is its contribution to the creativity of the staff, while decreasing the necessary time and cost to create new products and services (Thakral, 2021). The fourth advantage of CRM is its capability of allowing geographically distributed teams to cooperate efficiently (Thakral, 2021). Another important advantage of CRM is its capability of generating client knowledge by allowing personalisation and progressed inquiry solution (Thakral, 2021).

CRM also has numerous disadvantages. For example, client knowledge may deteriorate because of the staff's over-confidence in the system (Thakral, 2021). Another disadvantage of CRM is safety and data safeguarding issues with centralized data (Thakral, 2021). The third disadvantage of CRM is the long time that it takes to learn using the application, together with the initially high costs regarding productivity (Thakral, 2021). The fourth disadvantage of CRM is its requirement for a process-oriented sales organization (Thakral, 2021). Another important disadvantage of CRM is the fact that it can't be implemented in all types of businesses (Thakral, 2021).

4. CRM PRICING PLANS

CRM pricing plans can change frequently (Chipman, 2022). The duration of subscription is generally one year (Chipman, 2022). The 2022 subscription costs are available below (Chipman, 2022).

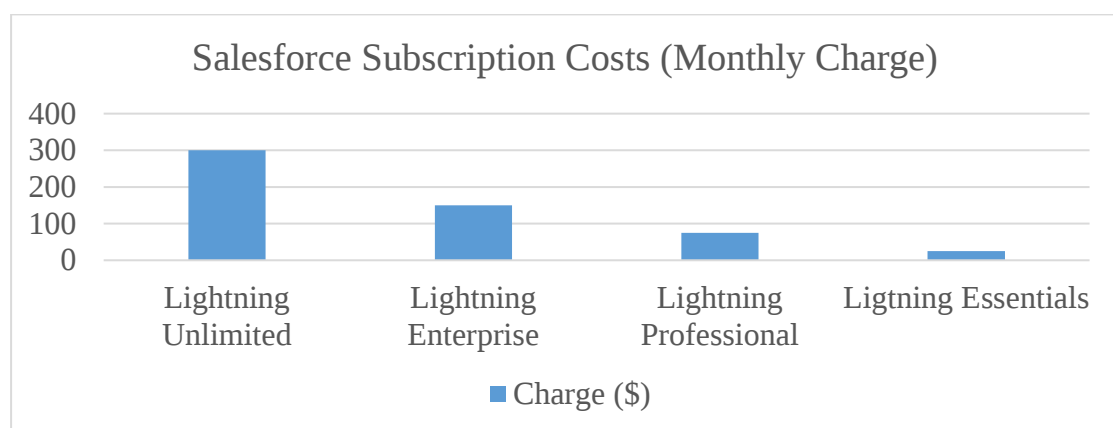
4.1 Salesforce Subscription Costs

Salesforce ensures a simple, per user pricing cost (Chipman, 2022). The Sales Cloud's pricing information is available below (Chipman, 2022):

- Lightning Unlimited: per user per month charge is \$300.
- Lightning Enterprise: per user per month charge is \$150.
- Lightning Professional: per user per month charge is \$75.
- Lightning Essentials: per user per month charge is \$25.

Figure 1

Salesforce Subscription Costs: Per User Per Month Charge



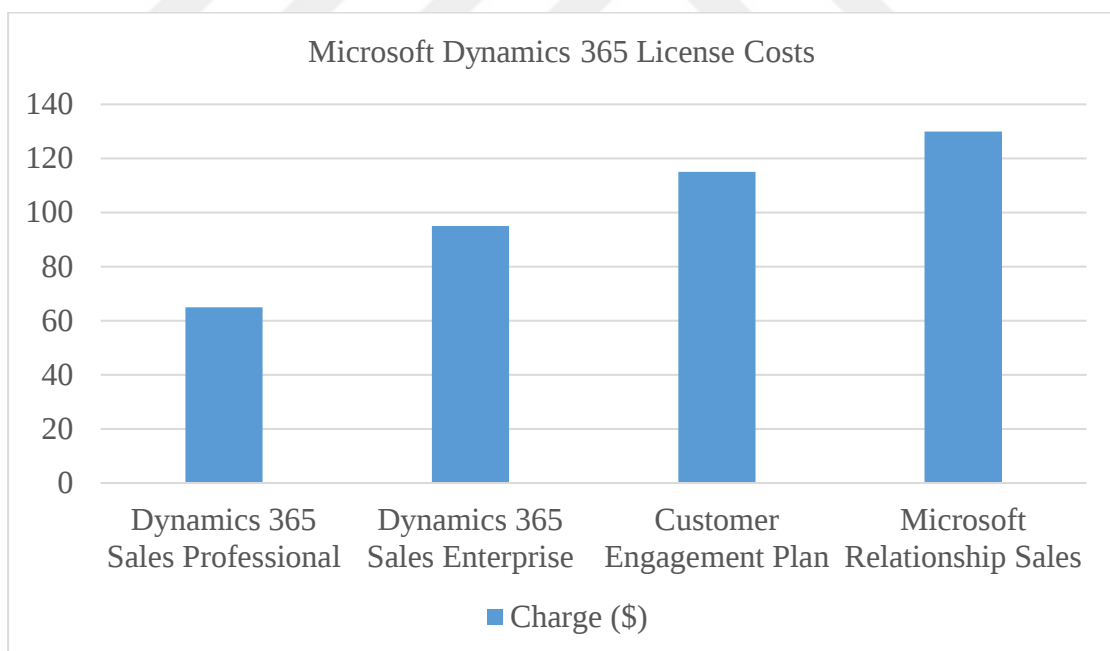
4.2 Microsoft Dynamics 365 License Costs

The cost plans are listed below (Chipman, 2022):

- Dynamics 365 Sales Professional: per user per month charge is \$65.
- Dynamics 365 Sales Enterprise: per user per month charge is \$95.
- Customer Engagement Plan: per user per month charge is \$115.
- Microsoft Relationship Sales: per month charge begins with \$130.

Figure 2

Microsoft Dynamics 365 License Costs: Per User Per Month Charge



Microsoft presents the Dynamics 365 plan for \$210 per user per month additionally (Chipman, 2022).

4.3 Hubspot Sales Hub Pricing

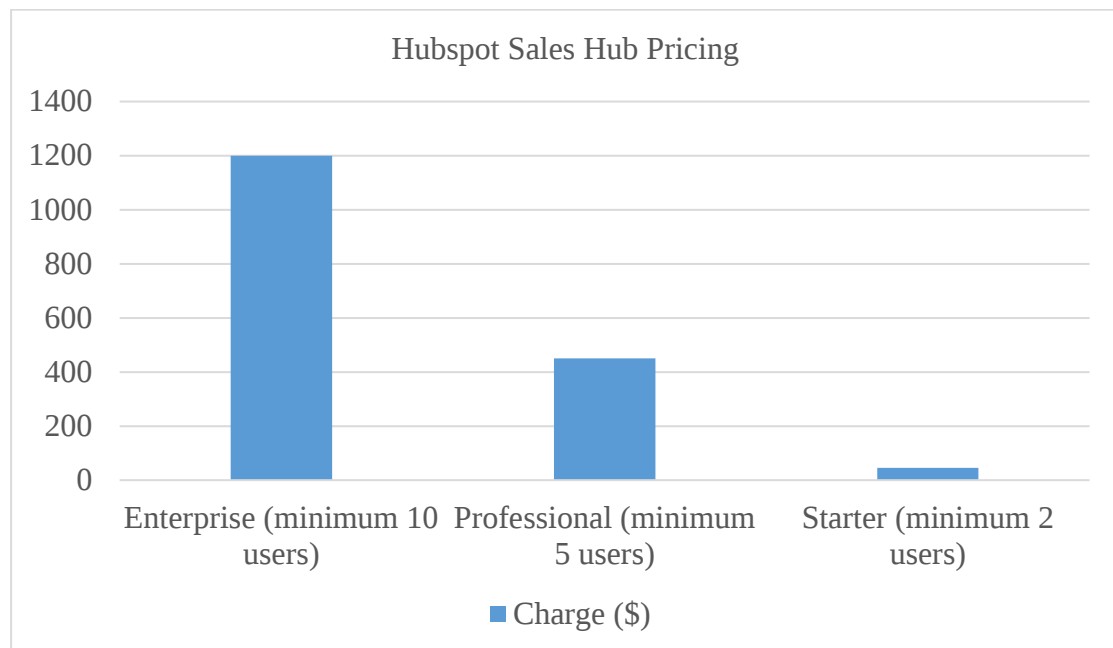
Sales Hub is one of the hubs that HubSpot proposes (Chipman, 2022). Receivers can form their own bundles for extra functionality, such as marketing and customer service.

The cost plans are available below (Chipman, 2022):

- Enterprise: per user per month charge is \$1200 (minimum 10 users).
- Professional: per user per month charge is \$450 (minimum 5 users).
- Starter: per user per month charge is \$45 (minimum 2 users).

Figure 3

Hubspot Sales Hub Pricing: Per User Per Month Charge



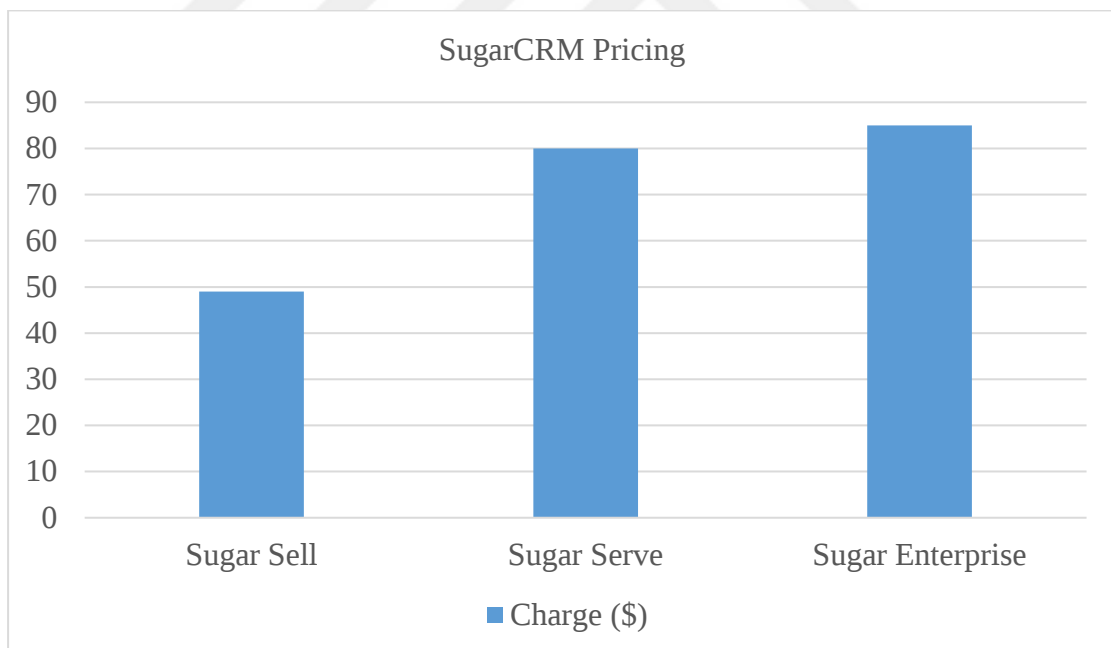
4.4 SugarCRM Pricing

It has different options to choose from (Chipman, 2022). The costs are available below (Chipman, 2022):

- Sugar Sell: per user per month charge starts at \$49.
- Sugar Serve: per user per month charge starts at \$80.
- Sugar Enterprise: per user per month charge starts at \$85.

Figure 4

Pricing Options for SugarCRM: Per User Per Month Charge



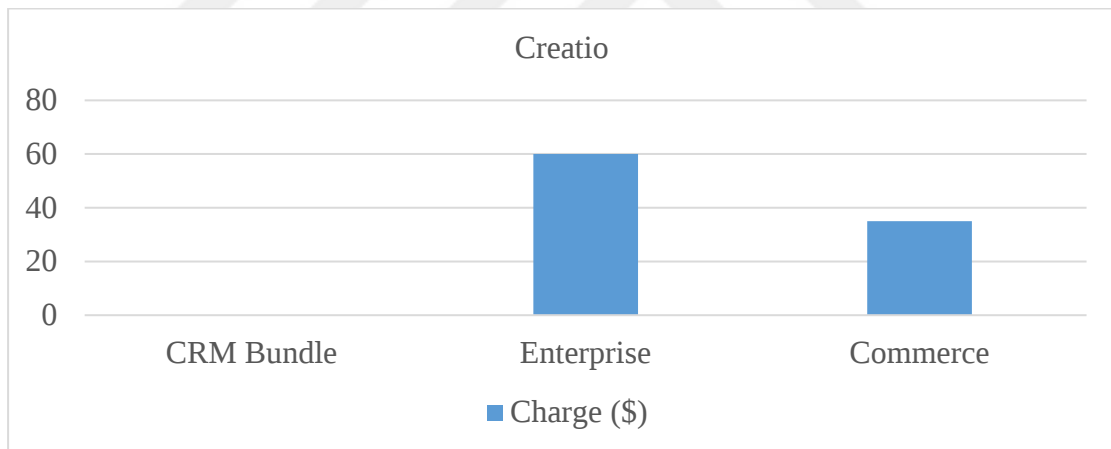
4.5 Creatio

The trial is free for sections (Chipman, 2022). The cost plans are available below (Chipman, 2022):

- CRM Bundle: for pricing, the users must contact the software vendor.
- Enterprise: per user per month charge starts at \$60.
- Commerce: per user per month charge starts at \$35.

Figure 5

Pricing Options for Creatio: Per User Per Month Charge



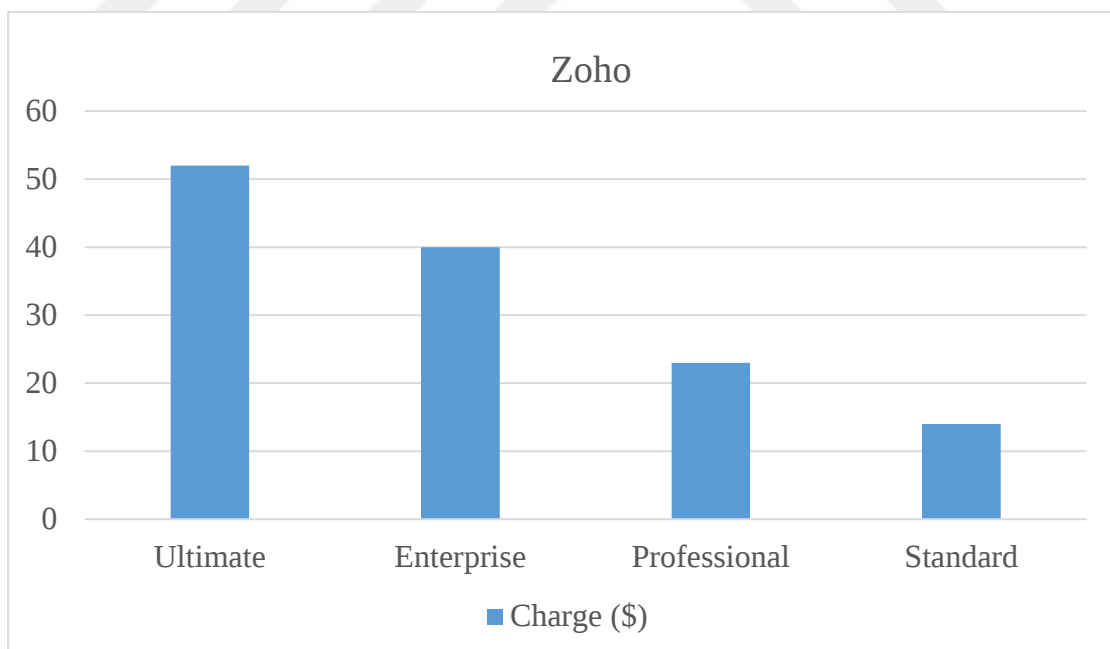
4.6 Zoho

Zoho is one of a handful of software vendors that lists a free variant on their website (Chipman, 2022). The subscription options are (Chipman, 2022):

- Ultimate: per user per month charge is \$52.
- Enterprise: per user per month charge is \$40
- Professional: per user per month charge is \$23.
- Standard: per user per month charge is \$14.

Figure 6

Pricing Options for Zoho: Per User Per Month Charge



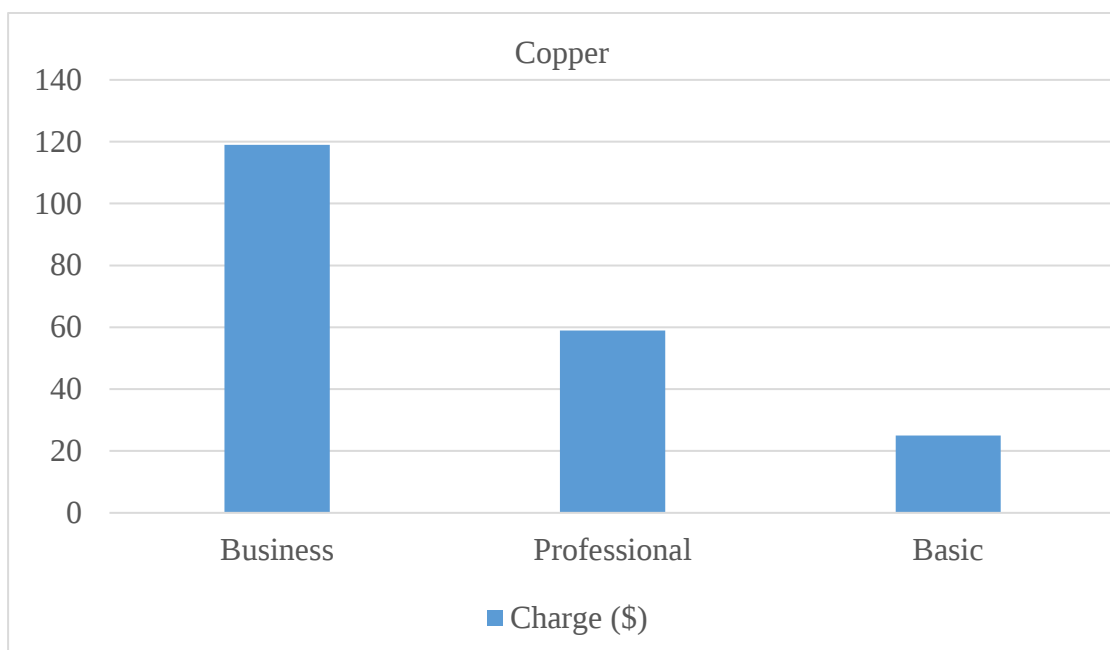
4.7 Copper CRM

Copper is a Google Workspace compatible CRM system (Chipman, 2022). Although Copper allows subscription with monthly charges, the annual charges are with a discount of 29% (Chipman, 2022). The annual charges are listed below (Chipman, 2022):

- Business: per user per month charge is \$119.
- Professional: per user per month charge is \$59.
- Basic: per user per month charge is \$25.

Figure 7

Pricing Options for Copper: Per User Per Month Charge



5. CUSTOMER RELATIONSHIP MANAGEMENT AND ARTIFICIAL INTELLIGENCE

Primary descriptions of related marketing concepts and the future trends in Customer Relationship Marketing (CRM) structures suggest that the management of client correlations can be separated into a series of phases complying with the correlation life-cycle (Hopkinson & Singhal, 2018). These series are continuously being improved with new features (Hopkinson & Singhal, 2018). Grönroos was among the first academicians to study and analyze the CRM systems (Hopkinson & Singhal, 2018). He drew specific attention to the significance of the “expiration” stage, noting that “correlations eventually come to an end, it is important to identify how the expiration process is launched” (Hopkinson & Singhal, 2018).

6. E-CRM

6.1 Introduction

E-CRM is the abbreviation of Electronic Customer Relationship Management (Chandra Hendriyani, 2021). In a study on E-CRM by Feinbergand and Kadam, they determined that the relationship between E-CRM and pleasure was superficial because a few unimportant E-CRM properties were related to client pleasure and “E-CRM was not related to sales and profit” (Chandra Hendriyani, 2021). E-CRM is not the first selection for clients because “technological improvements are still limited” (Chandra Hendriyani, 2021). “At this time, the electronic client relationship system has wise

improvements and shows the quality of service, confidence and secrecy that leads to client pleasure” (Chandra Hendriyani, 2021).

Theoretical investigations from former research studies have contributed to marketing, e-business and SMEs (Small and Medium Enterprises) (Chandra Hendriyani, 2021). SMEs have acquired the advantages of marketing while facing challenges and objections by large-scale businesses (Chandra Hendriyani, 2021). Thanks to the integration of marketing and technology innovation through E-CRM, the theory started to improve (Chandra Hendriyani, 2021). The difficulty of modifying face-to-face relationships in operations necessitates the integration of marketing and strategic planning for SMEs (Chandra Hendriyani, 2021).

Internet and platform applications are today used by large or small companies to compete against their rivals in a more cost-effective way (Chandra Hendriyani, 2021). Powerful improvement of client relationships by the use of technological platforms can increase client pleasure, devotion and retention (Chandra Hendriyani, 2021).

Jacob Joju, Vasantha and Sony Joseph have utilized E-CRM programs in five dimensions (Chandra Hendriyani, 2021). These dimensions are namely “tangibility”, “assurance”, “reliability”, “responsiveness”, and “empathy” (Chandra Hendriyani, 2021). These dimensions were used in selected banks for measuring the Delivery Gap Score (Chandra Hendriyani, 2021). Ab Hamid and McGrath utilized an E-CRM program with twelve dimensions (Chandra Hendriyani, 2021). These dimensions are “information quality”, “ease of navigation”, “consumer service quality”, “administration”, “integrated marketing channels”, “online community”, “rewards”,

“personalization level”, “site security”, “value-added services”, “perceived trust” and “price attractiveness” (Chandra Hendriyani, 2021). Tsikriktsis, Lanzolla and Frochlich utilized an E-CRM program with five dimensions (Chandra Hendriyani, 2021), namely “anticipated benefit”, “access to market”, “external pressure”, “internal barriers” and “customer barriers” (Chandra Hendriyani, 2021).

Figure 8

Establishing a Strong and Friendly Relationship with Your Customers



6.2 Methods

In December 1969, Alan Pritchard presented the term “bibliometrics” as a “statistical bibliography” of publications (Chandra Hendriyani, 2021). Three years later, Pritchard clarified the definition of bibliometrics as the “quantitative analysis of gross bibliographical units” (Chandra Hendriyani, 2021). Books and journal articles can be used as bibliometrics units (Chandra Hendriyani, 2021). Throughout its

improvement, Alan Prichard redefined the methods used in bibliometrics (Chandra Hendriyani, 2021), eventually stating that “bibliometrics is the quantitative study of physical published units, or bibliographic units, or the replacements for either” (Chandra Hendriyani, 2021).

A software tool for building and visualizing bibliometric networks covered publications such as academic journals and private issues (Chandra Hendriyani, 2021). In addition, “bibliometric networks can be built based on ‘citation’, ‘bibliographic coupling’, ‘co-citation’ or ‘co-authorship relationships’ in a period” (Chandra Hendriyani, 2021). “The researchers utilized the VOSviewer software tool which has a text mining functionality that also proposes to build and visualize co-occurrence networks of significant terms, taken from a body of scientific literature” (Chandra Hendriyani, 2021). The methods that were used are “Data Source” and “Data Extraction” (Chandra Hendriyani, 2021).

6.3 Data Source

In July 2020, a search was applied with the Scopus online literature database to define publications with the search strategy (Chandra Hendriyani, 2021). The topic of search strategy is “E-CRM” in the business context (Chandra Hendriyani, 2021). This strategy searches for related papers that cover the word in the title, summary or keywords (Chandra Hendriyani, 2021).

6.4 Data Extraction

This publication resulted from the research on literature in the field of E-CRM and included data on “affiliation”, “country”, “the most cited author”, “year of publication”, and “article by source” (Chandra Hendriyani, 2021). Full notes and excerpted handwriting references such as demonstrating citations from certain topics, institutions, countries, regions and newspapers are imported into the VOSviewer software for bibliometric analysis (Chandra Hendriyani, 2021). It also lets the people investigate how the most productive authors working in the field of E-CRM cite each other (Chandra Hendriyani, 2021). They use bubbles (Chandra Hendriyani, 2021). Bubble size demonstrates the number of publications (Chandra Hendriyani, 2021). Bubble color demonstrates the average year of publication (Chandra Hendriyani, 2021). If two authors often collaborate with or cite each other, their bubbles are closer (Chandra Hendriyani, 2021).

6.5 Results

Scopus has indexed 155 documents which includes 103 articles, 31 conference papers, 12 book chapters, 4 reviews, 3 conference reviews, 1 clerical error, and 1 retracted until July 2020 (Chandra Hendriyani, 2021). Figure 9 demonstrates the source of affiliation of the documents about E-CRM which are indexed by Scopus. Ulster University has contributed the most, by publishing 14 articles (Chandra Hendriyani, 2021).

Figure 9

Source By Affiliation Until July 2020

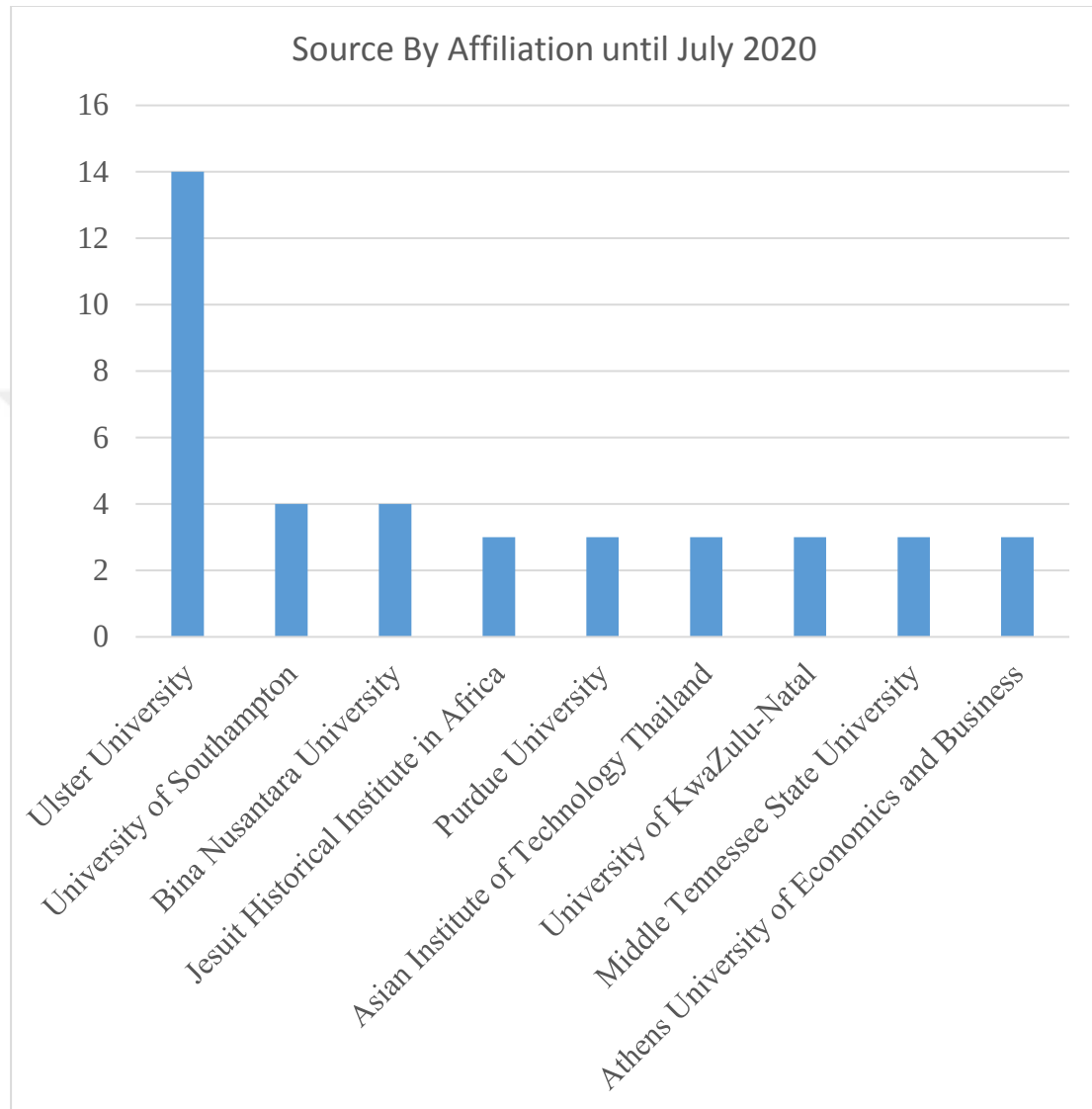


Figure 10 demonstrates that the largest number of E-CRM publications were articles (103) followed by conference papers (31) (Chandra Hendriyani, 2021).

Figure 10

Document By Type With Total

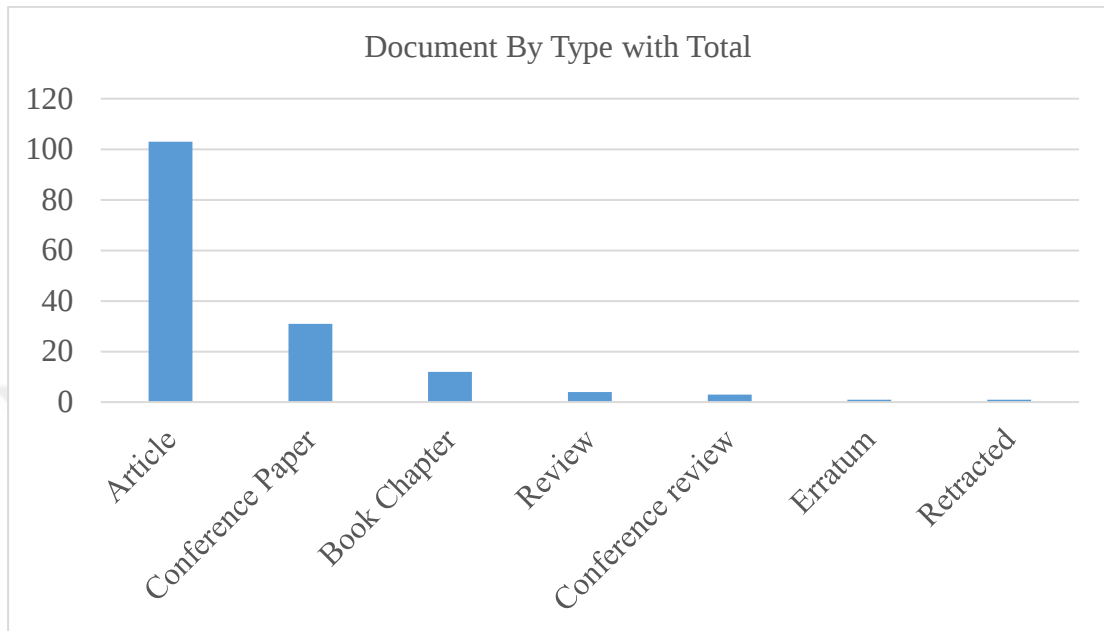


Figure 11 demonstrates that the United States had the largest number of publishers to contribute to E-CRM documents with 24 published, followed by the UK and Iran (Chandra Hendriyani, 2021).

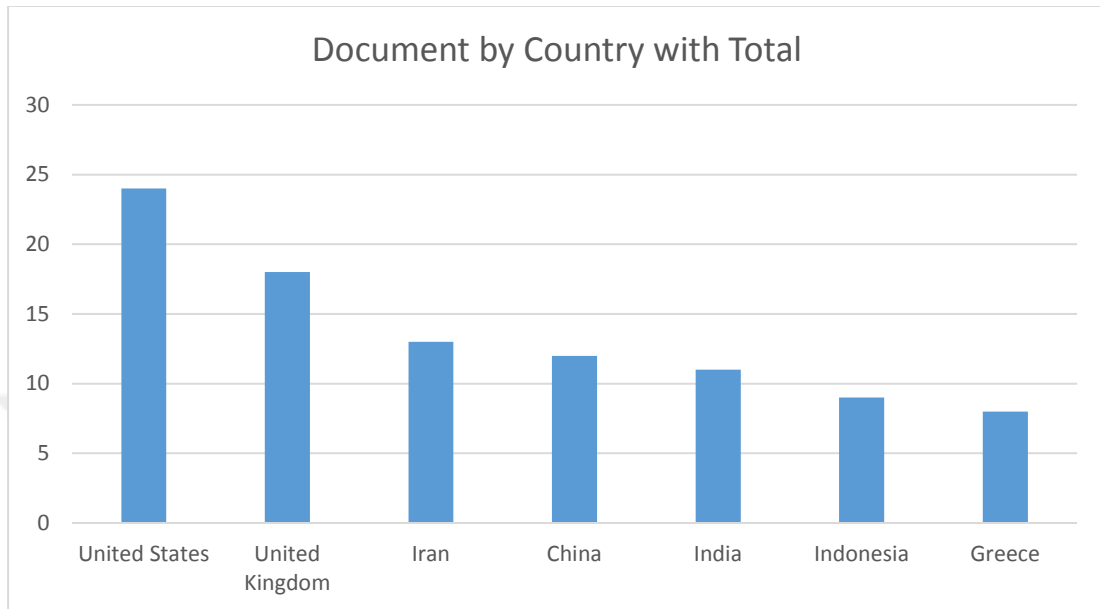
Figure 11*Document By Country With Total*

Figure 12 presents the most cited publications on E-CRM (Chandra Hendriyani, 2021). The document by Feinberg, R., Kadam, R has been cited 112 times, the document by Adebajo, D. has been cited 86 times, while the document by Lee- Kelley L., Gilbert, D., Mannicom, R. has been cited 83 times (Chandra Hendriyani, 2021). These documents were cited in the period between 2001-2020 (Chandra Hendriyani, 2021).

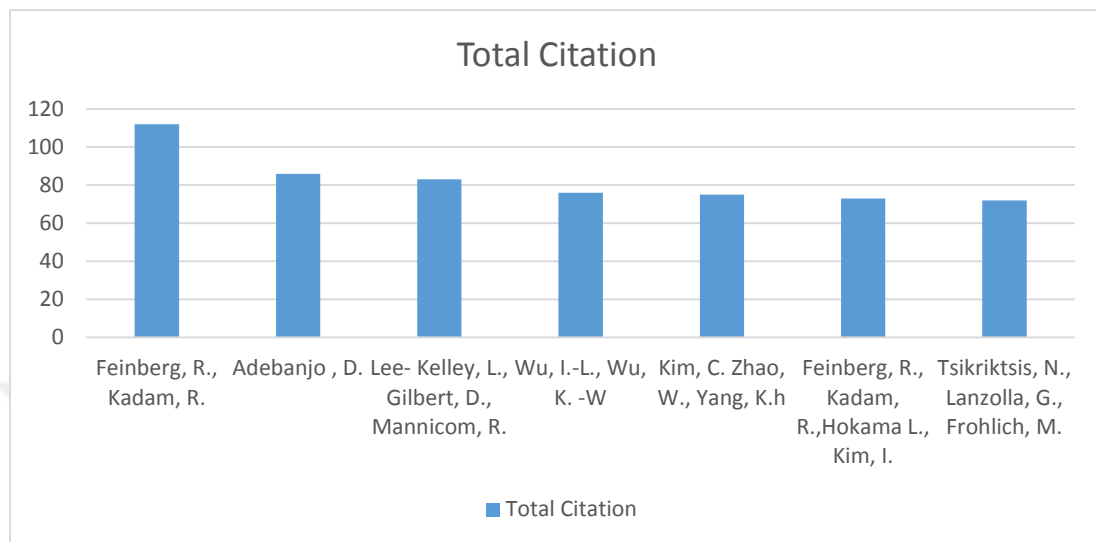
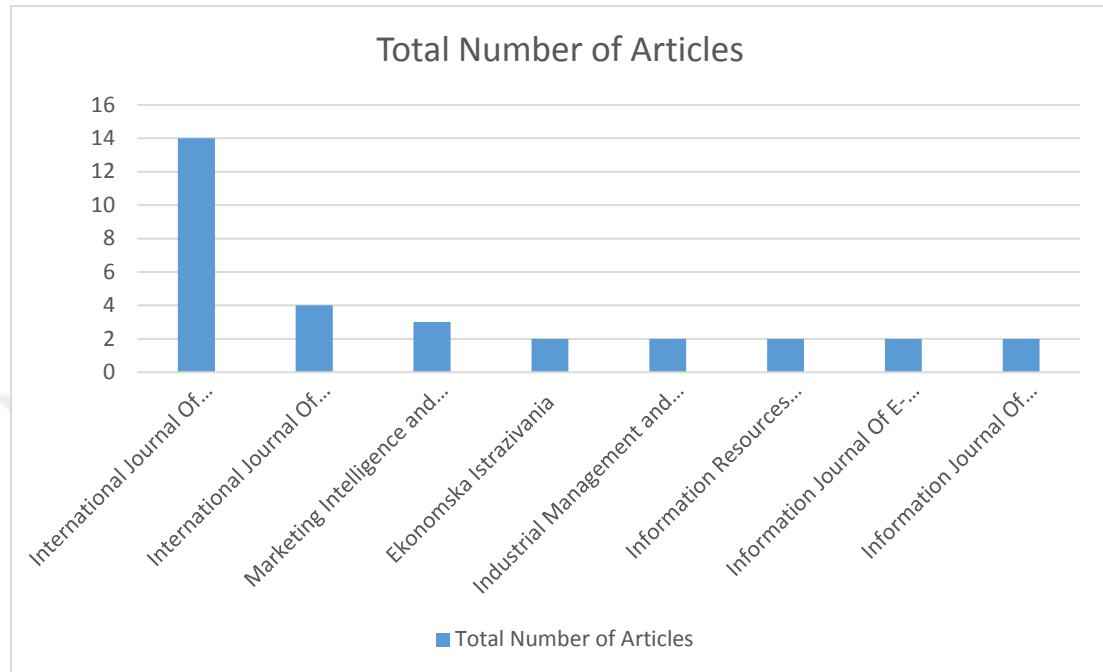
Figure 12*Total Citation*

Figure 13 demonstrates the journals that published the largest number of E-CRM articles between 2001 and 2020 (Chandra Hendriyani, 2021). The International Journal of Electronic Customer Relationship Management published the largest number (14) of articles about E-CRM (Chandra Hendriyani, 2021).

Figure 13*Total Number of Articles*

7. THE EVOLUTION OF E-CRM

There are many evolutions of E-CRM. First of all is “consumer society and the birth of customer relations” (Oanh, 2021). “The first computer systems from storing customer information date from the mid-1980s, but only in the late 90s, the CRM software market began to grow” (Oanh, 2021), so CRM presence is only 20 years old (Oanh, 2021). However, the history of CRM is based on thousands of years (Oanh, 2021). CRM was formed with trade (Oanh, 2021). Traders and businesses have always attached importance to Customer Relations because the human factor is always significant in trading (Oanh, 2021). The first evolution is “Customer Relations in the Computer Age” in the 1980s (Oanh, 2021). In the 1980s, the widespread use of PCs began (Oanh, 2021). Microcomputers such as PCs started to be used in organisations

(Oanh, 2021). Client-server architectures, which make possible to form networked computer systems, started to be used around the middle of the decade (Oanh, 2021) so this technological revolution formed the first computerized databases (Oanh, 2021).

The first Contact Management System, which is the predecessor of modern CRM systems, was improved at this time (Oanh, 2021). Businesses or sellers in their door-to-door sales and marketing activities started to use this technology (Oanh, 2021). Therefore, they access the client information easily (Oanh, 2021). The second evolution is “the birth of modern CRM software” (Oanh, 2021). The use of the term “Customer Relationship Management” began in the mid-1990s (Oanh, 2021). There is a dispute over who coined it (Oanh, 2021). “Some of them connect it with Gartner, others connect it with Thomas Siebel who is the builder of Siebel systems, who created the flagship CRM solution of the 1990s” (Oanh, 2021). The mid-1990s marked the sight of Sales Force Automation (SFA) (Oanh, 2021). “Their functionalities aided to rationalize and facilitate specific tasks of the sales forces at the expectation stage in B2B” (Oanh, 2021). In addition, people began to report to the first Contact Center management system that administrates the after-sales process (Oanh, 2021). The third evolution is “CRM in the age of the Internet” in the 2000s (Oanh, 2021). At the same time, many organizations noticed that CRM cuts back costs and aids to increase business revenue by making possible a better Customer Relationship and understanding customer requirements (Oanh, 2021). 1999 points to a significant year of CRM evolutions (Oanh, 2021). 1999 is the starting of Salesforce which is a 100% online CRM platform (Oanh, 2021). The action from CRM to the Cloud is a big growth that will permanently point the achievement of CRM (Oanh, 2021). In the early 2000s, the people started to talk

about E-CRM to define CRM system integrating the administration of web contact marks (Oanh, 2021). It was in the mid-2000s that a new category of tools developed (Oanh, 2021). Marketing Automation wanted to automate a piece of the marketing task (Oanh, 2021). In 2005, the Hubspot platform which forms automated relationship scenarios and builds inbound marketing strategies was begun (Oanh, 2021). Another big improvement is that Hubspot saw the outbreak of social media and the increase of Social CRM at the end of the 2000s (Oanh, 2021). From 2008-2009, the big media groups used Twitter to communicate with their clients (Oanh, 2021). The final evolution is “an acceleration of CRM transformations in the 2010s” (Oanh, 2021). The starting of the 2010s was initially pointed by the improvement of the SaaS model which came along with a new economic model, based on subscription (Oanh, 2021). “At the same time, CRM becomes reachable to small and medium-sized businesses and CRM approaches integrate a new size in B2C” (Oanh, 2021). “The CRM system has fastened in recent years and has continued to grow steadily” (Oanh, 2021). The effect of COVID-19 has changed all E-CRM into virtual meetings by utilizing the recent communications technologies to simplify the meetings between collaborators like purchasers and vendors (Oanh, 2021).

8. BENEFITS OF E-CRM

There are many benefits of E-CRM (Phung, 2022). The first benefit is getting holistic client records (Phung, 2022). E-CRM software takes CRM to the next level by letting businesses to show all digital activities of their clients in one central place (Phung, 2022). “This way, sales, marketing and support teams can all have a 360 degree

sight of client information with the click of a button” (Phung, 2022). In addition, E-CRM software aids businesses get holistic client registries such as giving them a finished picture of each client’s coactions with the company (Phung, 2022). This integrated information base can be used to hand over a more strong and satisfied knowledge to clients (Phung, 2022). The second benefit is “seamless integration with the current system” (Phung, 2022). E-CRM systems are formed to be integrated with a firm’s current system, improving service management and producing advanced reports and analytics. Therefore, it is an invaluable tool for businesses of all sizes (Phung, 2022). The third benefit is “enhanced service management” (Phung, 2022). E-CRM is a strong tool that can aid organizations to increase service agent productivity. E-CRM guarantees that they will always have the most up-to-date knowledge at their fingertips by supplying agents with actual time data and business intelligence (Phung, 2022). This aids people to supply right solutions to client complaints, trouble and increase resolution rates (Phung, 2022). The other benefit is “advanced reports and analytics” (Phung, 2022). E-CRM reporting abilities are useful for businesses because they supply a clear overview of all significant metrics (Phung, 2022). This clearness is key for providing the health of business with defining potential risks and problem fields (Phung, 2022). The skill is to show client connections, purchases and service demands in actual time (Phung, 2022). In addition, it lets businesses take proactive steps to direct any problems that may emerge (Phung, 2022). The last benefit is “customer loyalty and retention boosting” (Phung, 2022). A unified E-CRM database can aid people to develop their marketing and client communication activities (Phung, 2022). As a result, people may enhance their pleasure and responsibility levels in the process (Phung, 2022). By unifying client information into a central database, E-CRM software

facilitates to personalize campaigns and tailor messages to meet to fulfill the certain requirements of each client (Phung, 2022). In addition, E-CRM tools can aid people in following client communications and defining fields where service can be developed (Phung, 2022). In conclusion, utilizing E-CRM sytems can help firms in improving client retention and increasing their lifetime value (Phung, 2022).

Figure 14

How E-CRM Enhances Customer Retention



9. CRM & E-CRM

Due to the advent of distinct client services resonding to increased client requirements and expectancy, stemming from globalization and the use of Information Techonology (IT) in the market, rivalries in private and public organizations are continuously increasing (Biswas, 2021). In current events, it has been seen that

organizations supply the conveniences to compensate the desire of the clients and sustain excellent competition with their rivals, by the aid of telecom and mobile services in most situations (Biswas, 2021). These IT services provide large marketing strengths for maintaining the current clients and attracting new potential clients who may aid the firms in holding their market position by giving them an edge over their rivals (Biswas, 2021). For sustaining long-term correlation with clients focusing on their pleasure, innovative and inventive services must be supplied to them. Customer Relationship Management (CRM) can aid to accomplish these objectives (Biswas, 2021). The organization should always focus on CRM for providing sincere services to its clients, improve client pleasure, and consequently increase its revenues and profits (Biswas, 2021). Correlation marketing, which helps to propose the best suggestions to clients, focuses on the wider measurement of customer loyalty (Biswas, 2021). The primary aim of CRM is to focus on customer choice, inventive marketing strategies, target market recognition, and high quality services to clients (Biswas, 2021).

9.1 The Difference Between CRM and E-CRM

E-CRM can be defined as a “subcategory” of customer relationship management (Oanh, 2021). CRM trusts on multi-channel marketing, but E-CRM trusts on all web channels (Oanh, 2021). The most significant difference between CRM and E-CRM is in their “communication channels” (Oanh, 2021). CRM contacts with customers by phone, distribution channel or fax (Oanh, 2021). However, E-CRM contacts with customers by the Internet, email and latest technologies (Oanh, 2021).

9.2 The Major Components of E-CRM

There are many components of E-CRM (Phung, 2022). First of all is “marketing automation tools” (Phung, 2022). Marketing automation tools are among the most significant components of E-CRM, because they enable businesses to target suitable clients with private messages by email, phone talks and live chat (Phung, 2022). Thanks to marketing automation tools, businesses can progress their customer relationships, enhance brand awareness and boost sales (Phung, 2022). Another component of E-CRM is “campaign management” (Phung, 2022). In today’s competitive business view, campaign management is necessary for well-organized and powerful campaign management strategies (Phung, 2022). E-CRM supplies a wide solution to administrate all aspects of the marketing campaigns, from organizing and application to following and analysis (Phung, 2022). Thanks to E-CRM, people can achieve results rapidly and easily to guarantee their campaigns (Phung, 2022). Another component is “customer service and support” (Phung, 2022). E-CRM tools are designed to give businesses an advantage over their rivals by supplying continuous customer service and support around the clock (Phung, 2022). “By remaining available to clients, businesses can instantly increase their responsibility and address worries” (Phung, 2022). Thanks to E-CRM tools, businesses can supply services and support that are measurable, productive and cost-effective (Phung, 2022). Another notable component of E-CRM is “good pricing models” (Phung, 2022). A unique pricing model would not be suitable for all clients (Phung, 2022). E-CRM software supplies the tools that firms need to change their pricing models according to the preferences and requirements of their clients (Phung, 2022), which in turn can increase the firm’s revenues (Phung, 2022). Another E-CRM component is “customer categorization based on data from advanced reports”

(Phung, 2022). E-CRM supplies an abundance of data to enhance client categorization and guarantee that businesses are targeting their marketing endeavor effectively (Phung, 2022). “This data can be divided and filtered in a number of methods by letting businesses to form highly customized reports” (Phung, 2022). By figuring out the purchasing habitudes, preferences and population statistics of clients, businesses can more precisely categorize them and target their marketing efforts (Phung, 2022). The final component is “content management” (Phung, 2022). Businesses must manage their enterprise scope efficiently to become successful (Phung, 2022). “E-CRM can help businesses succeed by implementing tools such as search engine optimization” (Phung, 2022). In addition, SEO can help businesses in reaching their specific target group of customers when potential clients will search for the goods or services that they offer (Phung, 2022). Besides, SEO can aid to enhance the quality of their website traffic which leads to increased sales and transactions (Phung, 2022).

Figure 15

Major Components of E-CRM



9.3 The Features of E-CRM Systems

The E-CRM has many features (Oanh, 2021). The first feature is “Customer Management” (Oanh, 2021). Customer Management grants access to all client information which includes the demand status and other similar information (Oanh, 2021). The second feature is “Administrative Management” (Oanh, 2021). “Administrative management is a centralized database that administrates and shares client information” (Oanh, 2021). The third feature is “Case Management” (Oanh, 2021). “Case Management reports investigations, prior cases and unresolved issues to the management department” (Oanh, 2021). The fourth feature is “Back-end Integration” (Oanh, 2021). “The Back-end integration integrates with other systems such as billing, inventory and logistics with websites and call centers” (Oanh, 2021). The final feature is “Reporting and analysis” (Oanh, 2021). Reporting and analysis forms reports on client attitude and business criterions (Oanh, 2021).

9.4 How To Implement E-CRM Successfully?

There are many significant elements when implementing E-CRM (Phung, 2022). The first element is “customer relationships and a customer-focused mindset” (Phung, 2022). While practising, companies need to first decide on the significance of their customer relationships (Phung, 2022). “Once that’s been set up, they can create a customer-focused mindset throughout their company” (Phung, 2022). It means that every touchpoint with the client puts their requirements first (Phung, 2022).

After that, due to optimizing client services, companies begin to implement CRM technologies (Phung, 2022). Implementing CRM technologies for customers will be easy to sustain a long-term agreement to the company (Phung, 2022). While putting the

client at the center of everything that they do, companies can form relationships which lead to accomplishment (Phung, 2022).

The second element is “a detailed plan and good software” (Phung, 2022). “Buying an E-CRM solution is not sufficient to guarantee achievement” (Phung, 2022). Companies require a detailed plan in place for utilizing the software to administrate their customer relationships in order to acquire the advantages of E-CRM (Phung, 2022). “Without a net plan of action, it can be hard to utilize CRM tools and properties” (Phung, 2022).

In addition, companies must choose a CRM solution that complies with their specific requirements, making sure that their company can take full benefit of CRM (Phung, 2022). Planning for the implementation of CRM and choosing the right software solution carefully, companies can reach their aims (Phung, 2022).

The third element is “good questions asked to solve client problems” (Phung, 2022). Companies can define ways and insights to aid them to develop their services by collecting and analyzing customer knowledge (Phung, 2022). Companies require to ask good questions to aid them to figure out their clients to implement E-CRM (Phung, 2022). There are some questions such as “What are their requirements or complaints?”, “What do they desire from their product or service?”, etc. (Phung, 2022).

With good questions, companies can understand what their clients desire and require (Phung, 2022). After that, firms may utilize this knowledge to improve their own goods and services (Phung, 2022).

The fourth element is “a good project manager” (Phung, 2022). “A good project manager is necessary for the achievement of any E-CRM implementation” (Phung, 2022). “They are responsible for providing that every step of the strategy is made on

time and that the demanded outcomes are acquired” (Phung, 2022). Additionally, managers must communicate with all stakeholders effectively and figure out any problems (Phung, 2022). An E-CRM implementation can fail without a qualified project director (Phung, 2022).

The final element is “common usage guidelines and training” (Phung, 2022). People must determine mutual utilization principles and provide essential education (Phung, 2022). This situation will provide that everyone in the organization understands how to utilize the system accurately and effectively (Phung, 2022). In addition, common utilization principles will aid to keep the data clean and right, which is necessary for deciding better, based on the data (Phung, 2022). “It makes possible to educate employees because it is better in many situations to hire an agent for providing E-CRM education and achieving best results” (Phung, 2022).

10. TYPES OF SCM

There are four types of SCM (Faris & Shoenberger, 2018). These are “Integration”, “Processes”, “Purchasing” and “Distribution” (Faris & Shoenberger, 2018). Each trusts on the others to supply a seamless way from planning to finishing, as affordably as possible (Faris & Shoenberger, 2018). The first type is “Integration” (Faris & Shoenberger, 2018). As in every project, planning is necessary for long-term achievement (Faris & Shoenberger, 2018). An important aspect of good planning is about establishing integration, which should be included in the production and the related processes and cooperation methods (Faris & Shoenberger, 2018). Instead of working in distinct sections, or warehouses, integrated teams should work together to ensure that the goods will get to the distribution stage (Faris & Shoenberger, 2018).

This advanced correspondence may decrease the probability of errors that may lead to increases in cost and duration and losses in revenues and profits (Faris & Shoenberger, 2018). In addition, managers will be able to see all firm-wide business processes and define the stages throughout the supply chain that can be optimized and improved (Faris & Shoenberger, 2018). The second type is “Operations” (Faris & Shoenberger, 2018). As significant as holding a powerful supply chain, day by day processes form the basis of the business which producers do (Faris & Shoenberger, 2018). Managers must overview the business being done and ensure that everything stays on track (Faris & Shoenberger, 2018). Today, numerous producers operate utilizing inefficient manufacturing strategies, due to which “operations are frequently evaluated to define where things can be done more efficiently, e.g., to be sure that people are getting the most out of them, or reducing work hours when manufacturing decelerates” (Faris & Shoenberger, 2018). The third type is “purchasing” (Faris & Shoenberger, 2018). The buying field of supply chain management must let the managers know for certain that a firm has everything it requires to produce goods, involving materials, procurements, devices and equipment (Faris & Shoenberger, 2018). This often means “staying ahead of the operation” so that people will have everything they require on hand long before they will essentially require it (Faris & Shoenberger, 2018). Without the employment of purchasing personnel, customers may face difficulties regarding the flow and availability of materials and goods, products may be defective, or customers may over-purchase beyond the limits of the firm’s replenishment capacity and operational budget (Faris & Shoenberger, 2018). The fourth type is “distribution” (Faris & Shoenberger, 2018). The supply chain finishes when the goods are on store shelves where clients can purchase them, or when the products are delivered to their front door, if they had

purchased online (Faris & Shoenberger, 2018). For selling and delivering goods efficiently, firms must have a well-planned transportation method (Faris & Shoenberger, 2018). Today, numerous firms utilize logistics software to administer the delivery of their sold products, either by using their own company's resources, or by transporting them through a third-party provider (Faris & Shoenberger, 2018). When processed accurately, goods are transported rapidly from the repository to the client (Faris & Shoenberger, 2018).

11. ADVANTAGES AND DISADVANTAGES OF SCM

There are many advantages and disadvantages of supply chain management (Parikh, 2019). The first and most significant advantage of supply chain management is that SCM aids the firm in optimizing its expenses regarding carriage revenues, warehousing, packaging revenues; in decreasing latency by the timely delivery of products, all of which will eventually aid the firm in obtaining higher revenue yields and profitability (Parikh, 2019). The second advantage is the capability of SCM systems to aid firms in defining the departments and services which are facing trouble or underperforming (Parikh, 2019). The lack of appropriate supply chain management will make it difficult for the firm to discover the problems and shortcomings. In such cases, usually each department will accuse the others for the setback, which may damage the firm's prestige and profitability (Parikh, 2019). To illustrate, let's presume that the manufacturing department is producing products on time, but due to the lack of discipline and efficiency in the consignment departments, products are not arriving on time to the customers. SCM systems can help a firm's management to define the

specific department that is the source of the problem, which, in this example, is the consignment department (Parikh, 2019). A significant disadvantage that frequently occurs during the implementation of a supply chain management system is trying to implement it before ensuring the effective coordination between diverse departments within the firm (Parikh, 2019). For instance, if the marketing department lacks effective communication and coordination with the manufacturing department, difficulties and setbacks regarding the timely delivery of ordered products will emerge (Parikh, 2019). Another disadvantage of SCM systems is their complexity (Parikh, 2019). Since a supply chain management system may include multiple departments within a firm, sometimes it can be excessively complex, which may obstruct the normal working methods and business processes of the company. This may cause the employees to feel insecure and demotivated, because the use of the SCM system may seem very difficult to learn, resulting in the reduction of the performance and enthusiasm of the employees (Parikh, 2019). Another significant disadvantage of SCM systems is the time and cost that are required to train the employees on how to use them (Parikh, 2019). SCM systems require trained staff to agreeably perform, and to train employees or hire previously trained and experienced ones will force the firms to increase their expenditures, which is the reason why small businesses rarely go for supply chain management (Parikh, 2019).

12. E-COMMERCE INDUSTRY

E-commerce is the abbreviation of electronic commerce (Zaid, 2022). It is the purchasing and selling of products and services, or the sending of funds or data by an

electronic network (Zaid, 2022). The most significant electronic network is the Internet (Zaid, 2022).

Figure 16

E-Commerce Industry

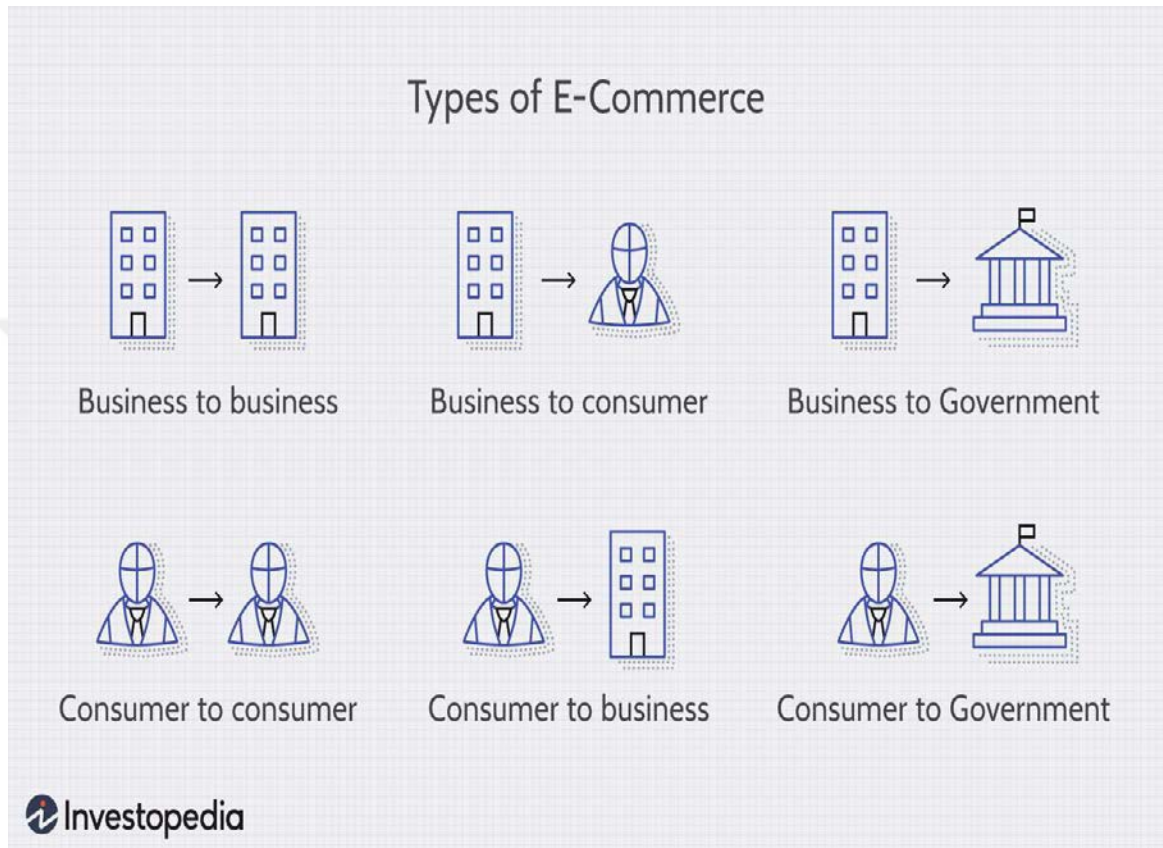


12.1 Types of E-Commerce

The company can run its e-commerce business in many distinct ways based on the products, services and organization of an e-commerce portal (Bloomenthal, Anderson, & Munichiello, 2022). The first type is “Business to Consumer (B2C)” (Bloomenthal, Anderson, & Munichiello, 2022). B2C e-commerce firms sell the goods to the end-user immediately (Bloomenthal, Anderson, & Munichiello, 2022). A B2C firm implements processes that enables the client to purchase and utilize the product immediately (Bloomenthal, Anderson, & Munichiello, 2022). “This model is used to sell goods and services” (Bloomenthal, Anderson, & Munichiello, 2022). The second type is “Business to Business (B2B)” (Bloomenthal, Anderson, & Munichiello, 2022).

B2B is like B2C, but for selling goods to another firm (Bloomenthal, Anderson, & Munichiello, 2022). The difference is that B2C may be a client but B2B may be another company (Bloomenthal, Anderson, & Munichiello, 2022). B2B processes bring about larger amounts, greater definitions and longer delivery times (Bloomenthal, Anderson, & Munichiello, 2022). Ordering firms require continuous production and repeated manufacturing methods by the suppliers (Bloomenthal, Anderson, & Munichiello, 2022). The third type is “Business to Government (B2G)” (Bloomenthal, Anderson, & Munichiello, 2022). B2G supplies products or services to government agencies or managers (Bloomenthal, Anderson, & Munichiello, 2022). It is like a B2B relationship (Bloomenthal, Anderson, & Munichiello, 2022). The businesses manufacture goods and send them to government entities (Bloomenthal, Anderson, & Munichiello, 2022). B2G e-commerce firms must often usually meet government demands for specific criteria, present proposals for government projects, and meet certain service standards (Bloomenthal, Anderson, & Munichiello, 2022). Additionally, there may be common government efforts to demand a single agreement with a “government-wide acquisition contract” (Bloomenthal, Anderson, & Munichiello, 2022). The fourth type is “Consumer to Consumer (C2C)” (Bloomenthal, Anderson, & Munichiello, 2022). “Established firms are the only presences that can sell things” (Bloomenthal, Anderson, & Munichiello, 2022). E-commerce platforms such as digital markets connect with clients who can list their own goods and make their own sales (Bloomenthal, Anderson, & Munichiello, 2022). These C2C platforms may be public auction type listings such as eBay auctions (Bloomenthal, Anderson, & Munichiello, 2022) or guarantee more arguments regarding the material or service which are supplied (Bloomenthal, Anderson, & Munichiello, 2022). With technology, C2C e-commerce

platforms authorize clients for purchasing or selling without the requirement of other clients (Bloomenthal, Anderson, & Munichiello, 2022). The fifth type is “Consumer to Business (C2B)” (Bloomenthal, Anderson, & Munichiello, 2022). Modern platforms let clients engage with firms and propose their services, especially short-term agreements and short-time business or freelance chances (Bloomenthal, Anderson, & Munichiello, 2022). To illustrate, think listing on Upwork (Bloomenthal, Anderson, & Munichiello, 2022). A client may demand proposals or connect with firms which require private jobs done (Bloomenthal, Anderson, & Munichiello, 2022). “In this way, the e-commerce platforms connect with freelancers to make enable clients a larger ability to acquire pricing, programming and business requests (Bloomenthal, Anderson, & Munichiello, 2022). The last type is “Consumer To Government” (Bloomenthal, Anderson, & Munichiello, 2022). “Less than traditional e-commerce relationships, clients can connect with managements, agencies or governments by C2G communities” (Bloomenthal, Anderson, & Munichiello, 2022). These partnerships are not often in the swap of service but in the process of responsibility (Bloomenthal, Anderson, & Munichiello, 2022). To illustrate, “uploading your Federal Tax return to the Internal Revenue Service (IRS) digital website is an e-commerce transaction based on a swapping of information” (Bloomenthal, Anderson, & Munichiello, 2022). In addition, “people may pay their tuition fee to their university online or remit property tax evaluations to their country asessor” (Bloomenthal, Anderson, & Munichiello, 2022).

Figure 17*Types of E-Commerce*

13. COMPANY PROFILE OF AMAZON

“Amazon is an American multinational technology company” (Zaid, 2022). “Amazon focuses on e-commerce, cloud computing, digital streaming and artificial intelligence” (Zaid, 2022). Amazon is referred to as “one of the most effective economic and cultural strengths in the World” (Zaid, 2022). Amazon is one of the world’s most valuable brands (Zaid, 2022).

Figure 18*Logo of Amazon***13.1 Amazon's Business Strategy**

Amazon's business strategy has four principles (Zaid, 2022). These are:

- Client fixed data rather than rival focus (Zaid, 2022).
- Desire for creativity (Zaid, 2022).
- Pledge to operational perfection (Zaid, 2022).
- "Long-term thinking" (Zaid, 2022).

14. CRM OF AMAZON

Amazon has a prestige for supplying the clients with all things that they require, all in one suitable field (Chakrawarthy, 2017). Since that time is defined as "The Amazon Effect", the firm has successfully administrated correlations with the millions of clients worldwide, without never becoming acquainted with them face by face (Chakrawarthy, 2017). All methods of shopping at Amazon are very regular and easy (Chakrawarthy, 2017). It has a basic and easy-to-use interface; stocked, individual and

card particulars; and one-click ordering; all of which render it possible to purchase goods rapidly and smoothly (Chakrawarthy, 2017).

In addition, clients can benefit from advices of products that are based on quicker buys, an opinion that has worked well both on the website and on its Kindle tools (Chakrawarthy, 2017). This smart use of client data ensures that its customers will keep enjoying their shopping experience, while letting Amazon achieve new and innovative methods for keeping its existing clients or attracting new ones (Chakrawarthy, 2017).

14.1 Five Methods Used In Amazon's CRM Software

14.1.1. Data collection

Amazon stimulates all of its users to form personal accounts to buy products and follow the orders. It communicates with the customers via email with proposals. It also presents promotions taking advantage of previous orders (Chakrawarthy, 2017).

14.1.2. Personal data preservation

Amazon facilitates purchases through a customer account that includes personal information, payment methods, and address details, which enable the customers to make purchases easily and quickly (Chakrawarthy, 2017).

14.1.3. Suggestions

When we log into Amazon, it suggests goods or services that may be of interest to us, based on our previous purchases (Chakrawarthy, 2017). Amazon also logs our search engine queries and uses data mining techniques to analyze our customer profile, in order to offer related products and services more efficiently (Chakrawarthy, 2017).

14.1.4. Customer support

Becoming a customer of Amazon is easy, which simply requires a personal account (Chakrawarthy, 2017). If there is a problem with the purchased products, such as damaged goods or the delivery of inaccurate items, people can call Amazon's customer service. Amazon's customer relations specialists will help the customers for their problems and will present solutions (Chakrawarthy, 2017). The efficiency of these customer services will increase the number of satisfied clients, therefore also ensuring customer loyalty for future purchases (Chakrawarthy, 2017).

14.1.5. Kindle marketing

From safekeeping to individual accounts, payoffs and suggestions, without CRM the Kindle goods and knowledge would not be similar (Chakrawarthy, 2017).

14.2 How Amazon Implements CRM

Amazon has huge applications of customer relationship management (Imran, 2014). Every customer can create an account in amazon.com (Imran, 2014).

14.2.1. Customer choice

The customer choice part, thanks to the amazon.com website, has given Amazon an extra advantage in order to increase the company's businesses (Imran, 2014). Amazon utilizes many methods to attract clients by understanding their client attitudes (Imran, 2014). Amazon's initial target group was people who purchase books (Imran, 2014). However, its target market becomes wider and more challenging (Imran, 2014).

PR Strategy, which is "used to help businesses organize their public relationships or media relationships, including activities that enable strategic decisions about the best ways to communicate with the target audience", aims to motivate people in using amazon.com (Imran, 2014).

14.2.2. Client acquirement

14.2.2.1 Customer account

Every client who makes purchases on amazon.com has his/her profile in the amazon website (Imran, 2014). "Amazon.com creates a database to store the client accounts, client knowledge, and credit/debit accounts" (Imran, 2014).

Through the customer account, Amazon recognizes the client, knows his/her character and things that make him/her happy (Imran, 2014).

14.2.2.2 Claim list, review system

Amazon always stimulates clients to join favorite materials to the claim lists (Imran, 2014). This situation aids Amazon to recognize the clients better (Imran, 2014). Inspection of the product aids clients to find and choose a product (Imran, 2014). In addition, “it acts as a correct marketing strategy for amazon.com” (Imran, 2014).

Amazon allows its users to connect with other clients by getting in touch and reading their recommendations to increase client confidence (Imran, 2014).

“In the first 3 months of 2000, Amazon obtained 3 million new clients without any investment” (Imran, 2014).

Amazon utilizes the information which it gets from customer accounts and claim lists to increase the pleasure of its customers (Imran, 2014). Amazon has many systems to improve customer satisfaction (Imran, 2014). For example, users can click on the “Ordering” button (Imran, 2014). “Ordering” is an efficient system which is optimized by Amazon to allow the purchase to be completed in less than 20 seconds (Imran, 2014).

14.2.2.3 Retaining customers

Amazon underlines not only obtaining new clients but also holding clients (Imran, 2014). Analysis demonstrates that around 40% of the clients continue to make new purchases on Amazon (Imran, 2014). This demonstrates that a significant percentage of the clients are frequent buyers (Imran, 2014). Amazon holds its clients cleverly and satisfies their needs through effective communication (Imran, 2014).

Jeffrey P. Bezos, the founder of Amazon, said that “70% of our strategy consists of spending time, energy, focus and dollars for building a great customer analysis and optimized services, and the remaining 30% is shouting about it” (Imran, 2014)

Integration covers advertising, service and selling to Amazon’s clients (Imran, 2014). Using big data and client knowledge, Amazon holds its customers (Imran, 2014).

14.2.3. Supplementary customer services

“The market place is very competitive for amazon.com with rivals like e-Bay” (Imran, 2014). “E-Bay is a best-buy portal breathing closely behind Amazon” (Imran, 2014). Clients prefer to buy from companies which capture their attention and have a trustable brand value (Imran, 2014). Amazon has been successful in retaining its clients despite intense competition from its rivals (Imran, 2014). When people ask if their clients are loyal, Jeff Bezos says “definitely until someone else proposes them a better service” (Imran, 2014), which defines the challenges and intense competition in the market (Imran, 2014). Amazon has better client service, trust factor, brand value (Imran, 2014). Therefore, its customer popularity is increasing rapidly (Imran, 2014).

Amazon strengthened the communication between its clients (Imran, 2014). Improved communication capabilities provided by Amazon also increased the number of its clients (Imran, 2014). Potential new clients who read the positive reviews of other clients are more motivated to buy products or services (Imran, 2014).

15. SCM OF AMAZON

Shops on the Amazon Marketplace have diverse options to choose from (Johnson, 2020). Shops may decide to fulfill the delivery of the sales themselves, or allow Amazon to clarify the transaction details, pack up the ordered goods and send them to the specified delivery address, thanks to the company's diverse centers in numerous locations (Johnson, 2020).

Amazon's supply chain mentions that it includes numerous processes, ranging from good warehousing to stock management, setting the price, commitment, and more (Zaid, 2022). Amazon has streamlined these elements to guarantee that everything is working efficiently (Zaid, 2022). Amazon proposes two options to its customers:

- **Fullfillment by Amazon (FBA)** — Shops may take advantage of Amazon's supply chain network for selling and delivering their goods that are sold on the Amazon Marketplace (Johnson, 2020).
- **Sell using your own fullfilment (FBM)** — Shops may decide to fulfill the delivery of their products that are sold on the Amazon Marketplace with their own preferred methods (Johnson, 2020).

The steps of supply chain management are "Procurement", "Manufacturing", "Distribution" and "Warehousing" (Zaid, 2022).

15.1 Procurement

The function of procurement in an organization is to buy the right product in the right quantity to the right location and for the right cost (Zaid, 2022) It includes not only buying but also all activities connected with obtaining goods and services, such as (Zaid, 2022):

- Choosing sellers (Zaid, 2022)
- Defining payment period (Zaid, 2022)
- Choosing and discussing contracts (Zaid, 2022)
- Real buying of products (Zaid, 2022)
- Administrating salesman relationships (Zaid, 2022)

15.2 Manufacturing

The Internet has modified the processes of almost everything we do, including how we shop (Zaid, 2022). E-commerce hubs like Amazon and Alibaba control a large percentage of online purchasing and selling (Zaid, 2022). People often wonder about the secrets to their success (Zaid, 2022). The success of Alibaba is due to its strategy of forming extremely close partnerships with the manufacturers themselves (Zaid, 2022). Likewise, Amazon has begun to use this methodology (Zaid, 2022).

Figure 19

Manufacturing of Amazon



15.3 Distribution Channel

“Amazon’s business model follows both a B2C and B2B distribution strategy” (Zaid, 2022). Actually, the e-commerce platform of Amazon is “client facing” which provides million of goods to billion of users around the World (Zaid, 2022). Nowadays, Amazon uses most of the various types of completion and distribution centers in the United States (Zaid, 2022). “Small sortable, large sortable, large non-sortable, private apparel and shoes, private small pieces, returns processing centers and outsourced facilities” are some of the main categories in the distribution network (Zaid, 2022).

15.4 Warehouse Management

“Amazon Warehouse Management System is a cloud warehouse management system” (Zaid, 2022). It lets suitable suppliers to run their inventory and orders (Zaid, 2022).

“Amazon Warehouse Management” is built with Amazon’s deep expertise in building world-class supply chain and completion systems” (Zaid, 2022). Amazon is a strong tool to facilitate their warehouse operations (Zaid, 2022).

Figure 20

Warehouse Management of Amazon



Supply chain management of Amazon has a big significance on technologies (Zaid, 2022). To illustrate, the company uses supply chain management for numerous automation and robotic solutions (Zaid, 2022). In addition, it uses SCM for collecting, packing, stacking and storing (Zaid, 2022).

16. HISTORY OF AMAZON

Amazon was founded by Jeff Bezos on July 5, 1994 in Bellevue, Washington (Troyer, 2018). Amazon started its business by selling books online. Jeff Bezos initially gave the company the name “Cadabra”. His lawyer, Todd Tarbert, suggested him to change the company’s name (Hartmans A. , 2021). Jeff Bezos selected the name “Amazon” because it’s the longest river on Earth. Amazon’s current logo is similar to the company’s original logo (Hartmans A. , 2021). The Amazon.com website was opened on July 16, 1995. Amazon.com started to sell books, movies, housewares, electronics and toys (Hall, 2022). In 1998, it started to sell music and DVD/video (Sherman, 2015). In 1999, it started to sell home-improvement products, software, video games and gift items (Sherman, 2015). In 2000, it started to sell photography and camera materials and supplies. In 2001, it began to suggest the online previews of books (Sherman, 2015). In 2002, it also started to sell office supplies, clothes and accessories (Sherman, 2015). In 2003, it began to sell health care products, sporting products and open-air products (Sherman, 2015). In 2004, it began to sell jewelry (Sherman, 2015). In 2005, it began to sell wedding goods (Sherman, 2015). In 2006, it also started to sell baby goods and toys. In addition, it started to sell grocery products (Sherman, 2015). In 2007, Amazon introduced the Kindle e-reader (Sherman, 2015). In 2008, Amazon acquired Audible.com, Fabric.com and AveBooks. It also started to sell motorcycles and ATVs (Sherman, 2015). In 2009, it introduced the Kindle app for mobile devices and Xbox Live store for devices using the Android operating system (Sherman, 2015). In 2010, it began to produce original TV shows, movies and comics (Sherman, 2015). In 2011, it increased the number of e-books on sale. In 2012, it started to hire textbooks (Sherman, 2015). In 2013, it also started to present Amazon Art logic services to other

websites (Sherman, 2015). In addition, it opened its first Black Friday deals store (Sherman, 2015), and presented Fire TV devices to add services to TV and Prime Music (Sherman, 2015). In 2015, Jeff Bezos started work with Woody Allen for TV series (Sherman, 2015). Woody Allen started to produce films for theaters (Sherman, 2015).

17. CRM OF FACEBOOK

Facebook for Business is continually progressing (Waldon, 2018). Lately, new tools have been integrated to Facebook's CRM (Waldon, 2018). Thanks to its CRM, Facebook has been able to establish contact with its customers more easily (Waldon, 2018). There are numerous advantages and disadvantages regarding the CRM of Facebook (DMEditor, 2022). One advantage of Facebook's CRM has been its role in determining a suitable pricing for an excellent service (DMEditor, 2022). Another advantage of CRM is its easy setup and integration (DMEditor, 2022). Rapid and effective technological assistance, and excellent user potential are among the other advantages of CRM (DMEditor, 2022). A prominent disadvantage is the fact that Facebook's assistance department is not up-to-date (DMEditor, 2022). Another disadvantage is the difficulties faced by people in expressing their opinions and complaints (DMEditor, 2022). The limitation of Facebook's email services, provided only to people who have purchased a specific user package, is another disadvantage (DMEditor, 2022). The limited working hours of Facebook's customer service is another prominent disadvantage (DMEditor, 2022).

18. SCM OF FACEBOOK

Facebook has 1.11 billion users (Keppner, 2013). It provides us with an unexpected phenomenon as sharing becomes a natural action (Keppner, 2013). There are some advantages of joining Facebook's SCM groups (Keppner, 2013). The first advantage is the large B2C market provided by Facebook's SCM (Keppner, 2013). A survey has revealed that 83 percent of all internet users in Germany share their personal information online (Keppner, 2013). Particularly, 44 percent of Internet users supply personal knowledge about goods and services (Keppner, 2013). The potential clients read these inspections and knowledge, which have a deep effect on the economy and business processes (Keppner, 2013). Companies are progressively dealing with social media activities and have become active users (Keppner, 2013). Therefore, social media platforms provide a huge pool of data which businesses can analyze using modern Big Data algorithms. Businesses can apply what they have learned for creating new goods and services (Keppner, 2013). With social web, SCM is necessary for connecting clients with other related parties for the progress and improvement of operations (Keppner, 2013). Another advantage of Facebook's SCM is the Collaborative Supply Chain, which is usually attached to the B2C market (Keppner, 2013). The philosophy of sharing ideas, opinions, knowledge and expertise will sooner or later spread into the supply chain of Facebook and its transactions (Keppner, 2013). To illustrate, sharing knowledge between logistics companies is currently very limited (Keppner, 2013). Logistics experts struggle for more clearness throughout their supply chain to accomplish the most suitable operations, but there are hard arrangements when it comes to supplying knowledge to other supply chain retailers (Keppner, 2013). The apprehension forbids a holistic optimization of supply chain operations (Keppner,

2013). There was a problem about trust, but an inclusive and collaborative supply chain will be for the advantage of all participants, as selecting reliable logistic shareholders should be a necessity anyhow (Keppner, 2013). In the future, the tendency to sharing and disseminating will face opposition, because a unified planning will be more significant in enterprises. The third advantage is the availability of cloud computing for participation. The action of sharing is very significant in the supply chain on a technological level (Keppner, 2013). It was initially regarded with doubt, but cloud computing can be found today in almost every phase of the supply chain (Keppner, 2013). A study from Gartner in 2012 showed that the utilization of cloud computing in supply chain management has converted from being a small selection to a popular choice for companies (Keppner, 2013). Sharing hardware and software can supply benefits over rivals (Keppner, 2013). Small and medium sized companies are established, so sustaining an IT substructure for the supply chain software can be very expensive and therefore may even be an obstacle for business growth (Keppner, 2013). Cloud computing is still in the first stage of its growth, but the technology presents potential for increasing supply chain productivity (Keppner, 2013). Cloud providers of SCM systems will have the liability of sustaining great standards of data safety in order to protect the sensitive data of the clients (Keppner, 2013). Obtaining the trust of the customers is a major advantage for a company, as the success in convincing customers to share their personal information (necessary for e-commerce transactions) will depend on their trust (Keppner, 2013). The users only share information with the trustworthy people to prevent the misuse of information (Keppner, 2013). With supply chain, companies require to manage business relationships with trusted shareholders and plan rules of collaboration (Keppner, 2013).

The methodology applied by the collaborative companies for supporting expansiveness and clearness will modify the business world in a very significant and sustainable way (Keppner, 2013). The new method for cooperation proposes an abundance of business opportunities, because sharing knowledge, information and opinions will increase novelty, thereby also contributing to economic growth (Keppner, 2013).

19. HISTORY OF FACEBOOK

Facebook was started as FaceMash in 2003 (Horton, 2018). Facebook was founded in 2004 by Mark Zuckerberg, Eduardo Saverin, Dustin Moskovitz, Chris Moskovitz and Chris Hughes, all of whom were students at Harvard University (Bellis, 2020). Facebook became the largest social network in the World, with more than one billion users as of 2012, and about half that number were using Facebook every day (Cowan, 2021). The center of Facebook's company is in Menlo Park, California (Cowan, 2021).

Membership to Facebook is free and the company earns most of its money from advertisements on the website (Cowan, 2021). New users can form profiles, upload photos, attend pre-existing groups and launch new groups (Cowan, 2021).

In May 2005, "Facebook had up to 800 college campuses" (Sraders, History of Facebook: Facts and What's Happening, 2020). In September 2005, it started to disperse worldwide (Sraders, 2020). In October 2005, Facebook started to add photographs and became international (Sraders, 2020). In December 2005, up to 6 million users started to use Facebook (Sraders, 2020).

In September 2006, social networking became available for Facebook users (Sraders, 2020). In December 2006, the number of Facebook members reached 12 million (Sraders, 2020). In December 2007, the number of Facebook members increased to 58 million (Sraders, 2020).

In July 2008, Facebook became available for the users of iPhone and the iOS operating system (Sraders, 2020).

In February 2009, the “like” button was added (Sraders, 2020).

In July 2010, the number of Facebook’s active users reached 500 million (Sraders, 2020). In August 2010, in Seattle, Facebook’s engineering center was built (Sraders, 2020). In October 2010, Groups were introduced (Sraders, 2020).

In April 2011, in Prineville, Oregon, the Data Center of Facebook was built (Sraders, 2020). In July 2011, video calling became available on Facebook (Sraders, 2020).

In April 2012, the acquisition of Instagram by Facebook was reported (Sraders, 2020). In May 2012, Facebook discharged their IPO (Initial Public Offering) which raised \$16 billion from investors (Sraders, 2020). On September 6, 2012, Facebook completed the purchase of Instagram by paying \$300 million in cash and 23 million shares of its company stocks, with an estimated market value worth \$102.4 billion (Sraders, 2020). In October 2012, the number of Facebook users reached the 1 billion mark (Sraders, 2020).

In February 2013, the acquisition of Atlas was reported (McFadden, 2020). In June 2013, following Facebook’s acquirement, Instagram initiated the ability to upload videos (McFadden, 2020).

In February 2014, Facebook's acquisition of WhatsApp was reported (McFadden, 2020). In March 2014, the acquisition of Oculus was reported (McFadden, 2020). In November 2014, the Group application became available on Facebook (McFadden, 2020).

In April 2015, up to 40 million small business pages were on Facebook (McFadden, 2020). In June 2015, Facebook's AI Research Group opened in Paris, France (McFadden, 2020).

In February 2016, the Reactions feature became available on Facebook (McFadden, 2020). In July 2016, up to 1 billion people were actively using the Messenger application of Facebook (McFadden, 2020). In October 2016, Marketplace, which lets users purchase and sell goods, was introduced by Facebook (McFadden, 2020).

In April 2017, the F8 Developers' Conference was arranged in San Jose, California by Facebook (McFadden, 2020).

In March 2018, the stockholders of Facebook had the company prosecuted due to the significant drop in the value of its stocks (McFadden, 2020). In April 2018, Zuckerberg expressed his anxieties over data and confidentiality contraventions (McFadden, 2020). In September 2018, Facebook COO (Chief Operating Officer), Sheryl Sandberg, testified before Congress (McFadden, 2020). In October 2018, Facebook reported the beginning of the new Facebook Portal, which provides hands-free video calling (McFadden, 2020). In December 2018, Facebook announced the launch of its stablecoin type cryptocurrency in India (McFadden, 2020).

In January 2019, Facebook funded \$7.5 million to help establish the TUM Institute for Ethics in Artificial Intelligence (McFadden, 2020). In April 2019, Facebook reportedly allocated money to overlap potential future FTC fines (McFadden, 2020). In May 2019, Facebook started the process of deleting large amounts of fake accounts (McFadden, 2020). In June 2019, Facebook stockholders voted to dismiss Zuckerberg as Facebook's chief executive and the agreement was accepted with 68% of the votes (McFadden, 2020). In addition, Facebook blocked Huawei from pre-installing its application on their smartphones and other mobile devices (McFadden, 2020). Also in 2019, Facebook launched a new digital purse and currency named Calibra (McFadden, 2020). In June 2019, Facebook started to plan ways using deep learning and AI- focused devices (McFadden, 2020). In August 2019, Facebook sued application developers based in Hong Kong and Singapore due to their criminal activities (McFadden, 2020). In September 2019, Facebook started their Tinder-like dating platform which came with Instagram integration (McFadden, 2020). In November 2019, Facebook acquired CTRL-labs, which specializes in developing innovative devices dubbed the "API for the brain" by TechCrunch and defined as a "wristband to let human beings control machines with their minds" by CNBC, for \$1 billion. In December 2019, Facebook continued to report large amounts of security contraventions (McFadden, 2020).

In April 2020, Facebook reported the annulment of all big public events until 2021 because of COVID-19 concerns (McFadden, 2020).

In May 2020, Facebook purchased GIPHY, which is "a top source for the best and newest GIFs and animated stickers online", for hundreds of millions of dollars (McFadden, 2020). In June 2020, Facebook picked its new AI device to convert 2D images into 3D models. Additionally, some people and entities started to upload and

embed their advertisement videos that contained elements which breached Facebook's rules against "hate speech" (McFadden, 2020). Facebook's stocks took a big hit. In addition, the company launched its new "Dark Mode" for mobile devices (McFadden, 2020).

20. CRM OF TWITTER

Twitter provides people's businesses with an excellent way of interacting with their clients and fans because it enables them to hear what they are telling about them, answer their questions and resolve the problems which they have in actual-time (Polese, 2013). Recent technological developments have enabled new methods of using Twitter as a CRM device that people can't disregard.

Twitter also enables its users to increase their customer adherence (Polese, 2013). Managing their Twitter assets effectively will not only increase the number of their followers and improve their interactions with society, but will also provide them with the chance of transforming these followers into clients (Polese, 2013).

There are numerous ways of using Twitter and Audiense to progress the relationship that users have with their active clients, fans and customers (Polese, 2013).

20.1 Responding To Questions From Customers

People who have active accounts “can answer the questions from their customers, so they can use Twitter to provide customer service, which is a chance that cannot be missed” (Polese, 2013). People can ask questions “in maximum 140 characters, so the questions are usually answered quicker and easier compared to sending an email or talking by phone” (Polese, 2013). If clients have problems, they can open inquiries about the people on Twitter, but they can’t disturb them using other channels such as email or phone (Polese, 2013).

Through their Twitter accounts, businesses can make sure they will be able to reply to their customers’ questions with the appropriate solutions, offers or links to their website, user guides and blogs as soon as possible – as the customers will expect an urgent response (Polese, 2013).

20.2 Turning Complaints Into Customer Satisfaction

Twitter increases awareness and wins active clients, because it is a good medium for having people talk about a trademark and its goods/services (Polese, 2013). When business relations don’t go well, Twitter provides customers the platform to complain about them (Polese, 2013). Thanks to Twitter, firms have the chance to give answers to the customer complaints about their brand, products or services (Polese, 2013).

If firms will respond to complaints in ways that will resolve the problems of their customers and bring advantages to them, customers will be satisfied and will eventually tweet good things about the firm and their customer service (Polese, 2013).

20.3 Keeping Customers Updated

Twitter can be used by firms to inform their customers who may be facing problems regarding their services or website (Polese, 2013). Keeping clients informed aids the firm's case by preventing a stack of similar questions directed to them (Polese, 2013). Additionally, firms can keep their clients updated about things that are out of their control, but are connected to their daily business processes, such as shipping or another company's website (Polese, 2013).

20.4 Thanking To Customers

Twitter can be used by firms as a medium for thanking to their clients or followers for their contribution to their achievements (Polese, 2013). It is a simple method for expressing gratitude that will aid firms in obtaining customer loyalty (Polese, 2013). For example, firms may use Hootsuite or Tweetdeck to find and select their Twitter clients who are eulogizing their goods or services, and may send them a "thank you" message and retweet their post (Polese, 2013).

20.5 Welcoming New Followers

Twitter may be used by firms for sending private "welcome" messages to their new followers (Polese, 2013). Such interactions through Twitter will demonstrate the followers the firm's appreciation for their presence and can be useful in developing new relations (Polese, 2013), which can be very beneficial especially for small businesses

that offer a personalized service (Polese, 2013). Audiense makes it really simple to do this, by displaying the new followers on the control board (Polese, 2013).

20.6 Classifying and Arranging Their Society

The Audiense platform provides a simple method for classing and arranging a firm's followers in the format of notes and labels (Polese, 2013). To illustrate, if customers have a matter or grievance that will take some time to be addressed, they can add a label to their profile in order to recall the firm's customer service specialists to come back to them (Polese, 2013). People can use detailed notes to write about their concerns and also appoint labels to users who may be interested in new versions of goods that will be available to extricate quickly (Polese, 2013).

Another use for notes and labels is to categorize users into groups. To illustrate, "clients", "bloggers", "journalists", etc., save the users from having to implement a search query more than once (Polese, 2013). This works in a similar way with a Twitter list, but there is no limit on the number of users who can label (Polese, 2013).

A "Best Time to Tweet" report for the users with these labels may include details such as things to recognize when they post tweets, their target group of followers, clients, bloggers, other users, etc. (Polese, 2013).

20.7 Keeping Trail of Their Interactions

The Audiense platform can be used to view all of their latest interplays, and from there, they can answer, retweet or tick the tweets as their favorites (Polese, 2013). It is

significant to answer to the clients as rapidly as possible in order to form customer pleasure (Polese, 2013). Additionally, there is a selection on the control board titled “I influence” which indicates all of the people who have lately talked about or retweeted you (Polese, 2013). “Clicking the blue corner of a user’s profile demonstrates them all of the mutual effect they have had with that user, which means that they can always look back to see what they have said to them in the past” (Polese, 2013). This knowledge is present for any user, not just those in the ‘I influence’ selection, and they can use the calendar to go back to mutual effect from any time period such as past year, December 2012, etc. (Polese, 2013).

20.8 Get To Know Your New Followers

The Audiense platform’s controlboard plainly displays a user’s new followers, which is useful for sending a welcome message or following back messages (Polese, 2013). Audiense gives people the ability to follow more than one immediately (Polese, 2013). In addition, people can utilize the calendar to filter by date (Polese, 2013). To illustrate, if a user will be away for a few days, he/she can see who followed him/her during the period of absence (Polese, 2013).

20.9 Don’t Forget To Follow Their Significant Followers

Similar to the case mentioned above, people can also see who follows them or doesn’t follow back (Polese, 2013). They can utilize the study and filter selections if any of these users are ones who they should be following, such as the significant people from their industry and their customers (Polese, 2013). It should be noted that some

users will want to hold their conversations private (e.g., compiling with complaints) but users can just send their customers a Direct Message (DM) which is a message that confirms they are following them (Polese, 2013).

20.10 Save Their Contacts

Audiense gives people the ability to transfer contacts from a text file, but Twitter lets people transfer connections from their e-mail accounts (Polese, 2013). To illustrate, “if the people have collected a list of their customers’ Twitter branches, or a list of people who have subscribed to their website, they could transfer them using Audiense to follow, add them to a list, label or tweet them; and finally administrate the relations they have with these users in the accurate way” (Polese, 2013).

Another detail worth mentioning is that, if they don’t desire to follow someone but want to be able to find them readily again in the future, they can add a label or note to their profile, which lets a user to reach others with one click (Polese, 2013). Another example of how this attribute could be beneficial is that if they have lately made an event and will desire to invite the attendees to a future event, they can transfer the users and then form a list or a label to arrange and finally load their profiles in their own database (Polese, 2013).

21. SCM OF TWITTER

In 2017, the incident of United Express Flight 3411 was shared on Twitter, with video images that demonstrated how a traveler was difficultly moved from an overbooked flight to Louisville International Airport (Barnhill, 2021). Later

investigation would demonstrate that a characteristic example of overbooking would bring about harms of approximately \$1,000—the financial effect of the negative reply which is shared on social media—that could have potentially caused United Airlines to lose \$800 million in market worth in a single day (Barnhill, 2021).

Social media's impact on revealing the supply chain problems can negatively affect a firm's financial yield (Barnhill, 2021). Poole College's Sebastian Heese and a team of investigators desired to make a test about these problems (Barnhill, 2021).

Heese works as a Department Head and is a Distinguished Professor of Supply Chain Management at NC State's Poole College of Management (Barnhill, 2021). According to Heese “there have been situations where Twitter shows up negative social media replies to supply chain processes that cause financial problems to firms, but there wasn't an experimental proof” (Barnhill, 2021). In 2017, due to assemblage issues, Apple had to postpone the release of its much-expected iPhone X – something that was seriously disputed on Twitter (Barnhill, 2021). Subsequently, the firm announced negative profits to the stock market due to the delay (Barnhill, 2021).

When examining these processes, the study team replied to two inquiries (Barnhill, 2021):

- “Are the supply chain problems of a firm shared on Twitter?”
- “Did the firm's reply on Twitter regarding the supply chain problem have an impact on its public relations and stock market value?”

The team gathered data utilizing an aggregator of social media and Twitter data, Crimson Hexagon, to evaluate Twitter's effects on a firm's supply chain problems which are processed openly, especially focusing on the fundamental Twitter actions against firms which weren't aware of their supply chain problems at that moment (Barnhill, 2021). They evaluated Twitter's effects by measuring both the tweet volume and tweet emotionality (Barnhill, 2021). They defined and activated "supply chain trouble news notifications" from the Wall Street Journal and Dow Jones Newswire and then eventually gathered company financial and stock market data from Thomson Reuters (Barnhill, 2021).

Combining all four sets of data, the team got hold of the sensitivity of more than 2 billion tweets connected to 150 companies and 213 supply chain troubles emerging between 2013 and 2017 (Barnhill, 2021).

22. HISTORY OF TWITTER

Twitter was found by Jack Dorsey in 2006 (MacArthur, 2020). Dorsey had actually dreamed of Twitter as an SMS-based transmissions platform (MacArthur, 2020). Groups of friends could hold bounces on what each other were doing based on their status updates – similar to texting, but in a different way (MacArthur, 2020).

Throughout a brainstorming meeting at the podcasting company Odeo, Dorsey suggested this SMS-based platform to Odeo's co-founder Evan Williams (MacArthur, 2020). Evan and his co-founder Biz Stone additionally gave Jack Dorsey the approval to spend more time on the project and progress it further (MacArthur, 2020).

In its early days, Twitter was named as “twtr” (MacArthur, 2020). At the time, a popular tendency, sometimes to win a domain-name benefit, was to drop the sonants in the name of a company or service (MacArthur, 2020). Software developer Noah Glass is credited with coining the original name twtr and its last personification as Twitter (MacArthur, 2020).

22.1 The First Tweet

Jack Dorsey sent the initial message on Twitter on March 21, 2006 (MacArthur, 2020). It read “only installing my twtr” (MacArthur, 2020).

Throughout the progress of Twitter, team insiders would frequently win hundreds of dollars in SMS fees to their individual telephone invoices (MacArthur, 2020).

While the first concept of Twitter was being inspected at Odeo, the firm was having a hard time due to a number of skeptics among the latter’s management (MacArthur, 2020). Twitter was faced with Apple’s market of its own podcasting platform which actually took away Odeo’s business model – the constituents were determined to purchase their firm back from the financiers (MacArthur, 2020).

Jack Dorsey, Biz Stone, Evan Williams and other members of the Odeo staff facilitated the purchase-back process (MacArthur, 2020).

By doing this, they achieved the claims to the Twitter platform (MacArthur, 2020). There has been some discussion on revealing the details of how the process took place (MacArthur, 2020). It’s doubtful whether the Odeo financiers knew the full extent of the Twitter platform (MacArthur, 2020).

Also, prominent insiders of the Twitter development team were not fetched on to the new firm, most significantly, Noah Glass (MacArthur, 2020).

In October 2006, Stone, Williams, Dorsey, and other members of Odeo formed the Obvious Corporation and acquired Odeo, together with its assets—including Odeo.com and Twitter.com—from the investors and shareholders (MacArthur, 2020).

22.2 Twitter Accomplishes Controversial Growth

Twitter was now on the peak of its largest expansion attack (MacArthur, 2020). The 2007 South (@sxsw) Interactive conference noticed an enormous increase of Twitter utilization (MacArthur, 2020).

More than 60,000 tweets were sent every day at the activities (MacArthur, 2020). The Twitter members had an enormous existence at the activity and benefited from the rapid dissemination of their service thanks to the conference and its audiences (MacArthur, 2020).

Twitter had its fair share of hardships for rapid progress and expansion during its formative years (MacArthur, 2020). Twitter's user base enlarged at surprising rates and very often its servers would reach their maximum capacity, forcing the company to make new investments on IT, hardware and software (MacArthur, 2020).

When servers are extremely burdened, a sampling by artist Yiying Lu (@YiyingLu) appeared on the monitor (MacArthur, 2020). The sampling attached importance to a whale being raised out of the water to safety by eight birds (MacArthur, 2020). The Twitter team used this image because they thought it symbolized the

acknowledgment of the problem and that they were working on it. This error page went viral within the Twitter community and soon was dubbed the “Fair Whale” (MacArthur, 2020).

22.3 “Is It a 140-Character Limit or 280-Character Limit?”

The reason Twitter pushes a character limit on tweets is that Twitter was originally designed as an SMS-based platform (MacArthur, 2020). In its early days, 140 characters were the limit that mobile carriers forced with the SMS protocol standard (MacArthur, 2020). Therefore, Twitter was simply creatively limited because Twitter finally grew into a web platform, the 140-character limit remained as a matter of branding (MacArthur, 2020).

“In 2017, Twitter determined that the 140-character limit was not suitable in the smartphone age and it raised the tweet limit to 280 characters over minor protestations” (MacArthur, 2020). Most tweets, the company clarified, are approximately 50 characters (MacArthur, 2020); when people required more characters, they had to send more tweets. The character increase was formed to aid Twitter users use up less time for intensifying their thoughts and more time for conversing (MacArthur, 2020).

22.4 User Novelty on Twitter

As Twitter’s user base began to enlarge, an amusing affair started to take place (MacArthur, 2020): Users formed new jargons and different selections to utilize in the service, which was a significant novelty (MacArthur, 2020).

Initially, users had no way of answering to other people on Twitter (MacArthur, 2020). Some users would add an @ symbol before a username to define another user in a Tweet (MacArthur, 2020). This became such a significant method to confirm another user that the Twitter team attached the functionality naturally to the Twitter platform (MacArthur, 2020). “The similar thing happened with hashtags which are now a significant section of the Twitter ecosystem” (MacArthur, 2020).

This user-forced functionality is also the welding of retweets (MacArthur, 2020). Users desired a method to re-post a message from a Twitter user while relaying the original message by the user who actually tweeted it (MacArthur, 2020). Users began to supplement RT before sending the message, signaling to their followers that the marking tweet was a notification (MacArthur, 2020). In August 2010, this functionality was formally supplemented to the platform (MacArthur, 2020).

23. CRM OF INSTAGRAM

Instagram is a social media application that let users share photographs and videos (Feedalpha, 2022). “Instagram lets businesses to keep up with the clients, so it is a significant tool for businesses” (Feedalpha, 2022). Instagram marketing is an efficient method for increasing brand recognition (Feedalpha, 2022).

Instagram helps users to share information about the latest goods and services (Feedalpha, 2022). In addition, users relay information about the brands and products which are demonstrated on Instagram (Feedalpha, 2022). According to seventy percent of users, businesses which have Instagram accounts are beneficial (Feedalpha, 2022),

Instagram is a fantastic platform to achieve a large audience (Feedalpha, 2022). The users of Instagram spend on average 53 minutes per day on the platform, so it is the second most visited social media platform after Facebook (Feedalpha, 2022).

Clients like being attached to companies via Instagram (Feedalpha, 2022). On average, 90% of users in a company have business accounts on Instagram (Feedalpha, 2022). 46% of the users who replied to the survey have made purchases from a company present on Instagram, either online or offline (Feedalpha, 2022).

23.1 Instagram Marketing

Marketing via Instagram can be an effective method to relate with available and active customers (Feedalpha, 2022). Instagram lets companies to announce photographs and videos with as much as 10 displays or videos that make a demonstration of their goods and services (Feedalpha, 2022). Additionally, companies can utilize Instagram stories to rapidly share “behind the scenes” content with their followers (Feedalpha, 2022).

When marketing on Instagram, companies should:

- Utilize large standard images and videos (Feedalpha, 2022).
- Utilize hashtags to achieve a larger audience (Feedalpha, 2022).
- Utilize Instagram stories (Feedalpha, 2022).

23.2 Advantages of Using Instagram as a Marketing Platform

There are many advantages of using Instagram as a marketing platform (Feedalpha, 2022). The first advantage is client acquisition (Feedalpha, 2022). Companies have numerous clients who actively use Instagram (Feedalpha, 2022). Instagram can aid businesses to gain new clients and improve their brand recognition (Feedalpha, 2022). Gaining new clients is particularly significant for small companies (Feedalpha, 2022). The second advantage is contact. Instagram is a platform that enables new contacts (Feedalpha, 2022). “Every Instagram post takes on likes, comments and shares” (Feedalpha, 2022). This contact can aid companies to progress relationships with their clients and form a society for their brand (Feedalpha, 2022). The third advantage is client comprehension (Feedalpha, 2022). Instagram supplies businesses with a comprehension of the preferences of their clients (Feedalpha, 2022). Businesses can utilize this comprehension to figure out the behavior of their clients in a better way, and to optimize their products and services accordingly (Feedalpha, 2022). Another major advantage is “sales” (Feedalpha, 2022). Instagram can be used to start “leads and sales” (Feedalpha, 2022). Companies can utilize Instagram advertisements to achieve a larger audience and improve their website contents (Feedalpha, 2022).

Instagram management tools are software platforms that aid companies with their Instagram marketing (Feedalpha, 2022). These tools can aid companies with posting content, examining data, and administrating comments (Feedalpha, 2022).

There are many properties which users should look for when selecting an Instagram management tool (Feedalpha, 2022). The first property is “the ability to send content” (Feedalpha, 2022). The best Instagram tools will let users send content to their

accounts (Feedalpha, 2022). This involves photographs, videos and subtitles (Feedalpha, 2022). The second property is “data analysis” (Feedalpha, 2022). “A good Instagram management tool will provide users with data about their account” (Feedalpha, 2022). Account-related data can aid users for figuring out their audience and increasing the number of their followers (Feedalpha, 2022). The third property is “comment management” (Feedalpha, 2022). Instagram management tools let the people to lighten the comments on their posts (Feedalpha, 2022). It is very significant for ensuring a positive connection with their followers (Feedalpha, 2022).

Users may require Instagram management tools for several reasons (Feedalpha, 2022). The first reason is “saving time”. Sending content to Instagram can be time-consuming (Feedalpha, 2022). An Instagram management tool can aid people in saving time by programming posts and examining data (Feedalpha, 2022). The second reason is “achieving a bigger audience” (Feedalpha, 2022). An Instagram management tool can be helpful for investigating hashtags and discovering new people to follow (Feedalpha, 2022). Data such as these can aid businesses to figure out their customer profiles and prepare content according to their customers’ needs (Feedalpha, 2022).

24. SCM OF INSTAGRAM

In December 2016, Instagram had close to 600 million monthly potential users, approximately half of whom were between the ages of 18 and 29 (Collins, 2017). Supply chain and B2B marketers should be careful about the social networking choices and attitudes of millennials, because 73% of millennials are employed in jobs which require them to buy goods or services for their companies (Collins, 2017). In recent

years Instagram started to focus on their attitudes: Instagram stories provide marketers with a novel platform for content delivery which is widely popular with this generation (Collins, 2017).

Instagram Stories comprise a range of contents that a user sends to his/her Instagram account, with up to 24 hours of duration (Collins, 2017). In addition to photos, stories can involve videos which can be live or pre-recorded (Collins, 2017). Users can create “Boomerangs”, which are “seconds-long motion clips that play forwards and backwards” (Collins, 2017). Users may also add private stickers with time, weather, place or even holiday salutations to their Instagram stories (Collins, 2017). People can also use a design tool to create their own masterpieces with their photos or videos (Collins, 2017).

Audiences can see the stories of the users they follow in the 24-hour window after the stories are sent (Collins, 2017). Users can notify their followers that they have published a story by labelling them, which is sent as a direct message (Collins, 2017).

Instagram stories aren't merely for users showing their friends what they have done (Collins, 2017); they are inventive content-delivery platforms which help to increase the harmony between users and their followers, increase brand awareness, and educate active purchasers (Collins, 2017).

25. HISTORY OF INSTAGRAM

Instagram was founded by Kevin Systrom and Mike Krieger on October 6, 2010 (Bruner, 2016). During its first day, it had twenty-five thousand users (Bruner, 2016). Eventually, the number of users who have Instagram accounts increased (Bruner,

2016). On December 12, 2010, 1 million users started to use Instagram (Bruner, 2016). On March 21, 2011, the first worldwide InstaMeet took place (Bruner, 2016). On August 3, 2011, the 150 millionth photograph was uploaded to Instagram (Bruner, 2016). On September 20, 2011, Instagram introduced version 2.0 with four novel filters (Bruner, 2016). On September 26, 2011, Instagram reached the benchmark of 10 million users (Bruner, 2016). In November 2011, the weekend hashtag Project #VHP was started (Bruner, 2016). On April 3, 2012, Instagram became available for mobile devices using the Android operating system (Bruner, 2016). On April 9, 2012, Instagram formed photo pages for the web (Bruner, 2016). In July 2012, the number of Instagram users reached 80 million (Bruner, 2016). In December 2012, Instagram released version 3.2 with a new filter (Bruner, 2016). On December 21, 2012, Instagram introduced version 3.4.1 which became available in 25 languages (Bruner, 2016). On May 2, 2013, the users started to label photos on Instagram (Bruner, 2016). On June 20, 2013, the first videos were uploaded to Instagram (Bruner, 2016). On December 12, 2013, Instagram was presented in real-time, with a live event (Bruner, 2016). By December 1, 2014, Instagram had 300 million users (Bruner, 2016). On October 11, 2015, Boomerang, a video application designed by Instagram which lets people record looping videos similar to animated GIF images, was started. By December 15, 2016, Instagram had reached the benchmark of 600 million users (Bruner, 2016). As of February 22, 2017, there were multiple photographs per each post (Bruner, 2016).

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