CHAT MARKETING'S IMPACT ON CUSTOMER SUPPORT SATISFACTION IN FINANCIAL STARTUPS

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Abstract. The *subject* of this paper is the influence of chat marketing on customer support satisfaction. The *purpose* of the study is to determine the relationship between the use of chat marketing and customer support satisfaction, as well as to identify the essential factors that contribute to this relationship. Furthermore, this paper aims to provide theoretical insights into the influence of chat marketing on customer support satisfaction in financial startups. Many companies struggle to achieve the most efficient chat session and are uncertain about the best strategies, factors and types of chat to implement. Therefore, these findings will help financial startups to theoretically understand the aspects of chat marketing and customer support satisfaction. The *object of this article* is the impact of chat marketing on customer satisfaction, and the purpose is to reveal theoretical knowledge that will help identify the factors that contribute to chat marketing and customer satisfaction in financial startups. This paper discusses the importance of customer support for financial startups and the different approaches to providing customer support through emotional means. In addition, this paper highlights the importance of customer satisfaction through trust and commitment to build a positive relationship with the customer. Furthermore, this paper demonstrated the framework behind chat marketing, which includes the use of different tools such as live chat platforms, chatbots and live agents or human representatives that help to achieve customer satisfaction through customer support. Moreover, using *methods* such as: observation, survey and regression analysis, this paper has demonstrated the importance of customer centricity in the financial sector to provide key essentials for employees as incentives that maintain customer satisfaction, while ensuring the flexibility of real-time communication with chatbots or live agents, with the need to have the ease of use and flexibility and various other factors to contribute to customer support satisfaction. As a *result,* the paper emphasises that in order to increase customer satisfaction with financial start-ups, it is crucial to maintain a low response rate by providing fast and reliable customer assistance. Developing and regularly updating chatbots to facilitate smooth transitions to live agents in complex situations is essential. Implementing an effective ticketing system to automate and monitor issue resolution is essential, with a focus on resolving issues during chat interactions whenever possible. Adopting a hybrid strategy that combines live agents and chatbots helps to meet diverse customer needs in a timely manner. Investing in comprehensive training for live agents is necessary to ensure professional and timely service. In addition, continuous monitoring and analysis of customer feedback plays a key role in improving overall business performance.

Keywords: chat marketing, chatbots, customer satisfaction, customer support, customer support satisfaction, live agents.

JEL classification: M31

1. Introduction

Relevance and feasibility. Most companies today are trying to improve customer support satisfaction through a variety of strategies. Frequently Asked Questions (FAQs), support emails, help menus, phone calls and, more recently, the live chat tool, which is integrated into the website and provides live agents and chatbots ready to assist customers in real time with product, service and other queries. According to Chattaraman, Kwon, & Gilbert (2012), providing

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effective customer support is essential. This support can come in the form of emails or live chat services, both of which are recognised as online forms of customer support. Live chat is a tool used to provide assistance and guidance to customers based on their request or question. It can be a chat run by a bot or a human representative and is available around the clock, seven days a week. This promotes customer loyalty and encourages the customer to return whenever they need assistance from the company (Turel et al., 2013).

Nowadays, customers are looking for support online, and it is the financial startups that provide the highest level of customer support, available 24/7, that enable the customer to contact the support team for any issue that may vary depending on the financial payment or general query. According to a study by Accenture (2016), chatbots were able to resolve 82% of conversations on their own, and this figure rose to 88% when a live human agent was also involved. According to Holloway & Beatty (2003), complaints are more likely to occur online than offline. This shows that customers prefer to seek support online rather than offline, which is why various financial companies, such as banks, have implemented live chat to increase customer engagement and satisfaction in order to prevent the loss of the sense of interaction, trust and reliability by providing customers with online assistance to answer queries during sessions and resolve issues accordingly (Rajaobelina et al., 2019). Shereen (2020) states that chat marketing is used to attract and retain customers through various platforms and tools that specialise in messaging channels as such; live chat, chatbots. In other words, it is used by companies to chat with customers and maintain communication on a real-time basis on e-commerce websites or the like with the aim of guiding customers through their issues.

According to Turel et al. (2013) and Chattaraman et al. (2012), live chat is the most popular tool for online assistance today. This is because many customers consider online assistance before visiting a physical or offline customer service centre. For example, an e-money institution that does not yet have a physical branch can only assist customers online through methods such as live chat, phone calls and help desks. A bank with a physical branch, on the other hand, gives customers the option to seek physical customer support if they need it, but even though this is an option, most customers still choose to use digital means to resolve problems or respond to service- and product-related questions.

In the financial sector, where customers are the most likely to engage in the digital age, this also has a significant impact on the customer journey. By using live chat, a company can quickly respond to consumer questions about specific situations in real time. By addressing customers' concerns and solving their problems, a company can help build trust and increase customer loyalty. Customers often have financial concerns, particularly around payments, credit and other issues. Due to their ability to differentiate themselves from competitors in the market by using the live chat tool as a key component of their customer support strategy, this topic focuses on financial start-ups in the area of chat marketing (Brown, 2018).

Research problem: How does chat marketing affect customer satisfaction with support?

The **object of the study** is the impact of chat marketing on customer satisfaction with the support service.

The **aim of the article** is to provide a theoretical understanding of the impact of chat marketing on customer satisfaction in financial startups.

The **research methodology** was implemented using the methods of scientific literature analysis, quantitative and content analysis.

2. Theoretical Background Review

Customer support is crucial for financial startups to provide essential guidance and solve customer problems. Customer support can be delivered through various marketing methods in financial startups, which positive customer experience is significant to seek to achieve customer satisfaction by providing the customer with sufficient guidance and information. Customer support plays an essential role in marketing, as it is one of the most important factors that a company approaches to be successful. According to Xu et al. (2017), in order to evaluate the quality of customer support, there are measures to consider, which are described as the appropriateness, the helpfulness of the interaction, and the emotions towards the customer. Customer support can also be segmented into an informational approach and an emotional approach. Each has its own benefits depending on the customer's enquiry. For example, if the customer is asking simple questions to explore the financial startups, then the chatbot or human representative will approach the customer with an informational approach and provide the answers needed to complete the case and inform the customer. On the other hand, if the customer is frustrated or gives negative feedback during the interaction. The ability to recognise the opinions and emotions of individuals and act in accordance with these understandings constitutes the psychological dimension, while the emotional aspect relates to concern and empathy for others (Weisz & Cikara, 2021). In these cases, the chatbot or human representative shows empathy for the customer by using phrases such as: "Sorry for the inconvenience," or "We're sorry you had to experience this inconvenience." (Xu et al., 2017) Such phrases allow the customer to feel the empathy shown by the company, turning a negative experience into a positive one with the help of a chatbot or human representative.

In addition, when it comes to customer support, the chat representative must focus on customer satisfaction as the main goal of the interaction, which will lead the customer to build trust and commitment, as the relationship developed with the customer through these chat sessions and interactions can develop the sense of trust, commitment through customer satisfaction by adding value to the customer (Bricci et al., 2016). Previous studies focusing on the financial startups show that customer satisfaction, trust and commitment strongly influence the customer support aspect in different ways and determine how the customer would react to the products or services offered by the company (Chu et al., 2012). These factors are important in helping the customer to be connected and attached to the company, leading to positive word of mouth and high levels of customer satisfaction.

Today, according to Gefen & Straub (2004), there is a growing interest in how social interaction factors, such as social presence, can be incorporated into the online context to increase customer satisfaction and loyalty. Chat marketing can be referred to as conversational marketing, which has been defined by Israfilzade (2021) as the way of communicating with customers that can be approached through various tools and platforms such as live chat, chatbots, voice agents and more. Chat marketing helps customers get help with their enquiries and develop an understanding of their enquiries. Companies that want to improve their customer support can use online chat, also known as live chat (Chattaraman et al., 2012). According to Eren (2021), live chat has been recognised as an efficient approach to online customer support, which can be cost effective and improve customer loyalty and satisfaction, thereby increasing trust in the company and its relationships. A study by Chattaraman et al. (2012) found that live chat is a useful tool for improving customer support, as it allows users to receive prompt, personalised responses to their questions and issues, either through a chatbot or a live agent, or a combination.

Chatbots are artificial intelligence programs designed to imitate human conversations as real-time online assistance bots (Lee et al., 2017). Chatbots can maintain a short interaction with a limited amount of information to provide to the customer (Gupta et al., 2015). According to Mero, (2018), efficient online customer support can be provided by offering the option of contacting a live agent. Live chat technology allows the customer to have an instant connection with only live agents who are responsible for assisting with difficulties. Live agents are the ones that customers prefer to communicate with during a chat rather than a chatbot, as the human representatives are able to understand the issue more deeply and answer the customer's queries with passion. Moreover, the human representatives can provide the feeling of warmth (Turel & Connelly, 2013), as it shows the concept of passion and empathy that the customer is looking for.

Being customer-centric is very important for financial startups to maintain their reputation and position in the market against their competitors. As through customer support, the customer can experience positive journey and become loyal towards the services or products offered, which highly avoid conversions to competitors. Financial startups need to consider the expectations of their customers in order to meet their needs and satisfy them. Nevertheless, employee satisfaction is as important as customer satisfaction because employees have the incentives to maintain the relationship with the committed customers and develop this relationship towards a better future (Lovelock, & Wright, 2016). Since employees are a key factor when it comes to customer satisfaction, it helps to provide employee incentives and motivation for better customer satisfaction.

Chat marketing allows customers to communicate with agents in real time via chatbots or live agents for fast, personalised assistance. In addition, the usage system that the customer uses to communicate is important to consider in an organisation to ensure ease of use and consistency of flexibility. In order to provide the most efficient customer support to achieve customer satisfaction, the company must consider various dimensions, each of which has its own significance and reason for playing a role in increasing or achieving customer satisfaction. There are three main dimensions when it comes to customer satisfaction in chat marketing as follows: service quality, system quality and information quality. In Figure 1, Trivedi (2019) presents the dimensions that need to be considered to achieve customer satisfaction in chat marketing.

Figure 1 shows three main dimensions, each with sub-dimensions, to achieve and satisfy customer needs through customer experience. The quality of conversations or service quality is essential for the company to have a high level of customer satisfaction through positive customer experience, which increases the commitment and trust leading to customer satisfaction as well as improve the customer purchases through the impact of the dimensions along the way which are represented as the empathy, responsiveness and assurance to the customer. These dimensions are important to consider along the way of each chat session, where assurance can be described as professionalism and communication skills. Furthermore, the responsiveness refers to the speed of responding and speed of solving the case, while empathy is about comprehending the customer and seeking the needs that must be met during the chat interaction (Trivedi, 2019). In the fintech industry, customer satisfaction is impacted on how well the financial startups meet the expectations of the customers, through the dimensions in the figure, as when the
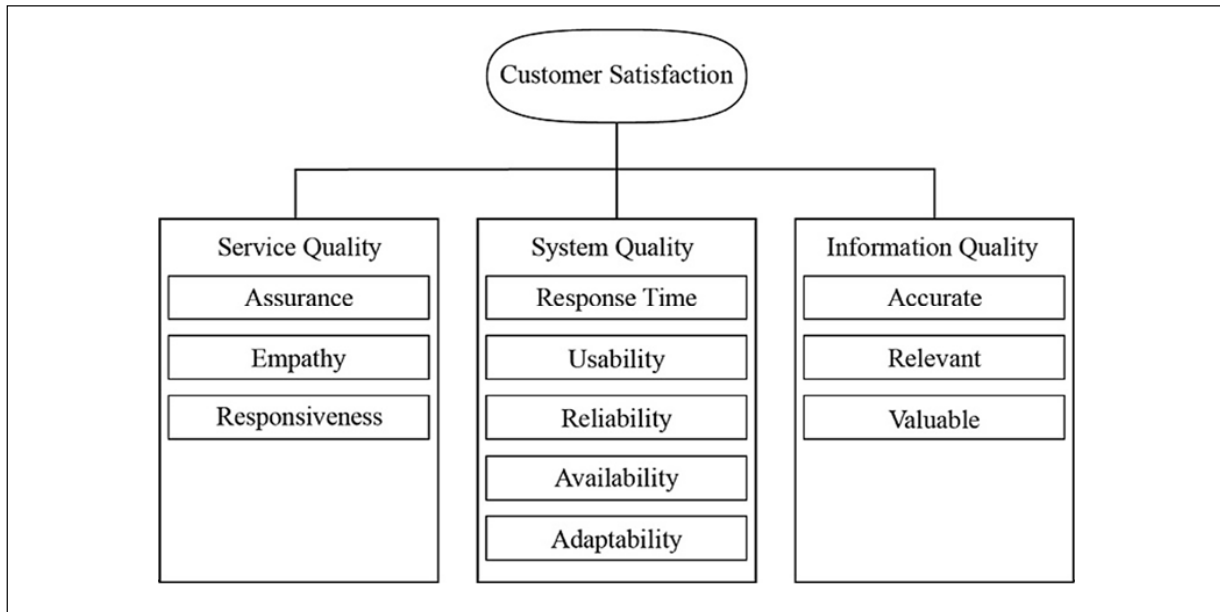
Figure 1. Dimensions of Customer Satisfaction
Source: Trivedi (2019)

customer seeks assistance with the financial company, they expect to have their issue resolved fast since it is considered to be essential assets for them. In other words, increased customer satisfaction with the financial startups will occur when the quality of the services enhances throughout their journey, leading to referrals and improved word of mouth.

In addition, response time, usability, reliability, availability and adaptability are the five factors that make up the system quality dimension, which is used to assess how well the chat feature works technically. Response time refers to how long it takes to answer a query. Usability refers to the flexibility and ease of use of the chat experience as such; providing a detailed list of choices for menu chatbots or a trained human representative to provide detailed information. Adaptability is about the ability to keep up with evolving trends. Providing accurate, valuable and relevant information to a consumer is what the information quality dimension is all about (Trivedi, 2019). According to a study by Asiyanbi & Ishola (2018), when customers turn to a financial company to store their funds, they expect the quality of service to be high, as customers are more likely to be satisfied when their expectations are met than when the quality of the online banking service is high. In addition, financial startups should consider response times, as this is important for developing customer trust and commitment, which are used to evaluate the quality of a company's services.

Furthermore, the dependability of the service is very important and essential for the company, as it refers to how well the case can be solved for the customer. The reliability is demonstrated through the services of internet banking websites such as live chat services and how the customer support chatbots or agents approach the issues to solve them accordingly (Singh & Kaur, 2013). Nevertheless, in order to retain the customer and improve customer acquisition, the financial company must take into account the reliability of their customer support and their services, which the customers always seek safe sources to store their assets or if they want to get a loan for example, they must seek reliable sources on such requests, especially with the customers provide their personal information on online websites as such their identity document to open an account, which customers seek such services that are reliable and honest that can be dependable, therefore, reliability is very important to seek in financial startups and it comes to customer support and services (Sakhaei et al., 2014).

It is crucial for the company to consider customer satisfaction when generating profit, as customer satisfaction is one of the most important factors that the company seeks to consider in order to maintain and improve its performance and reputation. In the field of marketing, customer satisfaction plays a major role in achieving the sense of belonging for the customer. Customer service satisfaction is introduced as the customer's opinion of the products or services offered by the company, although in some situations it can also refer to the customer service itself. Some factors that contribute to customer satisfaction can be response time, empathy, reliability and availability. This is implemented in chat marketing as different dimensions, each of which can positively impact customer satisfaction, these dimensions can include, service quality, system quality and information quality.

These dimensions are essential to provide the most efficient customer support satisfaction in the financial startups. In addition, chatbots and live agents need to be trained on a regular basis to provide the most efficient customer support with the highest customer satisfaction.

3. Research Methods

This section will demonstrate the research methods which is divided into 5 steps that starts with Step 1 of observation method of variables, this method will help authors to understand the variables or dimensions and will help to understand the flow of customer journey during chat interactions. A method of data collection, which is a method that helps authors to collect all the data through the observation technique. According to Ciesielska, Boström & Öhlander (2018), the observation tool is a crucial research methodology that includes different types, techniques and approaches to achieve and reach specific results that can be difficult to approach in different circumstances. However, the observation tool is now fundamental to observe the behaviour and environment of the subject that is still to be analysed in order to provide feedback on the relationships. While authors has used the partially participating type that means authors has participated without influencing the study or providing any activity towards changing the value of the outcome that is customer satisfaction. Authors has approached this method to develop the understanding of the customer's interactions with the customer support and possible outcomes of each scenario and their variables that affect the decision of customer satisfaction.

Step 2 – Survey method. This method is used to analyse the respondents' answers by collecting the opinions and perspectives of those respondents who were previous customers of a financial startup that used live chat services either through a chatbot or a human representative. Authors have used this method to better understand the influence of respondents on customer satisfaction through the dimensions that affect satisfaction throughout the chat interaction in chat marketing. Furthermore, authors will conduct the survey with a set of questions that will seek the importance of these dimensions and understand the behaviour of the customer through a 7-point Likert scale that will determine specific opinions and from that, authors will use to extract the essential dimensions from the financial startups and analyse through the observation method. Due to the time and cost involved in including a large population in the survey, the authors will focus on the sampling method. According to Fricker, (2012), the sampling method is divided into two categories, probability sampling and non-probability sampling. Authors will choose non-probability sampling. This category often describes that the sampling is a non-random method, which means that the respondents have the say whether they want to participate or not. While the other method of probability sampling is the opposite, which shows that the respondents are selected with a mechanism that selects random respondents. The authors chose the first method because it is expected to collect data from a certain population group that has previously used the company's chat services to solve issues or problems they have encountered. To ensure confidentiality for respondents, the survey will use an anonymity strategy. In addition, to avoid ethical issues, the authors of the study will focus on respondents over the age of 18. Furthermore, the authors will collect a number between 300-400 respondents answers with the ability to finish the survey between 5-10 minutes due to the focus of the respondents along with keeping their attention on the survey as it is sufficient to have such period of time for answering the survey in order to collect data. The design of the survey will be done with the technique of Likert scale, which will represent 7 points for the respondents to express their opinion with. According to Ramesh et al. (2017), the Likert scale is a systematic approach that provides a series of statements from strongly disagree to strongly agree, depending on the question, indicating the respondent's current opinion and level of agreement.

Step 3 – Model for multiple linear regression analysis. This method is a modelling method for analysing data and predicting results and outcomes. On the one hand, the basic linear regression is to predict a result of dependent variable from independent variable. On the other hand, multiple linear regression analysis predicts a dependent variable from an independent multivariable, which helps to understand the relationship of each dimension to the main variable, which is customer satisfaction, and how it can be improved. By understanding the relationships and the impact of the variables, the authors will be able to create a formula through the visualisations, graphs and analyses made with the data collected. This formula will help the organisations to have the ability to seek the best method for approaching the customer with top customer satisfaction score.

In addition, this formula will demonstrate the result, namely the customer satisfaction score, and based on the results, the organisation will be able to modify and improve some dimensions to achieve a higher level of customer satisfaction. The authors will use SPSS to analyse the observation. In addition, the authors will focus on the multiple linear regression method as an outcome of this study to understand and evaluate the relationship between the independent variables and the dependent variable. The following variables will be analysed: first call, complex issue, live agent, ticket, and resolved issue, and the main factor influenced by these dimensions will be the customer satisfaction

score for support. The method will provide the results of descriptive statistics, correlations, coefficients and linear regression indicators. The formula that will be focused on to estimate the predicted values and relationships using multiple linear regression analysis is as follows: $Y=b0+b1X1+b2X2+b3X3+b3X4$. Where Y represents the dependent variable, i.e., satisfaction. In addition, b0 is a constant that will be the predicted value of satisfaction, while b1, b2, b3 and b4 are unstandardised coefficients and X1, X2, X3 and X4 are the current values of each variable.

Step 4 – Presentation of financial startups. The authors conducted this research with the help of financial startups, which will be described anonymously due to the confidentiality of the companies. There are two companies that the authors will use: company A and Company B, which will be combined into one company that will be used for analysis, as both companies are in the same ecosystem and operate under the same company. The authors will combine the two datasets to obtain more data points that will be used to train the model and obtain more accurate results. Company A specialises in e-money and provides services to individual users, including special European IBAN accounts with SEPA and SWIFT transfer support, visa debit cards, and a mobile application designed to make their daily financial transactions convenient. In addition to personal accounts, the company also provides corporate services, offering a wide range of solutions including SWIFT and SEPA payments for market players in different industries and geographical locations, as well as corporate Visa cards. The company works with various other business sectors and operates globally online as it is ubiquitous in most countries, enabling customers to have the advantage of using financial services with live chat assistance on a real-time basis on a 24/7 basis. Furthermore, Company B specialises in the financial cryptocurrency industry, allowing customers to receive, send, convert and store cryptocurrencies. In addition, the company also provides a dedicated IBAN for individual customers along with Visa prepaid cards, while offering a business account for businesses with the ability to use more than 49 cryptocurrencies as well as fiat currencies such as the EUR in the account. Such services are in high demand today, and live chat is essential for the customer's ease of doing business, trust is crucial when it comes to financial transactions, and retention can be achieved when the customer is satisfied with the support and smooth operation of the company. Furthermore, both companies operate within the same ecosystem, as they both have the same live chat services and live agents, just different chatbots and services.

Step 5 – Data collection. The authors extracted statistics from the live chat with the following dimensions from companies A and B described above. The authors will identify the dimensions and variables for the companies to help implement them in the analysis and provide estimates and results of the regression method through the dependent variable of customer satisfaction. According to Kabir & Syed (2016), data collection is a method that enables the process of accessing and collecting data in a way that the measurement system of the collected information can provide specific results that are not yet expected. The authors have used the data collection method through quantitative data that represents the numerical of live agents and chatbots combined of the variables that are total chats, average response rate, transfer to live agent, ticket creation. The authors have used the observation method to extract the variables that were used to extract the numbers and were collected during an interval of time. In addition, this dataset will be used to analyse the results through multiple linear regression analysis using the SPSS tool, which will help the authors to understand the relationship between these variables.

As previously mentioned, this method is important for the verification of the variables that affect customer satisfaction in char marketing. The authors will use this method to find the dimensions that will be used in the survey as well as the dimensions that will be extracted from the financial startups in the flow of customer chats. The authors will use econometric modelling in the observation methodology through the analysis of the extracted data with the help of multiple linear regression analysis.

Figure 2 shows a flowchart of a customer's chat journey, from the moment the customer contacts the support team to the moment they leave the chat and have the opportunity to rate it using a chatbot or live agent. The customer goes through two processes: first, the chatbot greets the customer with a question like "How can I help you?" or similar, and then the customer can ask either a general question or a complex question that the chatbot does not understand. The chatbot answers the general question and asks the customer if there are any other questions it can help with, after which the customer has two options: ask a question or leave the chat with the option to rate it, if the customer has more questions, the process will return to greeting the chatbot with a similar phrase to ask what question the chatbot can help with.

On the other hand, if the customer had a complex question, then the chatbot will suggest that the customer be transferred to a live chat, giving the customer the option to choose whether or not to be transferred; if the customer does not want to be transferred, then the chatbot will ask for further clarification of the question asked; if the chatbot understands the second time, then the answer will be provided, along with going back to the questioning step if further questions are raised. However, if the
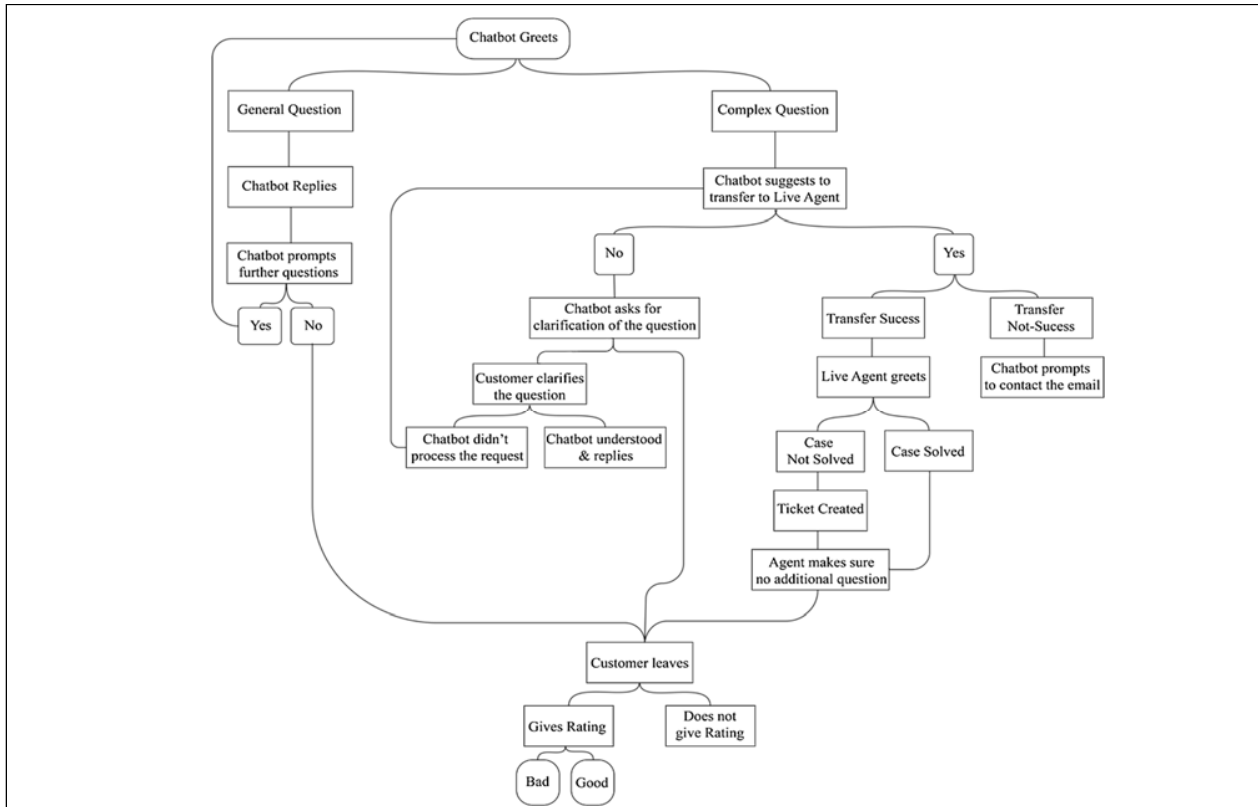
Figure 2. Customer journey map

Note: the figure was created by the authors based on observations of interaction in the chat room

customer wants to be transferred to a live agent, there are two options: if the live agent is not available, the chatbot asks the customer to contact them by email. If the transfer was successful, the live agent greets the customer, and if the case can be resolved in the chat, the live agent ensures that no additional questions are asked of the customer and that the customer exits the chat. Nevertheless, if the issue cannot be resolved, the operator creates a ticket to forward the case to another department and then ensures that no further questions arise. In the end, the customer has the opportunity to rate the chat as either "good" or "bad", which will affect the performance of the chat, either achieving customer satisfaction or not.

From the flowchart, the authors have made the Table 2 which presents the variables and dimensions that will be analysed throughout this research in the context of customer support satisfaction. Table 1 shows 5 variables that each influence customer satisfaction along the customer's chat interaction journey in chat marketing. The variables are total chats, average response rate, transfer to live agent, ticket, average chat duration and the main variable that is the outcome of the process is customer satisfaction.

Total number of chats, which means that the live agent handled a certain number of chats in a certain period, this variable demonstrates the importance of being able to handle a certain number of chats while

achieving the highest level of customer satisfaction the agent is capable of. Average response rate, this variable or measurement demonstrates how quickly a live agent responds to a customer for each message. This variable is often measured in seconds, as most companies have a policy that each response should not exceed 60 seconds to achieve maximum satisfaction during a chat. On the other hand, this dimension only applies to live agents, as chatbots don't have a response rate metric because their responses are almost instantaneous thanks to algorithms and artificial intelligence. A transfer to a live agent prompting the customer to switch to a live representative due to a difficult session or situation that the chatbot cannot answer may be something special about the customer's account, or it may be a specific case that was previously handled by a human representative agent. Ticket, this variable shows that the operator needed additional help from other departments of the company or needed more time to help the customer solve their issue and informed the customer that they could contact them via email. Average chat duration, the variable shows the average duration of each chat, as customers may have the impression that the longer the chat, the less satisfied they are, while others may have a different opinion and would like to chat longer to understand the services or products offered, having numerous questions in mind. All of these dimensions influence one main

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Table 1

Variables and dimensions, and their descriptions

Dimension/Variables	Description
Total chats	This variable shows the number of chats that the agent has processed over a certain period of time.
Average response rate	This variable shows the time a live agent spends answering each statement or question during a chat.
Transfering to a live agent	This variable indicates whether the chatbot offered to switch the customer to a human in case of complex queries or offered to the customer during or at the beginning of the chat.
Ticket	This variable indicates whether the human representative was unable to resolve the issue during the chat session and instead created a ticket for the issue.
Average chat duration	This variable shows the average duration of a chat with a customer.
Customer satisfaction	This is the main dependent variable that is the result of the process, demonstrating how satisfied the customer is with the chat session. It can be influenced by each of the above dimensions.

Note: the table was created by the authors based on the customer journey during a chat interaction

factor, which is the customer support satisfaction score, and with this observation method, the authors will derive a formula using SPSS, presenting the impact in a multiple linear regression graph, demonstrating the impact of each dimension on customer support satisfaction and how the end result can be improved according to the formulated formula.

4. Research Results Analysis

Survey analysis. The survey was conducted using a set of questions, and the authors collected 379 respondents, focusing on former and existing customers who have used chat services in financial startups. In addition, the authors used a 7-point Likert scale, where 1 = very dissatisfied and 7 = very satisfied. Firstly, the authors collected the demographic data of the respondents in Table 2, which shows the age as well as gender of the respondents who took part in the survey. The authors focused on respondents who have used or are currently using chat services, who have communicated with chatbots and live agents.

The table above shows the results of the survey, which was organised using a question with the highest scale chosen by the respondent, meaning 1 = very

dissatisfied, 2 = dissatisfied, 3 = somewhat dissatisfied, 4 = neutral, 5 = somewhat satisfied, 6 = satisfied and 7 = very satisfied, as well as the number of responses on this scale and its percentage of the total number of respondents.

Overall, the results of the study have shown that the variables analysed are significant and can have an impact on customer satisfaction. Furthermore, the relationship between them and customer satisfaction can be significant in helping financial startups to understand the customer journey in chat marketing and how to implement the right methods to achieve the highest customer satisfaction. This research has helped the authors to understand the customer satisfaction levels of previous or existing customers of the financial startups who have used live chat services, communicating with a chat bot or a live agent to either solve problems or familiarise themselves with the services and products offered by the company.

Data collection. Table 3 below shows the independent variables, which are presented in decimal form as percentages, including, firstly, the total number of chats, which shows how many chats each agent had during the month.

Table 2

Survey Results

Number	Questions	Scale	Responses	Percentage
Q1	How satisfied or dissatisfied are you with repeated contacts with a chatbot or human agent?	2	108	28%
Q2	How satisfied or dissatisfied are you with chatbot communication at the initial stage before moving on to a live agent if necessary?	5	109	29%
Q3	How satisfied or dissatisfied are you with the fact that chatbots can transfer you to an operator in situations where the chatbot does not understand your question?	7	105	28%
Q4	How satisfied or dissatisfied are you with the fact that the operator creates a ticket (to redirect to someone else) if your issue cannot be resolved in the chat?	6	129	34%
Q5	How satisfied or dissatisfied are you with a long conversation with a chatbot or human agent?	3	101	27%
Q6	How satisfied or dissatisfied are you with the operator's slow response time?	1	131	35%
Q7	How satisfied or dissatisfied are you with the fact that you are not the only one who communicates with a human agent at the same time?	3	125	33%

Note: the table was created by the authors, as the data was taken from the survey results

Table 3
Extracted data from financial startups

Agent	Total chats	Average response time	Tickets created	Transferred	Average chat duration	Satisfaction
Agent 1	0,01	0,47	0,13	0,01	15	0,66
Agent 2	0,02	0,32	0,05	0,02	12,41	0,85
Agent 3	0,03	0,25	0,05	0,03	12,05	0,84
Agent 4	0,03	1,00	0,11	0,03	15,41	0,76
Agent 5	0,02	0,40	0,04	0,02	11,5	0,80
Agent 6	0,03	0,50	0,11	0,03	14,43	0,83
Agent 7	0,06	0,50	0,09	0,06	11,36	0,80
Agent 8	0,03	0,30	0,06	0,03	11,37	0,81
Agent 9	0,04	0,42	0,04	0,04	11,23	0,82
Agent 10	0,07	0,35	0,07	0,07	12,53	0,83
Agent 11	0,04	0,78	0,03	0,04	13,14	0,74
Agent 12	0,03	0,42	0,06	0,03	11,43	0,77
Agent 13	0,06	0,53	0,06	0,06	13,13	0,79
Agent 14	0,01	0,45	0,24	0,01	9	0,92
Agent 15	0,02	0,33	0,12	0,02	8,15	0,90
Agent 16	0,03	0,20	0,06	0,03	8,35	0,91
Agent 17	0,04	0,93	0,10	0,04	10,08	0,89
Agent 18	0,02	0,38	0,07	0,02	7,3	0,90
Agent 19	0,04	0,45	0,07	0,04	8,4	0,91
Agent 20	0,04	0,50	0,06	0,04	8,04	0,91
Agent 21	0,03	0,27	0,07	0,03	8,23	0,84
Agent 22	0,03	0,43	0,05	0,03	7,34	0,98
Agent 23	0,07	0,33	0,06	0,07	8,51	0,90
Agent 24	0,05	0,75	0,04	0,05	9,1	0,83
Agent 25	0,03	0,38	0,10	0,03	8,34	0,93
Agent 26	0,05	0,53	0,04	0,05	7,34	0,90

Note: the table was created by the authors, as the data was obtained from financial startups, which will be used later in this paper for multiple linear regression analysis

Table 3 presents the live chat dataset of the financial startups, which has been converted from numbers to decimals for the purpose of analysis and finding the significant relationship between the independent and dependent variables. The average response time, which indicates the average response time to each message between the agent and the customer. The number of tickets created, which was extracted from each agent, showing the inability to resolve the case during the chat and the need to escalate the case to other departments within the company. The transferred variable represents the number of chats transferred out of the sum of all chats started by chatbots. In addition, the average chat duration that explains the average of each chat with the customer through the live agent in minutes and seconds of time. However, the last variable is the customer satisfaction, which the authors will analyse and use as a reliable variable in the linear regression analysis.

Multiple linear regression analysis. Authors has used the data collected from the financial startup companies to conduct an analysis using SPSS software that will focus on the multiple linear regression analysis method to estimate the significance and relationship of the independent variables to the dependent variable which is the customer satisfaction. While Table 4 presents the correlations of the values towards each variable.

Table 4
Correlations

		Satisfaction
	Satisfaction	1,000
	Total chats	0,037
Pearson correlation	Average response time	-0,279
	Tickets created	0,069
	Transferred	0,037
	Average chat duration	-0,833

Note: the table was created using SPSS by analysing company data

The results in Table 4 show the correlations through the data collected for the enterprises. The results show a mixed correlation. Firstly, the total number of chats has a very low positive correlation with satisfaction, indicating that the higher the total number of chats, the higher the satisfaction. Meanwhile, the average response time shows a low negative correlation, meaning that the lower the response time, the higher the satisfaction. In addition, the number of tickets created has a very low positive

correlation, meaning that the higher the number of tickets, the higher the satisfaction. In addition, transferring customers to live agents has a very low positive correlation, meaning that the more transferred, the higher the satisfaction. Finally, chat duration has a very strong negative correlation, as this is the strongest in the table in terms of correlation, explaining that the lower the chat duration, the higher the satisfaction.

Table 5
Model Summary

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
1	.846[a]	0,715	0,661	0,04124

Note: the table was created using SPSS by analysing company data

Table 5 shows the summary of the model for companies, where the R-value shows a value of 0.846, indicating a high positive correlation between the variables. In percentage terms, 71.5% of the variance of the dependent variable is explained by the independent variables. In addition, the adjusted R-squared is 0.661, indicating that the model fits the data well, resulting in 0.04124 standard deviation of the residuals, which gives a low level of error. The model coefficients and variables are presented in Table 6.

Table 6
Coefficients

Model		Non-standardised ratios	
		B	Std. error
1	(Constant)	1,067	0,046
	Average response time	-0,012	0,045
	Tickets created	0,268	0,214
	Transferred	0,351	0,570
	Average chat duration	-0,024	0,003

Notes: the table was created using SPSS based on the analysis of Company A's data.

Table 6 shows that the constant has a coefficient of 1.067 for firms. Furthermore, the coefficient of each independent variable reflects the change in its associated dependent variable, e.g., if the response time variable increases by one when all other variables remain constant, the dependent variable, which is satisfaction, is likely to decrease by 0.012. Since the number of tickets and the transfer rate are positive, it can be seen that the chat duration is negative, which has a negative relationship with the dependent variable, i.e., if the chat duration increases by one, satisfaction will decrease. Nevertheless, the results were demonstrated through linear regression analysis using SPSS to generate the formula $Y=b_0+b_1X_1+b_2X_2+b_3X_3+b_3X_4$. Furthermore, the authors have put it to a test as the formula was used from Table 10 when the satisfaction of Agent 1 from Table 6 = $1,067+(-0.012 \times 0.47) + (0.268 \times 0.13) +$

$(0.351 \times 0.01) + (-0.024 \times 15) = 0.74$ which the actual value was 0.66, resulting in an error value of 0.08, which means that the future companies can use this formula and this analysis to predict their satisfaction with such a low error rate.

5. Discussion

As shown in Figure 3, the customer journey map was defined by the authors based on a combination of survey results and multiple linear regression analysis. The authors demonstrated the satisfaction line along with the 0 line, which is the neutral line to define the levels of neutrality in the customer journey.

The figure above first shows the variables of chat interaction and then the overall feedback, which is presented as customer satisfaction. In addition, variables have been identified which are the key points of the journey, as well as the channels during this journey, which are the smartphone and computer used by the customer. Furthermore, experience is defined as the level of satisfaction along with each journey point, which is a 7-line Likert scale based on the bottom line meaning "very dissatisfied" and the top line meaning "very satisfied". The results have shown that the customer starts with a somewhat dissatisfied due to some doubts that arise, and then the chatbot gives the customer the opportunity to be transferred to a human agent, which increases the level of satisfaction to somewhat satisfied, while during the chat the live agent must maintain a low response rate that reaches a high level of very satisfied, which then the live agent is able to create a ticket in case the chat could not be resolved immediately, allowing the customer to maintain the positive level of satisfaction with satisfied, and closing the chat in a timely manner so as not to waste the customer's time and resolve it as soon as possible, with very satisfied scale to occur to the customer, providing the feedback of satisfied at the end of the journey.

Compared to previous researches, the results have shown to be significant, as Mittal et al. (2016) stated that the waiting time of the customer can reduce the level of satisfaction, which the average response rate should be fast to maintain positive levels of customer satisfaction. While the results of the thesis show that live agents are essential to implement with chatbots using a hybrid approach as well as the previous scholars analysed the field of chat marketing, showing that training and teaching the live agents as well as updating the chatbots on a regular basis is important while maintaining the communication to the highest standards and professionalism. Previous scholars have identified variables and dimensions that play a large role in customer satisfaction and found that the duration of the chat affects the customer's perception of the company's professionalism and its approach
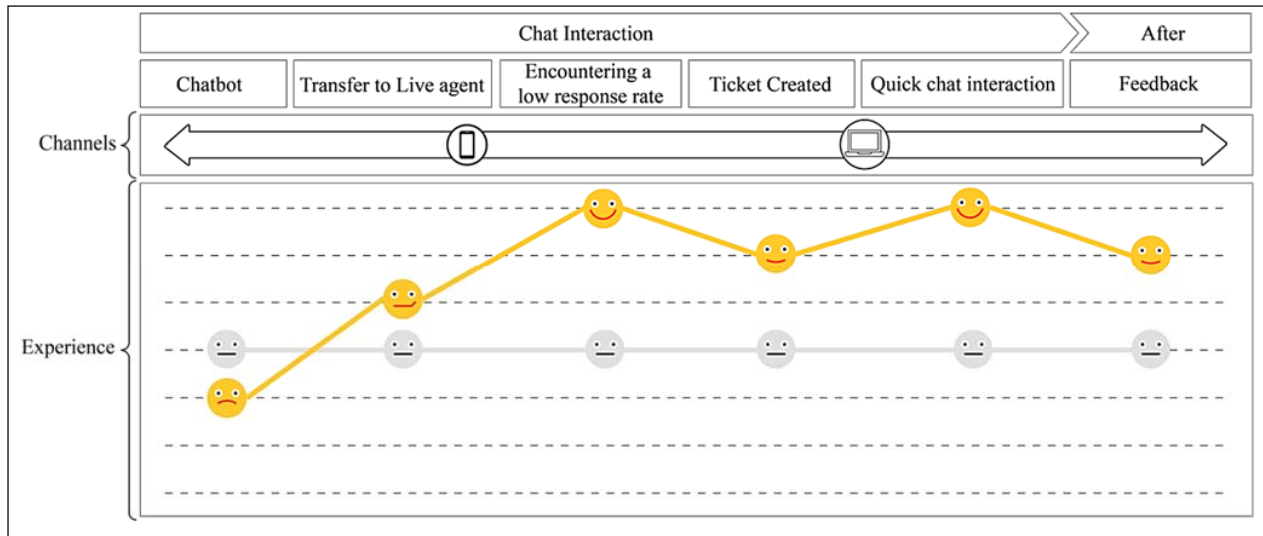
Figure 3. Customer Journey Map in Chat marketing
Note: The figure has been created by authors according to the results obtained process

to educating users about its services and offerings. In addition, the total number of customers chatting at once, compared to previous scholars, this is a crucial variable to consider when providing effective customer support and the hiring of live agents may be required in situations where customers are queued, which enables the customer to have a less waiting time, while chatbots can handle a large number of customers without the struggle. Moreover, the results of Mero (2018) have shown that the dimensions analysed in a two-way communication help to build a relationship that leads to trust and positive behavioural outcomes. The authors of this paper have demonstrated the positive outcomes through the behaviour of the customer through the customer journey, which was demonstrated in the observation method and visualised in Figure 2.

According to the results of the paper and the research methods used, the authors have made the recommendations that need to be considered in financial startups to prioritise when implementing a chat marketing strategy to achieve the highest levels of customer support satisfaction. Firstly, financial startups must aim to maintain a low response rate, providing the customer with quick answers and a sense of belonging that will help build trust and commitment from the customer towards the company.

In addition, financial startups must consider the development of chatbots and their flow to transfer customers in situations of complexity or when the customer requests to be transferred to a live agent instead of communicating with the chatbot. Companies need to maintain chatbots on a regular basis, with updates, fixes and development of chatbots to enable the automation of the customer journey to be as smooth as possible, with the ability to seamlessly transfer customers to live agents as well as without any delays by providing notifications that the customer is being transferred, and the company needs to test the process to assess the bottlenecks and obstacles along the way.

Moreover, companies should consider implementing a successful ticketing system to automate requests, track and monitor the resolution of each ticket in order to increase customer satisfaction with support. Each issue should not be overdue and should be resolved in a timely manner. Live agents in financial startups should try to avoid creating tickets in the first place and try to resolve every case during the chat interaction, and create tickets only when it is impossible to resolve the request during the chat interaction.

Financial startups need to consider the most efficient and seamless process to transfer the customer from a chatbot to a live agent and avoid any delays. By developing an efficient chatbot plan, companies can ensure the ease of transfer and provide the best flexibility for the customer. Financial startups need to consider several key factors when preparing the customer for a transfer. Firstly, companies must present a clear handover process that informs the customer that the transfer is being initiated, with the chatbot informing the customer of the process and raising awareness that the transfer is taking place. This can prevent sudden transfers and inconvenience.

The company must also develop a fallback plan for when live agents are unavailable, and avoid this as much as possible to maintain professionalism. In addition to the first key factor, the company must integrate both chatbots and live agents so that the live agent has the history of the conversation between the chatbot and the customer. This is because the live agent needs to quickly go through the main points of the customer's

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query and problem in order to help them more quickly than asking the customer the question again or describing the problem again.

Furthermore, financial startups must also aim to keep chat times low by providing answers with sufficient information. Companies need to educate live chats as well as provide detailed explanations via chatbots for every query that can be answered by customer support. If the live agent is uneducated, the chat will take longer than an experienced live agent. Also, chatbots may struggle to understand certain keywords and cause the chat to be longer just by asking for clarification from the customer, so the company must register multiple keywords for each scenario and user input to make the chatbot as understandable as possible.

To achieve the highest level of customer satisfaction, it is recommended that financial startups implement a combination of live agents and chatbots in chat marketing to meet all customer needs in a timely manner. Through the hybrid strategy, companies need to effectively handle all queries. It is also essential to invest in training and educating live agents to handle all types of queries in a professional and timely manner to ensure the skills and knowledge required for customer support. In addition, monitoring, tracking and analysing customer feedback is essential to improve and drive business performance.

Companies should consider the risk factors in chat marketing that can lead to lower satisfaction levels and avoid these obstacles during the process.

6. Conclusions

Customer support is an essential component of chat marketing, and financial startups need to recognise its importance in order to succeed. The effectiveness of customer support can have a significant impact on customer commitment, trust, and brand loyalty, which can lead to high levels of customer satisfaction. Therefore, it is crucial for financial startups to identify customer satisfaction as the main goal of customer engagement and create additional value for them by developing positive relationships with them. Further, chat marketing can be defined as an effective method of online customer support delivered through live chat and chatbots that can increase customer loyalty and satisfaction while building relationships. In particular, chat has been recognised as a useful tool for improving customer support and engagement, as it allows

users to receive quick, personalised answers to their questions and concerns from a chatbot, live agent or a combination of both.

Chatbots are artificial intelligence designed to mimic human speech that can provide customers with short interactions with little information. When it comes to customer support, most customers still prefer text to voice. On the other hand, customers prefer to communicate with live agents during a chat because they can better understand the problem and answer the customer's questions with empathy and passion, which can help create a warm relationship and increase trust. Financial startups should understand the basic principles of chat marketing to choose the best strategy for each customer query. They can strengthen their customer relationships, increase customer satisfaction and trust by implementing effective and efficient customer support through chat marketing, which can lead to long-term success.

In addition, another advantage of chat marketing is the ability to collect information about customer behaviour and preferences. Financial startups can learn a lot about what their customers are looking for, what challenges they face, what they like and dislike about the company's products and services by studying the conversations that take place through chat marketing channels. This information can be used to improve customer support, enhance products and services, and improve marketing plans. Nevertheless, successful financial startups must provide exceptional customer support, and chat marketing has proven to be an effective method for doing so. By using chatbots, live chats and other chat marketing solutions, they can increase customer satisfaction, build trust and loyalty, increase productivity and revenue, and gain useful insights into customer behaviour and preferences.

Additionally, the factors that a financial startup should consider when providing exceptional customer support include the quality of service, which includes confidence, empathy and responsiveness, as well as the quality of the system, which includes response time, usability of the system, reliability and ease of use, 24/7 availability of customer support and adaptability. Besides, the information quality factor, which includes accurate, relevant and valuable information for the customer. These factors are important to maintain a high level of customer satisfaction in chat marketing in financial startups to meet customer expectations during chat communication.

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