Developing Customer-Based Education Strategic Guidelines for Promoting a Software Product

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Abstract - In the Software as a Service (SaaS) startup landscape, effective user education is a critical factor for driving product adoption and ensuring customer satisfaction, both of which are essential for the successful promotion of software products. Traditional methods such as lengthy manuals and eBooks often prove frustrating to users due to their time-consuming nature. This paper addresses the pressing issue of user education in the SaaS industry and proposes customer-centric education guidelines based on a maturity model. These guidelines aim to advance and scale up the learning process, offering a more efficient approach to promoting SaaS products. In our study, we applied these guidelines within an Edtech company, leading to significant improvements in product adoption, user satisfaction, and costefficiency. Our findings underscore the necessity for founders and stakeholders in the SaaS sector to prioritize customer training. This research sheds light on the potential benefits of adopting innovative and strategies, user-friendly education ultimately contributing to the growth and success of SaaS startups.

Keywords – Customer education, maturity model, strategic guidelines, promoting SaaS products.

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1. Introduction

Training customers on a software product is a critical aspect of an organization's success. Often, when developing a software product for market release, organizations focus solely on delivering an effective product without giving adequate attention to customer education. However, offering proper training is crucial to ensure the success and value of the software, as selling a product without offering proper training renders it meaningless [1]. To maximize the software's potential and improve its efficiency, it is imperative to establish a strong customer training function.

The success of the software product is directly proportional to the customers' ability to effectively utilize it [2]. To achieve organizational goals, a customer-based training strategy must be established and followed to enhance learning and promote the software product.

This research study aims to address gaps in the current literature by offering guidelines to enhance initiatives focused on educating customers within organizations. The study seeks to quantify customer education maturity levels and move from a product-centric to a customer-based approach. By filling these gaps, this research aims to lay the foundation toward the development of a customer-based education strategic guidelines to align with organizational goals.

Strategic planning, which involves the formulation of an organization's mission, goals, and identification of strengths, weaknesses, opportunities, and threats, plays a crucial role in setting the foundation for the training strategy [3]. Strategic planning offers numerous advantages requiring organizations to anticipate and address future challenges, providing a guiding framework, establishing standards and responsibilities and increased efficiency and effectiveness [4].

By focusing on customers' needs and utilizing effective marketing strategies that showcase the organization's brand identity and image, companies can significantly improve customer satisfaction and increase the likelihood of repeat purchases [5]. In turn, this drives customer success, thereby positively impacting the financial success of the organization

2. Related Work

In this background research, we will explore various aspects related to customer education in the SaaS industry. The review will be divided into several subsections, each addressing specific areas of focus. We will begin by examining the importance of customer education in the SaaS industry. Next, we will explore the challenges that organizations face in implementing customer education programs. Finally, we will introduce the Maturity Model Approach, a framework that can help organizations in developing and managing effective customer education strategies. Studying existing research will help to advance the customer education maturity model and establish a foundation for the development of strategic framework for customer training.

2.1. Customer Education in the SaaS Industry

With the rapid growth of SaaS startups worldwide, there has been an increased emphasis on providing comprehensive training programs to equip customers with the necessary skills and knowledge to effectively utilize SaaS products. This section examines the importance of educating customers in the SaaS industry.

The SaaS industry has recognized the significance of educating customers in driving product adoption and customer satisfaction [6]. According to a study by Sheth et al. [7], effective customer education programs positively impact the perceived value of SaaS products, leading to higher levels of customer engagement and loyalty. The study also emphasizes the need for SaaS companies to provide superior customer experiences and develop tailored education strategies that address the specific needs and challenges faced by their target customers. The study concluded that customer support plays a crucial role in establishing a support framework that aligns with the customer journey and delivers exceptional assistance to customers.

Furthermore, research by Fairweather, C. [8] emphasizes the importance of offering comprehensive educational materials and the role of gamification in reducing customer churn rates in the SaaS industry. A qualitative methodology was undertaken for this study, utilizing data collected from 12 users of a business software system through semi-structured interviews.

The interviews provided insights into the key characteristics of users and their companies, shedding light on the suitability of gamification in customer education and its impact on reducing customer churn rates and driving SaaS adoption. This emphasizes the importance of adopting innovative and engaging educational approaches to cater the diverse learning preferences of customers.

Besides boosting customer satisfaction and loyalty, educational initiatives for clients in the SaaS sector have demonstrated to enhance the overall customer journey. A study by Retana et al. [9] found that customers who received proactive training and support were more likely to achieve their desired outcomes. The study emphasizes the need for SaaS companies to invest in customer education as a means to stand out from competitors, foster customer relationships, and reduce churn.

2.2. Challenges in Customer Education

While customer education in the SaaS industry offers significant benefits, it also poses unique challenges for businesses. This section discusses some of the challenges faced by SaaS companies and explores strategies for overcoming them.

One of the primary challenges is the rapidly evolving nature of SaaS products. As technology advances and new features are introduced, it becomes crucial for customer education programs to keep pace with these changes. Balancing the need to provide up-to-date training materials and resources while they are easily accessible understandable for customers can be a complex task. Research by Schmeitz [10] highlights challenges in continuous customer education in the dynamic SaaS environment. They emphasize the need collaboration, relationship building, and knowledge sharing to maximize value during SaaS solution adoption.

Another challenge is catering to diverse customer learning styles and preferences. Customers have different learning preferences, ranging from visual learners to hands-on learners. Designing customer education programs that accommodate various learning styles can be demanding. A study by Renz, et al., examines the integration of Learning Analytics (LA) and Artificial Intelligence (AI) in customer education within the EdTech industry [11]. It explores the drivers and barriers impacting databased teaching and learning paths. The results reveal the current levels of LA integration in EdTech business models and highlight challenges related to sovereignty, uncertainty, comprehension. The reveals analysis that personalization has a transformative impact on customer training, and calls for a more tailored approach to training models.

Furthermore, as SaaS organizations continue to grow and acquire a larger customer base, scalability of customer education programs can pose challenges. One of the challenges they face is ensuring that educational resources, including training materials, online courses, and support documentation, are readily available and accessible to all customers. Research by Stampfl et al. sheds light on important mechanisms that enable the scalability of customer education programs [12]. It emphasizes the significance of a scalable business model in the growth of new ventures and highlights effective strategies for delivering education at scale. These strategies include the implementation of automated systems and self-service platforms, as well as the creation of online communities and forums for collaborative learning. By adopting these approaches, SaaS organizations can address the challenges associated with providing effective education to a growing customer base.

Moreover, measuring the ROI (Return on Investment) of customer education programs can be challenging. Determining the metrics to assess the success of education initiatives, such as product adoption rates, customer satisfaction, and retention, requires careful planning and evaluation. Research by Paolucci et al. [13] discusses the challenge of measuring the effectiveness and impact of customer education programs. The study questions whether it is possible to objectively evaluate customer experience and emphasize the importance of value in justifying the price customers pay. While client outcomes are measurable, customer experience is more subjective. Recent studies provide insights into addressing these challenges and highlight the importance of personalized, scalable, and measurable customer education approaches [10],[11],[12],[13].

2.3. The Maturity Model Approach

In the competitive landscape of the SaaS industry, organizations strive to maintain effective internal processes and meet customer expectations while aligning their activities with business objectives. To achieve this, they need tools to support decision-making and drive business excellence [14]. Maturity models (MMs) have emerged as a valuable enterprise management tool in this context.

Maturity models enable organizations to assess and improve their processes, aligning them with their goals and strategies. By tracking the evolution of a particular approach, MMs provide insights into how organizations can enhance their planning and achieve desired results [15]. They also serve as a measurement framework for evaluating process effectiveness.

Although maturity models originated in software engineering, their application has expanded to various fields, including customer education for SaaS organizations. By adopting maturity models, businesses can strengthen their operations and effectively manage organizational change [16]. These models provide a structured and systematic approach to enhancing processes, optimizing decision-making, and satisfying customers.

In the context of this research study, the application and validation of maturity models have been very limited [17], despite their potential to enhance organizational success. One challenge in utilizing MMs effectively is the absence of established procedures for evaluating implementing them. This hampers their adoption as reliable management and diagnostic tools within organizations. Additionally, there is often a lack of detailed specifications and documentation regarding the development process of MMs [18],[19]. This makes it difficult for organizations to understand and utilize MMs in a standardized manner.

Empirical research validating the accuracy and usefulness of MMs in the context of customer education for SaaS is also lacking [15]. It is crucial to conduct studies that demonstrate the impact and effectiveness of MMs in enhancing training programs and aligning them with business objectives. This empirical evidence can build confidence in the application of MMs and provide useful information to organizations.

Another challenge arises from the unclear distinction between MMs and assessment models used to determine maturity levels [20]. Differentiating between these two concepts is essential. MMs offer a roadmap for improvement and guide the growth of customer education programs, while assessment models take an investigative perspective and rely on reference models. Clearing up this distinction can help organizations understand the purpose of each model in order to utilize them appropriately.

Customer success in customer-centric companies goes beyond a one-time effort. It requires the establishment of a customer maturity model to proactively enhance the value customers derive from their products or services [13]. This model should extend beyond traditional Customer Success activities and encompass the entire organization, fostering alignment and operationalization. By employing the right tools, processes, and organizational structures, companies can execute the maturity model effectively.

Existing Maturity Models focus on Engineering Capabilities, strategic planning, and project management, neglecting the direct consideration of customer education.

They fail to address the multi-dimensional measurement of customer education maturity in organizations [21],[22],[23],[24]. This gap highlights the need to include customer education as a distinct dimension in the evaluation framework. By expanding the scope of maturity models to include customer education, organizations can assess their capabilities and readiness in delivering effective education programs. This integration enables better alignment of strategies, resources, and efforts to enhance customer learning, product adoption, and satisfaction. It empowers organizations to take a comprehensive approach to customer education and advance their overall maturity level.

3. Methodology

This section describes the research approach used to create customer-based education strategic guidelines for promoting a software product. The study utilized a mixed-methods approach, combining both qualitative and quantitative techniques to gather extensive data and insights. This involved conducting interviews and using pre- and post-surveys as research tools. Figure 1 provides an overview of the research methodology workflow employed to achieve the research objectives.



Figure 1. Research Methodology Workflow

3.1. Conducting Qualitative Research

To develop customer education strategic guidelines, two primary data collection methods were used. Firstly, a review of previous studies provided findings and approaches to customer education, building upon existing knowledge. Secondly, we interviewed an experienced executive from a Technology Sales Organization specializing in customer education. The interview, consisting of 10 questions administered through Google Forms, sought their perspective on the applicability of these approaches to the SaaS Organization. The interview questionnaire was validated by three experts who are both academics and practitioners in the field of Technology Sales, confirming its reliability and suitability for the research objectives.

3.2. Developing Customer Education Strategic Guidelines

The researchers explored various approaches to establish an effective customer education function within the Technology Sales Organization. Insights from prior studies, including a capability maturity model, informed the development of tailored guidelines. These guidelines enhance customer training by promoting a structured approach that caters to diverse customer needs.

3.3. Conducting a Case Study: Implementing the Strategic Guidelines

The implementation of customer education strategic guidelines involved a thorough analysis of the company customers to identify target segments within the SaaS Educational Technology organization. Customized educational materials were developed based on the insights gained. A case study conducted in a SaaS startup involved interviews with key stakeholders to gather insights into current practices, challenges, and successful strategies for customer education. Online surveys were also administered to SaaS customers to assess the effectiveness of the customer education program.

3.4. Analyzing the Results

The collected data from interviews and surveys were analyzed using a thematic analysis approach. The qualitative data from interviews were transcribed and coded to identify recurring themes and patterns related to customer education strategies, challenges, and outcomes. The quantitative data from surveys were analyzed using statistical techniques to identify trends, correlations, and quantitative measures of the effectiveness of customer education programs.

4. Maturity Model for Customer Education

Traditionally, education departments focused on producing quality content and delivering courses to customers. However, with the rise of the digital era and the subscription-based model, the expectations and needs of SaaS customers have evolved. A study by Rajagopal et al. [25] highlighted that many firms often neglect consumer education on services and fail to fulfill pre-sales promises, leading to customer dissatisfaction and potential switching behavior.

SaaS customers now seek ongoing value and continuous learning experiences rather than one-time training sessions. They need interactive in-app guidance to learn how to use a product, new features, or a new platform [26]. This shift presents both opportunities and challenges for education teams within SaaS companies.

They must address critical questions specific to the SaaS context, as firms in a competitive marketplace intend to impart consumer education as part of a package of service quality initiatives [27]:

Is our educational content valuable enough to support a 12-month subscription?

Are our training materials organized in a self-serve training path that is easy for customers to follow? Is there live virtual access to instructors and experts available for guidance as part of our offering?

Are we able to collect consumption data to assess the adoption rate and usage patterns?

Do we have a post-sale action plan in place to ensure customers effectively utilize our subscription?

Can we create a way to measure how happy and involved each customer is with our product?

What is our strategy for renewals to maintain longterm customer relationships?

How do our customer education efforts align with the effort of Customer Success, marketing, and sales?

To effectively address these challenges, SaaS companies require a structured approach to monitor and enhance their customer education strategies. To that end, a proposed Maturity Model for Customer Education shown in Figure 2 can serve as a framework in the context of SaaS products.



Figure 2. Proposed Customer Education Maturity Level (CEMM)

4.1. Level 1: Foundation

At this initial level, SaaS companies establish the foundations of their customer education program, ensuring the value of their educational content. The organization develops high-quality learning content that is relevant, engaging, and aligns with customer needs. Different training modalities are explored and implemented to cater to various learning preferences, including self-paced online courses, live virtual sessions, interactive workshops, or blended learning approaches.

Organizations prioritize the creation of an academy from the ground up, which serves as a central repository for comprehensive learning resources. This self-serve training path allows customers to easily access and navigate training materials. The organization also recognizes the significance of exams and certification programs to validate customer knowledge and skill acquisition.

Furthermore, they explore the implementation of a learning subscription model, providing customers with ongoing access to a diverse range of learning resources and ensuring continuous updates to cater to their evolving needs.

Key performance indicators (KPIs) are defined to measure learner engagement, completion rates, knowledge retention, and overall customer satisfaction. This data and learning analytics approach helps in identifying areas for improvement and making informed decisions to enhance the learning experience.

4.2. Level 2: Optimization

In this level, the organization focuses on shifts towards optimizing the impact of the education program. The organization considers the design and structure of its education team, ensuring that roles and responsibilities are well-defined and aligned with business objectives. Additionally, the organization establishes clear reporting lines, and effective communication channels.

Moreover, the organization develops strategies for promoting their educational programs and resources to customers. This includes identifying target audiences, crafting persuasive messages, and utilizing various marketing channels to engage and inform potential learners. These channels may include digital advertising campaigns, content marketing efforts, active presence on social media platforms, and partnerships with industry influencers or reputable platforms.

The organization establishes class schedules and training calendars to provide customers with convenient options for attending training sessions. This includes offering flexible timing, accommodating different time zones, and ensuring availability of trainers.

Broader customer satisfaction metrics such as Net Promoter Score (NPS) is implemented to assess a company's performance in relation to its competitors, enabling goal setting and progress monitoring. Regular feedback mechanisms are used to gather customer insights and evaluate the effectiveness of the education program. This feedback helps in identifying areas of improvement and addressing any issues or concerns raised by customers.

Additionally, a financial model is developed to assess the financial viability and sustainability of the customer education program. This includes considering factors such as revenue generation, cost management, resource allocation, and return on investment (ROI) analysis.

4.3. Level 3: Transformation

At the highest level the focus is on revolutionizing and expanding the educational initiatives to cater to the growing demands of the organization and its clientele. This stage is about making the process of knowledge sharing and skill development more efficient, using the latest technology, and ensuring that everyone is getting the most out of it.

The organization assesses key metrics such as customer satisfaction, renewal rates, and the alignment of customer education with overall business strategies. This evaluation process enables the organization to enhance the scalability of the training program. Operational automation is a pivotal component at this level, as the organization harnesses advanced systems and technology.

This includes using learning management systems (LMS) for content delivery, customer relationship management (CRM) platforms for effective learner management, and various tools for progress tracking and analysis. By using these technological resources, the organization ensure a smooth and personalized learning experience for its customers.

Moreover, the organization places a strong emphasis on cross-functional efficiency by nurturing alignment among diverse teams. Through this collaborative approach, the organization fine-tunes its efforts, ensuring that all teams work cohesively towards the shared objective of delivering outstanding educational experiences to customers.

Table 1 presents a summary of the Customer Education Maturity Model (CEMM), which can serve as a framework for assessing and enhancing the maturity of customer education within organizations.

Table 1. Summary of the CEMM maturity levels

| Level | Description | | |
|----------------|--|--|--|
| Foundation | -The focus is on content development, basic delivery methods, and basic measurement and evaluation techniques. -Resources are limited, and customer education is not integrated with the overall business strategy. | | |
| Optimization | -Training processes and delivery methods are well-defined, and there is an emphasis on continuous improvement and evaluationResources are allocated based on strategic priorities, and customer education is aligned with business objectives and goals. | | |
| Transformation | -Organizations have fully integrated customer education into their overall business strategyTraining processes are automated and streamlined, and advanced technologies and innovative delivery methods are employedContinuous improvement is embedded in the culture, and data-driven insights drive decision-making and personalized learning experiences. | | |

In the upcoming sections, we introduce the proposed customer education strategic guidelines and showcase their implementation through a real-world case study. These guidelines should provide SaaS organizations with a big-picture view to design and implement effective programs that map out the customer's needs.

5. Proposed Customer Education Strategic Guidelines

In this section, we present research-based customer education strategic guidelines that combine industry best practices and insightful observation to optimize customer education initiatives. The proposed guidelines were checked, refined and approved through feedback from industry experts, who provided recommendations for improvement. Table 2 summarizes the key guidelines and provides actionable recommendations.

Table 2. A proposed framework of customer education

| Guideline | Description | | |
|---|--|--|--|
| Develop a Customer- Centric Approach | Conduct market research to understand customer needs, preferences, and pain points. Create comprehensive buyer profiles to personalize education programs and resources to the unique preferences of different customer segments. Identify touchpoints that have the biggest impact on the customer experience and make educational content relevant to the customer's goal. | | |
| Design Engaging and Interactive Learning Experiences | Utilize a diverse range of media formats, including audio, videos, interactive modules, gamification, and immersive technologies Customize learning experiences based on customer interests, competency levels, and learning styles. Use authentic and real-world examples to demonstrate how the software product addresses customer challenges and pain points. | | |
| Implement a Multi-Modal Delivery Approach | Offer learners the flexibility to lean on their own and provide self-paced 24/7 online courses and tutorials. Deliver live presentations, real-time interaction, workshops for Q&A and feedback. Build collaborative learning for professional development so customers can practice, share experiences, and learn from each other. | | |
| Provide Ongoing Support and Enablement | Foster cross-functional collaboration and establish a dedicated customer support team Use a variety of channels and social media support with dedicated and efficient problem resolution. Train customer support representatives on software product and services and offer knowledge repository. | | |
| Measure and Evaluate Customer Education Effectiveness | - Specify learning skills and results that align with business goals. - Collect customer feedback through surveys, interviews, and user analytics. | | |

6. Case Study: Implementation of Customer Education Strategic Guidelines

To validate the effectiveness of the proposed customer education strategic guidelines, a for-profit startup provider of SaaS Edtech with approximately 30 employees based in San Francisco was chosen as the case study organization. This startup provides personalized learning platforms and bootcamps for all skill levels, which leverage data to tailor the learning experience for individual learners. They focus on providing services to a B2B market, which includes businesses, schools, and other nonprofit organizations that leverage education technology to train their employees, students, or members. The organization has a diverse team of professionals, including a founder, director of product marketing, head of product development, head of customer education, customer success managers, product development engineers, instructional designers, teachers, Customer support representatives, and business development representatives, among others.

This organization faces several challenges in terms of their customer education function.

They lack a structured plan or systems for training customers, face constraints in terms of time and resources, and struggle with understanding the best approach for successful customer training. By addressing these challenges, the organization can ensure that its learning solutions effectively meet the specific needs and learning styles of their diverse populations, enabling them to provide superior customer experiences.

6.1. Testing the Guidelines

The implementation of the customer education strategic guidelines began with a comprehensive analysis of the company's target customer segments. To collect as much information as possible about the challenges and needs of these customer segments, various research methods were employed, including data reports, interviews, and surveys which provided a holistic understanding of the customers' prospective and expectations. Tailored educational materials were developed, including video tutorials, interactive e-learning modules, and comprehensive documentation.

The delivery channels were optimized based on customer preferences, incorporating a blended approach of online platforms, live webinars, and personalized on-site training sessions.

In interviews the Head of Customer Education, explained that the company's on-demand curriculum is designed to cater to individuals at all stages of their interaction with our platform, whether they are in the early stages of discovery or actively using it to advance professionally. To achieve this, the company implemented user segmentation guidelines that began with a welcome screen featuring a survey within the platform. This survey enabled users to specify their belonging to a particular segment. By analyzing user behavior, the company discerned patterns indicative of preferred learning styles and content preferences. This enabled the company to customize their educational resources and delivery accordingly, resulting in higher engagement and increased customer satisfaction.

6.2. Implementation Challenges and Lessons Learned

The implementation process presented several challenges, including the need for seamless collaboration between the customer education team the product development team. coordination ensured the alignment of educational materials the product's features with functionalities. Addressing the varying technical competencies of customers required the development of modular content and optional advanced modules for those seeking deeper knowledge. Lessons were learned, emphasizing the significance of continuous communication, proactive customer feedback collection, and the importance of implementing a segmented and personalized approach to customer

A senior instructional designer involved in the implementation stated that one of the challenges the company encountered was ensuring a seamless integration of the customer education program with the existing platform. The company needed to ensure that the educational resources and materials were easily accessible within the platform's interface, and that users could navigate through them effortlessly. This required close collaboration with the product development team to implement the necessary features and design elements. Additionally, the company faced the challenge of catering to diverse learning preferences and styles. Some users preferred video tutorials, while others preferred written guides or interactive demonstrations. The designers had to find a balance and create a variety of educational materials that could accommodate different learning needs.

Overcoming these challenges required iterative testing, gathering user feedback, and continuously refining the program to meet the evolving needs of users.

Another instructional designer added that, to ensure effective communication with other teams, the company implemented several strategies. For example weekly cross-functional meetings were organized with representatives from customer success, sales, marketing, and product development teams to discuss the progress and challenges of the program. During these meetings, teams co-created opportunities share updates on company to initiatives, sought input and feedback from all stakeholders, and addressed any concerns or Additionally, questions raised. the company established a shared communication platform where team members could collaborate, exchange ideas, and provide timely updates on their respective tasks. This approach fostered a collaborative environment, facilitated alignment among teams, and ensured that the program met the needs of the entire organization.

During interviews, the head of instructional design highlighted the transformative impact of carefully following the guidelines and actively involving other teams in the development of the new educational program. Before implementing the guidelines, the company faced challenges including fragmented communication, limited collaboration, and generic educational materials that failed to address specific pain points and learning preferences. However, through the collaborative approach, the organization experienced remarkable improvements such as enhanced cross-team communication, streamlined resource allocation, and refined educational content. The company leveraged real-time data by generating daily, weekly, and monthly reports, allowing them to assess the efficacy of their instructional design efforts. Although overall feedback was positive, it became evident that some learners were still struggling with certain concepts. In response, the company proactively developed additional support materials to ensure the success of all learners. This change management approach helped the company create a culture of continuous learning and allowed it to stay ahead of market trends, so to provide highquality educational experiences.

6.3. Results and Impact on Product Promotion

The impact of the customer education program was measured through various metrics, providing convincing results such as a significant improvement in product adoption rates. Prior to the implementation of the education program, the company observed a baseline level of 200 new customer activations per month.

However, within three months of implementing the program, there was a roughly 24% increase in new customer activations compared to the previous period. Table 3 demonstrates the percentage increase in new customer activations.

Table 3. Percentage increase in new customer activation

| Month | Baseline | New Customer Activations | %Increase |
|-------|----------|--------------------------------|-----------|
| April | 200 | 216 | 8% |
| May | 200 | 228 | 14% |
| June | 200 | 248 | 24% |

The data shown highlights of the positive impact of the customer education program, with a steady rise in new customer activations observed month after month. This consistent growth indicates if the company keeps up this pace, they will reach their annual goal. The program has helped the company sustain its growth and make necessary adjustments to its strategic plan. Despite the challenges, the company is confident that they can reach their goal of 400 new customer activations per month within six months by having a clear roadmap in place.

The director of product marketing asserted that the strategic guidelines implemented in the program were instrumental in promoting product adoption. One key aspect was the emphasis on simplicity in delivering educational materials. To achieve this, the company provided comprehensive resources and personalized learning paths to users. For example, visually appealing and intuitive user interface with vibrant colors made it engaging and enjoyable for users to navigate the platform. As a result, users reported improved confidence and proficiency in utilizing the product. By prioritizing ease of use, the company witnessed an increase in new customers embracing the platform and actively incorporating it into their teaching practices. This positive impact was evident through higher engagement rates and positive feedback, solidifying the effectiveness of the new education program and user interface.

Prior to the implementation of the program, the company conducted baseline surveys to assess the initial levels of customer satisfaction. These surveys revealed that customers had various concerns, including difficulties in understanding the platform's features, limited customization options, and a lack of confidence in utilizing the resources effectively.

After the implementation of the new program, follow-up surveys were conducted to gauge the impact of the initiatives. The results were highly encouraging, indicating a significant improvement in overall customer satisfaction.

The director of product marketing remarked that, the survey provided new information and when users were asked to appraise the educational materials and resources, 58% of respondents highly rated them as informative in enhancing their understanding of the platform. Users particularly appreciated the step-bystep tutorials and real-world examples that helped them apply the platform's features to their teaching scenarios. Furthermore, 64% of respondents mentioned that the educational resources contributed to their confidence in using the platform and ultimately improved their teaching outcomes.

A bootcamp facilitator shared that the interactive modules provided have been a turning point for her learning environment. The knowledge base has helped to provide on-demand guidance for her students, containing useful educational materials that are well-organized and easy to understand. This allowed her to focus on teaching and providing individualized support to her students, rather than spending time searching for answers to common questions. The educational materials and video tutorials have made it more manageable for her to create engaging lessons and track student progress. She reported feeling more enabled in delivering education materials and personalized tailored learning.

Additionally, the program's impact on customer support was outstanding. Customer support requests related to basic features of the platform functionalities decreased by 30%. The instructional materials provided a complete guidance, enabling customers to find solutions on their own. This reduction in help desk tickets and complaints allowed the support team to focus on more complex issues and provide outstanding services.

In interviews the director of customer support, mentioned the new education program has had a major impact on the company problem management operations. With fewer requests for essential tech platforms functionalities and reduced escalation, the support team can dedicate more time and resources to helping customers with complex troubleshooting and providing one-on-one assistance. Moreover, the platform included a new onboarding module that taught customers how to use the software's essential functionalities in a step-by-step way. This module was particularly effective in reducing the number of requests for help with basic tasks. The program also included a new knowledge base that was organized by topic and easy to search. This made it easier for customers to find the information they needed to resolve their own issues.

During interviews, the founder of the organization expressed gratitude for the positive outcomes of the customer education initiative, which resulted in increased activations, and satisfaction.

The founder acknowledged the lack of attention given to education functions and inadequate budget allocation, leading to challenges in terms of platform customization for SaaS solutions and evaluating the effectiveness of the programs. The organization now aims to proactively stay informed about industry trends and leverage insights for ongoing program advancement.

7. Discussion

The analysis of the results obtained from the case study offers evidence supporting the effectiveness of the implemented strategic guidelines. Notably, the product adoption rates experienced a remarkable increase within the initial three months of implementing the education program. This growth signifies successful onboarding of more customers and a higher level of active software usage. Postimplementation surveys showed marked improvement in overall customer satisfaction, highlighting a promising impact of the provided instructional resources and tailored learning paths. Furthermore, customer support requests related to basic software functionalities witnessed a significant decrease, indicating the effectiveness of the educational materials in satisfying customer needs.

While recognizing the limitations of empirical studies, it is crucial to emphasize the practical implications of this research. The findings have meaningful relevance for SaaS Edtech companies, resulting in an expansion of user base and underscoring the pivotal role of customer education in fostering user acceptance and adoption of SaaS technologies. Additionally, the study findings highlighted the importance of acknowledging previous neglect of education functions and insufficient budget allocation, which had posed challenges in keeping up with evolving SaaS products. However, the study also revealed that placing a strong emphasis on customer education can lead to favorable outcomes, including a reduction in troubleshooting and problem ticket escalation, thereby potentially reducing expenses. These insights significance underscore the of companies recognizing the value of customer education, allocating adequate resources, and positioning themselves competitively in the business world.

8. Conclusion

User education is a key driver of product adoption and customer satisfaction. Maturity models provide a framework for measuring and improving the effectiveness of customer education programs. This paper proposed a customer education maturity model and a practical framework for designing effective learning and development programs. The provided research sheds light on how SaaS companies can optimize their customer training strategies, enhance customer satisfaction, and drive sustainable growth in the competitive market. The proposed strategic guidelines, implemented in the case study, have shown notable improvements in product adoption rates, customer satisfaction, and support cost reduction. This study emphasizes the need for a shift in mindset among founders, urging them to recognize the value of investing in customer training.

Although this study provides insights into customer education in the SaaS Edtech industry, more research is needed to measure its long-term impact on satisfaction and usage rates. Comparative studies across SaaS companies can improve training strategies and uncover best practices. Exciting opportunities lie ahead in the evolving SaaS landscape.

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References:

- [1]. Madhwacharyula, C., & Ramdas, S. (2023). Key Metrics and Beyond. *In Scaling Customer Success:* Building the Customer Success Center of Excellence, 87-121. Berkeley, CA: Apress.
- [2]. Nambisan, S. (2002). Designing virtual customer environments for new product development: Toward a theory. *Academy of Management review*, 27(3), 392-413.
- [3]. Bano, M., Zowghi, D., & da Rimini, F. (2017). User satisfaction and system success: an empirical exploration of user involvement in software development. *Empirical Software Engineering*, 22, 2339-2372.
- [4]. Russo, N., Reis, L., Silveira, C., & Mamede, H. S. (2023). Towards a Comprehensive Framework for the Multidisciplinary Evaluation of Organizational Maturity on Business Continuity Program Management: A Systematic Literature Review. *Information Security Journal: A Global Perspective*, 1-19.
- [5]. Dash, G., Kiefer, K., & Paul, J. (2021). Marketing-to-Millennials: Marketing 4.0, customer satisfaction and purchase intention. *Journal of business research*, 122, 608-620.
- [6]. Vaidyanathan, A., & Rabago, R. (2020). The Customer Success Professional's Handbook: How to Thrive in One of the World's Fastest Growing Careers--While Driving Growth For Your Company. John Wiley & Sons.

- [7]. Sheth, J. N., Jain, V., & Ambika, A. (2023). The growing importance of customer-centric support services for improving customer experience. *Journal of Business Research*, 164, 113943.
- [8]. Fairweather, C. (2020). Business-to-business software as a service: how gamification can be used as an acquisition tool through its influence on engagement. [Theses, University of Canterbury].
- [9]. Retana, G. F., Forman, C., & Wu, D. J. (2016). Proactive customer education, customer retention, and demand for technology support: Evidence from a field experiment. *Manufacturing & Service Operations Management*, 18(1), 34-50.
- [10]. Schmeitz, A. (2023). Exploring the constraints and enablers for value-in-use creation during the adoption of SaaS solutions: a case study of controlled environment growers. [Theses, University of Twente].
- [11]. Renz, A., & Hilbig, R. (2020). Prerequisites for artificial intelligence in further education: identification of drivers, barriers, and business models of educational technology companies. *International Journal of Educational Technology in Higher Education*, 17(1), 1-21.
- [12]. Stampfl, G., Prügl, R., & Osterloh, V. (2013). An explorative model of business model scalability. *International Journal of Product Development*, 18226-248.
- [13]. Kshatri, V. (2022). Customer Success in SaaS Industry-what is it and how can it be achieved? [Doctoral dissertation, Politecnico di Torino].
- [14]. Erol, O., Sauser, B. J., & Mansouri, M. (2010). A framework for investigation into extended enterprise resilience. *Enterprise Information Systems*, 4(2), 111-136.
- [15]. Poeppelbuss, J., Niehaves, B., Simons, A., & Becker, J. (2011). Maturity models in information systems research: literature search and analysis. *Communications of the Association for Information Systems*, 29(1), 27.
- [16]. Serna, E. (2012). Maturity model of Knowledge Management in the interpretativist perspective. *International Journal of Information Management*, 32(4), 365-371.
- [17]. Wendler, R. (2012). The maturity of maturity model research: A systematic mapping study. *Information and software technology*, *54*(12), 1317-1339.

- [18]. Röglinger, M., Pöppelbuß, J., & Becker, J. (2012). Maturity models in business process management. *Business process management journal*, 18(2), 328-346.
- [19]. Becker, J., Knackstedt, R., & Pöppelbuß, J. (2009). Developing maturity models for IT management: A procedure model and its application. *Business & Information Systems Engineering*, 1, 213-222.
- [20]. Helgesson, Y. Y. L., Höst, M., & Weyns, K. (2012). A review of methods for evaluation of maturity models for process improvement. *Journal of Software: Evolution and Process*, 24(4), 436-454.
- [21]. García-Mireles, G. A., Moraga, M. Á., & García, F. (2012). Development of maturity models: a systematic literature review. *16th International Conference on Evaluation & Assessment in Software Engineering (EASE 2012), 2012, 279 283*
- [22]. Khan, A. A., Keung, J. W., & Abdullah-Al-Wadud, M. (2017). SPIIMM: toward a model for software process improvement implementation and management in global software development. *IEEE Access*, 5, 13720-13741.
- [23]. Leppänen, M. (2013). A comparative analysis of agile maturity models. *In Information systems development: Reflections*, challenges and new directions, 329-343. Springer New York.
- [24]. von Wangenheim, C. G., Hauck, J. C., Zoucas, A., Salviano, C. F., McCaffery, F., & Shull, F. (2010). Creating software process capability/maturity models. *IEEE software*, 27(4), 92-94.
- [25]. Rajagopal, & Rajagopal, A. (2020). Impact of consumer education and knowledge on purchase intentions within services industry: a study of symbiotic analysis in Mexico. *International Journal* of Services and Operations Management, 35(1), 58-77
- [26]. Jiang, Y., Ma, Q., Zhang, L., & Ma, S. (2023). Research on the Interaction Design of Online Learning Platforms for University Students Based on a User's Mental Model. In 2023 IEEE 12th International Conference on Educational and Information Technology (ICEIT), 31-35. IEEE.
- [27] Huang, X., Huang, Z., & Wyer Jr, R. S. (2018). The influence of social crowding on brand attachment. *Journal of Consumer Research*, 44(5), 1068-1084.