

Exploring the Impact of Software as a Service (SaaS) on Human Life

Mukul Gupta¹ Deepa Gupta^{2,*} and Priti Rai³

¹Principal, GL Bajaj Institute of Management, Greater Noida, India

²Dean, GL Bajaj Institute of Management, Greater Noida, India

³Assistant Professor, G.L Bajaj Institute of Management Greater Noida, India

Abstract

Software as a Service (SaaS) has emerged as a pivotal aspect of modern business operations, fundamentally transforming how companies utilize IT resources and impacting firm performance. This research delves into the profound effects of SaaS on human life within the business sphere, focusing on its value proposition and methodologies for assessing its worth. The primary objectives of this paper are twofold: first, to evaluate the actual value of SaaS business applications concerning their purported benefits, particularly in terms of IT resource management and firm performance; second, to explore the means of quantifying the worth of SaaS business applications within organizational frameworks.

This study utilizes techniques derived from social network analysis to investigate the impact of SaaS on human life in business. A comprehensive review of literature from various sources including papers, articles, newspapers, and books forms the basis for this exploratory research. Both primary and secondary data are employed to elucidate the multifaceted implications of SaaS adoption.

The findings of this research underscore the profound influence of SaaS on a company's cost structure, return on IT investments, and digitalization of services. Cloud computing emerges as a cornerstone for the seamless integration of SaaS into daily business operations, offering expanded market opportunities and increased revenue streams. In conclusion, SaaS represents a transformative force in modern business landscapes, reshaping human interactions with technology, optimizing operational efficiency, and mitigating costs. Cloud-based SaaS models hold substantial promise for enhancing business agility and facilitating growth across diverse markets.

Key Words: SAAS, Human Life, Cost Saving, Greater Application Access Scalability, Efficient Use of Resources

Received on 26 October 2023, accepted on 03 January 2024, published on 11 January 2024

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doi: 10.4108/eetiot.4821

Corresponding author. Email: dr.deepaguptadg@gmail.com

1. Introduction

SAAS (Software as a Service) is a method of managing and distributing programs through the internet. Additionally, the client side can access its interface. Numerous tools and pieces of software are licenced on a contribution basis and are hosted centrally through the SaaS platform. Additional names for SaaS include "hosted software" and "on-demand software." Additionally, it is receiving greater attention, and for very good reasons. Additionally, web-based apps provide both small and large businesses with a better and more clear approach to getting IT facilities for their

businesses. As per IBM's team report, the SaaS market is projected to increase by around 21% annually worldwide after the new year and will increase by \$17 billion by the end of 2020. (IBM Report 2020). Software-as-a-Service (SaaS) is a cloud computing model in which software applications are given and used over the internet. Users can access and use software without having to install and keep it on their own computers or servers. Instead, they can use a web browser to access and use the software. In the SaaS approach, the service provider hosts the software in a central location and takes care of it. Users pay for the service as they use it, usually by paying a monthly or yearly

membership fee. This means that users don't have to buy expensive hardware, software licences, or IT systems in order to use the software. SaaS applications can be used from anywhere with an internet link. This means that users can use their software and data on different devices, like computers, laptops, tablets, and smartphones. SaaS is easy to scale up or down because users can often change their payment plans to meet their changing needs. They can easily add or remove people, change the amount of storage space, or get to other features and modules as needed. Service providers handle software changes and security patches, making sure that users always have access to the latest version of the software without having to install or update it themselves. It gets rid of the cost of buying software licences and equipment all at once. Users only pay for the services they use, usually in the form of a subscription. This makes it a good choice for businesses of all kinds because it saves money.

Service providers take care of the software's maintenance, assistance, and troubleshooting. This frees users from having to manage and keep up with complex IT systems. Most SaaS apps are built on a multi-tenant model, which means that the software and infrastructure are shared by more than one customer or organisation. This lets both the service company and the customers make good use of their resources and save money. Most SaaS applications can be integrated with other software systems and tools, which makes it easy for different applications and users to share data and work together.

CRM systems like Salesforce, project management tools like Asana, collaboration platforms like Microsoft 365 or Google Workspace, and business resource planning (ERP) systems like NetSuite are all examples of popular SaaS applications. SaaS is a flexible, cost-effective, and easy way for businesses and people to access and use software applications. It offers convenience, scalability, and the ability to emphasis on core business activities in its place of IT infrastructure management.

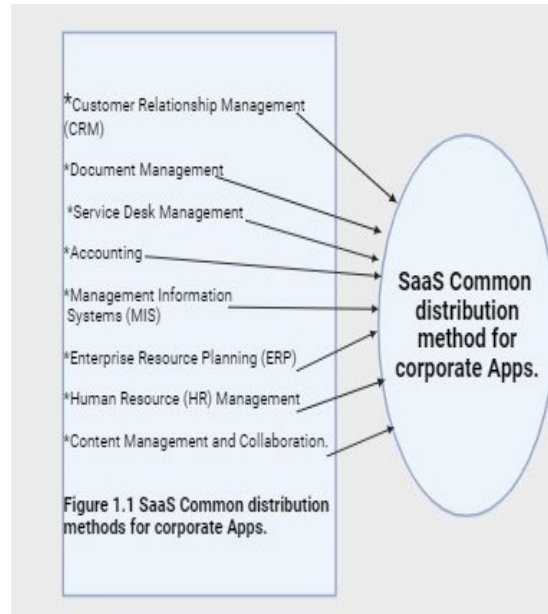


Figure 1. SaaS common distribution method for corporate Apps.

1.1 The SaaS programming interfaces may be used in integrated applications:

Better integration and scalability; simplicity of application; the consumer does not need to install any hardware; cost savings; simpler to use and less time-consuming. Exploring features for adopting ERP as a SaaS enterprise resource planning system distributed as SaaS is receiving more focus from ERP vendors.

Enterprise resource planning sellers have for many years of development in SaaS, a new approach to delivering software has developed. Features framed in the SaaS model: usability, flexibilities, data security, costs, best practises, availability, etc. The most important factors are system availability and security of data. (Johansson B. et al. 2013).

1.2 The types of SAAS cloud computing:



Figure 2. Types of SaaS

Services provided by Amazon: So, you don't need anyone's assistance to choose from the vast array of software programmes available. If you have internet connectivity, you can also access your applications and data from anywhere. If you are confused about your choice, a free trial of the service is also offered before you subscribe. As per a recent McKinsey & Company report, market analysts for the technology industry predict that by 2024, the market for software as a service will have reached \$200 billion. Because of this, businesses that use SaaS apps are not required to set up and maintain the software. Users may access the programme by just paying a membership charge, which is an already-made solution. SaaS is closely connected to the on-demand computing and application service provider (ASP) software delivery models, where the provider hosts the client's software and sends it via the internet to authorised end users.

SaaS benefits: flexible usage High vertical scalability is a characteristic of cloud services like SaaS that offer users the flexibility to acquire more or fewer services or features as needed. The SaaS model's benefits and impact on firm performance are positively affected by operational and innovation benefits. Positively affect only the innovation benefits; operational and innovation both positively impact the firm's performance. Compared to previous years, this has a stronger impact. (E. Loukis et al. 2019)

- Availability and perseverance: Users may access SaaS apps from any internet-enabled device and location since SaaS companies distribute their products via the Internet.
- Regular updates: Customers may rely on a SaaS provider to automatically handle upgrades and patch management rather than buying new software. This lessens the workload for internal IT employees even further.
- Customization: SaaS apps, particularly those from the same software supplier, are frequently customizable and may be connected with other corporate systems.

1.3. SaaS risks and challenges



Figure 3. SaaS risks and challenges

SaaS also presents certain potential dangers and difficulties since companies must depend on external providers to deliver the software, maintain it, manage proper billing, and offer a harmless environment for the company's data. A literature review on cloud computing security literature review taken by B. Alouffi et al. (2021), a systematic literature review on cloud computing security threats and encounters in commercial cloud computing providers, and safety challenges mainly focused on five providers of cloud computing: Google Cloud Platform, Amazon, Adobe, VMware, and Azure, are efficient in cloud service features of data security. The outsourcing of users' data and giving a lecture on the related risk are challenges for both cloud providers and users. Security susceptibilities and challenges, the term of service, from intentional and accidental attack

Problems out of the customer's control: The ability of clients to use the SaaS offering may be significantly impacted when service interruptions, uninvited changes to service offerings, or safety breaches occur at the providers. Clients should be aware of and ensure compliance with their SaaS provider's SLA in order to prevent these problems from occurring.

Versioning is no longer within the customers' control. According to the market changes and customers desire for a new version, it providers implement a new version of the SaaS, so it will roll out to all of its customers. As a result, the company needs to allot more funds and time for the training.

A challenge in changing vendors: Switching suppliers may be challenging, as it is with utilising any cloud service provider. Customers must move extremely large volumes of data in order to change vendors. The use of proprietary technologies and data formats by some suppliers can also make it more difficult to move consumer data between multiple cloud providers.

When a consumer finds it difficult to switch service providers as a result of these circumstances, vendor lock-in occurs. SaaS applications are frequently described as facing severe difficulties with cloud security.

1.4. SaaS privacy and security

Software as a service entails several cybersecurity threats that are distinct from those that are related to traditional software. With conventional software, the user is in charge of executing the programme on a safe network and infrastructure, while the software vendor is in charge of removing code-based vulnerabilities. Shakir M. et al. (2018) show that for security in public cloud computing, there are three types of cloud: the service layer, the characteristic layer, and the deployment layer, all of which show dissimilar aspects of cloud computing. Major problem from password leaks in verification, leakage of customer data, as well as other security issues. The monetary loss and privacy damage are associated, and the main reason for this privacy and security There is no algorithm to diagnose users because they try to log time on a cloud over an authorised code word, device, and network. There is no standard model that makes it possible to control the best and most precise classification and encryption approaches to data based on the specialist and level of security. Organisations continue to have certain concerns regarding SaaS products' security and privacy despite the widespread acceptance of cloud-based models for completely serviced software goods. These issues include:

- Key management and encryption, management of identities and access (IAM),
- Security Surveillance.
- Data residency standards are met.
- Inadequate integration with larger, company-specific security environments.
- Incident response.
- Data security.
- The price of purchasing third-party technologies to lessen the risk of SaaS security; and
- Poor communication during the sales process with technical and security professionals

1.5. SaaS, IaaS, and PaaS

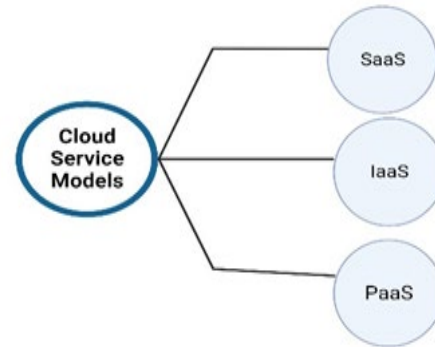


Figure 4. SaaS, IaaS, and PaaS

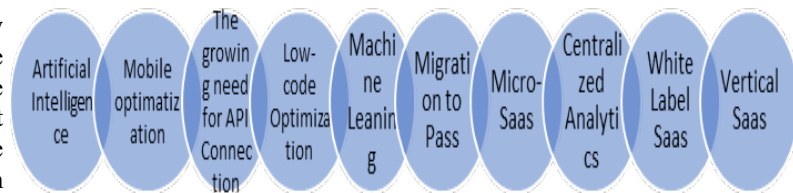


Figure 5. The Crucial SaaS Trends to Pay Attention to in Recent Years

The cloud services model works on three services: IaaS, PaaS, and SaaS. In each of the three models, cloud service providers use the internet to offer resources from their own hosted data centres to consumers. The level of product completion is where the models diverge. SaaS apps are finished, fully managed solutions. PaaS provides a growth platform and other tools housed at the provider's data centre, while IaaS primarily outsources data centre resources. Along with IaaS and PaaS, SaaS is also part of the cloud subscription service collections. We also mentioned the benefits of SaaS applications, SaaS uses, and SaaS security. SaaS uses are very wide in the CC service model, and security is a big problem due to the high requirement on the third party related to other CC service models. SaaS application uses include both connectivity, like a network, and mobile devices in short-term products that are necessary, simple, and cost-effective. (Humayunm et al., 2022).

The SaaS application users are not required to maintain any current IT infrastructure, download software, or deal with any additional parts of software administration. The Sellers take care of all aspects of operating the software, including

safety, support, updates, and maintenance. Companies that wish to transfer control of their own data centres and computing resources to a cloud provider use IaaS. Infrastructure as a Service (IaaS) providers provide resources for virtualization, networking gear, servers, and storage. IaaS customers still need to manage their data utilisation, apps, and operating systems (OSes). For the internal developers of a company, PaaS offers a framework of resources. Using this hosted platform, developers may make unique applications. The vendor is in charge of managing the tools' supporting data centre resources. Customer businesses employing PaaS services must control apps and data utilisation rather than their OSes. To that end, in 2021, we anticipate the SaaS industry transitioning into the PaaS (platform as a service) space. These advances provide companies with the ability to create unique apps as extensions of their core services. In an effort to maintain a substantial market share in their industry, companies like Salesforce and Box recently introduced PaaS-centric services, and we anticipate that this SaaS trend will become even more widespread in the upcoming year.

To put this trend into perspective, the two main advantages of using PaaS development are:

Agility: The improved features, functionality, and customizability will improve your company's overall agility, giving you more time and creative freedom to develop and concentrate on your primary business goals.

Scalability: Using a platform as a service will make it easier for you to expand your business because PaaS products are, by their very nature, resilient, adaptable, and accessible.

1.6. The Crucial SaaS Trends to Pay Attention to in Recent Years

After looking at the essential traits of software-as-a-service advancements, it's time to examine the most important SaaS trends for 2021. These SaaS trends for 2021 will influence the market as the new year dawns, from the adoption of artificial intelligence to improved mobile optimisation and beyond. Artificial intelligence autonomous, self-learning kind of trend is the first of our most significant ones for SaaS.

Artificial intelligence (AI) is now ingrained in our civilization. Our list of business intelligence trends for 2021 has AI in the top 3, and it's predicted that technology will have a significant impact in 2019. With an estimated market value of \$733.7 billion by 2027, artificial intelligence technology is expected to become more commonplace and a true game-changer. By automating repetitive work and enhancing human capabilities, AI improves corporate operations, boosting productivity and efficiency.

Artificial intelligence (and, in many cases, machine learning) in business settings offers a high level of responsiveness and engagement between companies, clients,

and technology, elevating AI-based SaaS trends in 2021 to an innovative level. Artificial intelligence has been used to generate many current software functions, such as data alerts. These data warnings learn after trends and patterns or notify you as soon as something somewhat significant occurs using an AI system that employs the most cutting-edge neuronal network for anomaly uncovering and a machine-learning algorithm for pattern identification.

In this manner, you will be informed when a predetermined objective is achieved or when something unexpected occurs, allowing you to maintain continuous control over your organisation. With so many KPIs to measure, it may be easy to lose sight of what matters most. An online reporting tool can securely monitor your own data, foresee fluctuations and changes, and notify you if it deviates from the path.

1.7. How can AI contribute to a bright SaaS future?

Personalization: Software is more user-friendly thanks to technologies like natural language processing (NLP), which analyses voice commands and speech patterns automatically. To enhance customization and better meet client demands, this may be implemented across all customer support functionalities.

Machine Culture

- Develop their software such that it may learn from each task or interaction, increasing its intelligence and productivity.
- Develop deeper insights into contextual data and insights that might give you a true competitive advantage.
- Through more advanced communication methods, enhance internal cooperation and operations.
- On a highly commercial level, ML in SaaS-type models may be seen in Netflix's tailored content recommendations and Waymo's self-driving cars, which analyse escalating possible risk factors or travel hold-ups with time. These developments will turn out to be the tip of the automation iceberg as 2021 approaches.

1.8. Objective of the Study

- **Cost savings:** By only renting the software they really need for their business purposes; SaaS users may significantly reduce their IT operational costs. It could be possible to cut back on typical IT costs like hiring and keeping IT staff and buying and maintaining infrastructure, software, and hardware.
- **More efficient use of resources:** SaaS users can reduce IT costs and use the saved money to support more strategic operations.
- **Greater application access scalability:** SaaS companies usually provide a multi-tenant architecture, allowing for quick scaling up or down of client-side application access.
- **The prospect of global outsourcing:** The development of Web technology enables SaaS suppliers to be based elsewhere and yet provide high-quality services. Users of SaaS can save more on IT costs thanks to the offshore outsourcing strategy.

2. Review of Literature

Srinivasa Radhavan R. et al. (2020), According to this research, changing the role of the CIO in the evaluation of software processes. The task with CO is still to ensure the software planned by the association unit is suitable for business decision-makers in the organisation. The organisation tracks the interoperability and security standards established by the organisation, and CIO users are evaluated by PaaS software; these are no longer technical experts.

Taufiq-Hail et al. (2022) empirically validate a model and find out the acceptance factors influence, and SaaS cloud computing services from single perception use an integrative model of the theory of planned behaviour. On the other hand, they also found TAM (technology acceptance model). There are positive influences on TPB; constructs with AU SaaS were revealed, and both subjective norms and perceived usefulness verified prediction capacity on AU SaaS. According to this study, intention has two components: PU, which comes before practise, and ATT, which controls behaviours.

Kumar R. (2017), SaaS Future of IT and Business, jagged out the opportunities and challenges faced by increasing SaaS application acceptance. SaaS is a different model compared to traditional software licencing. The large value of data entry for companies and apps that are specialised.

As per Garther's report on cloud strategy leadership, cloud computing creates a strategy to target its efforts on the goals of the selected business. The logistic system and system of ordering to the cloud, while securing government contracts, keep up with regulation. As per this report, cloud computing is defined as a style of computing in climbable and flexible

IT that permits using internet technologies for capabilities and is delivered as a service.

As per Donna Scott's research as vice president of Garther, the need to educate the company's CEOs and boards of directors on the necessity to invest in the cloud as a computing style to drive high speed, suppleness, and innovation through this democratisation of information technology Cloud computing signifies one of the most undervalued innovations in IT in current times and business strategies. Daryl Plummer, vice president of Garther, follows.

Sultan A. et al.'s (2018) study focused on the SaaS model adoption for both engineering and business aspects. This study is needed for service-oriented model adoption of SaaS, product and management projects, engineering processes, and business practises. RQ2 discussed the challenges in a wide range of academic literature, mainly from the business part to the regularly discussed challenges for the mode of business design, customer relationship management, and proposal value. The engineering side challenges related to the security, availability, scalability, and privacy of SaaS.

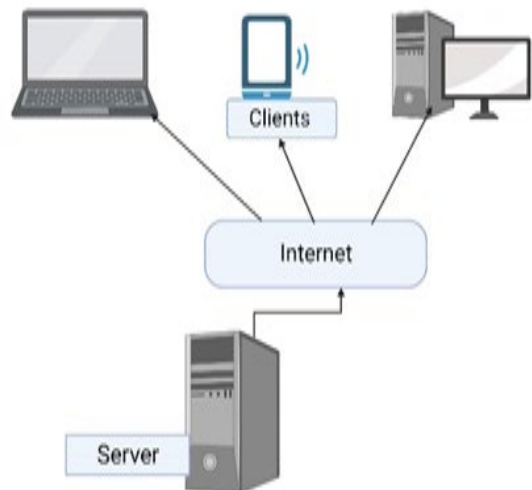


Figure 6. Client server process

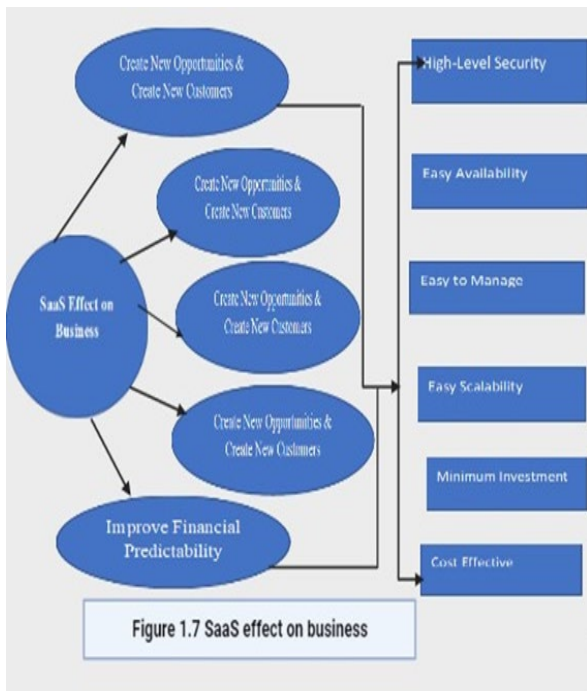
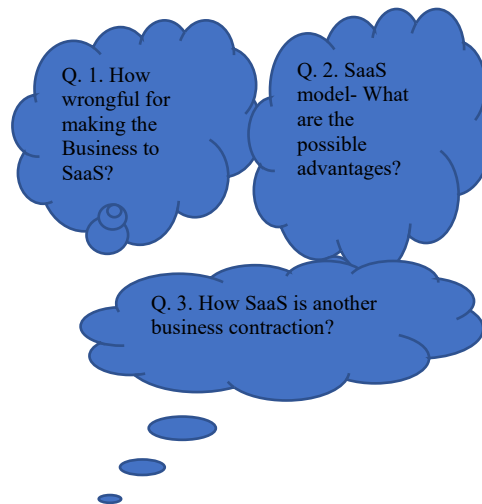


Figure 7. The SaaS effect on business

The SaaS effect on business is very positive in the current time when cloud services play an important role in business and create more and more profit. Businesses are also taking advantage of cloud computing in their daily purchases and other services. The SaaS model provides quick scale without any extensive requests and changes the structure of the mechanism without also connecting supplementing software. These are all the main reasons why industries are taking the SaaS model for best productivity. The industries are very concerned about the strategies and security as per IT professionals. SaaS applications can also be integrated with available software, for example, Gmail and Dropbox, and customised as per the demands of users. The SaaS runs in the cloud and does not need to install or upgrade any kind of hardware, so it does not require supervision or be more expensive. The SaaS module has easy availability; it is accessible to the internet and needs an internet connection and a web browser for handling the software. It is not costly; users can operate on a pay-as-you-go basis with minimum fees rather than just a month- or year-wise subscription.

2.1 The question for business owners is whether SaaS is a viable option for their business or not.



In terms of data storage, SaaS does not provide cloud storage. If you look at Dropbox, it provides limited free data storage; the cloud expands the storage to attract others to use it free of charge; it was not really innovative with its referral programme. The SaaS apps directly contributed to the growth and success of other SaaS services for users, so everyone pays proper consideration.

Example: payback period, annual retention, customer cost to the server, cost for the R & D department, and cost for the admin department



Figure 8. The Major reasons the company started SaaS

3. Research Methodology

Qualitative, exploratory, and descriptive research methodologies were used in this study. By examining the SaaS business model design choices, we want to better understand the design decisions supporting the SaaS business models for user organisations. As a starting point, this study expands and improves upon the newly created combined business model by Al-Debei and Avison’s [2010] for SaaS. For the various detours and loops in the research process, the combined business model served as a fact of reference. By analysing how each of the essential aspects of the four business model proportions in Al-Debei and Avison’s framework related to the SaaS business models in the case studies, this framework assisted in identifying the design decisions in the case studies. In order to fully identify all pertinent SaaS design options from the user organisation viewpoint, the design adoptions that were found in the case studies were related to and planned with each of the fundamental aspects. Due to the necessity to develop a theory defining the design decisions that underlie the SaaS business model, exploratory and qualitative descriptive case study research are combined. This study is exploratory in that it uses case studies to identify innovative areas (SaaS design choices supporting the business model from the perspective of an operator organisation) and is qualitatively descriptive in that it explains the design decisions that have been taken. We are dealing with a big and complicated spectacle, the body of current information is unsatisfactory to allow the posturing of fundamental hypotheses, and models of SaaS business cannot be examined independently of the environment in which they arise. A case study is helpful in our circumstances [Yin 1989]. As the learning practise is examined with reference to a particular incident, the creation and execution of a business model for SaaS in a constrained environment, this research may be regarded as a qualitative case study analysis [Yin 1989; Creswell 1994]. Given the experimental nature of our study, we chose to focus our investigation on only two separate SaaS case studies. Specifically, with respect to the planning stage before the installation of SaaS and throughout the SaaS execution process, the instances were studied using reports and documentation. Documents such as inner memoranda, emails, information, and performances were included in the documentation. The two cases—the previous an intra-organisational SaaS planning across the borders of one company and later an inter-organisational one connecting numerous organisations—were chosen to represent one public and one private organisation. Compared to the public sector, which is more decentralised, the private sector case study features a more centralised governance system. The governance model is frequently seen as a crucial factor affecting the company [Peterson 2004; Weill and Ross 2005] and may have an impact on how business models are created. The distinctions between the scenarios may enable the discovery of a wider variety of factors influencing the creation model of the business. Given the vast span of the business model idea, this research attempts to strike a balance between the range and depth of each of the

identified pertinent subjects by offering an in-depth analysis of the many underlying SaaS business model design options.

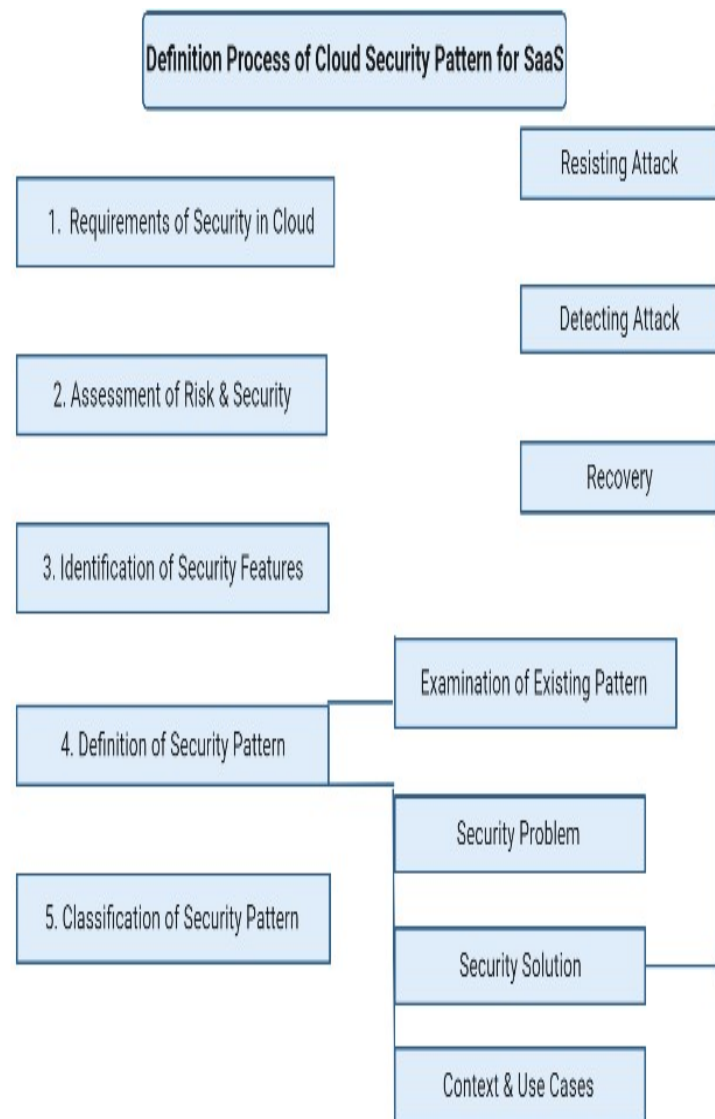


Figure 9. Definition Process of Cloud Security Pattern for SaaS

4. Discussions and Findings:

The research study employs qualitative, exploratory, and descriptive research methodologies. The primary objective of the study is to gain a well sympathy of the design decisions that support SaaS (Software as a Service) business models from the perception of operator organizations. The study builds upon and enhances the existing combined business model proposed by Al-Debei and Avison (2010) for SaaS.

To achieve the research goals, the study adopts an exploratory and qualitative descriptive case study approach.

This approach involves analysing multiple case studies to identify innovative areas and explore the design choices made in the SaaS business models of different organizations. The researchers use Al-Debei and Avison's framework as a reference point to examine how the essential aspects of the business model proportions relate to the SaaS business models in the case studies. Given the complex nature of the research subject, a case study is deemed suitable to examine the implementation and execution of SaaS business models within specific organizational contexts. Two separate SaaS case studies are chosen for in-depth analysis, one representing a public organization and the other a private organization. The selection of these cases allows for the exploration of various factors influencing the creation of the business model, such as governance models.

The research relies on documentation and reports related to the planning and execution stages of SaaS implementation. Internal memoranda, emails, information, and performances are among the sources of documentation analysed. The research focuses on the contrasting characteristics of the selected cases, aiming to strike a balance between the breadth and depth of the identified relevant subjects. The significance of SaaS in both industrial and individual contexts is emphasized. The adoption of SaaS is increasing globally, with industries recognizing its value, cost-effectiveness, flexibility, and enhanced security. The research also highlights the positive impact of the SaaS model on operational and innovation benefits, which, in turn, contribute to the firm's performance. The study mentions the analysis of security solutions provided by AWS and Azure, which distinguishes the research from others in the field. The research aims to match specific patterns with solutions offered by these providers.

Overall, the study contributes to the existing knowledge on SaaS business models by providing insights into design decisions, operational benefits, and the impact on firm performance. It acknowledges that SaaS technology is still evolving, and further economic analyses and case studies are needed to address the remaining challenges and optimize its utilization in the corporate sector. The findings of the study can be summed up as:

The study used qualitative, exploratory, and descriptive research methodologies to examine the SaaS business model design choices and understand the design decisions supporting SaaS business models for user organizations.

The study expanded and improved upon the combined business model by Al-Debei and Avison's [2010] for SaaS, using it as a reference point throughout the research process.

By analysing the essential aspects of the four business model dimensions in Al-Debei and Avison's framework, the study identified design decisions in the case studies related to SaaS business models.

The research combined exploratory and qualitative descriptive case study approaches to develop a theory

defining the design decisions underlying the SaaS business model.

- Two separate SaaS case studies were conducted, focusing on the planning stage and the execution process of SaaS. The cases represented both public and private organizations, considering the impact of governance models on business model creation.
- The study aimed to strike a balance between the range and depth of identified topics by providing an in-depth analysis of the underlying SaaS business model design options.

5. Conclusion

The SaaS is the hosting provider of the application at its data centres, or users can contact it via a good support device. The flow of the internet carries applications to SaaS users. The cloud platform delivers the components on the cloud to certain software while being used maximum for applications. In the market, SaaS is really taking over cloud computing, and at the global level, industries are showing interest in creating their own SaaS plug-in and renting the services to grow on their own work desks. The industries are realising the value and profits of the cost of spinning in SaaS and are identifying the greater flexibility and better security. In the upcoming year, the global cloud service market is estimated to increase very fast. Other hand SaaS is a very important part of human life at both the industrial and individual levels. SaaS provides additional services or storage, but the same process is unacceptable. The industries take advantage of different and unique cloud journeys. Currently, business owners create their own infrastructure or outsource it to a SaaS professional team, and the charge of the team is to maintain the software application, configure it, etc. (Euripvdís Louki 2019). On the determinant of SaaS benefits and its impact on firm performance, the SaaS model positively affected operational and innovation benefits, but on the other hand, two benefits, operational and innovation, both positively impacted the firm's performance compared to the previous year. The analysis of AWS and Azure security solutions is another addition that sets our work apart from other research. The basic objective is to match each pattern with a solution from AWS or Azure. (Li B. et al., 2022), SaaS has experienced a decade of quick-tempered growth, reducing time interchange and intelligence. SaaS is used in business analysis and insourcing the day-to-day activities of businesses and users with competition and innovation within the framework of current business research on SaaS in light of extensive adoption of the model in business. In the IT sector, software as a service is relatively new. But its delivery strategy is an innovative and cost-effective outsourcing strategy. SaaS technology is still in its infancy; therefore, there are still a number of problems that need to be fixed before it can be fully employed in the corporate sector. This essay covered the effects of services,

SaaS, outsourcing, and the financial aspects of SaaS business models. The findings of this study might provide IT personnel with specific expectations for outsourcing delivery and job retention. Further in focus on detailed economic analyses and case studies.

The findings highlighted the growing prominence of SaaS in the global market, with industries recognizing its value, cost-effectiveness, flexibility, and enhanced security. SaaS is taking over cloud computing, and organizations are increasingly interested in creating their own SaaS plug-ins and leveraging its benefits. The study revealed that SaaS positively impacts operational and innovation benefits, leading to improved firm performance. The analysis of security solutions provided by AWS and Azure added a unique aspect to the research, matching specific patterns with suitable solutions. This further enhances the understanding of SaaS business models and their practical applications.

While SaaS has experienced significant growth, it is motionless a relatively new concept in the IT sector. Challenges and issues need to be addressed before its full integration into the corporate sector. However, SaaS technology continues to revolutionize business operations, enabling competition, innovation, and cost-effective outsourcing strategies. This research study serves as a valuable resource for IT personnel, offering specific insights into outsourcing delivery, job retention, and economic analyses. Further research can focus on detailed economic analyses and case studies to enhance our understanding of SaaS business models and their implications. Overall, this study contributes to the evolving landscape of SaaS and provides a substance for future research and practical applications in the field.

6. Limitations and future lines of the study:

It should only focus on the performance of SaaS software in human life as per current market trends; there is no kind of model developed by the researchers. The paper only focused on the theoretical part in terms of service benefits and also mentioned the challenges or security aspects of SaaS. As per the current business market, SaaS plays a very important role; without it, no firm will make a profit. The future line of the study may be the technical part, which will involve any geographical part of the county and examine the effect of SaaS on various fields like marketing, human resources, research and development, sales projection, and many more. The study only focused on two case studies, which may limit the generalizability of the findings to a broader population of user organizations. The research relied on reports, documentation, and internal communication materials for data collection, which may introduce biases and incomplete perspectives.

S. No.	ARR	Percentile				
		10 th	25 th	50 th	75 th	90 th
	Growth Rate					
1.	>1 \$ Million	14%	30%	68%	120%	242%
2.	> 1 \$ Million	10%	24%	45%	91%	242%
3.	3\$ to 5\$ Million	4%	20%	35%	69%	160%
4.	5\$ to 10 \$ Million	10%	20%	40%	65%	100%
5.	10\$ to 20 \$ Million	8%	15%	33%	56%	99%
6.	< 20 \$ Million	6%	18%	35%	53%	90%

Table 1.1: ARR Growth rate in Percentile grouping details

Conflict of interest

All authors declare that there is no conflict of interest regarding the publication of this research paper.

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