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Software Business

CS-C3150 Software Engineering

The software business is one of the largest businesses in today's technological world. Thus, it is important to know the differences between software service businesses and software product business and upcoming cloud business. According to Nambisan(2001), there are five key issues which differs each of the categories to one another - returns from scale, product complementarity, intellectual property rights, abstracting knowledge, connections with users and integrating technology. In this essay I focus on how these five issues look with cloud softwares.

To put it simply and quickly, software product business refers to the companies that build software as a product only to sell it into the market as a user product. On the other hand, software business refers to the companies that do not build software as a product to be directly used by customers, but as a service which can be used by other companies to build their software.

Another blooming sector is the cloud business sector. In this class of business, there is no need to install the software on the customer's hardware, but the software runs on a server and is accessible to the customers through a web browser or special-purpose client program. Cloud-based software could be a product as well as a service. For eg., Google docs is a cloud-based software that is used as a product by the customers, whereas AWS is a cloud-based computing service that is used by the customers to develop their applications and softwares. One of the positive features of using cloud softwares is that all the data is saved on servers and not on local machines which saves the customer from infrastructural requirements and costs. But there is always some risk involved in handing over your data to a third party as they might not handle the data as carefully as you would. This nature of the business makes it hard to understand where your data is, how secure is it, who has access to it and how it is being used very difficult. A recent example of a privacy breach would be of the Cambridge Analytica scam where data from a million Facebook profiles were used for political campaigns. Thus, it becomes much more important in this line of business to protect your intellectual property rights. Nowadays, companies have started to rely more on cloud-based softwares because of the various benefits it comes with. This makes it important for the different cloud-based softwares to be compatible so that they can complement, support each

other and enhance the functionality of the pre-existing and established softwares. For eg., Google Colab is a cloud-based service that provides the functionality of importing and exporting projects directly from Github. This is an example of product complementarity where two softwares belonging to two different companies complement each other which enhances the user experience. Product complementarity is important in cloud-based softwares because it attracts a larger market size and hence increases profit. In the cloud business sector, increasing the market size may or may not increase the returns. This relationship between market size and returns depends on whether the provider demands a fee for using the services or not. It also depends on the quality of services the software provides. For eg. draw.io is a free cloud-based software and hence increasing the market size doesn't increase its profit. On the other hand, Grammarly, a cloud-based service, provides some core services at no cost but charges if the customer wants to upgrade to get more functionality. Increasing the market size in such cases increases the returns because the probability of more customers buying the premium services increases. The success of a cloud-based software depends upon its flexibility to be used in varied situations. Thus it makes it necessary in cloud business sector to abstract knowledge and remove context-specific elements. This, however, is not always necessary when it comes to proprietary cloud services such as Microsoft's Azure hybrid cloud. With proprietary cloud services, customers can request some specific functionalities and customize the software according to their needs. This costs extra money to the customer, but it removes the necessity of making the software flexible for that particular customer. Thus, we see that abstracting knowledge and integrating technologies depends upon the kind of customer to whom the service is being provided. Since in the cloud business sector the software and the user data runs on external servers and not on local machines, maintaining a good connection with the users is of utmost importance. A healthy connection builds up trust which attracts more customer base. Imagine being given a choice between two cloud storage services one of which is provided by Google (google drive) and another is provided by some new company with zero experience and credibility. You would definitely choose google drive to store your documents because of the trust and connection google shares with you. Thus, we see how important it is to keep a good connection with the users in the cloud software business.

References

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