

Subscription-based B2B marketing: an emerging business model in the digital economy

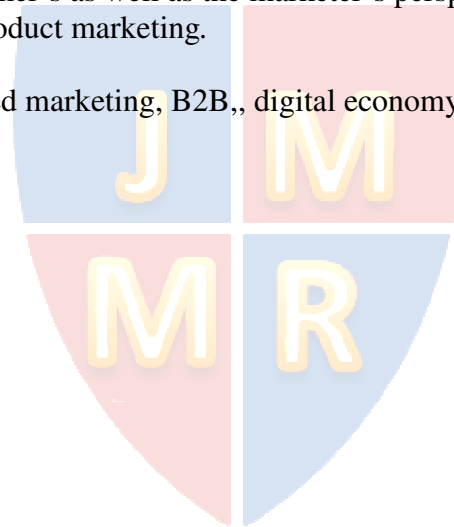
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ABSTRACT

Customers, both at the consumer level and at the business or industrial level, have increasingly moved towards more exchanges which are subscription-based. This manuscript explores the factors influencing the increase in B2B subscription-based product marketing, looking at numerous examples of subscription-based B2B product marketing, the influencing variables from both the customer's as well as the marketer's perspective, and proposes a model of subscription-based B2B product marketing.

Keywords: Subscription-based marketing, B2B,, digital economy



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INTRODUCTION

A significant trend emerging in both the B2C and B2B markets involves subscription-based product marketing, where marketers and customers join into exchange-based relationships which are driven by considerations such as cost, convenience, and expertise, among other important factors. The purpose of this manuscript is to specifically examine subscription-based product marketing in the B2B market, including the development of a conceptual model of subscription-based product marketing, managerial implications of the model, and future research directions.

WHAT IS SUBSCRIPTION-BASED B2B PRODUCT MARKETING: DEFINITIONS, TERMS AND KEY CONCEPTS

Subscription based B2B product marketing involves the potentially continuous supply of goods and/or services to businesses where the responsibility for supplies, inventory, maintenance and/or repair is shifted to the seller. A number of somewhat similar terms and concepts have emerged in the literature, such as product-service systems (PSS), which are business models that provide for cohesive delivery of products and services. PSS models are emerging as a means to enable collaborative consumption of both products and services, with the aim of pro-environmental outcomes (Wikipedia 2021). PSS represents a subset of subscription-based B2B product marketing, in that the focus on PSS is environmentally focused.

Another term that has emerged in the literature is servitization (Schuh, Wenger, Stich, Hicking and Gailus 2020; Aagaard 2019; Vandermerwe and Rada 1988, Kallenberg 2003) which represents a range of product sourcing options available to B2B customers, similar to the classic “make or buy” decision facing businesses, or more elaborate models involving internal vs. external exchanges (Lusch, Brown and Brunswick 1992). Conceptually, servitization is focused largely on the logistical aspects of these exchange relationships, particularly from a services marketing perspective.

An important set of concepts to also recognize in understanding subscription-based B2B product marketing has to do with basic accounting concepts. From the customer’s perspective, moving towards more of a subscription-based B2B relationship completely changes the nature of capex vs. opex decisions. An operating expense (OPEX) is an expense required for the day-to-day functioning of a business. In contrast, a capital expense (CAPEX) is an expense a business incurs to create a benefit in the future. A good example of this shift would be the massive growth in cloud-based computing services, where companies now avoid the capital expense of developing and maintaining server capacity, vs. purchasing these data storage and computing services from a range of companies. In addition, firms that utilize SaaS (software as a service) receive very similar benefits such as moving from capital expenditures (CAPEX) to operating expenditures (OPEX) when utilizing the software on a subscription basis. SaaS providers are continuously improving the service offering through backups, updates, recovery plans, and security updates. This diminishes the work that would be needed from the customer versus doing so in-house thus increasing the firm’s efficiency. Customers can quit the service offering if it is not satisfactory and possibly try other service providers that may better fit their needs (Seethamraju, R. 2015).

Technology has also played an increasingly significant role in the growth and evolution of subscription-based product marketing in general, given the ability of firms to remotely track the customer's needs for goods and services. A digital shadow represents data which are captured via remote sensing and/or online activity. In many instances these data are a critical component of a subscription-based B2B product marketing relationship in which customer insights become transparent through the digital shadow that can result in advantages such as increased productivity of the subscription model for the customer (G. Schuh, J. Frank, P. Jussen, C. Rix and T. Harland 2019). A good example would involve the Otis Elevator company, and their embedded systems found in various elevator installations which allows the company to remotely monitor and sense for potential repair issues as well as normal maintenance requirements.

Finally, another key concept related to subscription based B2B product marketing has to do with deliverables or outcomes. The outcome economy (Schuh, Wenger, Stich, Hicking and Gailus 2020) refers to the growing number of subscription-based transactions in the B2B market, where there has been a shift from ownership and product-centric business models to ones where outcomes are the focus, and the nature and quantity of value-added activities are shifted from the buyer back to the seller.

CONTEMPORARY EXAMPLES OF SUBSCRIPTION-BASED B2B PRODUCT MARKETING

Commercial Kitchens / Ghost Kitchens

Considering the relatively quick changes that have happened due to the Covid-19 pandemic, a new form of restaurant has gained popularity throughout the United States and parts of Europe and Asia. Although it was present before the Covid-19 pandemic, the popularity of ghost kitchens has increasingly grown during the pandemic. This segment is expected to be worth over \$1 trillion by the year of 2030 (Beckett, Emma Liem, and Emma Liem Beckett, 2020). This leaves the opportunity for a subscription offering for virtual brands to utilize ghost kitchens. Companies can utilize a subscription model by offering already furnished kitchens to virtual brands to use, as well as existing restaurants with excess capacity. The company called Zuul is a great example of these services already existing in the United States. Zuul houses multiple virtual brands in a central location which helps reduce costs for the delivery supplier.

Commercial Ice

One existing industry that is currently utilizing subscription models is in the commercial ice industry. Businesses that utilize ice making machines include restaurants, bars, hospitals, grocery stores, and sporting / entertainment venues. Ice machines can be put on a subscription model that could include the ice machine itself, maintenance, and backup ice supply in the event of a machine malfunctioning. In addition to these locations utilizing ice machines, any gyms or sporting facilities typically need ice for treating injuries or for prevention. One example of a company already utilizing this subscription model is Easy Ice (EasyIce.com). Given the wide range of demand for ice, incorporating a subscription model may be an attractive for an existing business operating in the commercial ice industry.

Software Monitoring Printers

Embedded software is becoming common in products and services used today. Being able to gather data on a given service or product can give service providers insights into ways to improve service for the customer. An example includes software that HP offers to its customers with their printing services. Customers can gain insight into their printing habits, departmental usage, and the operational efficacy of their printers, and can opt for automatic reordering of printer cartridges and other relevant supplies.

Printing And Copier Counts Monitoring Using Remote Software

For businesses in the printing sector, subscription models are being utilized in many organizations. Other pricing structures in a printing business may bill based off a usage pricing model. For high volume customers, this gives the provider an opportunity to incorporate a subscription model. With the use of embedded software, a provider may be able to provide cost savings with a subscription model while maintain a competitive advantage over competitors that use a usage pricing model. Print volumes for certain customers may fluctuate making a subscription model attractive due to the recurring revenues for the service provider. A subscription that is turnkey can be easily created by the provider and is important given that printing services support operations allowing the customer to focus on their core business.

Hotel Fire Safety Compliance

Code compliance is very important in the hospitality industry. Every building needs to be up to code to operate legally. Fire safety must be considered whenever a building is being constructed, and up to date fire safety equipment must always be available for use in an emergency. This leaves the opportunity for a subscription-based business model for service providers that operate in the fire safety industry. A number of firms in the hospitality industry have a large physical presence around the United States, and throughout the world. Managing hundreds of locations becomes a complex operation and having to constantly monitor fire safety, and code compliance can be consuming a considerable amount of time for that provider. Hiring these services externally and incorporating a subscription-based model may be a beneficial proposition for these service providers in terms of time savings, and legal and liability issues.

Leasing Under-Utilized Equipment

Underutilizing equipment is a major issue for businesses that use capital intensive machinery or equipment to conduct the firm's services. Time is money and if a machine is not being used then possible revenues are lost as time goes by. This leaves an opportunity for a subscription service for firms that are experiencing this issue. A firm could internally create a subscription-based equipment rental proposition that allows customers to utilize this under-utilized equipment with the goal of providing a return on investment for the firm, as United Parcel Service and a number of airlines have done with idled or under-utilized aircraft which are part of their fleet.

Fleet Vehicle Maintenance And Repair

Fleet vehicle maintenance is another viable option for a B2B subscription model. Many companies own a large fleet of equipment, and vehicles that may not be serviced and maintained on a regular basis. Incorporating a maintenance and repair subscription may be a viable option for businesses so that their equipment is regularly checked and maintained resulting in less equipment failure, and time wasted for the customer.

Power Tool Fleet Maintenance

One current example of subscription based B2B product marketing related to power tools is the company called Hilti. Hilti offers a subscription-based model to firms operating in the construction industry. Hilti will provide all the tooling needs for the company on jobsites and will replace them in the event of failure. Hilti also offers customized equipment labeling, online inventory management, and insurance against theft for customers. Hilti moved from being a seller of products to a company that sells a complete solution that avoids putting the need to gather spare parts, and warranty plans that typical companies offer. Hilti focuses on a value-based offering to customers that includes 45-hr repair guarantees, leasing programs, and tool handling learning applications. (Wurzer, Alexander J. 2019)

Shopping Cart Maintenance And Repair

Brick and mortar retail shopping cart maintenance repair subscriptions are an existing business model used today. Although shopping carts are a basic tool used by consumers in their shopping experience, it is important in the buying process for these consumers (i.e. the cart should be in good operating condition – no stuck wheels, no broken parts, etc.). Given the scale of many grocery stores and retail outlets, shopping carts can be a large expense for these organizations. Having a B2B subscription model for servicing and maintaining shopping carts, helps these customers focus on their core business.

“Right To Repair” Movement

The right to repair movement is a recent phenomenon that many farmers in the United States have recently brought to light, and is another example of subscription-based B2B product marketing, albeit this example is facing resistance in the agricultural market. Given the presence of high technology in much of the machinery used today, farmers have been forced to move away from independently servicing their equipment. Specialized proprietary software has made equipment too complex to service, and service technicians from the providers themselves are needed to fix any issues. This leaves room for a possible subscription model for providers to offer to customers that could increase the serviceability of their equipment. In the case of the farmers, equipment may be disposed of before the end of their useful life because it has become obsolete. Incorporating a subscription model could help farmers by changing the business culture to employing upgradable products or services with continuous improvement in mind for the customer. By always having up to date equipment this could decrease the likelihood of farmers needing to service their own equipment and any outdated technology would be updated from the service provider. (G. Schuh, J. Frank, P. Jussen, C. Rix and T. Harland 2019). This example of

embedded technology is not without controversy, however, and various state legislatures are considering actions to guarantee the equipment owner has the right to repair their own equipment, vs. being held captive by the original manufacturer.

Cloud-Based Data Storage Systems

Due to the increasing presence of digital services, a subscription model in the B2B market is turning into a viable option for many different types of companies. Cloud based data storage systems have become the standard for many businesses which, in turn, have reduced the need to have on-site servers and data storage. As an example, Amazon web services (AWS) has grown significantly in recent years, primarily due to the cost-effective nature of the services being offered

Waste Management Services

Waste management services have been a great example of an already existing B2B subscription service. Waste management now goes beyond traditional trash disposal, capitalizing on opportunities to recycle various materials from the workplace, which results in a “win-win” for a variety of stakeholders beyond the B2B marketer and customer.

Accounting Services / ERP Systems

Companies are now incorporating subscription-based accounting services to help move towards a more relationship-oriented business interaction with its customers. Software can now incorporate accounting and sales data in a streamlined single system of record that can help improve the organization of data and help guide decision making. An example of this B2B subscription management software is a program called Sage Intact. Sage Intact acts as a B2B subscription billing solution to help businesses manage revenues and track expenses. Larger ERP packages such as SAP also provide similar services. ERP systems incorporated on a subscription-based payment system eliminate the need for firms to make a large upfront investment, thus allowing firms that do not have access to capital to incorporate the system into their business. This is a good representation of how moving from capital expenditures (CAPEX) to operating expenditures (OPEX) can be beneficial to firms and can help drive down inherent risk that is involved in making a purchase (Seethamraju, R. 2015).

Tax Payments And Tax Planning

Tax planning is another option for service providers to consider when creating a B2B subscription model. Taxes are a recurring payment that every business must deal with at some point throughout the year. Utilizing an accountant, or firm in a subscription-based model may be beneficial to the customer given the closer relationship between the customer, and service provider. Tax implications may be present throughout the year and having good communication with an accountant would be beneficial to both small, and larger firms.

Legal Services

For some corporations, legal and liability issues may arise almost daily. Having legal services as a subscription may be beneficial for customers given the amount of legal expertise that is needed for that given firm. Having a firm that could be consulted at any point would result in a better working relationship between the service provider and customer. From the customers viewpoint, if any legal issues arise or may appear to be problematic in the future, having a lawyer to consult in the process could result in better decision making and in lower levels of regulation, fines, and litigation costs.

Training Services

Given the complexity of software, employees that are new or existing to a firm will have to go through training at some point in time. Although the software may be the most important part of the service being provided to a customer, training related to how to effectively use the software is just as important. Being able to teach the customer how to use the software will not only result in a better relationship with the customer but would also be a critical part of the value-added being provided to the customer. Software is constantly changing and can be overly complex. This leaves the opportunity for the service provider to offer ongoing training as a service to the customer.

Energy Management Systems

Regarding commercial energy usage (lighting, heat, air conditioning, etc.) there are a number of existing examples of B2B subscription-based service offerings related to energy management. Since lighting, and climate control are important for a business, a subscription model can be utilized to help increase the value provided by a service provider in this type of business. Given the importance of energy efficiency, many firms utilize a B2B subscription energy management service that monitors light fixtures, replaces broken, or burned-out bulbs, and denotes energy hotspots throughout a variety of different businesses. Climate control could also be utilized, resulting in an opportunity for a business to implement a monitoring service for these companies. Heating and cooling are large costs on a business, and if a monitoring system can be implemented, this could result in cost savings for the customer.

Expedited Repair Services

For customers that utilize heavy equipment for work in construction or farming, B2B subscription services are offered, resulting in expedited repair services for customers. During peak times of operation, if a piece of equipment ceases to function properly this could leave the customer scrambling to find a way to get the piece of equipment fixed. By offering an expedited repair service on a subscription basis, this may improve customer service while generating recurring revenues for the service provider. Although every customer may not need to utilize the expedited repair services, the piece of mind of knowing that someone can be ready to fix equipment on a short notice may prove to be an attractive service offering to customers.

IT Services Involving Monitoring For Cybersecurity

In relation to cybersecurity, subscription models have become a popular option for B2B customers. Cybersecurity threats are widely present throughout all businesses operating in any type of digital form. Offering a B2B subscription service that monitors threats and will address them for customers are becoming an increasingly necessary service. From the customers viewpoint, having the 24/7 monitoring of their business infrastructure has become necessary and could help prevent and mitigate potential cyber hacking, which could lead to higher productivity and returns over the long term. Companies such as PC Matic, Norton, and Kaspersky currently offer a subscription service to B2B customers.

INFLUENCING FACTORS / IMPORTANT CONSIDERATIONS FROM THE B2B MARKETER'S VIEWPOINT

The following section provides a discussion of the various factors which will influence subscription-based B2B marketing efforts and offerings from the viewpoint of the B2B firm which is providing these types of value-added activities.

The Service Provider Has The Capacity (Or Excess Capacity) To Provide The Service

In a situation where service providers may have the capacity (or excess capacity) to offer a particular value-added service, incorporating a subscription model may be a viable option for the service provider. For service providers, it would be imperative to inventory the excess capacity and monitor the frequency in which it happens. If excess capacity is highly variable it may not be a viable option for the service provider to consider offering to their customers.

Although revenues can be achieved by using under utilized assets as part of a subscription-based service, if the demand for that particular asset becomes needed (as part of the firm's core business), many issues could arise for the service provider. Examples of this phenomenon occurring are in agriculture, and construction industries, where time is of the essence during construction projects or harvest times. Equipment is a capital-intensive expenditure for companies and when these pieces of machinery are kept in idle, the service provider is missing out on an opportunity to gain revenue from the piece of equipment. Another example of this phenomenon could be excess space in cloud computing. Data storage is a key issue for businesses in today's digital environment. Excess storage capacity or space leaves the opportunity for the service provider to possibly gain revenue through this additional space by offering it to other service providers that may need the excess space, without having to purchase more capacity.

Excellent Way To Maintain A Longer-Term Working Relationship With The Customer

Having consistent communication with a customer is important in deepening the relationship between the customer, and the service provider. With the incorporation of a subscription model for B2B service providers, this opens the possibility for open and consistent communication versus a one-time transaction. Service providers offering SaaS (software as a service) have used the benefit of using a subscription model to improve customer relationships. By moving toward digital solutions instead of the typical offline experience, SaaS providers are

more likely to establish and maintain long term customer relationships. By creating direct contact with customers on a virtual platform, SaaS providers can provide an interactive and customized customer experience. In addition to having online communication, establishing personal interactions such as sales calls, or customer service calls will complement the virtual experience for the customer (Felicity, D. D. 2018). Service providers may gain knowledge of service failures that may have been absent before the incorporation of the subscription model leading to a longer relationship if issues can be addressed and fixed. Fleet vehicle maintenance could be a great example where a longer-term relationship could be established and maintained. Incorporating a subscription model could help improve this relationship by providing these services on a consistent basis where the provider is constantly maintaining the vehicles and is providing clear communication with the customer on the status of the vehicles in the fleet. The service provider will be more knowledgeable of their issues with the vehicles and will be more familiar with the customer resulting in a better working relationship. The provider will be more knowledgeable of certain issues that have happened in the past making the work much easier for the service provider to correct in the future.

May Lead To Additional Project Work And / Or Additional Add On Subscription Services

For a service provider that is using a subscription model, a competitive advantage could be realized over its competition. In a typical exchange relationship, work is being conducted for a customer on an as needed basis. With the incorporation of a subscription model, the service provider becomes an on-demand partner with the customer. Competitors that are conducting transactions on an as needed basis are missing out on further opportunities that may come from the customer in the long term. By developing a subscription model, the service provider is “locking in” future work from the customer. Companies that operate in the construction industry many times have a large scope of work that can be conducted for the customer. This leaves an opportunity for firms to incorporate subscription services to provide a large scope of work for the customer if the need is present. If the firm can conduct a large amount of work on-demand for the customer, this could be a good test for the service provider to show the customer that they can be a long-term partner in providing services across multiple scopes of work on a consistent basis. Research has shown that when customers are satisfied with previous work, new work is viewed in a positive manner encouraging the likelihood for future consideration (Nayyar, 1993).

Providing The Basis For A Source Of Competitive Advantage

By obtaining customer insights over a long period of time, this could enable the firm to develop faster, and cheaper ways to conduct the service being offered thus lowering costs for the provider. By gaining these insights into customer habits that competitors would not be able to gather otherwise, a competitive advantage could be realized for the service provider utilizing a subscription model. (G. Schuh, J. Frank, P. Jussen, C. Rix and T. Harland 2019)

May Allow The Service Provider To Avoid Failure And Liability Issues If The Prior Work Was Done By The Service Provider

Given the knowledge from previous work that the service provider has obtained, they will be better equipped to move forward on additional work for the customer. Having liability issues

from work completed by different service providers could be an issue that arises for many providers. Having the same provider to do all aspects of work may be the best way to avoid service failure, and liability issues. In doing so, it could provide consistent quality if the firm is conducting all aspects of work. For example, companies that operate in the airline industry could avoid potential failure and liability issues if the airlines incorporated the same service provider to provide consistent quality given certain aircraft repair and/or maintenance functions. Conversely if service failure happens consistently (due in part from using multiple service providers), this leaves the room for possible regulation resulting in higher costs for the service provider. The same situation can be applied to companies that operate in the construction industries, elevator maintenance, and many others.

The Service Provider Can Showcase A Turnkey Set Of Goods / Services

From the service providers viewpoint, incorporating a turnkey solution to the customer can be great way to build trust with that customer for future opportunities. If the customer is shown that the service provider can provide a complete solution for the customer , the service provider becomes a valuable partner to that customer. An existing company called Hilti is a great example. Hilti's original business model revolved around offering power tools to customers that purchased the tools individually. Hilti changed their business model to a fixed monthly fee while providing a total solution to customers on a jobsite, that now includes customized equipment labeling, online inventory management, repair services, and insurance against theft. Instead of focusing on selling power tools, Hilti now focuses on creating solutions and developing long term customer relationships. (Wurzer, Alexander J. 2019). A subscription-based model could be a great alternative to typical business transactions that can provide a complete solution to a customer compared to a one-time transaction typically used by service providers.

The Service Provider Can Use Embedded Forms Of Technology To Provide Higher Service Quality To The Customer

Given the presence of embedded technology, this is the perfect opportunity for a service provider to utilize embedded technology that improves service quality for customers. Using embedded technology will not only generate crucial data on the customer, but it could be used to compare customers across the company to help better understand ways to improve service quality for all customers. If the data is being collected in a manner that is approved by the customer, this could be a great way to form a better relationship. Examples of embedded technology already being employed by service providers include ERP systems, as well as SAAP software to help gain insights for the service provider. A relatively new form of embedded technology is also being used by service providers to help improve service quality is called DNA based traceability, and has been created to help track where products are coming from, and where they have traveled. DNA is sprayed onto the product, which then can be scanned at different locations to see the exact source. This is an alternative to blockchain, and provides the same benefits at a lower cost.

“Swallowing The Fish”

One important consideration from the service provider’s viewpoint is the transition from large upfront payments to recurring revenues. In a typical one-time purchase transaction, a large amount of revenue is generated for the service provider in a short period. When companies switch over to a subscription-based business model, a phenomenon called “Swallowing the Fish” tends to happen to these companies. The revenue will begin to fall off previous levels over a certain amount of time while the subscription model is being implemented. Costs will also tend to increase with the implementation of the subscription model. This may seem like a very unattractive option for a service provider however there is light at the end of the tunnel. Once transactions are transitioned from large upfront payments to frequent recurring payments, over time the revenues from the recurring payments will exceed the variable upfront payments. With the addition of new data and insights from the customer, costs will also come down for the service provider over time (Lah, Thomas, and J. Wood, 2016).

INFLUENCING FACTORS / IMPORTANT CONSIDERATIONS FROM THE B2B CUSTOMER’S VIEWPOINT

From the customers viewpoint, B2B subscription-based services may be an attractive option. Depending on the firm and the markets which they compete in, using services subscription-based services may be the most effective strategy. Certain services may be done internally however, as there are many factors that may negatively affect the firm when using external services providers; these will be discussed later.

Cost Effective

In an article focused on internal and external exchanges (Lusch, Brown and Brunswick 1992) a range of factors influence whether a firm would pursue making a good or fulfilling a service internally or externally. Two preliminary factors which influence the choice between internal vs. external exchanges include the type and nature of an entity, and the nature of the good or service. This is important for a service provider utilizing a subscription-based model due to the possibility of a customer creating the product or service themselves. A good example of a subscription service that could be done internally by customers is the shopping cart maintenance example discussed earlier in this article. The firm could train and utilize existing employees to maintain their shopping carts storewide; this may, or may not make sense, given the size of the firm. Depending on the given cost to hire externally it may or may not be cost effective or time efficient for the firm to do so internally, thus leaving an opportunity for a service provider to step in. Larger firms, with multiple locations, may find it cost effective to use an external service provider, vs. smaller firms which may find the opposite to be true.

Another way to look at the issue of cost effectiveness relates to SaaS (software as a service), where many different pricing models exist which include freemium, term licensing, usage based, and a one-time charge. Usage based and term licensing pricing models could possibly be used for other customers outside of SaaS. Offering subscription-based services on a usage basis may be more attractive to customers that may only use the service on occasion without having to pay a large amount of money. For customers with greater usage needs, term licensing could be a great offering to firms that are looking to use services on a large-scale basis

compared to usage models where the usage of the service may not be cost effective. By offering both pricing options to customers, this would give firms flexibility in the usage of the service and allowing them to determine the most cost-effective option to best fit their needs.

Avoid Or Eliminate Regulatory Or Legal Liability Issues

Many businesses, across a range of industries, face complex and detailed regulatory requirements, and potentially significant levels of exposure to liability. For reasons which were described earlier in this manuscript, often times firm which are facing these issues will look to external service providers in an effort to remediate these factors.

Higher Service Quality And Reliability (Vs. Doing This In-House)/Focus On Core Business

If a customer decides to create a product or service internally, it may result in poor quality, and may be unreliable. This could be due to the customer being relatively inexperienced and are creating this product or service outside of their core business. Hiring a firm that specializes in the given product, or services could result in higher levels of quality considering they are specialized in that given area. In addition, if a firm is hired externally this could allow the customer to engage in better resource allocation to different areas of the company resulting in more efficient use of their resources. The customer can now focus on their core business instead of wasting time and resources on the given task. A great example of this occurring would be on a jobsite where companies own all the tooling that is at the site. They may focus on constructing infrastructure but also must manage the tooling that is present one the site. The tooling may be old and may require repairs that are going to cost time and money for the firm. A potential option for the firm could be to incorporate a power tool fleet maintenance subscription model. Tooling ages and becomes damaged quite frequently on construction sites. By using fleet management, new tooling could be replaced resulting in less time wasted due to broken equipment (Casadesus-Masanell, Ramon; Sauer, Roman & Gassmann, Oliver 2017).

Seamless (If An Initial Installation Or Service Was Done By The Same Service Provider)

A firm's key business may be utilizing external exchanges to serve their customers. A great example of this would be in power generation where the power company owns all aspects of the power delivery system such as transmission lines, substations etc. Customers pay the power company for electricity; the power company then hires contractors to complete the infrastructure which in turn provides customers with electricity. This form of exchange is best described as a generalized exchange as depicted in (Lusch, Brown, and Brunswick 1992). From the contractor's viewpoint, a well-established relationship may already be present which is essential in incorporating a B2B subscription model. If a subscription-based model can be utilized by the contractor, the firm could move from a service, to a total solution depicted from the service transformation line created by (Schuh, Wenger, Stich, Hicking and Gailus 2020). The total solution could be the creation of all aspects of the power delivery system resulting in a seamless installation.

Can Use Embedded Technology, Although There May Be +/- Of Doing So From The Customer's Viewpoint

The use of embedded technology by customers has been prevalent in B2C applications such as through car insurance that monitors the users driving habits while rewarding safe drivers. In the B2B market, there are numerous examples of this type of phenomenon, where firms capture different types of data from their customers. Although embedded technology may involve a number of trust-based issues for some customers, the use of embedded technology could result in a better service experience for the customer. Allowing the provider to have access to data may result in higher service quality for the customer given they are gaining insights into what the customer may like. By doing so, the provider can better tailor the service to the customer. On the flip side, the potential of becoming a “captive” customer (similar to the discussion earlier related to “right to repair”).

Logistics

For customers that utilize equipment, tooling, or vehicles on an as needed basis, incorporating a subscription model could be beneficial to the customer. A customer may need a variety of equipment at different times and for different jobs. Purchasing the equipment would be a capital-intensive purchase for the customer, and if the use of that equipment is not frequent, it would not be in the customer's best interest to do so. By incorporating a subscription model, the customer can get the equipment that it needs on demand without having to purchase the equipment, storing, and servicing the equipment.

Additional Considerations

Some additional considerations, from a transactional viewpoint, are also important to consider when looking at subscription-based B2B product marketing, including the following

B2B Customer's Viewpoint

- Will the service always be available for use?
- What are the added costs with add on services?
- What are the cost differences from pay as you go to subscription-based payments?
- What are the benefits from doing subscription-based payment compared to other methods of payments?
- Would it be easy to cancel the subscription? (any strings attached)
- What types of promotions can be given if new business is referred?
- Will the service be on demand? Need to be scheduled?
- What kind of guarantee can be made if it is not available?
- Are referral incentives possible ?

B2B Marketer's Viewpoint

- Will the recurring payments lead to higher profits?
- What will the impact be on revenue?
- How will cash flow be affected?
- What happens if the service cannot be provided in the given time frame?
- Is it better to do a mixed subscription/fixed payment option?
- How long would you give the customer if they miss a payment until the service is stopped?
- Will referral incentives drive down the cost of customer acquisition ?

THE KEY ROLE OF TECHNOLOGY RELATED TO SUBSCRIPTION-BASED B2B PRODUCT MARKETING

Technology plays a key role related to the transformation to subscription based B2B product marketing for B2B firms. As discussed earlier, a digital shadow is very important for a company to gather crucial data on the customer which can be captured from remote sensors and/or digital activities. Firms operating in different industries such as in heavy equipment, and construction are already utilizing remote sensors and programs to gather data on customer usage, and customer habits while increasing their digital presence.

Particularly in the construction industry, digitization has been slowly adopted by firms. However, with the incorporation of BIM (Building Information Modeling) firms in the construction industry are beginning to add more digital aspects into their business. BIM has increased the use of digital products and has been used in digital planning and construction for firms. An example discussed earlier from Hilti shows the increasing use of digital products in the construction industry with the introduction of a subscription model into their business. Hilti utilizes intelligent resource management, tool tracking, inventory management, and measuring devices networked through smartphones on digital apps. By incorporating these digital features into their service, Hilti can add value to its customers by offering more features to its service offering. (Wurzer, Alexander J. 2019).

There are many examples of technology in other industries, related to the delivery and usage of various products. This would include software that monitors printers, fleet vehicle maintenance, ERP services, and energy management. These examples all have one commonality which is the presence of large amounts of data. It is important for providers to gather and analyze the data to create insights into possible issues or problems that may be able to be fixed, or opportunities which could be leveraged. With digital solutions becoming frequently used, the collection of data is becoming much easier and more feasible for companies than in the past. Data that was extremely hard or expensive to gather, is now being captured digitally through the usage of the product.

For example, software technology is incorporated into printers that gathers data on customer printing habits, usages, and power consumption. This software can give insights to the provider on copy counts, toner usage, and equipment errors that can help them better understand some of the issues that may arise for the customer. In the case of fleet vehicle maintenance, software incorporated into the vehicles can tell the technician the exact failure or issues that is currently affecting the vehicle. Customer service expectations are very high for customers

operating a large fleet of vehicles considering this fleet is constantly being utilized. Problem recognition before the introduction of software technology would be very time consuming and costly for service providers.

Enterprise resource planning systems are prevalent across companies large and small. The structure of organizations can become extraordinarily complex with departments carrying many different tasks and processes. The use of ERP software technology has helped firms become significantly more efficient when compared to decades before when ERP systems were not being utilized. ERP systems are commonly purchased and used on a subscription basis. Common revenue models for customers utilizing ERP systems include freemium, term licensing, usage based, and a one-time charge. Customers utilizing a freemium subscription gain access to a free version of the software program usually on a set trial period. Once the trial period is expired the customer is required to purchase the full version of the software or a premium version. Term licensing revenue models allow the customer to use the software program at a fixed price in the form of monthly or annual payments. Once the contract expires the customer is given the option to renew the contract, negotiate a new contract, or avoid renewal altogether. The final revenue model is not utilized as a subscription model for the firm or customer. The customer pays a one-time upfront fee that gains access to the software license for indefinite use (Felicity, D. D. 2018).

Incorporating a subscription model for firms that offer energy management services can give the customer access to technology that can help improve energy efficiency and minimize energy costs throughout their facilities. Energy management software can determine where the most energy is being used and where costs can be minimized. Certain sections of buildings may be inactive but are still using electricity such as through lighting, heating, or cooling. By connecting to thermostats and incorporating sensors, timers, dimmers, and cycle controls, the service provider can utilize the technology to better understand the customer's usage and identifying potential cost savings. In turn, energy savings (i.e., cost savings) goals or guarantees would be made possible by the applications of the above-stated technologies.

In summary, as technology changes and evolves, it would seem as though more opportunities will exist for B2B marketers to further calibrate their subscription-based product marketing efforts.

A PROPOSED MODEL OF SUBSCRIPTION-BASED B2B PRODUCT MARKETING

Based upon the previous discussion of examples of subscription-based B2B product marketing, and various factors influencing the marketing and consumption of these product offerings, the following model has been developed (see Figure 1). There are three major components in this model. First the top part of the model depicts a continuum of exchange options, ranging from one-time exchanges to periodic exchanges, possibly leading to a continuous subscription-based relationship between the B2B marketer and their customer.

For example, many B2B marketers will use a continuum of pricing strategies in an attempt to scale or deepen the relationship with a customer over time. Consider the following examples from the software marketplace:

Freemium- subscriber is offered a basic version of the software for “free” in the hopes that they will upgrade to a premium version.

Term Licensing- subscribed to the software offer over a specific period, usually offered at a fixed price in the form of monthly or annual payments over a contracted period. At the end of the period the customer can choose to renew the contract, negotiate a new contract, or abort the contract.

Usage Based- subscriber is charge for the software based on a defined resource matrix or pay as you go.

One time charge- pays upfront for the indefinite use of the license.

Offering a range of purchase (or exchange) options would allow the B2B marketer to calibrate the nature of the exchange relationship with a given customer. Additionally, having a range of purchase options also provides for the opportunity to deepen the relationship with the customer.

The second major component of the model involves the various factors which have an influence on the B2B customer as they consider the nature of the exchange relationship with B2B product marketers. These factors have been discussed extensively in earlier sections of this manuscript.

The third major component of the model relates to the various factors which have an influence on the marketing strategy and efforts of the B2B firm offering various products (goods and/or services) to customers. Again, these factors have been extensively discussed in earlier sections of this manuscript.

STRATEGIC / MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH OPPORTUNITIES

As the digital economy continues to evolve, a number of managerial implications will emerge for marketers of all types (i.e., B2C, B2B and C2C). Looking specifically at B2B marketers, it is clear that technology will continue to push the boundaries of value creation and/or co-creation processes, and firms will need to be flexible and adaptable with regards to various options available to engage in a range of singular or continuous exchanges with their customers. The model that was developed by these authors speaks to the range of possible exchange relationships which B2B firms can have, and the key considerations which will influence the nature and longevity of those exchange relationships.

Within the B2B context, firms should consider the proposed model as an exercise in business development when engaging in the annual development of strategic marketing plans. In looking at the firm's future strategic marketing efforts, the following question would be useful in guiding those plans and discussions: can the firm's assets, goods and services be further leveraged in ways that would move towards more of a B2B subscription-based approach. Also, how might future value creation capacity or potential be added to the firm, based upon market forecasts and trends. Analysis of competitors could also be enhanced by using the proposed model, looking at the areas of focus of key competitors and their associated competitive advantages.

From a research perspective, the proposed model provides opportunities for researchers to development measurement scales related to the key model constructs, eventually leading to an empirical test of the model.

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Figure 1
A Proposed Model of Subscription-Based B2B Product Marketing

