Actor Positioning and Its Implications to Value Co-Creation in SaaS Ecosystems

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Abstract

Research on platform ecosystems often takes a binary view of the ecosystem and its actors by dividing the actors belonging either to the core or the periphery of the platform. Platform ecosystems tend to be more nuanced, however, and contain a variety of groups of actors with different roles and interests. These different groups of actors seek to occupy and defend particular positions in the ecosystem that enable them to capture the maximum amount of value from the value co-creation occurring in the ecosystem. By studying SaaS ecosystems, this research maps the positions the different actors seek to occupy and the impact these have to the value creation processes and evolution of platform ecosystems. The results further highlight the preferred positions of the different actors and demonstrates how the interests of the actors are not always aligned but may also lead to value co-destruction instead of value co-creation.

Keywords: value co-creation, value co-destruction, Software-as-a-Service, SaaS implementation partner, SaaS ecosystem.

1. Introduction

Literature on platform ecosystems often focuses either on the core platforms of the ecosystems or the relations the core has to the periphery (Eaton et al., 2015; Ghazawneh & Henfridsson, 2013). This is particularly evident in research on innovation platforms (Evans & Gawer, 2016), in which the platform core provides certain resources to the periphery that then utilizes those to complement the offering of the core. However, digital ecosystems by definition are often heterogeneous environments, in which a variety of groups of actors occupy different roles and co-create services and products without clear hierarchical structures (Jacobides et al., 2018). This view challenges the more binary view of especially platform ecosystems, as it leaves room for other ecosystem actors in addition to the platform owner or core and platform complementors. While not incorrect as such, the binary view of ecosystem actors easily overlooks the inherent complexity of ecosystems in which multiple roles and actors may coexist.

To illustrate this, Software-as-a-Service (SaaS) companies and the ecosystems they establish provide a case in point. SaaS companies often focus primarily on developing their software product as a platform yet without necessarily participating in client implementation projects. The responsibility of implementing the product to the client environment is delegated to a network of partner companies, known as implementation partners or implementors. These partners may act in various roles such as resellers, consultants, integration providers, or any combination of these. For instance, Salesforce, which develops and maintains its suite of SaaS-based customer relationship management (CRM) tools, has been able to attract partner companies that manage different areas of the functioning of the Salesforce ecosystem, such as onboarding new clients and fitting the software into each client's needs (Salesforce, 2021).

The different non-focal, peripheral actors such as implementation partners have remained largely understudied (Selander et al., 2013). As non-focal actors in a platform ecosystem may occupy different roles, it is necessary to look at how these roles and responsibilities of participants are defined through boundaries that exist between the different actors (Eaton et al., 2015; Gawer, 2020). In addition to providing only complementarities such as software modules (Yoo et al., 2010), implementation partners also provide services such as consultation. This paper seeks to investigate the specific roles played by actors in SaaS ecosystems. It does so by exploring the relations between SaaS vendors, implementation partners and clients.

For this reason, the concepts of value co-creation and value co-destruction are chosen as the main framework, from which we explore value addition and value diminishment in the SaaS implementation context (Lintula et al., 2017). In a SaaS ecosystem, each of the

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different actors have certain roles and positions that they seek to occupy.

The exact research questions are the following:

1. *What kinds of positions the three different SaaS actors (vendors, implementation partners and clients) seek to occupy in the ecosystems and why?*
2. *How do the sought positions impact relations between the three groups of actors?*

The aim is therefore to investigate how the technological underpinnings of the ecosystem shape the relations between the three different groups of actors. SaaS vendors are understood as the focal companies of the ecosystems that are responsible for developing the core offering, i.e. the software that is sold as a service to the vendor's clients. Even though SaaS vendors may participate in implementation projects, in many cases this is left to the SaaS implementation partners, which also function as the primary focus of this research. As the name implies, these partners run the client implementations of the SaaS product, which often tend to be complex, have a learning curve for end-users, and present a sizable investment for the client. The SaaS clients on the other hand are the organizations that purchase and use the SaaS product offered by the SaaS vendor.

2. Research Background

SaaS platforms are examples of digital platforms that contain a software-based core or a codebase, which enables the platforms to technologically mediate interactions between users or user groups and allows the user groups to carry out tasks aligned with the platform's offered functionalities (Cusumano et al., 2019; de Reuver et al., 2018). SaaS platforms can contain elements of both innovation as well as transaction platforms, as in addition to facilitating transactions between users or user groups, these platforms may also allow external complementors to develop software extensions to complement the functioning of the core of the platform (Cusumano et al., 2019). When combined with platform complementors and other users of the platform, SaaS platforms form digital ecosystems. Digital ecosystems consist of a socio-technical network of organizations and individuals that co-create value via the use of digital technology. Ideally, the relationship between ecosystem participants is more of a symbiosis than a partnership, as the ecosystem dynamically adapts into opportunities and threats instead of participants doing so individually (Senyo et al., 2019).

One of the core technical principles of a SaaS platform is the concept of multi-tenancy, in which the SaaS vendor hosts all their client instances in a cloud-based, shared server environment, that is virtually partitioned for each client. The SaaS platform's users or clients typically access the software via browser-based interfaces instead of the software being installed on the client's desktop devices or hosted on separate server instances per client (Bezemer & Zaidman, 2010).

According to Cusumano (2010), a robust, shared infrastructure used by all clients leverages economies of scale that are not possible to obtain with dedicated servers. Applications can be updated for all end-users at the same time (Bezemer & Zaidman, 2010) and purchased computing capacity automatically adjusted based on the computing needs (Mao & Humphrey, 2011). Potential downsides of the multi-tenant approach and cloud computing in general include security concerns and performance issues (Armbrust et al., 2010; Cusumano, 2010). At the heart of the SaaS business model is selling software to users on a subscription basis. Clients typically pay monthly fees that cover access to the software and required processing capacity and SaaS vendors typically price their products in a way that all costs related to offering the SaaS product are covered (Bezemer & Zaidman, 2010).

2.1. Characteristics of SaaS Ecosystems

Cho and Chan (2015) present four factors that affect client willingness to adopt SaaS products, namely potential cost savings, gap between internal capabilities and strategic goals, SaaS vendor service quality, and management's considerations about software ownership. Benlian et al. (2009) identify main drivers for SaaS adoption to be social influence, strategic value, and attitudes towards SaaS within the organization. Small and medium sized companies (SMEs) may find it strategically advantageous to switch capital costs associated with in-house IT into the operating expenses of SaaS use (Seethamraju, 2015). Heart (2010) further notes that trust in the SaaS vendor community is a major factor in willingness to take SaaS products to use.

SaaS implementation partner programs consist of companies that assist clients in taking the SaaS product to use. Ghaddar et al. (2012) call these companies "Variability-as-a-Service" or VaaS providers: their main purpose is to fit the SaaS product into varying client needs and contexts. Outsourcing these tailoring projects enables the SaaS company to focus on software development. VaaS providers benefit from this arrangement in two main ways: 1) they do not need to develop and maintain the core product themselves, thus saving resources for implementation projects; and 2) they gain access to the potential client base of the SaaS company, which is often a market of substantial size.

Each actor in the ecosystem has its own interests to protect and different power positions exist among the

actors. For instance, it can be argued that even though large SaaS vendors may have to cater external complementors as a whole (Hurni et al., 2021), the vendors are not as dependent on their implementation partners as the implementors are dependent on them. Especially in the case of a vendor with hundreds of partners, none of the individual implementors are irreplaceable. Similarly, research on Enterprise Resource Planning (ERP) systems, which also have one-to-many type of vendor-partnership models and vendors and clients alike have a long history of relying on implementors (Haines & Goodhue, 2003), has found that the relations between clients and implementation partners vary. An implementor may offer solutions with no customization or alternatively on a highly tailored basis, and work together with the client for mutual benefit or alternatively for selfish interests only (Maglyas & Smolander, 2014). Similarly to other types of platforms SaaS product boundaries are affected by the scope decisions of the core company, which decides how the platform sides are configured (Gawer, 2020). In the SaaS implementation context, this has implications to the type of partnerships the SaaS vendor wants to establish. For instance, it may choose to open a marketplace for offering and buying software extensions, which may require the SaaS vendor to provide developers with the necessary tools to create the extensions (Halckenhäußer et al., 2022).

SaaS ecosystems can be understood as service systems, defined as "configurations of resources (including people, information, and technology) connected to other systems by value propositions" (Vargo et al., 2008, p. 145). Williamson and De Meyer (2012) stress that the ecosystem roles need to be carefully defined to establish where in the ecosystem value is created. A unique feature of ecosystems is that the collective investment of participating companies cannot be used outside the ecosystem (Jacobides et al., 2018). To capture value from the ecosystem, the different actors have to interact and the ecosystem to function in a mutually beneficial fashion. However, each actor also The participants of the SaaS ecosystem have their own sets of resources, which form the basis of their interaction with other participants. By doing so, the participants improve the state of other systems as well as their own state (Siltaloppi & Vargo, 2014). However, each actor also has its own, more selfish interests to defend, yet how this occurs, what kinds of positions the different actors seek to occupy in a SaaS ecosystem, and how it reflects upon the positions of the other actors is not entirely clear. The different, possibly conflicting interests may also lead to value disappearing from the ecosystem.

2.2. Value Co-Creation in Ecosystems

Value capture occurs in digital ecosystems via value co-creation between different actors (Schreieck et al., 2021). The main mechanism through which this value is co-created between participants is resource integration. The potential added value is not a property of any of the parties, but the result of their joint activity. The idea behind value co-creation is that services are co-produced by the customer and the service provider, instead of the customer simply being a passive consumer (Vargo et al., 2008; Vargo & Lusch, 2004). In the SaaS ecosystem, value is co-created by all three participants: the SaaS vendor, the implementor, and the client. A practical example of this is that the SaaS client is usually involved in specification work and testing with the partner as the software product is too complex to simply purchase and use.

However, Lintula et al. (2017) argue that the literature on service-dominant logic has an excessive emphasis on successful value creation while negative experiences are overlooked. Value can be co-destructed due to misaligned objectives and goals, or wrongly integrated resources. Both Lintula et al. (2017) and Smith (2013) suggest that a potential reason for this failure is the conservation of resources, i.e. the aim of service systems to use as little resources as possible to accomplish any given goal (Smith, 2013). This implies that sufficient resourcing is important for successful service delivery, but this is threatened by a constant pull towards saving resources. Another source of value co-destruction emerges from the failure to meet customer expectations of added value (Lintula et al., 2017). This highlights the practical importance of expectation management: SaaS vendors and implementors should be careful not to set unrealistic expectations for their clients. The implementation partner has to operate in a manner that enables it to stay relevant while subjected to the decisions made by the vendor as well as the client. Therefore, in explaining the sought positions of the actors in a SaaS ecosystem, the implementation partner is the most contested one.

3. Methodology

The data collection was done in the form of semi-structured interviews with SaaS implementors and clients of implementation partners. This allowed for more open-ended questions and coming up with new questions based on the answers to the planned ones. Semi-structured interviews helped to explore the topic thoroughly, especially as there is not much research conducted on the topic so far.

The interviews took place in February and March 2021. In conducting the interviews, guidelines offered

by Myers and Newman (2007) for qualitative interviews in information systems research were followed. For instance, a variety of relevant persons were interviewed, questions were shaped according to the interviewees' answers, and research data was kept confidential. The SaaS platforms that were used by the interviewees were studied before the interviews, and the selection of the interviewees was also based on the interviewees working on a SaaS platform that had partner networks. All except one interview were recorded and transcribed into text files for further analysis. In case of the one interview which was not recorded, detailed notes were taken during the interview. The interviews were conducted and analyzed in Finnish, and later translated into English for this paper.

The interviews were conducted with two distinct interviewee groups. The first group consisted of five representatives of SaaS implementation partner companies. The second group comprised another five representatives of organizations that have purchased services from such companies. The organizations in the two groups were in no way connected to each other, and there were no existing service provider-client relationships between them. Thus, the aim was not to examine both sides of specific implementation projects: instead, the purpose of the interviews was to get a broader understanding of key issues for implementation partners and clients alike. Summary information about the interviews is presented in tables 1 and 2.

Table 1. Partner interviews

Partner	Revenue (m€/y)	Staff	SaaS used	Role	Interview length (min)
1	<2	<20	Salesforce	CEO	56
2	>1	<20	Workday	Management Consultant	60
3	>2	>20	Pipedrive	COO	30
4	<1	<10	Shopify	Senior Executives x 2	54
5	<2	>10	HubSpot	Senior Executive	58

Table 2. Client interviews

Client	Revenue (m€/y)	Staff	SaaS used	SaaS part of core processes	Role	Interview length (min)
A	>100	>150	Salesforce	Yes	Account Director	24
B	>2000	>20 000	Salesforce	Yes	Head of CRM	22
C	<0.1	<5	Shopify	Yes	Founder	53
D	-	>2000	Workday	Yes	Head of HR	33
E	>5	<50	HubSpot	No	Account Manager	25

In addition to asking interviewee background questions from both groups, the interviews questions for the implementors evolved around the co-operation between SaaS vendors and implementors, SaaS partner programs, implementors' value propositions, business models and strategies, as well as their perceived challenges and opportunities in the ecosystem. SaaS clients were inquired, for instance, on their experiences with the implementation partners and SaaS product implementations. By choosing different SaaS platforms and by not connecting the data collection to any particular case, the authors wanted to provide space for the interviewees to discuss freely any issues and pain points they had encountered in operating in the ecosystem. To analyze the data, thematic analysis was used. Braun and Clarke's (2006) thematic analysis method consists of six distinct steps: familiarization with the data, generation of initial codes, searching the data for themes, reviewing the themes, further defining and naming the themes, and producing the report. After familiarization and transcribing the data, the data analysis began by generating codes to organize the material logically so that different instances where one idea is mentioned are tagged with the same code. Once the initial coding of the transcribed material has been done, the key themes of the research were identified by combining and comparing the codes that had emerged in the coding phase. The purpose of grouping codes into themes is to find connections between the distinct coded ideas and form a more meaningful picture of the studied topic. As instructed by Braun et al. (2019), themes were searched only in the scope of the research question.

After grouping the codes into higher-level themes, the themes and codes were reviewed to see if they fit together properly, i.e. all codes assigned to a theme were gone through thinking whether the codes are naturally related with each other or not. Once the themes had been reviewed, they were named to describe their significance and to easily identify their meaning. Based on the themes, a narrative was created around them (Braun & Clarke, 2006), paving way for the findings.

4. Findings

4.1 SaaS Implementation Partner Experiences

All interviewed implementation partners concluded that the SaaS vendor manages all aspects of the software infrastructure and maintenance and is also solely responsible for developing the core software. In addition, other important SaaS vendor resources were mentioned to be implementation partner training and technical support. Typical implementor tasks were identified to be client training, implementation project rollout, customization, integrations, and continuous

support. The SaaS program roles seem to be separated rather clearly in the studied cases.

Almost all implementation partners thought that their core value proposition consists of helping clients take complex software into use as SaaS vendors rarely carry out implementation projects. For instance, Partner 4's offering was focused on extending Shopify functionality through custom extensions. Thus, Partner 4's business model was more of a self-service extension model as fitting the software to the needs of local merchants required custom add-ons and localization expertise, such as the integration with postal and other delivery services to manage downstream supply chain management. In a similar vein, Partner 3 described that their offering was largely built around the SaaS they focused on to provide customized solutions they developed for their clients. Thus, they helped clients not only to take the SaaS into use, but also implement their own extended feature set.

The other tasks of implementation partners included for instance providing technical process consultation and developing integrations from the SaaS system to other systems. These could for instance mean training and assisting client organizations in taking the SaaS to use. This emphasis on the importance of knowledge transfer was shared by most of the implementation partners. Only one interviewed implementation partner mentioned business development among their key offerings. Partner 5 noted they help their clients' teams to function better, to take the most out of their HubSpot investment, and also acted as the clients' spokesperson towards HubSpot.

In terms of challenges, the single greatest challenge of SaaS implementation partners was the ability to recruit personnel with expertise of the specific SaaS product the partner implemented. According to Partner 1, implementors must invest a lot of time and money into training and certifying new recruits, which made many of the skills required by SaaS implementors as non-transferable. Partner 1 also noted that "*trained Salesforce experts are not available on the market. Or if they are found, they, there is a good reason why they are available on the market.*" (Partner 1).

Other challenges also existed. One of the interviewed partners pointed out the strategic risk of changes to the SaaS vendor's competitive environment: "*It's like what if a new market leader appears out of the blue?*" (Partner 2). Simply put, specialized SaaS implementation partners benefit from increased demand for the SaaS vendor's product, and likewise suffer from decreased demand. The non-transferability of personnel know-how further magnified the severity of this risk. If a SaaS vendor would go out of business, it would take a lot of time and resources to re-train staff. Also, the continuity of customer relationships would obviously be at risk.

In addition, Partner 3 stated it would cause plenty of trouble for them if their SaaS vendor would suddenly make considerable changes to the terms of partner agreements. Large-scale changes to the core software might also require refactoring the extensions and custom solutions the implementation partner has built on top of the SaaS product. Both had also happened to Partner 3. Partner 4 also noted that the latter risk had become a reality on some occasions as the SaaS vendor had announced functional changes with a very short notice: "*Shopify itself has sometimes a challenge, that when they decide that something is changed, then they give some amount of time for the change. But sometimes [...] the changes come quite fast and it creates challenges that are difficult to anticipate.*" (Partner 4).

Related to this, Partner 5 said they had to plan the development of their own custom solutions carefully by anticipating the SaaS vendor's own product roadmap. If an implementor would invest significant resources into creating a custom solution on top of a SaaS product only for the vendor to later release a similar solution as part of the core software, it would directly hurt the implementor's business. Regarding scale, it was seen that SaaS-extension business model generally scaled well, but Partner 4 mentioned that increased demand would cause challenges in managing customer service if the number of support requests would increase in a linear fashion. Thus, aspects of the partner offering that required manual labor were subject to scalability issues.

Finally, in terms of SaaS implementation partner opportunities some of the interviewed partners raised the point that participating in a SaaS partner program or generally focusing on a specific SaaS product was a good way to access a large base of potential clients. Partner 4 said that for instance the app recommendations the SaaS vendor made in their app store's front page was one example of this. "*We have managed to get this [recommendation] a few times and we have noticed that it increases the number of [our] app installations probably a hundred times over*" (Partner 4).

4.2. SaaS Client Organization Experiences

Most client organizations said they chose to use an implementation partner due to the complexity of the SaaS platform taken into use. The interviewed clients mentioned that it was practically impossible to buy the implementation project from the SaaS vendor, which forced the clients to choose between in-house implementations and using implementation partners. As Client D said: "*It was not even a relevant option in our opinion. [...] The model in these [projects] is that the service comes from Workday and then their certified*

implementation partners [...] provide the implementation." (Client D). Using an implementation partner also reduced the need to have dedicated personnel with in-depth knowledge about the systems.

Most clients described the SaaS to be used for their core business processes. This further emphasized the need for expert assistance, as the clients appeared cautious about changing their core processes and systems and resorted to professional partners to manage the transition. Client C described using an independent consultant for solving some of their problems in using the SaaS product while still having a business relationship with the original implementation partner. One of the reasons for having the consultant was ease of access: *"That one can call a person and they study it and investigate, but these bigger corporations must always be approached with email"* (Client C). Occasionally routine tasks were dealt in-house, or as Client D explained about the division of roles with their partner: *"[...] we have been able to do the configurations and changes for maintenance purposes very much by ourselves. [The partner] as a maintenance partner [...] does more challenging implementations."* (Client D). The client personnel may build their own technical competences to manage easier tasks by themselves, while opting to use partner services for more demanding tasks.

Among these more demanding tasks were for instance those of customization. Client A noted that the SaaS product in question needed a degree of customization in order to be taken to use: *"[...] the platform is in a way not ready to be taken [...] to use off the shelf, it requires customization and then making certain interfaces for transferring data, and this was the thing why we needed an outside partner [...] that a package deal did not fit into our goals"* (Client A). The implementation partner was also deemed useful in keeping track with the changes or current practices or as Client D described the value of their implementation partner: *"One positive thing is that they have up-to-date know-how about the system [...] and taking it into use and they have good practices. And especially the more experienced consultants suggested very good solutions to us, saying 'another organization has done these things like this.'"* (Client D). Client organizations also benefited indirectly from the implementation projects done for the other clients of the same SaaS implementation partner. Another important note was the client's appreciation of partner proactivity for instance by the implementors proposing viable solutions to their clients, highlighting the importance of knowing the client organization and the specific SaaS implementation used by the client. Some non-core activities were also occasionally happily given to the implementation partner altogether. For instance, Client

E was satisfied with handing much of their marketing activities to their implementation partner, and Client B mentioned increased efficiency in the form of time and cost savings resulting from the use of implementation partner consultants.

Regarding challenges in the relations between clients and implementation partners, Clients C and D mentioned that they wished for a business consultation approach from their partner. Especially Client D hoped for deeper domain knowledge and willingness to study the client organization. Instead, their partner took an overly technical approach to the implementation project. Other examples of this kind included the rigidity of a partner's implementation models, i.e. lack of flexibility in adjusting implementation projects to client needs: *"I also understand that the service is productized, it is conceptualized very much, so that it is possible to use younger consultants as well in, like, the implementation phase [...] but unfortunately this conceptualization cannot fully replace experience and vision"* (Client D). This implies a balancing act that the SaaS implementors must do between one-size-fits-all type of productized services, and highly customized, customer-specific services. Client E stated the lack of training they had received to use the implemented SaaS product, as clients value knowledge transfer.

Implementation partner personnel related negative experiences were common. For example, Client B stated that there is a significant variety in the level of expertise among their implementor's consultants. Client D noted that changes in the partner's key personnel that was appointed to the project caused some issues. Client A also recalled as a negative experience that their partner was too eager to sell additional services before the initial project was finished: *"[...] it could be noticed at the end of the project that, that there was a strong will to get lots of new things in the pipeline before [...] the already implemented functionality was even properly in use…"* (Client A). From the client perspective, this may seem like an undesired attempt to enlarge the scope of the project, thus being an example of conflicting interests. Implementation partners' business models and marketing strategies may not always be aligned with the needs of specific clients. The previously mentioned problem of productized implementation services that do not match specific client needs can also be interpreted as a conflict of interests: implementation partners seek to maximize efficiency to run a more successful business, while clients wish for more tailored services, which for the partner are not optimal to offer.

To summarize, the interviewed clients perceived the following things to add value: deep partnership, time and cost savings, partner's specialized know-how, and customization to fit client needs. On the implementation partner side, the mentioned value propositions included:

long-term customer satisfaction, taking the most out of the SaaS investment, knowledge transfer, fitting the SaaS to local needs, increasing efficiency and ease of use, and helping clients grow their business. Thus, the high-level views about what adds value seem to be mostly shared by the two interview groups. Generally, most of the interviewees from both groups agreed that implementation partners were needed due to the complexity of the SaaS products and the large amount of specialized know-how required to take it into use. Another point was that it was often not possible to buy implementation services from the SaaS vendor directly. Finally, having a local partner who helped to take a globally used software into use for instance by tailoring the SaaS product to client needs was viewed as a central motivation by several interviewees from both groups.

5. Discussion

The purpose of resource integration between ecosystem actors is value co-creation, though it may also lead to value co-destruction. The empirical findings provide some insights into what resource integration consists of, i.e., what are the typical resources of each party that are integrated. In brief, it was discovered that typical SaaS vendor resources are the core SaaS product, hosting infrastructure, support, and training. Implementation partner resources include custom software solutions, training, support, SaaS know-how, and domain knowledge. Client resources include business requirements, in-house development teams and SaaS end-users.

The literature on the different types of digital ecosystems often discusses the interconnectedness of the actors in the ecosystem. Senyo et al. (2019) describe digital business ecosystems as networks of highly interdependent companies working together in an almost symbiotic fashion. Hanssen (2012) sees openness and transparency as a key feature of software ecosystems networks that enables the companies to collaborate more efficiently. While correct, the different ecosystem actors also seek positions that provide them an advantage over the other actors.

The resource integration between the different actors reveals the sought positions and aims related to other actors are shown in Figure 1. It highlights what each of the different actors wishes to focus on in the ecosystem and what the actor seeks to push to other actors. Some of the actions of one actor are contradictory to those of another actor, such as the intention of the implementation partner to offer standardized services to clients while the vendor seeks to pass all the non-scalable tasks to the implementation partner. In SaaS ecosystems, the single most powerful actor is in many ways the SaaS vendor, and it seeks to

push the tasks that are more difficult to productize to implementation partners. The focus areas and tasks in the Figure 1 reflect especially the ideal position and interests of the SaaS vendor, which has implications to the growth strategies of the implementation partners. While the implementation partners may send requests to the vendors regarding future updates, it is up to the vendor to decide whether to do those or not. Similarly, if an implementation partner manages to productize its offering, for instance in the form of a software module sold via the vendor's marketplace, the vendor may also choose to 'adopt' that functionality and place it in the platform's core. Similarly, if the SaaS vendor sees certain services that the implementation partner offers as particularly lucrative, it is possible that it may move towards the direction of trying to capture those despite the challenges, for instance, in scalability. The findings from this research did not provide instances of this though, and the tasks given for the implementation partners tended to be those of difficult to scale or otherwise complex.

The implementation partner then out of necessity aims to grow by acquiring more clients or by selling more services to them, ideally delivered by more inexperienced consultants. However, these are not necessarily in the interests of the SaaS client, who mostly seek the implementation partners to help with the implementation of the SaaS platform for their specific context. In situations resembling Figure 1, the SaaS vendor clearly has a more powerful position over the individual implementation partners, which, at least in the findings of this research, tends to be the case.
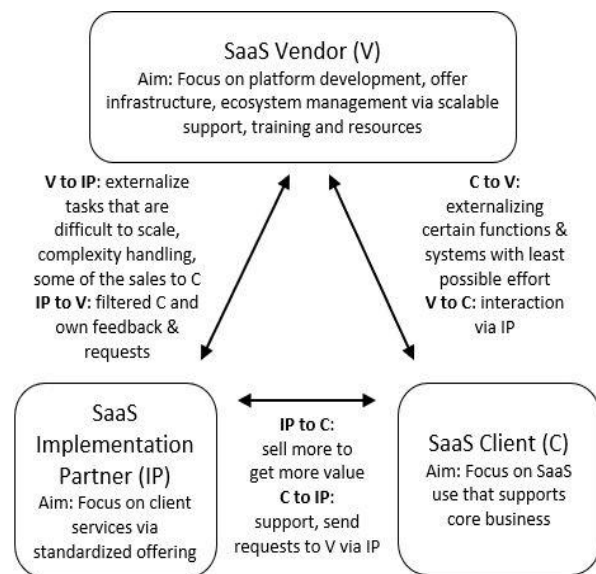

Figure 1. Sought positions and tasks in a SaaS ecosystem

Expressed in a more detailed manner, the SaaS implementation partners are not irreplaceable for the SaaS vendor as individual companies but as a network, to which the SaaS vendors seek to delegate project and sales responsibilities. As a result, the relationship can be said to be voluntarily symbiotic for the vendor, whereas for the partner the symbiosis is more profound. A SaaS vendor could in theory decide to discontinue its partner program and build a project organization, while the implementation partners need to adjust its functions according to possible changes imposed on it by the vendor. Regarding the integration of resources, SaaS vendors aim to minimize the active effort required by client implementations by providing self-service interfaces for different uses. Gawer (2020) shows that there is a significant variety among digital platforms regarding where the boundaries are set between the platform participants, i.e. what are the roles and responsibilities of different actors, including the platform owner. In the case of SaaS vendors, they provide boundary resources such as application programming interfaces (APIs) and training portals to be integrated with the resources of clients and partners. In a similar vein to the role played by boundary resources in platform control and resourcing (Eaton et al., 2015; Ghazawneh & Henfridsson, 2013), SaaS vendors utilize those resources and interfaces as control items for managing the SaaS partner ecosystem. This enables the vendors to open the platform for outside contributions in a safe and controlled manner: the vendor can dictate what and how data can be retrieved and changed through the API.

The SaaS client takes part in the implementation ecosystem also via boundary resources. The interface toward the SaaS vendor is chiefly the core SaaS itself, whereas the interface towards the partner has a more significant human element through for example training and project activities. Again, the SaaS vendor desires to provide a standard set of boundary resources to the client to minimize their active role in the use of the SaaS product.

Drawing from Gawer (2020) and Eaton et al. (2015), the argument made here is that the decisions made by SaaS vendors regarding the ecosystem roles and boundary resources boil down to a single factor regarding one particular aim that also reveals their sought position: how the ecosystem can create as much value for all participants with the least possible effort for the vendor. Obviously, the SaaS vendor wants to capture as much value as possible while keeping the ecosystem financially attractive for the implementation partners. It does so by leaving much of the work that is more difficult to scale to the implementation partners. Instead, the vendor for instance provides extensive APIs to serve implementation partners, which gives the vendors the

possibility to passively co-create value with the other actors. It also opens innovation possibilities for the vendor, simply by identifying popular features that have been developed by the implementation partners as complementarities and offering those directly from the core (Halckenhäußer et al., 2022). Similarly, many SaaS vendors provide self-service training programs for their partners to manage knowledge transfer as passively as possible. All these investments into passive value co-creation enable scalability of the vendor's business since the active effort of onboarding new partners is minimized. Overall, SaaS vendors seek to delegate many of the volatile aspects of software business and day-to-day sales activities of refining prospects, following up leads, and so on to their partners, while maximizing the amount of steady license revenue. Implementation partners also enable vendors to add complexity to their SaaS offering while avoiding providing services like custom solutions development and tailored consultation services to clients.

Even though SaaS ecosystems admittedly vary from case to case, we argue that most vendors actively pursue a status where they can delegate all activities apart from product development and hosting to other companies. However, it is also possible that this is an intermediate stage in the evolution of the SaaS ecosystem: if the ecosystem reaches a point where implementation activities provide a better return on investment than managing the SaaS platform, it might be in the interest of the vendor to start taking part in client implementation. At the same time, the ecosystem and the complementarities that have been developed by the implementation partners provide vendors information where the market is possibly heading and what kind of functionalities they should offer, enabling the vendor to develop the platform accordingly.

The ideal position for the SaaS implementation partners would be to provide similarly productized and easily scalable offerings for the clients. Due to the vendor's powerful position as well as the dependency of the implementation partner on the vendor, this is often not possible and instead the SaaS implementation partners occupy the space left by the vendor. By engaging in projects that offer tailored services, they absorb a lot of the ecosystem volatility that the vendor seeks to distance itself from. This can be seen in the implementation focus on project-based business. Furthermore, on top of specializing on projects surrounding one SaaS product, the partner must specialize within the partner ecosystem with a unique value proposition. Specialization and offering of tailored services have implications to the ability to engage in service standardization or productization objectives, which can be also linked to smaller market sizes. As a result, the relationship the implementation

partner has with the vendor can be in a sense paradoxical as the vendor provides a market for the implementation partner but simultaneously, through the vendor's actions, places restrictions on the implementation partner's ability to grow.

These actions of the vendor may also lead to value co-destruction, especially for the implementation partner. For instance, sudden changes to platform functionality may cause adaptation issues for the implementation partners, or the vendor can sometimes introduce platform features that have been developed already as a custom solution by an implementation partner. The implementation partner is likely to seek growth from the clients due to the power positions that exist in the ecosystem. However, these are also areas where value co-destruction may occur between implementation partners and clients. Implementation partners' business models and goals may conflict or be misaligned with the interests of clients. Because SaaS partners want to run as successful a business as possible, there is a temptation to upsell clients with non-relevant services and run other business practices that are not in the best interest of clients. Ultimately unhappy clients may not only harm the implementation partners but can be reflected in the clients' attitudes towards the vendor as well.

This might result in a sort of vicious circle, which the intent of the vendor to establish a specific position in the ecosystem leads to specific client-targeted actions by the implementation partner, which eventually leads to less satisfied clients of the whole SaaS ecosystem. The literature on ecosystems often discusses the co-creative nature of digital ecosystems (e.g. Jacobides et al., 2018; Senyo et al., 2019). As seen from this research, value co-destruction also occurs in SaaS ecosystems when the interests of the different actors are not aligned or the occupied positions clash. To put differently, in addition to the co-creation there are tasks in the ecosystem that different actors are trying to push for others to take care of. These tasks can be highly necessary for the ecosystem to function as well as essential for an individual actor to survive, but at the same time they contain characteristics that otherwise limit that actors' ability to occupy a position in the ecosystem that it wishes. An interesting question is how ecosystem actors seek to overcome these obstacles, and when they decide to opt out from the ecosystem altogether if they see that the limitations posed on them by the vendor become too strict? Especially for the vendor but also for the other actors, awareness of the possible conflicts of interest and avoidance of value co-destruction is of importance for the ecosystem to function and enable actors to co-create value in a manner that benefits all individual actors of the ecosystem.

6. Conclusion

Implementation partner networks have become a typical way for SaaS vendors to manage the delivery of their products to clients. Even so, these SaaS implementation ecosystems have received little attention in academic literature. By conducting semi-structured interviews with SaaS implementation partners and clients, this research contributed towards filling this gap in literature by explaining how SaaS ecosystems add value for each participant and the positions that the actors seek to occupy in the ecosystem. Overall, implementation partners operate within the platform boundaries set by the SaaS vendor. These boundaries are affected by the scope of activities the vendor engages in as well as the other platform sides that are present in the ecosystem. As a non-focal actor, the implementation partner must navigate successfully in a small opportunity space by specializing and offering a unique value proposition. Implementation partner risks in this business model include difficulties in recruiting employees and conflicts of interests with the SaaS vendor and clients. The different sought positions of the three groups of actors in the ecosystem also lead to value co-destruction in addition to co-creation.

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8. References

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