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Introducing app stores into a packaged software ecosystem: a negotiated order perspective

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Abstract: This study addresses the emerging phenomena of app stores for packaged software such as enterprise resource planning (ERP) and customer relationship management (CRM) systems. Through employing the technology of app stores, ERP and CRM vendors have been reported as shifting from delivering software as a service (SaaS) to platform as a service (PaaS). Through an in-depth case study of one ERP vendor's app store initiative, the study identifies and discusses instances of negotiated order of the ecosystem. The results show that the introduction of an app store for ERP brings with it the threat of restructuring both the incumbent business model and the power relationships nested in the ecosystem, thus spurring intensified instances of negotiated order. This is discussed in terms of different arenas of conflict for negotiated order.

Keywords: app store; packaged software; negotiated order; enterprise resource planning; ERP; ecosystem; platform strategies.

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1 Introduction

The market for packaged software, such as enterprise resource planning (ERP) and customer relationship management (CRM) systems has, since the introduction of cloud-based delivery models, been under transition (Martens and Hamerman, 2011; Ågerfalk and Fitzgerald, 2008). Incumbent vendors of monolith solutions such as SAP and Oracle experience pressure from smaller challenging vendors, offering products with a more narrow functional scope (Magnusson et al., 2012). The mantra of these challenging vendors is criticising the one-vendor policy, advocating a best-of-breed strategy, fuelled by technological developments within cloud computing for off-site hosting and dynamic sizing (Böhm et al., 2011; Uzoka et al., 2012).

The technological development has brought with it an espoused decrease in integration cost, and new business models such as cloud service brokerage (CSB), Solver Brokerage, software as a service (SaaS), integration as a Service (IaaS), and platform as a Service (PaaS) (Feller et al., 2012; Ghormley, 2012; Grover and Kohli, 2012). The latter of these models (PaaS) has a particular allure to vendors of ERP and CRM systems (Ku and Cho, 2011). With the enormous commercial success of mobile platforms such as Apple's AppStore, Google's Android Market and Blackberry's AppWorld, vendors from the packaged software industry have vamped their efforts to explore this model (Basole and Karla, 2012). Examples such as AppExchange from Salesforce.com and Marketplace from Lawson show an emerging trend where vendors of packaged software are moving towards becoming PaaS actors, often through the creation and control of a marketplace for platform related apps (Nambisan and Sawhney, 2011; Ghormley, 2012; Kim et al., 2010; Martens and Hamerman, 2011). This shift is regarded as a shift from monolithic packaged software strategy to a platform strategy (Gawer and Cusumano, 2002; Gawer, 2009; Ku and Cho, 2011; Sarker et al., 2012).

We argue that the introduction of ERP app stores brings with it a reconfiguration of the very foundation of the existing ecosystem surrounding an ERP vendor. This reconfiguration can be seen in both the value chain and the relationships between the involved actors. In addition to this, we argue that the introduction of ERP app stores creates a necessity for negotiating the social order of the ecosystem, as the vendor moves from the role of a complete turnkey supplier to the role of platform owner.

The objective of this study is to add new insight to the phenomena of platform strategies within packaged software. This objective is guided by the following research question:

How do actors in a packaged software ecosystem negotiate order during the vendors shift to a platform strategy?

The central contribution of this study is an empirical account of instances of negotiated order between two categories of stakeholders in the platform ecosystem (i.e. vendors and partners). The remainder of the paper starts with a review of previous studies related to the areas covered in this paper. After that, we present the method (Section 3), followed by the results (Section 4) and a discussion of the findings (Section 5).

2 Previous research

2.1 *From on-site installations to platform as a service*

Packaged software such as ERP and CRM systems have since the mid 1990's become commonplace components in business infrastructures (Grabski et al., 2012). Despite the many drawbacks reported from implementations gone wrong (Azade et al., 2012; Carr, 2003; Davenport, 1998; McAfee and Brynjolfsson, 2008) the market continues to grow by 7% per year (Montgomery, 2012). Research within packaged software has spurred substantial interest within the academic community throughout the years (Grabski et al., 2011; Johansson et al., 2011; Parthasarathy, 2012; Sarker et al., 2012; Seddon et al., 2012). Despite this, there has so far been only a limited amount of literature addressing issues related to app stores and platform ecosystems [see Gawer and Cusumano (2002), Gawer (2009) and Burkardt et al. (2012) for notable exceptions].

During the past couple of years, there have been numerous indications that the market for packaged software is fundamentally changing. With the rise of alternative delivery models such as SaaS and other notions related to cloud computing (Ghormley, 2012; Petrescu, 2012; Schenk and Guittard, 2009), industry analysts such as Gartner and Forrester expected the market to experience a radical shift during the end of the first decade in the 21st century (Magnusson et al., 2012). Traditional ERP and CRM models have included on-site installations and substantial configuration initiatives, often making implementations of these systems cumbersome and lengthy. With the rise of a model for packaged software delivered via the Internet, according to a pay-per-view logic of services, the traditional business model of the mega-vendors (SAP, Oracle and Microsoft) is under pressure from smaller, more adaptable players building directly on the emerging technological platform (Magnusson et al., 2012).

According to Weinhardt et al. (2009), one of the major trends currently impacting the ERP market is the shift to services and the re-building of traditional ERP vendors into PaaS actors. Instead of controlling the development of functionality in-house, the vendor creates and distributes a development platform and incentive programs for enticing independent software vendors (ISVs) to create functionality through a process similar to that of open innovation (Ceccagnoli et al., 2012; Chesbrough, 2003; Han et al., 2012; Ku and Cho, 2011; Kim et al., 2010; Nambisan and Sawhney, 2011). Functionality from ISVs is then made available to the PaaS customer, most commonly through some sort of a marketplace. Within packaged software, Salesforce.com's AppExchange was the first of these marketplaces to receive academic interest (Nambisan and Sawhney, 2011; Zittrain, 2009).

Platform strategies such as PaaS have, during the past decade, received substantial interest from the research community. With seminal work conducted within product development for the manufacturing industry during the early stages of the 1990s (Wheelwright and Clark, 1992) and the information technology industry during the 1990s (Gawer and Cusumano, 2002), the field regards platforms as consisting of a set of core components with a long life span and low variety over time (Tushman and Murmann, 1998). This platform is then used by other actors to build and sell complementary components with shorter lifespans and higher variety over time that integrate into the

platform (Baldwin and Woodard, 2009). Through pursuing a platform strategy, the vendor decreases the scope of his product offering, while at the same time trying to incentivise complementary innovations on the basis of his platform (Gawer, 2009). The aspired consequences of this are lower costs of continuous development, and, externalisation of non-core development for an increase in innovative capacity and customer satisfaction.

2.2 App stores for packaged software ecosystems

Through an initial review of the available research, we have identified three main dimensions of app stores. The first dimension identified in the literature is related to differences in functional core. Here, the app stores are either intended for the distribution of additional functionality for mobile devices or packaged software. For mobile devices, the level of integration between the app (added functionality) and the device (functional core) is minimal, primarily focusing on accessing GPS positioning and other hardware related functions. Here, we see examples such as the Apple iTunes Store, Google's Android Market, RIM's BlackBerry App World and Microsoft's Windows marketplace for mobile (Martens and Hamerman, 2011).

For packaged software, the level of integration between the app (added functionality) and the packaged software (functional core) varies, from configuration packages changing both the business logics layer and the data model, to third-party integration of f.i. Google Maps for viewing data through geo-tagged visualisations (Adipat et al., 2011; Dilla et al., 2010). With the majority of packaged software solutions being delivered through cloud-based technology, the addition of an app to the software is handled directly on the server side by automated installation. Here, we see examples such as Salesforce.com's AppExchange, Netsuite's SuiteApp and Lawson's Marketplace (Martens and Hamerman, 2011).

In addition to this categorisation of the intended 'backbone' of the apps (mobile device or packaged software), the scope of control for app stores constitutes the second dimension of categorisation. According to Willis et al. (2011), app stores may be either private or public. Private app stores are secluded from the general populous, e.g., giving organisations the possibility of controlling which apps are made available in the corporate environment. The public app stores are not controlled in the same manner, but allow the users full access to all types of apps accepted for publication in the marketplace.

The third dimension refers to the intended customer of the app store. Public app stores for mobile devices such as Apple's app store and Google's Android Market focus on the consumer (end-user) as a customer. This strategy of consumer-oriented deployment is highlighted as problematic for app stores with packaged software as the functional core. With the functionality often being critical for business and prices being relatively high (when compared to the mobile consumer oriented app stores), user rights related to who may buy apps from a packaged software app store are often restricted (Martens and Hamerman, 2011). Hence, we see a differentiation between app stores directed towards consumers versus corporate decision makers.

3 Method

3.1 Empirical selection

In mid 2011, we were contacted by an ERP vendor concerning a joint research project. The research project would be directed towards understanding the effects of a current innovation initiative that the ERP vendor was working on. This initiative involved the creation of a vendor-owned on-line marketplace for apps, i.e., in this context, standardised packages of ERP functionality intended for end-user procurement. In the beginning of 2012 the project was approved funding from a government agency, and the project was initiated in February 2012.

The ERP vendor (SMErp) is one of the largest ERP vendors in Sweden within the SME segment. The firm has existed since the early 1990's and has an installed base of approximately 5.000 customers. SMErp follows the traditional ERP business model with a selection of partner organisations controlling the customer interaction and sales. They have a partner structure where partners become certified by the vendor in order to achieve partner status. There are ten larger partners, constituting 85% of the complete SMErp market. In addition to this, there are ten smaller partners, constituting the remaining 15% of the market.

For the empirical selection, the research project initiated discussions with informal representatives from the various stakeholders to identify potential interview respondents. This resulted in a list of 17 individuals (seven SMErp, ten Partner).

3.2 Data collection

Throughout the spring of 2012, the 17 interviews were conducted with representatives from the vendors' ecosystem. The interviews were of a semi-unstructured character, resting solely on three questions (previous, current and future states) and a short introduction by the researcher. Following inspiration from Silverman (2010) and McCracken (1988), the researchers refrained from promoting terminology that would have been construed as value-laden throughout the interview. Instead, the respondent was left relatively uninterrupted but for interruptions from the researchers asking the respondent to clarify or exemplify.

All interviews were sound-recorded and transcribed, and handled with the appropriate confidentiality. Owing to the delicate nature of the new initiative, we were adamant in establishing the independence of the research group from all involved stakeholders. Provided that one of the intended outputs from the research project was specified as design-input for the configuration of the new business model, this required substantial planning.

In parallel with the interviews, the research group gathered documentation related to the current business model and initiative. This included minutes from internal meetings, presentation material from partner gatherings and project documentation. This material served as background information and was not included in the empirical material of the study.

3.3 Method of analysis: negotiated order

Negotiated order (NO) theory has been employed in numerous forms and in numerous studies since its advent in the 1970s. In this paper, we use two re-occurring perspectives of NO in motivating the use of this theoretical lens. First, we feel the assumptions in regards to vestiges of power (Modell, 2006; Fine, 1984; Rahaman and Lawrence, 2001) prevalent within NO to be highly applicable to our field of enquiry. As noted by Modell (2006), NO is founded in the assumption that power is not (as f.i. in institutional theory) stably bestowed in dominant institutions. Instead, it is dynamically distributed between various stakeholders in, for instance, the interorganisational field of an ERP vendor. Second, the long tradition of studying not industries or organisations, but rather interactions (i.e. negotiations) *between* organisations *in* industries offers a rich plethora of previous research for us to utilise (see f.i. Nathan and Mitroff, 1991). This downplaying of the macro environment naturally brings with it a range of limitations, but we regard the drawbacks of this approach to be fewer than the strengths it brings with it.

For the analysis, interviews were read and re-read by the research team in order to categorise the responses into analytical categories related to NO. In addition to the inductively created categories, aspects of particular interest found in the interviews were discussed within the research team. The focus on these discussions was on identifying a structure in the empirical material.

4 Results: Introducing a new order into an existing ecosystem

This chapter presents the case of SMErp and their introduction and implementation of an ERP app store and accompanying business model. The case is structured chronologically in three sections, each centred around a meeting or public event taking place between the summer of 2010 and the fall of 2011 (see Figure 1).

Figure 1 Three phases of the ERP app store introduction at SMErp (see online version for colours)

4.1 The promise of modernity: Introducing the concept (2009)

"I really think that it started like this: One, we knew that there were a lot of great innovations, ideas and solutions out there, at the same time as the wheel was invented again and again. Two, we needed to develop our product in a faster pace than what we can with organic growth. If you then could get the partners to share their development with others, our product flora gets much bigger, without us having to do all the development ourselves." VP, SMErp

The first time the notion of an 'app store' was presented to the partners was at a local meeting in 2009. These annual meetings have been initiated by the partner organisations

themselves and are intended to allow the partners to discuss issues related to how they compete and collaborate within the ecosystem. With most partners being non-exclusive partners to SMErp (i.e., they also have other ERP solutions from different vendors in their service portfolio), these meetings are open exclusively to partners, yet SMErp is often invited to participate in the discussions. The purpose of this has been to allow SMErp to understand some of the issues facing the partner organisations.

During this particular meeting all the partners were aware that SMErp was going to present something that promised to catch their collective eye. Having previously that year introduced a new development environment that allowed for the packaging of functionality into apps, some of the participating firms were expecting to see something along the same lines.

Upon introducing the concept of an ERP app store directly tied to both the development environment and the overall market frenzy related to app stores, the lasting impression from the meeting was described as exuberant. The concept of app stores was not a new idea within the ERP market, yet nobody had really believed that it was that prevalent. As several of the participants later explained this, it was regarded as additional proof of the superiority of the technological platform of SMErp, and something that made the partners proud to work with SMErp.

“A community was envisioned, the equivalent of the App Market of today, where functionality was for sale or better put: available for the needing in a simple manner. Downloadable and installable without much ado. That is perhaps the most fantastic aspect of this technology, that it actually is possible. Even if it is not as easy as that iPhone you have there (gesturing towards the interviewer), it is still the same principle.” Business Line manager, Partner Organization

In the discussions directly following the meeting, the partners became aware of the lack of existing business model for the app store. Instead of seeing this as a weakness of the approach, the partners instead saw this as a wonderful opportunity to take part in chiselling out the new business model. Issues related to the distribution of revenue, ownership and control were discussed loosely, yet neither of the partners on site saw any major difficulties that could not be surmounted.

“SMErp’s idea with this was of course that the development of the product would be conducted not only by SMErp themselves but also by partners, lone consultants, by a new type of partner to SMErp that only conducts functional enrichment for customers.” CEO, Partner organization

No discussions were held related to the strategic dimensions of the app store, such as how this could circumvent the partner’s current position of direct customer contact. With the app store being presented as owned by SMErp and directed towards the end users and current customers of the partner organisations, one interpretation that could have been made was that this was an attempt by SMErp to gain direct access to the users, displaying functionality in the form of apps. This would infer that partners would run the risk of being degraded to development resources for SMErp, opening up for a competition in terms of additional sales to existing customers in the app store instead of as now, directly. In response to why these types of issues were not discussed at the meeting, the respondents stated that albeit being a theoretical possibility, their current relationship with SMErp would make that practically impossible.

4.2 The problem with reality: Introducing the business model (2010)

At the next scheduled partner meeting, SMERP was invited to discuss the business model of the ERP app store. At the meeting, SMERP was expected to present the foundations for a business model for a discussion in plenum.

SMERP initiated the presentation by presenting a ready-to-wear business model with what they perceived as clear answers to issues related to ownership, quality assurance and revenue sharing. The response from the audience was rather disconcerting, with the majority of participants directly focusing on the fundamental definition of an app. Here, the discussion hovered on what actually would constitute an app, i.e., which scope of functionality would be feasible to package and distribute in this form.

The position of SMERP was that what was currently sold as verticals, or specific configurations for f.i. plastic moulding or project based businesses would be the ideal scope for apps. This was adamantly contested by the partners, which saw this as directly infringing on their business know-how and subsequent competitive advantage. At the same time, they saw major difficulties with setting this scope as wide as verticals, since the issue of responsibility and ownership was not yet established. As an example, one of the partner CEOs presented figures that showed the risk exposure that a partner pursuing this wide scope would experience, which also lead to a discussion on pricing.

The much-awaited presentation from SMERP was now opening up for substantial difficulties regarding a possible business model for the app store. The discussion quickly became heated, and some of the participating respondents were rather distraught about the possible road ahead. In response to the problem with defining the scope of an app, one CEO (perceived by the others as a 'free-thinker') presented a list of ten apps that he deemed feasible. These apps all had the limited scope of simple integration, such as importing publicly available data for addresses and telephone numbers into the CRM functionality. This was described by one partner as a breakthrough in the discussions:

"I think that opened, or maybe not opened but rather closed the doors that needed to be closed. It is not plastic moulding solutions that we are talking about. Then things became much more concrete." CEO, Partner organization

This public act of initiative from one of the partners seems to have convinced the other partners to follow the narrow scope perspective on apps, whereas SMERP had no choice but to retreat from their previous standpoint. Hence, the negotiated order related to scope was set through one individual's act of aggression, which rendered an alternative to the previously introduced order feasible. Once this had been established, it was seen as a way ahead for the partners, albeit in direct conflict with the initial notions and desires of SMERP.

4.3 This is a time for action: launching the ERP app store (2011)

Directly following the meeting in Spain, SMERP called a separate council via a web conference. At this meeting, the partners were presented with a revised business model that many still saw as overly simplified and not ready for operations. The business model included partners taking full responsibility for apps that they had developed, economic compensation based on 30% of revenues owing to SMERP for supplying the app store and a limited quality assurance. At this same meeting, SMERP also announced that they had decided to launch the app store at the next annual customer event.

“Then SMErp directed us to start developing apps, and a signal from SMErp that it was high time for delivering. Everybody knew that if there were no apps, it would all end in disaster.” CEO, Partner organization

This announcement caught many of the partners off-guard, since they saw it as premature given that all parties did not yet accept the business model. As a response to this, SMErp expressed that partners who wished to participate in the launch of the app store would be expected to sign a written agreement stipulating the publication of a number of yearly apps, and participate in a competition aimed at creating a critical mass of apps. These partners would be allowed to participate free of charge in the customer event, with designated space in the congressional halls and with full access to all partners' customers.

Many of the partners interviewed expressed their irritation and surprise in regards to this bold move by SMErp. On one side, they appreciated the ‘lets-go’ attitude of SMErp as a cornerstone in the organisational culture. On the other side, they were distressed about the practicalities involved in signing an agreement without fully understanding its implications on their current business setup. The response to this announcement by SMErp was that the majority of partners had accepted participation in the launch, albeit not by signing the written agreement. Instead, this was often left to individual business areas within each firm, and not followed up by the involved parties. In terms of scope and price strategy, the partners quickly scurried to submit apps to the app store. The apps that they selected for this had mostly been developed earlier, and the pricing varied significantly from free-of-charge to € 2.000.

“Sure, we will deliver one app, and we said that we will continue discussing the agreement but we put free-of-charge as a price for our app. Then we can take the responsibility that you are expected to take if you have sold something for nothing... We don't want to impede the whole thing... but if you take the issue of responsibility seriously you get a problem with the proposed business model.” Line Manager, Partner organization

By the time of the annual customer event, around 30 apps were available in the app store. This was perceived as satisfactory but not great by the involved parties and the project group at SMErp continued to push for an increased involvement by the partners.

“50% of our meetings are about how we can get more apps. How we can convince the partners that are still on the bleachers waiting to get started, how can we access the spare time of the developers? Really: how can we get this off the ground? Because really: we want a larger volume of apps in the market site before we start to go out and push towards the customers.” VP, SMErp

By early 2012 the total number of apps available in the app store was around 50, with over 50% developed and sold by SMErp. The app store was still suffering from difficulties in getting the available number of apps up to a critical mass, something that according to the respondents was a direct consequence of a business model that did not yet work.

“We can do this in two different ways. You could either buy this (app) from us and install it with the instructions and user guidelines we have and... so help you God. Or, you could buy ten days training from us, involve us in a pre-study... but then you will have to pay for it. And this is one of the contradictions I find where you want to buy an app at a certain price but not training and preparations. How come just because you packaged an object or vertical into an app, you do not need the business development knowledge any

more? When there is no longer anybody taking responsibility for the whole process for the client, but we see this as simply a program function, then we have regressed.” Business Area Manager, Partner organization

5 Discussion and conclusions

Based on the case as presented above, we see three arenas of conflict emerging. The first issue that we see as prevalent in the discussions surrounding the introduction and launch of the app store is related to scope. As noted in the case, the initial idea of the vendor was to be able to include wide scoped apps based on the previously existing verticals. The partners were immediately reserved towards this, arguing that this represented a breach of their current competitive advantage, and also that it would be technologically impossible.

As seen in the second phase of the introduction of the app store, this conflict was brought to a standstill, with partners rallying behind one CEO and his examples of ‘appropriate’ apps. This position was in direct conflict with the ideas put forth from the vendor. However with the partner organisations being the only ones in the ecosystem with the know-how necessary for creating vertical scoped apps, the subsequent order directly mapped to what was seen as acceptable by the partners.

The second issue was related to price. This was directly dependent upon the issue of scope, with a decrease in scope leading to a necessity for decreasing the price. With a decrease in price, the economic foundations for both continued development and the taking of responsibility would however be threatened, indicating clear flaws in the proposed business model. Interestingly enough, the distribution of revenue was never experienced as an issue in the case. With the vendor proposing 30% of the listed price be distributed directly to them for supplying the app store infrastructure and a brief quality assurance of the published apps, price rather than distribution of revenue became the area of conflict. We interpret this as nested in an understanding on behalf of both stakeholders groups of the associated costs of developing and maintaining a working app store.

The third issue regarded as prevalent was that of responsibility. With the business model not yet in effect and (according to the partners) suffering from severe weaknesses in design, the taking of responsibility for installed apps was perceived as impossible from both sides. With the vendor not having access to either the developmental resources or sufficient revenue from each app, they saw it as impossible to take responsibility. In terms of the partners, they saw the issue of responsibility as directly determined by the economic feasibility (i.e., the level of revenues that they would receive). With the scope shifting from wide to narrow, responsibility became less of a risk. However with revenues at the same time decreasing due to a decrease in price, they saw no road ahead for truly taking responsibility over something that they did not control end-to-end. This was the most pressing of the three issues, since it was in many ways impossible for both parties to come to an agreement.

With the launch quickly approaching, we saw examples of ways from the partner’s side to address this issue. In setting prices per app to zero, some partners saw a way to avoid taking responsibility at all. However this would, as they saw it, not impact negatively on the actual launch, nor would it impact the customers negatively when combined with the decreased scope of the apps. This resulted in the negotiated order in

terms of responsibility being reached through a compromise involving placing a hold on the real issue at hand and instead finding a possible route ahead.

In Table 1, we have operationalised the arenas of conflict in the case in a three point Likert scale. The purpose of this is to illustrate the inherent order and direction of negotiation as seen in the case (Table 2).

Table 1 Operationalisation of arenas of conflict

<i>Arena</i>	<i>Definition</i>	<i>1</i>	<i>2</i>	<i>3</i>
Scope	Size of apps delivered through the marketplace	Small chunks of functionality (internal calculation)	Medium chunks of functionality (Third party integration)	Large chunks of functionality (verticals)
Price	Price per app	Low mean price (10€)	Medium mean price (500€)	High mean price (1000€)
Responsibility	Distribution of responsibility between the stakeholders	Vendor takes full responsibility	Shared responsibility	Partner takes full responsibility

In the beginning of the introduction of the ERP app store, the dominant order (or introduced order) was presented by the vendor. Hence, this order is regarded as the first state optimal order for one of the stakeholders. As described in the case, this order was directly contested by the partner organisations, and a negotiation was initiated. In Table 2 we have quantified the dominant order on the five degree Likert scales provided in Table 1. We also show in which direction the negotiations went in terms of the same Likert scales.

Table 2 First dominant order and direction of development.

<i>Arena</i>	<i>Initial position</i>	<i>Direction of negotiation</i>
Scope	X	←
Price	X	←
Responsibility	X	←

Note: Order according to the introducing party, i.e., SMErp

5.1 Implications for research

Our study has three main implications for research. First, as our findings show, the ERP app store deployment can be seen as an indication of the vendor moving towards a platform strategy. Through pushing development of complementary functionality to a selection of partners in the ecosystem, the vendor shifts focus from being a turn-key supplier towards a platform supplier. This contributes to the future use of packaged software vendors' app store initiatives as an empirical base for studying early stages of platform strategy implementation as called for by f.i. Gawer (2009, p.45).

Second, our study shows that negotiated order theory may be a feasible road ahead for studying the reconfiguration of social order within a packaged software ecosystem. Changes in business models have previously been reported as difficult to study in-situ. With the business model vested in a structure of social relationships, we see the application of negotiated order theory as a methodological contribution to research.

Third, as noted in the discussion of this paper, the relationship between scope, price and responsibility was a central area of conflict for the shift in business model. Previous studies (see Ghormley, 2012) have primarily focused on single contingencies and we are not aware of any previous study addressing the intricate relationship between the involved areas. We believe our study contributes to an increased research interest into the balance between scope, price and responsibility.

5.2 Limitations

There are two main limitations to the presented study. First, with this being a single case study, there are substantial issues related to generalisation of the research findings. Previous examples of app store initiatives within packaged software are in many respects *terra incognita* within research, which adds to both the necessity for further studies and issues of non-comparability of the present findings with previous.

Second, as this study focuses on the early stages of app store deployment, many of the issues discussed are still not set. The governance of the SMErp app store has not yet been tested by a working market, and there is still a long way to go before the number of available apps and deploying customers has reached its critical mass. Despite these two limitations, we believe that the current study addresses a critical gap in research and could be considered as a first step towards a better understanding of app stores for packaged software.

5.3 Implications for practice

There are two central implications for practice of the presented research. First, the identified potential areas of conflict, with a high divergence between perceptions of optimal configuration, should be granted substantial attention in the governance of platform ecosystems. The diverging interests underlying the conflicts related to Scope, Price and Responsibility all point to the potential conflict that may arise should the governance not be adequately catered to each of the involved parties interests. Of these three issues, we regard Responsibility as the most pressing. With the complex nature of packaged software and the often long life-cycles involved, the taking of responsibility over a chunk of functionality that has to continue working on the same platform, despite new versions et cetera, involves a high level of risk. If the developing partner or seller of the app is to take responsibility, this high risk could be mitigated in one of two ways. First, it could be pushed towards the development platform, designing this so that the building of apps is independent upon future versions and upgrades. Second, risk could be handled through increased revenue sharing for the party that takes responsibility over the app. These two methods for mitigating the risks associated with responsibility should not be regarded as mutually exclusive.

The second implication for practice of the presented results is related to the existence of dual markets. From the perspective of the vendor in this study, the primary market is one that involves a consumerisation of added functionality. This market is directed towards current users of the packaged software, with the intent of these users being exposed to additional functionality that may infuse the platform with added value and an increased user experience. The secondary market that we have found in our study is the inter- and intra partner market that comes from packaging added functionality and configurations into apps, ready for distribution within and between the partners

themselves. In a first wave, this involves the increased level of knowledge sharing among and between partners. In the second wave, one that is not yet reached, it creates the necessary prerequisites of a potential ecosystem of open innovation for the partner network. New ideas could be quickly diffused and the network of certified consultants, through bidding and bartering, could handle calls for new innovations (Sarker et al., 2012).

5.4 Conclusions

This study finds that the deployment of app stores for packaged software such as ERP and CRM brings with it a reconfiguration of the ecosystem. In addition to this, the study finds that the actors in the ecosystem focus their negotiation of social order on three main arenas; Scope, Price and Responsibility. With the app store being initiated by the vendor, the instances of negotiated order deal with issues concerning economic feasibility, i.e., the strategic intent of moving towards a platform strategy is not contested.

5.5 Directions for future research

We see two future projects as viable given this first excursion into our case and material.

First, a further focus on co-creation of value in platform ecosystems. This project would involve additional analysis of our conducted interviews, using inspiration from Sarker et al. (2012) and their study on co-creation of value within packaged software ecosystems. Second, a further focus on the diffusion of ideas, tracing the app store initiative throughout the ecosystem. This project would involve additional analysis of the conducted interviews, using inspiration from Scandinavian institutional theory (Czarniawska and Sevón, 2005) and theories of institutional logic (Lounsbury, 2008).

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