

# New Sales and Buying Models in the Internet: App Store Model for Enterprise Application Software

Stefan Wenzel  
Wolfgang Faisst  
Christoph Burkard  
Peter Buxmann

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# **New Sales and Buying Models in the Internet: App Store Model for Enterprise Application Software**

## **Stefan Wenzel**

SAP Commercial Platform, SAP AG, D-69190 Walldorf, E-Mail: stefan.wenzel@sap.com

## **Wolfgang Faisst**

SAP Commercial Platform, SAP AG, D-69190 Walldorf, E-Mail: wolfgang.faisst@sap.com

## **Christoph Burkard**

TU Darmstadt, Fachgebiet Wirtschaftsinformatik | Software Business & Information Management,  
64289 Darmstadt, E-Mail: burkard@is.tu-darmstadt.de

## **Peter Buxmann**

TU Darmstadt, Fachgebiet Wirtschaftsinformatik | Software Business & Information Management,  
64289 Darmstadt, E-Mail: buxmann@is.tu-darmstadt.de

## **Abstract**

Whereas electronic marketplaces had been established years ago to distribute different kinds of software, they have become subject of public interest given the success of “app store” models in business-to-consumer (B2C) environment, especially for mobile device software. The expectation of a consumer grade buying experience, cloud deployment models and the disaggregation of software bundles to smaller and more focused offerings are fostering the app store model also for enterprise software.

In this article, a classification of buying situations for enterprise application software is introduced reflecting organizational buying processes between the transactional and the consultative sales / buying model. In that context, the article outlines the role of electronic marketplaces and Internet-based sales infrastructures detailed in a practical case example.

## **1 The sales and buying model of enterprise software is changing**

### **1.1 The classical sales and buying model of business management software**

The “classical” sales model of enterprise application software (e.g. ERP or SCM) is a long-lasting highly personnel-intensive process. Sales cycles of several months up to years are widely common (cf. [21] and [20]). The buying process is often highly centralized and driven by central IT and purchasing departments. It involves the evaluation of multiple solutions and incurs

high costs (e.g., initiation costs in terms of search costs; cf. [26]) for the purchasing company but also for the software vendor (cf. [9]). This has partly historical and organizational reasons, but is ultimately also highly determined by the characteristics and nature of traditional enterprise software itself.

At first, enterprise software can be classified as an investment good and the characteristics of organizational buying behavior apply (cf. Table 1; [16] and [15]). Accordingly, the buying process involves, compared to consumer buying processes, more people in the evaluation and decision and focuses on long-term relationships with the software vendor.

“Traditional” enterprise application software itself is deployed on the customer’s premises and requires a technological stack, incl. hardware, system software, a database (for OLTP and OLAP) and middleware (e.g. for integration or mobile access). This stack requires an extensive skill set on the customer side to operate and maintain. The software products themselves are mostly offered as monolithic applications covering numerous cross-company processes and functions (e.g., ERP, SCM, CRM, SRM). Over the years the monolithic applications have added features with every release to cover the needs of highly heterogeneous enterprise customers (cf. [18] and [13]).

	<b>Consumer buying behavior</b>	<b>Organizational buying behavior</b>
<b>Buying decision</b>	Buying decisions are strongly emotional, less formalized, and have a low process orientation	Buying decisions are highly objective and based on facts, formalized and process oriented
	Pre-dominantly individual decision	Pre-dominantly group decisions (buying center)
<b>Customer relationship</b>	Relatively short-term relationships to providers	Relatively long-term relations to providers
	Switching barriers are low for consumers	Switching suppliers / providers bears higher risks
	Customers are often not known to the provider	Customers are known to the provider
	Customer competences is of minor importance for consumer products	Customer competence is of significant importance. Competences however are distributed among multiple persons.

**Table 1: Typical characteristics of B2C versus B2B buying behavior**

Therefore the implementation and customization done by the software vendor or dedicated service providers and the subsequent training of the customer’s staff is time consuming and highly cost intensive (cf. [1]). The enterprise application itself is charged by perpetual license fees (i.e., per application user) plus recurring maintenance fees (cf. [6]).

All together, software licenses (and related maintenance), IT infrastructure, implementation and training sum-up to significant upfront investments, increasing the risk and vendor lock-in on the customer side (cf. [37] and [8]). Due to the high investment risk the customer needs to thoroughly plan, evaluate and select the right solution.

Therefore, the customer forms a so called buying center which involves the conceptual roles of user, influencer, buyer, decider, gate keeper (cf. [35]). Those roles are often distributed among the following corporate functions and departments: IT department, business units, central purchasing department, regional/local representatives, workers’ council, organizational development & change management and CEO / CFO / CxO.

The study from Foscht & Swodoba (cf. [15]) has shown that companies above 100 employees already form buying centers including 6 employees and that buying centers in companies with more than 1000 employees already include 34 people on average when purchasing investment goods like enterprise software.

On the sales side the software vendor compiles a sales team (selling center, cf. [27]) to approach the manifold needs of the customer and the individual interests of the various people involved (i.e., multi-level selling, cf. [19]). The sales team often consists of the following roles: customer account manager, multiple solution & industry specialists (pre-sales), value engineer / business consultant and service advisors.

In addition to the previously mentioned cost, the outlined process involves further far-reaching consequences: On the one hand, the operational departments and individual users are often not or only inadequately involved into the decision process and requirements coming from single departments cannot provide a business case to justify the high investments.

On the other hand, IT departments themselves spend most of their resources on operating the existing IT landscape and are overloaded with big corporate implementations (cf. [28]). They also have hardly efficient processes to consolidate the needs of different departments in the organization.

This leads to an “application and innovation bottleneck” and the IT department is often perceived as inhibitor for innovation. Only recently, due to new types of applications, departments help themselves by subscribing to external cloud-based applications or by introducing workarounds based, for example, on spreadsheets (i.e., “shadow IT”, cf. [5]).

## 1.2 Current trends in the B2C environment with their impact on the B2B world

In the consumer world, e-commerce has undoubtedly become very popular – for example, Amazon has become also world’s leading retailer (cf. [10]) due to broad offering portfolio and the seamless and highly reliable delivery capabilities. Based on a well-accepted e-commerce model for books, Amazon has expanded the offering to become a general online retailer.

The same happened in the mobile software space with Apple’s “App Store” based on the intuitive buying and seamless consumption capabilities. Although the average price for mobile apps is quite low (\$2-8 according to [11]) and a significant share is even free, the overall revenue potential of the Apple app business was approx. \$1,7B in 2010<sup>1</sup>. In fact, the app store model changed the way software is being built, packaged, sold, delivered and consumed on a large scale.

For Apple (cf. [3]), apps are teasers for their core business. Apple makes 60 times more revenues from their core business of devices (approx. \$30B in 2010) than from content (\$0,5B iTunes revenue share for partner solutions).

Especially the combination of relatively small price, direct ordering and instant usage drives the adoption of solutions from the app store. The solutions itself have a much higher granularity, are highly standardized (cf. transaction costs in [26]) and are much more focused to solve one customer “pain point” than traditional software packages. This makes it less risky to buy such focused solutions. Further it may lead to a dis-aggregation of functionality in two aspects: first, split of functionality (many apps to be purchased separately) and second in terms of usage, where starter packages offer free usage first and need to be upgraded to more advanced package for extended usage (for example via “in-app purchasing”).

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<sup>1</sup> Revenue by the app business only, is not published by Apple. The data given refers to the secondary analyses <http://www.isuppli.com/Media-Research/News/Pages/Apple-Maintains-Dominance-of-Mobile-Application-Store-Market-in-2010.aspx>.

As the users and ultimately the decision makers for enterprise application software are also consumers, we see that their expectation and behavior in the business-to-business (B2B) world is also changing. B2B customers now also want to search and buy enterprise software in the “app store-way” and get it seamlessly and instantly delivered. Especially in the Software-as-a-Service (SaaS) area, a “guerilla” adoption of software in enterprises via the business user can be observed (cf. [31]), since by its nature an on-demand service can be instantly started without lengthy and risky software shipment, installation and implementation efforts. These decentralized buying potentials are directly addressed by online stores with high transparency (e.g., lower search costs; cf. transaction costs in [26]) and minimal entry barriers.

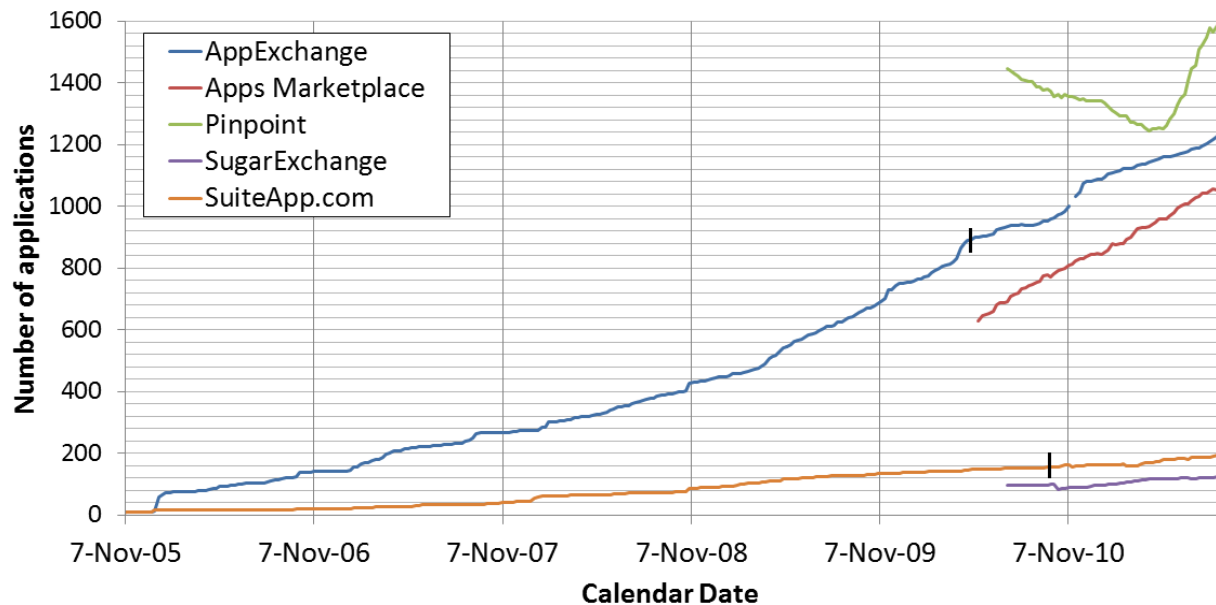


Figure 1: Number of applications on several B2B software marketplaces

### 1.3 Electronic marketplaces for enterprise software

Whereas some electronic marketplaces in the B2C environment and their development are objects of public interest (cf. Apple’s App store or Google’s Android Market and section 1.2), many providers of enterprise software also developed marketplaces for software products complementary to their own software. Those complementary products may increase the demand for the primary software (i.e. the core product; cf. [32] and [12]).

In the area of SaaS a growing number of marketplaces exist. Since 2006 salesforce.com provides a marketplace called AppExchange. Other Software vendors followed that strategy. The companies SugarCRM (with SugarExchange) and NetSuite (with SuiteApp.com) launched comparable marketplaces in 2006 and 2009, respectively. But not only SaaS vendors pursue the approach of building marketplaces around their core products. Since 2008 Microsoft’s marketplace Pinpoint is being operated and in 2010 Google followed with the Google Apps Marketplace, where 3<sup>rd</sup> party providers can offer their applications complementary to Google Apps. Figure 1 shows the number of applications over time for several software marketplaces

in the B2B environment.<sup>2</sup> It is easy to see that for all investigated marketplaces the number of applications is growing in the long run.

Despite the public interest in several marketplaces and business ratios partly published by the marketplace providers, e.g., the number of applications available (cf. also Figure 1) or the number of applications downloaded by customers, objective scientific studies or business cases on the volume of sales are not available neither from the point of view of the marketplace providers nor from the point of view of the application providers. Furthermore, the organizational buying process dealing with enterprise software in the electronic environment is not investigated yet.

## 2 Framework for Buying Situations of Enterprise Software

In the following section, we propose a framework for different areas of application of an electronic marketplace for enterprise software. The framework is based on the concept of buying situations and transactional versus consultative sales / buying models. To prove the evidence of the framework and their underlying assumptions it will require further empirical research and the proposal can be seen as hypothesis derived from current market observations and literature review.

The basic argumentation is that a customer is in a certain buying situation (cf. [34]) whose complexity is defined by various factors specific to the domain of enterprise software. This factors can be grouped into “What” is being bought, “Who” is buying and “How” is it being bought (see Figure 2).

Independently from its area of application, an enterprise application can generally be assessed by its **price**, **risk**, **specificity** and **complexity** (cf. [15]). The higher each of these dimensions the more consulting is required during the buying process. The risk related to an enterprise application is mainly determined by the risk of a false investment, that is, with regards to functional and non-functional requirements. The degree of specificity describes the fit of a solution to the customer’s individual situation and the complexity is highly correlated to the breadth and depth of functionality and customization possibilities.

Further, the customer within a certain buying situation is characterized by the final **user**, the **buying authority** and the customer’s **level of expertise** within the application’s domain. The user is defined by the reach of the application and can be classified as single users, departments and users across the corporation (cf. [36]). The buying authority determines who makes the final buying decision and who approves the budget for a desired application. For enterprise software, we differentiate between individuals, local and corporate buying centers (cf. [25]), whereas individuals rarely make buying decisions on their own for enterprise software, this still gains relevance since concepts like corporate credit cards are increasingly used up to a certain budget. Generally, the more people are involved in a buying center, the higher the transaction

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<sup>2</sup> The data was captured automatically by a software framework on a weekly basis. All analyses for the Apps Marketplace refer to the marketplace specific listing category “Products”. This approach avoids (on premise) “Installable products” and “Professional Services” to be listed in the analysis which are not within the scope of AppExchange, SugarExchange or SuiteApp.com. For the same reason the analysis of the U.S. version of Pinpoint is restricted to “Online Applications”. The vertical, black lines mark the date of the first investigation conducted with the software framework. Until then, the curves are calculated by information of the first addressable record and are thereby monotonically increasing. All curves without a vertical, black line show data captured with the software framework since the first investigation conducted with the framework (cf.[7]).



For the software vendor to succeed, the sales approach in turn has to fit the buying situation the customer is facing. We differ between two basic models: the transactional and the consultative sales approach (cf. [29]). Whereas the transactional sales approach focuses on the efficiency of the sales process and the reduction of barriers for the purchase of specific products or solutions, the consultative sales/buying approach first addresses the vague needs of customers and “consults” the customer’s organization throughout the buying process of complex solutions.

Traditionally, enterprise software is more suited for the consultative sales approach due to the high complexity of the buying situation (cf. section 1.1), whereas today’s electronic marketplaces are tailored for transactional sales models due to its’ in-personal and standardized interaction patterns. To overcome this contradiction and enable the e-commerce sales channel for enterprise software there are three levers to be considered:

- Reduction of the complexity of the customer’s buying situation
- New e-commerce technologies for consultative sales patterns
- Integration of electronic marketplaces into multi-channel sales systems

The **buying situation’s complexity is reduced** mainly due to the trends in enterprise software described in section 1.2. Due to the dis-aggregation of enterprise software solutions the overall complexity, the price and related risk are reduced. Moreover, these highly focused solutions mainly address single departments down to individual users and will be delivered “on demand” via the cloud model (no infrastructure requirements and simple implementations). The corporate adoption consequently changes from single “Big Bang” implementations to small and recurring enhancements without major business disruptions. The investment risk is further reduced by new charging models, for example, pay per use or pay per term versus classical perpetual license models which involve high upfront cost. Some solutions can be obtained even by corporate credit cards or departmental cost centers without charging central IT budgets.

E-commerce technology	Addressing dimension of the buying situation
Provide trials or demo systems	Ability to evaluate
Support the evaluation of the application’s functionality by wizards or intuitive configurators	Ability to evaluate, level of experience
Enable group evaluation and decisions	User, buying authority
Check compatibility of desired application with existing software landscape	Risk (to purchase incompatible solutions), complexity (of identifying relevant prerequisites)
Support corporate procurement processes and recognize different corporate roles	Buying authority
Include implementation plan and services	Implementation type (particular for “projects), deployment
Include software life cycle management for updates, monitoring and distribution	Deployment (particular for on-premise and on device solutions)
Support request for quotations alongside direct purchase capability	Price, risk, buying class (particular for initial purchase)

**Table 2: E-Commerce Technologies for Consultative Sales Patterns**

Today’s e-commerce platforms are dominated by patterns of consumer platforms like Amazon.com, Ebay.com or Apple’s App store. They reflect a simple transactional model including a catalog, detailed product descriptions and a shopping cart or checkout process.



However, to address obstacles in the customer's buying situation for enterprise software new e-commerce technologies are required to enable electronic marketplaces for a consultative sales model within areas shown in Table 2 (cf. Figure 2).

Although the general complexity of enterprise software will be reduced by the described trends and new technologies can overcome certain barriers of current e-commerce platforms there will still be buying situations where the desired enterprise application is highly complex or the customer's level of education is very low. In these cases, electronic marketplaces will not be sufficient to address the customer's needs and it is required to **integrate the marketplace into a multi-channel sales system** including personal sales channels (i.e. local sales agents, tele sales) as "trusted advisor" for the customer's buying center.

The buying process can be clustered into several phases: problem recognition, establishment of specifications, information search, evaluation and purchase (cf. [35]) which may be enhanced by after sales activities. Typically the customer does not require personal sales support throughout the entire buying process. This is increasingly required in the purchasing phase or evaluation phase (cf. [17]). By combining the online channel with personal sales channel, for example, via "channel hopping" (cf. [2]), they can cross-fertilize and the advantages of both channel types can be utilized (cf. [33] and [4]). A typical application of this concept is when the initial phases of the buying process are being supported by the electronic marketplace and, for example, by requesting a quote the customer completes the online process, and the subsequent phases are conducted together with a personal sales agent.

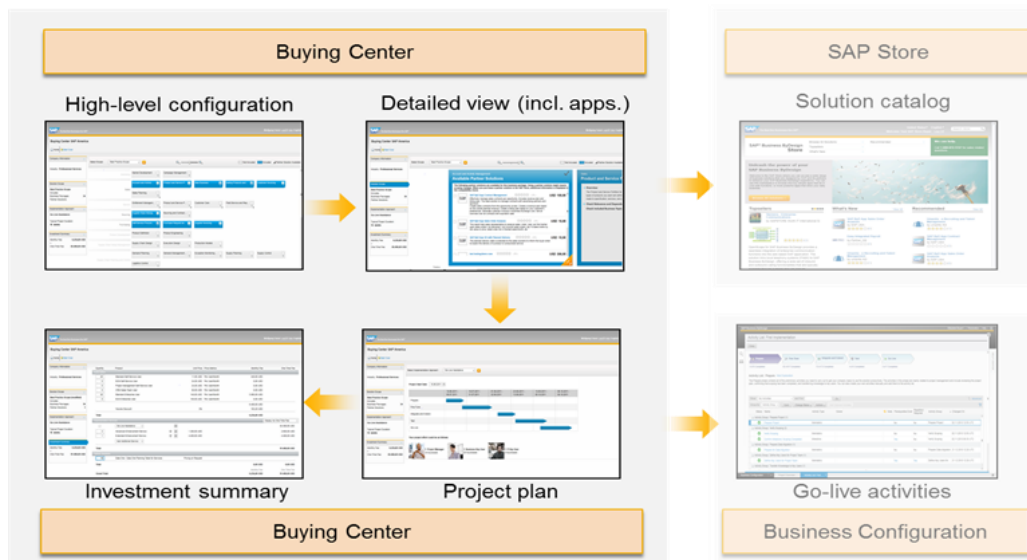
This leads to the conclusion that electronic marketplaces can best be utilized for enterprise software if they combine the following roles of application:

- 1) Primary sales channel for buying situations predominantly characterized for transactional sales,
- 2) Complementary sales channel as an equal alternative to personal sales channels,
- 3) Supporting sales channel, tightly integrated with personal sales channels via defined "entry and exit points".

### 3 Case Study: SAP Commercial Platform

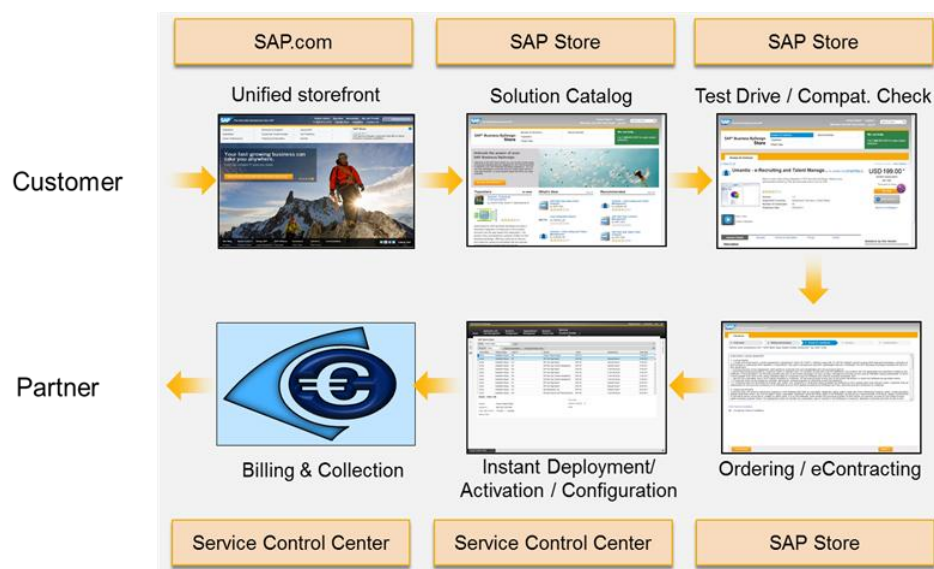
The SAP Commercial Platform is the platform for all SAP e-commerce activities, from marketing and demand generation to volume sales and instant software delivery to support transactional but also consultative sales processes (see chapter 2). Moreover, the SAP Commercial Platform defines a new **End-to-End infrastructure** for partners and customers: Partners will be able to **develop, publish, sell** and **deploy** their solutions to a global market with four tightly integrated building blocks (cf. [14]):

The **Buying Center** (see Figure 3) is a toolset to support more complex buying situations and enables online consultative sales process. It includes a high-level scoping environment (similar to a "car configurator") to select desired functionalities and extensions. The project planner proposes fixed-price services for the implementation based on the customer's industry, size and selected scope. The price calculator instantly renders a investment proposal and the customer can request a quotation at SAP.



**Figure 3: SAP Buying Center**

The **SAP Store** serves as an example how to sell enterprise applications suitable for transactional sales process. It (see Figure 4) consists of a solution catalog (“see”) incl. faceted search, multimedia content, rating and personalized recommendations. Published solutions can be evaluated via a test drive (“Try”) and the integrated online compatibility check verifies that the desired application is compatible to the configuration of the underlying core solution or other installed applications of the customer. The selected solutions can be purchased instantly via the online ordering and e-contracting capabilities (“Buy”).



**Figure 4: SAP Store**

The **Service Control Center** (see Figure 4) triggers the instant delivery of the purchased functionality (“Deploy”) and includes the store order management (i.e., monitor status, cancellation). Moreover, the customer can define SAP Store Buyers via the integrated user management. Furthermore, integrated reporting functionality enables the customer to constantly monitor the license usage and compliance of service level agreements (SLA) of purchased applications.

The SAP Store Commercial Platform is tightly integrated with the SAP ERP system to process customer payments (e.g. credit card payments and invoicing) and the revenue share with solution partners.

## 4 Business benefits

The example of the SAP Commercial Platform provides key benefits for **customers and their end-users** as:

- Seamless E2E shopping and and instant deployment experience for customers from search, ordering, instant deployment, (fine-tuning), payment, usage.
- Prospects easily find and evaluate right solution (incl. partner solutions) in terms of features, pricing, delivery. The built-in compatibility check assures that the selected solution is technically compatible to the specific scope of the customer.
- Customers benefit from the unified e-commerce experience for all solutions with one storefront, one overall search and recommendation function, one shopping basket, one invoice and one customer center for contract overview or activation monitoring.

**Partners** take advantage from the SAP Commercial Platform as their low-cost sales and deployment platform:

- Seamless end-to-end experience from becoming a partner, getting the right development toolset, quality review / certification, publishing, selling, apps lifecycle management, continuous improvement based on usage reports to cross- and up-selling.
- Partners can expand their reach to a much broader customer space and can create new business in an efficient way.

Partners get their “branded” e-commerce infrastructure, where partner can also maintain their own offering. Partners benefit from the software platform provider’s shared service infrastructure and services (e.g. billing & collection).

The impact for the **software (platform) company** is threefold:

- Reduction of especially sales costs given the high level of automation provided via this IT infrastructure.
- Establishing of a fourth channel (beside account executive, partner channel, tele-sales). Once the business user is used to this eChannel, the portfolio can be expanded to further categories (e.g. services, content) similar as Amazon has successfully performed it.
- Leverage with other channels in a synergetic multi-channel approach that has been successfully implemented already in more mature industries (e.g., clicks & mortar retailers). When the right incentives are given and hand-shakes are defined, the channels reinforce each other to an overall growth momentum.

## 5 Summary and outlook

In this article, the traditional sales and buying model of enterprise software with focus on the so-called buying and selling center was derived from the respective literature. Contrary to this objective and formalized buying process, the current trends of software distribution via electronic marketplaces in the B2C environment were exemplified. Furthermore, it was shown that software distribution via electronic marketplaces is also an emergent topic in the enterprise sector. Due to missing literature on enterprise software distribution via electronic marketplaces a classification of buying situations for enterprise software was deduced and the role of electronic marketplaces was elaborated with focus on e-commerce technologies addressing different dimensions of the buying process. Moreover, the integration of electronic marketplaces into a multi-channel sales system was discussed.

Whereas this article may be understood as an initial step to examine enterprise software distribution via electronic marketplaces in the field of enterprise software, further questions dealing with this topic exist. Due to the emerging trend of software distribution via electronic marketplaces which is enforced by new software paradigms like SaaS or PaaS one may conduct longitudinal studies investigating the changing buying behavior regarding enterprise software over time. Regarding the complexity of software solutions one interesting research field also may be the placement of electronic marketplaces in the multi-channel sales system and its changing role over time.

## 6 Acknowledgment

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