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E-Channel Competition: A Strategic Approach to Electronic Commerce

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***Abstract*-E-channel competition is the competition that conventional channels encounter from electronic channels such as the Internet, which have grown significantly in importance within the past decade. E-channel competition threatens the existence of conventional channel intermediaries. This may lead to conflicts that hamper or stifle the development of electronic commerce. On the other hand, e-channel competition may uncover inefficiencies in channels. Synergies and complementarities between conventional and electronic channels also indicate that the two channel types are not pure substitutes. This paper argues that more research is necessary to understand the multifarious implications of e-channel competition. We present both empirical evidence and theoretical considerations to depict the necessity of incorporating e-channel competition in the formulation of business models for electronic commerce.**

I. INTRODUCTION

Electronic channels have proliferated at a tremendous rate, particularly since the inception of commercial transactions on the Internet in 1995. A recent survey of U.S. companies estimates the worldwide value of electronic sales of products and services to businesses and private consumers in 1998 at about $101 billion [1]. No other medium for business has ever grown so fast. Electronic retailing is therefore becoming an issue not only for Internet-only companies; it also has crucial implications for the continued existence of conventional channels.

A widespread assumption is that electronic sales cannibalize sales through conventional channels. Indeed, Jupiter communications estimates cannibalization by electronic commerce at 94% [2]. As a consequence, conventional intermediaries fear the loss of business. Additionally, their margins are endangered as alternative channels reduce intermediary power. In the travel industry, for example, travel agents have to cope with a significant reduction in agency commissions paid by airlines [3]. Conventional intermediaries often attempt to oppose these developments by issuing threats to manufacturers or other channel members which try to by-pass them. Channel conflicts therefore become concomitant phenomena to the introduction of electronic channels in established industries. In a 1998 Cahners In-Stat Group survey of 261 companies representing a wide range of industries and company sizes, 40% of respondents regarded channel conflict as an important issue [4].

However, the coexistence of electronic and conventional channels is marked not only by elements of conflict, but also of complementarity. Often, electronic channels may augment the traditional sales process and thus foster a stronger customer loyalty. Hence, a broader perspective is necessary to evaluate electronic commerce in a combined conventional and electronic business environment. We use the term *e-channel competition* to cover the multifaceted aspects of mutual influence and interaction between conventional and electronic channels.

The goal of this paper is to demonstrate the importance of research into e-channel competition which recognizes it as both a barrier and a driver for electronic retailing. In the next section, we clarify concepts and provide empirical evidence for the importance of e-channel competition. We categorize strategies used to reduce channel conflict and discuss opportunities for complementarities and synergies between electronic and conventional channels. In section three, we elaborate on a theoretical treatment of e-channel competition. Since no single theory covers all aspects of the topic, we choose to present three strands of research that offer valuable contributions: the theory of channel conflict and power, transaction cost theory, and marketing theory. This lack of a comprehensive framework reflects the necessity of conceptual research on e-channel competition. In section four, we use the practical and theoretical insights of sections two and three to delineate how e-channel competition may affect business models for electronic commerce. Directions for further research are indicated in the conclusion.

II. E-CHANNEL COMPETITION AS BARRIER AND DRIVER FOR ELECTRONIC COMMERCE

We use the term *channel* to denote a business structure in which all functions necessary to accomplish the exchange of a good or a service (henceforth referred to as product) for some form of payment or remuneration (i.e. commerce) between a manufacturer or marketer (product source) and an end user are performed. In the remainder of this paper, the terms “product source” and “manufacturer” are used interchangeably.

Channel *functions* can be divided into three major categories: communication, transaction, and distribution [5]. Communication includes advertising and dissemination of product and price information to the general public as well as negotiation between potential customers and sellers to determine the price and conditions of the exchange. Transaction comprises the conclusion of the contract and payment. Distribution refers to the actual delivery of tangible or intangible products. This includes issues of logistics within the channel

as well as the method through which the end user obtains the product.

Channel *intermediaries* are independent parties which fulfill channel functions. They are positioned between product source and end user. Typical intermediaries are wholesalers, retailers, distributors, resellers, brokers, and agents. The *length* of a channel denotes the number of channel intermediaries. In a direct channel, transactions occur directly between product source and customer, although facilitating intermediaries such as transportation companies or banks may provide additional services. It is important to differentiate between channel roles and channel intermediaries. For example, retailing is even performed in a direct channel (in this case by the product source itself) although no retailer in the traditional sense is present. A channel structure can thus be described in terms of its members and the respective functions performed by each member.

Electronic channels, as opposed to conventional channels, rely on advanced information and communication technology (ICT), i.e. essentially computer networks, to fulfill channel functions. The simple use of phone or fax does not suffice. Examples of electronic channels are the Internet and proprietary networks such as the French Minitel or the German T-Online. Electronic channels can be used for all three types of channel functions. Firstly, computer networks provide a new means of communication (e.g. WWW, e-mail). Secondly, a variety of technologies (e.g. electronic payment systems) enable the electronic performance of transaction-related functions. Thirdly, electronic channels can be used as a medium for the distribution of digital products such as software and electronic newspapers. In most cases, however, electronic commerce also requires the utilization of conventional channel elements. Tangible products, for example, require physical means of transportation and storage.

Electronic channels also differ from conventional channels in other aspects. Firstly, we can observe an increasing specialization of intermediaries for channel functions in electronic channels. Conventional retailers, for example, are involved in communication with customers, contract fulfillment, payment, and distribution. Electronic channel members, on the other hand, often outsource functions to third parties. We thus witness a growing use of sole distribution intermediaries such as FedEx and UPS. Often, transaction and communication-related functions are also divided among firms, although invisibly to the customer. As a result of this division, the parameter channel length cannot unambiguously be applied to electronic channels [6].

Furthermore, electronic channels facilitate a more customer-centered business strategy. The automated collection of customer information enables a more personalized marketing with increased responsiveness to changes in customer preferences and the provision of customized products [7]. Customer proximity, therefore, becomes even more of an important competitive factor than in conventional channels (cf. [8],[9]). This has prompted many established firms to establish direct electronic connections to their customers in addition to existing indirect channels. As a result, manufacturers compete with their own intermediaries.

Channel competition almost inevitably arises in a multiple-channel environment. This competition is driven by often conflicting strategic objectives of manufacturers and intermediaries such as cost reduction, revenue growth, customer proximity, and channel power and control. For example, manufacturers which consider the employment of multiple channels often face a trade-off between a wider coverage of customers and reduced incentives for intermediaries [10]. We talk about channel conflicts when the competition between channels has a detrimental impact on the cooperation between channel members (see also section III A).

A. *Channel conflicts*

The applicability of electronic channels for direct marketing strategies has sparked a discussion about the usefulness of intermediaries in electronic channels. Benjamin & Wigand [11] suggest that all intermediaries between manufacturer and consumer are threatened, as transactions can be carried out over electronic marketplaces. As an example, they point out that up to 62% cost savings could be realized in the shirt industry when intermediaries are by-passed. Consequently, the peril of *disintermediation* has raised substantial fears among intermediaries. On the other hand, researches have pointed out multiple opportunities for intermediaries in electronic channels ([12], [13]). New business models in electronic channels are exploited by so-called cybermediaries such as portals, search engines, and intelligent agents. However, *cybermediation* is not a solution for established intermediaries that that do not possess the knowledge or resources for such innovative business models. Instead, they may assume functions in electronic channels that are similar to their conventional tasks. Giaglis et al. [13] argue that such a reintermediation of electronic channels is a viable opportunity for conventional intermediaries. However, electronic channels differ considerably in their competitive structure and dynamics, so that reintermediation may appear rather difficult for the majority of conventional intermediaries. It is at least questionable that every conventional retailer can open its own Web site and compete successfully on a global Internet where all competitors are just “one click away”.

These considerations have prompted intermediaries to oppose the introduction of electronic channels, threatening to restrain conventional sales by reducing sales efforts or by promoting other brands instead. Air France, for example, attempted to sell tickets directly on the French Minitel network. However, the company was soon forced by travel agents to relinquish its efforts [6]. Even with little power, intermediaries that lack investment incentives and reduce promotional efforts due to dissatisfaction in the channel can harm conventional sales. Additionally, intermediaries increasingly consolidate to enlarge their power (for example in the travel industry – cf. [14]). Lastly, many manufacturers have contractual obligations to their resellers, distributors, or retailers which forbid them to by-pass intermediaries [15].

Channel conflicts are thus a strong impediment to the development of electronic channels. Another example is Gibson, an American guitar manufacturer, which offered guitars online, priced 10 percent below list. After strong reactions from dealers, Gibson had to withdraw its offering without selling a single item [16]. Many companies have thus completely refrained from business on the Internet out of concern for the potential channel conflict it creates [17]. Others limit their usage of the medium to a simple presence without transactional capabilities [18]. These companies are confronted with a dilemma. Customers increasingly demand the ability

to purchase online. If companies do not offer their products electronically, they risk losing these customers to online rivals. Moreover, a late entry may not be sufficient to regain lost customers which have already been captured by early movers. On the other hand, manufacturers engaging in electronic sales risk retaliation by their intermediaries.

Companies follow several strategies to escape this quandary. The major objectives of these strategies are to conduct electronic transactions while reducing the rate of cannibalization or to limit electronic sales in general until electronic commerce matures and supports a more substantial share of sales. We identified the following types of strategies:

Limitation of electronic sales to customers not served through conventional channels. The increased reach of electronic channels (e.g. almost global availability of the Internet) allows companies to serve customers outside the region targeted by conventional channels or those that could not use conventional channels due to a lack of time. Furthermore, Internet shoppers up to now exhibit somewhat different demographic characteristics than conventional ones. American Greetings, an established gift and greeting card company, lets consumers purchase cards and gifts over the Internet. While their conventional customers are predominantly female, their Internet site targets mainly male users [19]. However, the demographics of channel users are converging, and it is difficult to ensure that electronic channels will serve only customers outside the reach of conventional channels.

Electronic sales of products not offered through conventional channels. This strategy reduces cannibalization by selling different products through different channels. Firms may choose to offer new products only electronically, while they market more established products exclusively through conventional channels. New products usually generate little profit or even demand additional investment, and thus do not constitute a substantial loss for conventional channels. The manufacturer, however, may learn directly about customer reactions to these product types and carry out adaptations to the product. Pioneer Electronics Inc, for example, sells peripheral items over the Internet while continuing to offer main products through conventional channels. In addition, it also sells new products directly over the World Wide Web [20]. Waterford Wedgwood PLC, an Irish crystal manufacturer, also limits its online offerings to special products that retail dealers do not carry [21]. Such an exclusivity of channels, however, may not only cause customer inconvenience but also represent a forgone business opportunity.

Electronic sales of a limited product selection. Such a strategy generally reduces possible revenues of electronic channels. It may, nevertheless, make sense for manufacturers wishing to experiment with electronic sales without incurring too much attention from conventional intermediaries. Scandinavian Airline Systems (SAS), for example, used to sell tickets on an older version of their Web site only for students and youth travelers. However, in the maturing electronic economy, customers may desire a comprehensive product spectrum.

Maintaining prices at least equal to conventional retail prices. This strategy often includes refraining from giving bonuses or discounts offered in retail outlets as well as limiting advertising and other promotional efforts. Nike Inc, an American sportswear manufacturer, offers online products at full retail price plus shipping and handling charges. Nike's retail stores, on the other hand, are allowed to offer discounts. Estee Lauder, a cosmetics company, similarly offers its "Clinique Bonus" only to retail store visitors [21]. The goal of these companies is to boost their brand awareness while establishing direct customer relationships. However, maintaining prices considerably above costs may allow competitors to undercut them and thereby lure customers away. Even so, Nike argues that lowering costs will undermine its quality image. The company also considers bargain hunters to be less loyal and, therefore, not an interesting customer segment in the long run [22].

Selling through hybrid intermediaries. More and more conventional intermediaries are realizing the importance of electronic retailing and establishing their online presence, which allows manufacturers to continue sales through the same intermediaries in electronic channels. Estee Lauder offers its product range on its own Web site as well as at Macy's virtual cosmetics counter. The company also helps their smaller intermediaries to go online [21]. Tupperware, on the other hand, forbade its "Tupperware Ladies" to sell products over their own Web sites, engendering severe indignation [22]. Selling through retailers that serve as intermediaries in electronic as well as conventional channels naturally eases channel conflicts. However, manufacturers forgo opportunities of establishing a closer connection to customers. Instead, they enhance intermediary power as the latter can expand customer contact with the electronic environment.

Promoting and supporting conventional retailers. Many manufacturers have implemented so-called dealer locators at their Web sites. Customers can enter zip codes to find the nearest retail store. Manufacturers also use the opportunity to collect customer information and establish a closer relationship. The disadvantage of this strategy is that prices remain on the level prior to the introduction of electronic channels. Estee Lauder recommends that certain products be tested at a counter before purchase and also allows electronic orders to be placed with one of several national retailers linked to the site. To support its sales intermediaries, Beamscope even continues to pay them commissions for Web orders [16]. Cisco even requires clients to be signed up with one of their distributors before they can carry out purchases at their Web site [23].

Firms often use the above strategies in combination. Nevertheless, most strategies are rather defensive and only provide a preliminary solution. A panacea for channel conflicts has not been found yet. Combating channel conflict is a dynamic issue. Tentative evidence suggests that a gradual introduction of electronic sales is more appropriate. This allows companies to calibrate their electronic offerings while customers become more familiar with the new medium. Meanwhile, electronic commerce spurs intermediaries' efforts to uncover inefficiencies and streamline their business by concentrating on areas where they deliver the most value.

B. Synergies and Complementarities

A parallel employment of electronic and conventional channels also gives rise to various synergies and complementarities that may improve overall revenues and foster customer loyalty. Firms that understand the exploitation of these synergies may thus possess an advantage over both

physical-only and electronic-only players. We suggest the following areas of potential synergies and complementarities:

Increased customer awareness of a product type. In spite of online book sales, Barnes & Noble and Bertelsmann (BOL) could significantly increase their physical book sales [22]. The likely reason is the increasing popularity of books due to the advertising efforts of electronic book retailers. Incidentally, it is not unlikely that physical retailers in this regard even benefit from electronic-only rivals such as Amazon.

Increased brand awareness. A presence in multiple channels is likely to enhance brand awareness. The initial reason for many established companies to be present on the Internet was, therefore, to advertise their brand name and their products without offering transactional capabilities [24].

Improved trust. Lack of trust is repeatedly cited as a major barrier to online sales (e.g. [24],[13]). Customers often have no references regarding the reliability and sincerity of a Web business that might untraceably cede its presence at any point of time. They may, therefore, perceive a Web business to be more legitimate if they are made aware that is has been a successful physical business [25].

Customer risk reduction. A local physical presence of a Web retailer may also serve as a facility for customers where they can return defective products or seek technical assistance, and customers may personally examine physical products they learned about at the Web site. This risk reduction may also enhance customers' trust in the electronic store [25].

Coverage of diverse customer preferences. Peterson et al. [5] point out that customers may have different decision sequences of purchase and may also prefer to consult several channels before arriving at the final purchase decision. Customers may also find personal advice adequate for initial purchases, but prefer the convenience of electronic transactions for repeat purchases. With a both a physical and a Web store, diverse preferences can be adequately addressed [25].

Supplementary support. A Web store might offer coupons for in-store purchases (e.g. Estee Lauder) or highlight local events at the physical store. Web stores may also provide supplementary services or accessories for products purchased in the physical store [25]. After its initial online failure, Gibson now offers strings, notes and hard-to-find items online. The dealer locators already mentioned are another example of Web-based support. VFCorporation additionally provides, with the Lee fitFinder, a tool that helps women to find the perfect pair of jeans. Supporting physical stores may also be a tool to reduce channel conflict.

A physical channel may prove advantageous in addition to direct (electronic) channels as shown by recent efforts of Gateway, an American computer manufacturer, to build up an indirect channel structure, despite potential channel conflict [26].

Generally, little research into possible synergies and complementarities between electronic and conventional channels has been carried out. Most of all, thorough empirical studies are necessary to provide evidence for the importance of each of the above areas.

III. Theoretical Approaches to E-channel Competition

In this section we introduce three theoretical approaches to e-channel competition: the theory of channel conflict and power, transaction cost theory, and marketing theory. We have chosen these theories because we believe they provide valuable theoretical insights that form a basis for the understanding of both the conflict-restraining strategies as well as the areas of complementarity and synergy discussed in the previous section. Since each of the theories alone fails to cover all relevant aspects, any comprehensive treatment of e-channel competition should acknowledge contributions from all three strands of research. This does not exclude the application of other theoretical viewpoints such as strategic networking or resource-based considerations. However, in our experience, other theoretical approaches offer only marginal contributions which at this early point in research merely complicate the formulation of a theoretical foundation. Table I provides a summary of the main tenets of each theory and their implications for the issues discussed in section two.

A. Theory of Channel Conflict and Power

Channel conflict was studied intensively by marketing theorists and specifically by channel researchers in the 1970s and 1980s [10]. Gaski [27] defines channel conflict as "the perception on the part of a channel member that its goal attainment is being impeded by another, with stress or tension the result." This definition stresses the perceptual component of conflict. Whether or not goal impediment in fact occurs is only secondary.

Pondy [28] provides a framework that has served as the underlying conceptual foundation for most of the studies. He conceptualized conflict as a process that progresses through five stages:

(1) latent state of incompatibility (underlying sources);
(2) perceived conflict (perceptions only, no conditions for latent conflict exist);
(3) affected conflict (tension, anxiety, disaffection in addition to the perception);
(4) manifest conflict (behavior which blocks another's goal achievement); and,
(5) conflict outcomes and aftermath (post-conflict conduct, either resolution or suppression).

Frazier [10] nonetheless observes that conflict has never been examined as a process. He points out that only a few studies have attempted to examine more than one state of conflict. He deems such research necessary to garner a more thorough understanding of the issue.

Closely related to the conflict construct is the notion of channel power. Gaski [27] concludes from reported findings that the nature and sources of power possessed by a channel entity may effect presence and level of conflict. Frazier and Rody [29] refer to power "as the ability of one channel member to influence decision variables of another channel member, a potential influence on another's beliefs and behavior". They consider one firm's power to be based on the other firm's dependence in their dyadic channel relationship.

Stern and Gorman [30] additionally note that the exercise of power is a major conflict response as well as a cause of conflict. Issuing threats, which are usually of an economic

nature, may thus often increase the degree of conflict rather than lower it. Frazier and Rody [29] accordingly distinguish between non-coercive (involving little or no direct pressure) and coercive influence strategies (applying direct pressure on the dependent firm to perform a specific behavior, with adverse consequences of noncompliance). In correspondence with reciprocal action theory, they posit that coercion is likely to be met with coercion. Mohr, Fischer and Nevin [31] therefore encourage the use of collaborative communication as a tool for a non-coercive influence strategy and demonstrate its usefulness in certain settings.

Research into channel conflict and power can provide valuable contributions to the issue of e-channel competition, focusing particularly on its detrimental effects. Firstly, if conflict due to e-channel competition progresses through various stages, manufacturers should address the problem at an early stage and therefore incorporate the issue into their electronic commerce strategy from the outset. Secondly, counter-measures at an early stage should address the perceptual component of conflict. At this stage, counter-measures may not only be more effective, but they will also prevent the actual damage that could occur at the later stage of open conflict. Thirdly, the use of non-coercive influence strategies, such as granting rewards and intensive communication, appears to be preferable to the use of coercive strategies based on a powerful position in the channel. These non-coercive strategies are also more appropriate counter-measures at early stages of conflict, while coercive strategies may only lead to open conflict.

B. *Transaction Cost Theory*

Transaction cost theory was originally developed to address the question of why firms internalize certain transactions rather than using the market mechanism. The basic assumption is that actors are subject to bounded rationality and exhibit opportunistic behavior. Therefore, transactions themselves incur costs, such as search and contracting costs as well as costs of monitoring performance and enforcing contracts. Transaction cost theory hypothesizes that firms would choose the governance structure which minimizes transaction costs. Williamson [32] identifies three key dimensions of transactions: asset specificity, uncertainty, and frequency. Specific assets (durable investments for specific transactions) cannot be redeployed for other types of transaction without a substantial loss in value and, therefore, expose the owner to the risk of opportunism. Uncertainty has a temporal (e.g. risk of technological obsolescence) and a spatial component (complexity of transactions). The frequency is important for transactions involving specific assets. More frequent transactions allow firms to establish specific control structures.

Marketing theory uses the transaction cost approach to determine optimum channel configuration (e.g., [33], [34]). Sharma & Dominguez [35] addressed the choice between direct and indirect channels. In addition to asset specificity, they indicated the volume of transactions and issues of quality control as determinants of channel length. Malone et al. [36] adopted transaction cost theory for electronic channels. They predicted that the use of IT would lower coordination costs so that electronic markets (with multiple buyers and sellers) will prevail over electronic hierarchies (closely tied dyadic exchange relationships facilitated by IT). While their argument was later questioned (cf. [37]), they nevertheless demonstrated the usefulness of transaction cost considerations in connection with electronic channels.

Benjamin & Wigand [11] use the transaction cost argument to support the disintermediation hypothesis. They claim that IT would lower transaction costs between manufacturers and customers enough to make a direct exchange feasible, with cost savings over 50%. Sarkar et al. [8], however, show that

TABLE I
PRINCIPAL TENETS AND PRACTICAL IMPLICATIONS OF THEORIES

Theory	**Principal Tenets**	**Practical Implications**
Theory of Channel Conflict and Power	Channel conflict is a process that progresses through various stages. Perception is an important component of conflict. The exercise of power may be a response as well as a cause of conflict. Coercive and non-coercive influence strategies may yield different outcomes.	Potential channel conflicts should be considered in the formulation of electronic commerce strategies and counter-measures should be taken at an early stage. Intensive communication and collaboration that changes the perception may be used to alleviate conflict. Such non-coercive influence strategies are less likely to provoke adverse reactions and may thus be more effective.
Transaction Cost Theory	Transaction costs vary under different governance mechanisms. Transaction characteristics determine the optimum governance structure, including the number of participating parties.	Intermediaries are most endangered in those areas where ICT reduces the transaction costs of direct buyer-seller connections below those of indirect channels.
Marketing Theory	Marketing theory explains the increasing vertical compression and horizontal diversity of channels as a consequence of rising customer power. It augments transaction cost considerations with a functional analysis of intermediary roles. It provides insights into the customer decision sequence and acknowledges diverse preferences.	Customer proximity becomes an important success factor in electronic channels. Intermediaries should specialize in functions that continue to add value in a hybrid channel environment. Manufacturers should support theses efforts. Established firms may profit from combined electronic and conventional channels that address diverse customer preferences.

the transaction cost approach can equally well be used to demonstrate the importance of intermediaries. In this scenario, intermediaries are transaction cost specialists which, due to scale and scope effects, are in fact capable of reducing transaction costs. Intermediaries may then utilize an IT-induced reduction of coordination and monitoring costs in their own favor. References [12], [6], and [13] demonstrate which product and transaction characteristics are likely to lead to disintermediation or to various forms of intermediation in electronic channels. However, more empirical search is necessary to generalize findings.

Transaction cost theory can make useful contributions to the issue of e-channel competition, in particular to the role of intermediaries in electronic channels. Lewis et al. [3], for example, suggest comparing the value added by intermediaries under different transaction characteristics in order to determine whether their role is enhanced or diminished. Transaction cost analysis would thus identify which types of intermediaries are endangered under which forms of electronic commerce. Theory suggests that intermediaries, purely reliant on information asymmetries between buyers and sellers (e.g. financial intermediaries), are strongly jeopardized by IT that reduces these asymmetries.

Transaction cost analysis may also provide the theoretical foundation for new types of intermediaries that specialize in transaction characteristics typical of the electronic environment. Information intermediaries such as portals, search engines and intelligent agents are well-known examples. Another example is demand-aggregating intermediaries such as LetsBuyIt.com which obtain bulk discounts for their customers. If conventional intermediaries threatened by electronic commerce want to justify their existence in the future, they need to specialize and augment their value offerings accordingly. This does not exclude the use of IT.

C. *Customer-centered Strategies and Marketing Theory*

Apart from the theory of channel conflict and power, marketing research offers further contributions to e-channel competition. Firstly, it demonstrates how customer preferences become a significant competitive factor in the new electronic business environment. Secondly, it augments transaction cost considerations by a functional analysis of intermediaries. This enables a better understanding of perils and opportunities for intermediaries in electronic or hybrid channels. Thirdly, marketing research stresses the need to take diverse shopping preferences of consumers into consideration when business models for electronic commerce are conceived.

The high information intensity in electronic channels, easier product and price comparisons, and a more sophisticated customization of products, have triggered a shift in channel power from producers to consumers (cf. [38],[7]). The new economics of electronic channels demand, therefore, a shift from supply-side to demand-side thinking [39]. Customer preferences become paramount in such a business environment. This explains to a large extent the urge of companies to by-pass downstream intermediaries in order to establish closer customer connections. Anderson et al. [40] consequently ascertain a vertical compression of channels combined with an increased horizontal diversity.

Frazier et al. [41] note correspondingly that "customer preferences … must be the focal point of any decision relating to channel structure". Following this line of thought, Palvia et al. [42] suggest a functional analysis to study the changing roles of intermediaries in electronic channels. Such an analysis may be useful for manufacturers to determine whether or not to use intermediaries, as well as intermediaries, who may learn in which areas they can add value. Bailey and Bakos [43] similarly point out that transaction cost considerations may not be the best measure of intermediary benefits in electronic markets. Instead, they suggest a new paradigm of customized goods, reduced delivery time, and greater customer satisfaction. They also identify four major roles of market intermediaries from the literature:

(a) aggregation of buyer demand or seller products to achieve economies of scale or scope and to reduce bargaining asymmetry;
(b) protection from opportunistic behavior (provision of trust and reduction of risk);
(c) market facilitation by reducing operating costs; and,
(d) matching of buyers and sellers (including search and price discovery).

Marketing research further points out that shoppers are not homogeneous and may have diverse preferences that influence their use of both conventional and electronic stores [25]. Peterson et al. [5] observe that coexisting conventional and electronic channels are both complementary and competing. They consider consumers' choice of channel(s), product characteristics, and consumer decision sequence as main determinants of market structure and performance. Unique capabilities of both electronic and conventional channels might be exploited to benefit from synergies between channels. For example, electronic channels have the ability to turn "experience" goods (e.g. CDs) into "search" goods, simplifying the purchase process for customers. On the other hand, conventional channels allow the social and personal experience of shopping. With both electronic and conventional presence, diverse shopping preferences can be addressed [25]. Research into consumer preferences and decision sequences is well positioned to identify complementarities and synergies between electronic and conventional channels, and thus to support the conception of successful business models.

IV. Implications of E-channel Competition for Business Models

Firms' motivations to engage in electronic retailing range from cost savings and the acquisition of new customers to increased revenues. A multitude of business models has been conceived and implemented to reap possible benefits from the electronic medium. While many of these attempts have failed, the quest for a universal model of achieving competitive success in the electronic environment remains unfulfilled. The success of well-known Internet start-up companies such as Amazon, CDNow and eBay is often cited as an example of the rich business opportunities electronic channels have to offer. But their success cannot be generalized. A host of other companies that tried to imitate these forerunners soon had to realize the difficulties of attracting a sufficient customer base for their online offerings.

Moreover, established manufacturers need to continue their conventional sales while the build up the structure for electronic sales. They therefore lack the flexibility and scope of Internet start-ups in the creation of electronic commerce business models. Rather, they need to adopt business models

built upon hybrid multi-channel structures. Three issues are particularly relevant for such business models: the dynamic nature of e-channel competition, the future roles of channels and channel intermediaries, and the emergence of a new marketing paradigm.

Firstly, e-channel competition is a dynamic phenomenon. Technology and business model innovations cause unpredictable disruptions to the way channels functions are performed. Manufacturers, intermediaries and customers need to learn the usage of electronic channels and adjust their organizational structures accordingly before they can effectively engage in electronic commerce. Against this background, a gradual transition to electronic sales seems more appropriate. This gives channel members the time to reposition and adjust themselves to the new business environment. The failure of firms such as Levi's, Gibson and Air France which abruptly introduced direct sales through electronic channels corroborates this view.

Secondly, firms must decide whether they want to employ electronic channels mainly for the acquisition of new customers or the retention of existing ones. Electronic channels may well enhance channel coverage and thereby reach new customers. On the other hand, they may (and often must) be used to enhance customer loyalty by offering them diverse points of access to products, by performing additional services, and by increasing visibility. Both transaction cost and marketing theory may point to directions where channel types and intermediaries provide the highest value-added. They may also enhance the understanding of the dynamics of e-channel competition and provide insights into which types of intermediaries are likely to assume preemptive positions in electronic channels. These companies might then be able to fend off late movers when larger customer segments begin to purchase electronically.

Lastly, electronic channels seem to cause a re-definition of brand equity. For example, Amazon's and Microsoft's brand names in the online environment are no longer directly associated with specific products, but rather symbolize trust and visibility. These companies are thus able to exploit their brand names to be successful in rather unrelated product categories. Amazon sells CDs, clothing and sportswear. Microsoft became an online travel agent and sells cars. Marketing theory is the platform for research into the new marketing paradigm for electronic commerce, in which redefined brand equity is but one component (cf. [38]). This paradigm must include the complex implications of a hybrid channel environment.

V. Conclusion

Ample empirical evidence indicates that e-channel competition has a major impact on firm's business models in the conventional as well as the electronic environment. Electronic channels have proliferated at a tremendous rate since the inception of commercial transactions on the Internet. Conventional intermediaries cannot ignore the competition from electronic channels as it threatens their very existence. Channel conflicts therefore almost inevitably ensue when electronic channels are introduced in an industry. These conflicts may inhibit the efforts of established firms to employ electronic channels. Meanwhile, nimble online competitors (often from outside the industry) might achieve dominant positions in electronic channels and decrease the sales of established firms. Hence, established intermediaries and manufacturers will sooner or later be compelled to relinquish defensive strategies and become proactive.

Competition from electronic channels may thus become a driver as it uncovers inefficiencies in conventional channels. Apart from this, conventional and electronic channels may also be complementary rather than merely substitutes for each other. Conventional channel members that learn to exploit synergies and complementarities will not only limit channel conflicts, but also build competitive advantages that may lead to prosperity in a hybrid channel environment.

Future research into e-channel competition is necessary to refine and validate our exploratory findings. Such research should proceed from different theoretical angles to enable a comprehensive treatment. The following research questions need to be addressed:

- What factors determine the optimum degree of electronic performance of channel functions in the light of potential channel conflicts as well as capabilities of channel members?
- How can conventional intermediaries reposition themselves to successfully compete in hybrid channel environments and how can manufacturers support their efforts?
- How should electronic channels be positioned in multi-channel structures to reap the benefits of synergy and complementarity?
- Is a gradual approach to electronic commerce preferable even in the maturing Internet economy, and which development paths are appropriate?

Research into e-channel competition will provide valuable insights for the formulation of business models based on hybrid multi-channel structures. An understanding of the competitive implications of these business models is relevant for both academics as well practitioners.

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