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# Revisiting the Virtual Community Business Model

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# Revisiting the Virtual Community Business Model

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## ABSTRACT

In the mid 1990s, Virtual Communities (VCs) were described as a very promising internet-based business model. After the shake-out of the so-called New Economy only a few commercially-oriented Virtual Communities have survived. Many assertions and principles regarding important components and distinct strategies of Virtual Communities have not been empirically substantiated. This paper proposes a framework for analyzing the Virtual Community business model. The framework is applied to two successful cases that have been in existence for more than six years in the German speaking Internet using interviews, document analyses and participating observations for data collection. Differences and similarities between the cases are identified and analyzed in order to identify success factors. This research gains first empirically validated insights into the elements that are constitutive for the success of Virtual Communities. We conclude by discussing the findings for VCs in general and how to apply the framework to other domains.

## Keywords

Business Model, Virtual Community, Online Community, Business Sustainability, Success Factors.

## INTRODUCTION: VIRTUAL COMMUNITIES AS A BUSINESS MODEL

Subsequent to the economic ups and downs of the recent years and especially after the downturn of the so-called New Economy, many promising internet-related business models have almost disappeared. One of these innovative models is Virtual Communities<sup>1</sup>(VCs). After the previous internet euphoria, especially commercially oriented VCs had to consider economic facts more closely and prove their benefits for users and operators. Even communities with a large number of members and vivid social structures have had to struggle with their financial sustainability, a necessity for every business model in order to survive. The failure of a VC is often explained by the lack of an underlying business model or by its insufficiency. But what are the success factors for prosperous VCs?

After defining essential terms for this paper, we provide a brief literature review on related work and summarize the methodological background of the empirical part of this research. Subsequently we present a framework for analyzing the business model of VCs from a broad perspective. This framework takes external factors such as market conditions, competitors and strategy development into account. In addition, revenue issues, product / service offers and stakeholders of VCs such as members and operators are incorporated into the framework. The proposed framework enables an economically conducted analysis and understanding of existing VCs. The framework was subsequently applied to two successful VCs in the German speaking Internet; the findings generated from these two cases are compared and differences as well as similarities between the cases are identified and analyzed. The paper concludes with a discussion of findings as well as recommendations for applying the framework to other domains.

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<sup>1</sup> Synonymous to "Virtual Community" the term "Online Community" can be used.

## Definitions

For various reasons, no common agreement on the definition of the term „Virtual Community“ could be identified in the literature (Schoberth and Schrott, 2001). First, virtual communities are a multidimensional research object which can be analyzed from various perspectives including psychology, administrative science or computer science. The discipline initiating the respective study tends to define the term Virtual Community according to its scientific body of knowledge. Secondly, the phenomenon of using popular words, so-called “buzz words”, in this area obscures a clear differentiation between scientific terms and jargon (Preece, 2000). The current study is based on the following working definition:

A virtual community consists of people who interact together socially on a technical platform. The community is built on a common interest, a common problem or a common task of its members that is pursued on the basis of implicit and explicit codes of behavior. The technical platform enables and supports the community’s interaction and helps to build trust and shared common feelings among its members.

The success of a commercially oriented community can be measured by several criteria. For the purpose of this study we consider financial success, life time (existence on the market) and growth of members and user-generated content as indicators for successful VCs.

## Methodology

The empirical part of this research follows an exploratory research design with the intention to generate empirically motivated hypotheses and not with the intention to test a given research model (for methodological aspects of explorative research designs see e.g. (Bortz and Döring, 2002) or (Becker, 1993)). Case study research itself is widely used in IS-Research (for an approach on how to build theories from case study research see e.g. (Eisenhardt, 1989)). At least two semi-standardized oral interviews were conducted in each case: one with a board member of the company operating the VC (CEO or COO) and one with a leading community manager. Additionally, participatory observations were conducted and content provided on the platforms as well as data material provided by the VCs (such as information on user numbers, log file analyses, press releases and company reports) was analyzed. Furthermore, literature on previously conducted case studies was (where available) included.

## Related Work

Many authors have dedicated themselves to economic (as well as other) aspects of VCs since the early strategy papers of Hagel III/Armstrong were published in the mid 1990s (Armstrong and Hagel III, 1995, Armstrong and Hagel III, 1996, Hagel III and Armstrong, 1997). Various (often prescriptive) papers have dealt with the issue of designing VCs (e.g. (Kim, 1999, Figallo, 1998a, Kollock and Smith, 1996, Kollock and Smith, 1999, Mynatt et al., 1997, Benjamin, 1998, Cothrel and Williams, 1999). Preece et al (1999, Maloney-Krichmar and Preece, 2003), for example, stress the role of social infrastructure provided by thoughtful user interface design and the importance of balancing emotional and factual communication among community members. Arnold et al (2003) mention the importance of an iterative, end-user involving and continuous development process of a VC and its underlying platform. Williams et al. (2000) stress the role of a critical mass of functionality at the users disposition and the need for reaching a critical mass of users within the shortest possible time. Various authors deal with the issue of trust in VCs (e.g. (Abdul-Rahman and Hailes, 2000, Ebner et al., 2004, Figallo, 1998b, Ridings et al., 2002)). As Ginsburg et al (2004) have mentioned trust within the context of commercial VCs this is closely related to the issue of trust in internet-based transactions in ecommerce in general. They also stress (for the domain of gaming communities) the importance of sophisticated interface design, support for volunteerism and the importance of the transfer of real life status symbols to the virtual world as well as the important role of planned evolution (Ginsburg, 2001) for the success of a VC. Bughin et al (2000, 2001) note the importance of supporting the operational performance of VCs in order to ensure positive business performance and long-term survival. Andrews (2001, 2002) puts emphasis on the thorough understanding of an audience’s distinctive demographic, psycho-demographic, and Internet experience characteristics as being critical to crafting solutions that increase the ability to build sustainable online communities. Eisentraut et al (2001) address the issue of how to support trust building and trust transfer whereas Lechner et al (2002, 2001) deal with the economic potential of the “VC” business model and stress that the economic potential lies in the integration of an organized community in various roles and at almost all stages in the value chain and not only in the combination of social needs and transactions as other authors would claim. Some of our previous work (Leimeister et al., 2003, Leimeister et al., 2004) indicates that many success factors postulated in the literature are considered significantly different by members and operators of successful VCs. Knowing the members’ preferences and developing the VC the way that members can maximize their individual benefits has to be considered as a major success factor for both commercial and non-commercial VCs. Most importantly, a previous study revealed that both operators and members of VCs clearly focus on performance, security, up-to-

datedness and quality of the content provided whereas „typical“ success factors of Virtual Communities, as found in the literature, were rated relatively low.

Despite different approaches to VCs and to their business-related aspects, many success factors for reaching the postulated economic potentials remain unclear and unanswered; most notably, the “ingredients” of successful commercial VCs have been sparsely analyzed and rarely substantiated empirically.

**A FRAMEWORK FOR ANALYSING THE BUSINESS MODEL OF VIRTUAL COMMUNITIES**

The term business model has been used in research and practice in various ways. Generally speaking, on the one hand one can identify various concepts which enlighten one or several aspects of a business model more or less in-depth. On the other hand, there are concepts which are mainly dedicated to the macro view on business models (for an overview see e.g. (Krcmar, 2003) or (Leimeister et al., 2002)). A frequently quoted article from Timmers (1998) defines a business model as: (1) an architecture for the product, services and information flows, including a description of the various business actors and their roles; (2) a description of the potential benefits for the various business actors and their roles; (3) a description of the sources of revenues. This definition does not include external factors such as legal or technological issues nor does it consider competition explicitly. These last two aspects have, in general, been considered to be crucial elements of business strategies and are often components of business models developed by organization scientists (e.g. Porter (1998), emphasizes that these issues are still valid in the context of internet-related businesses (Porter, 2001)).

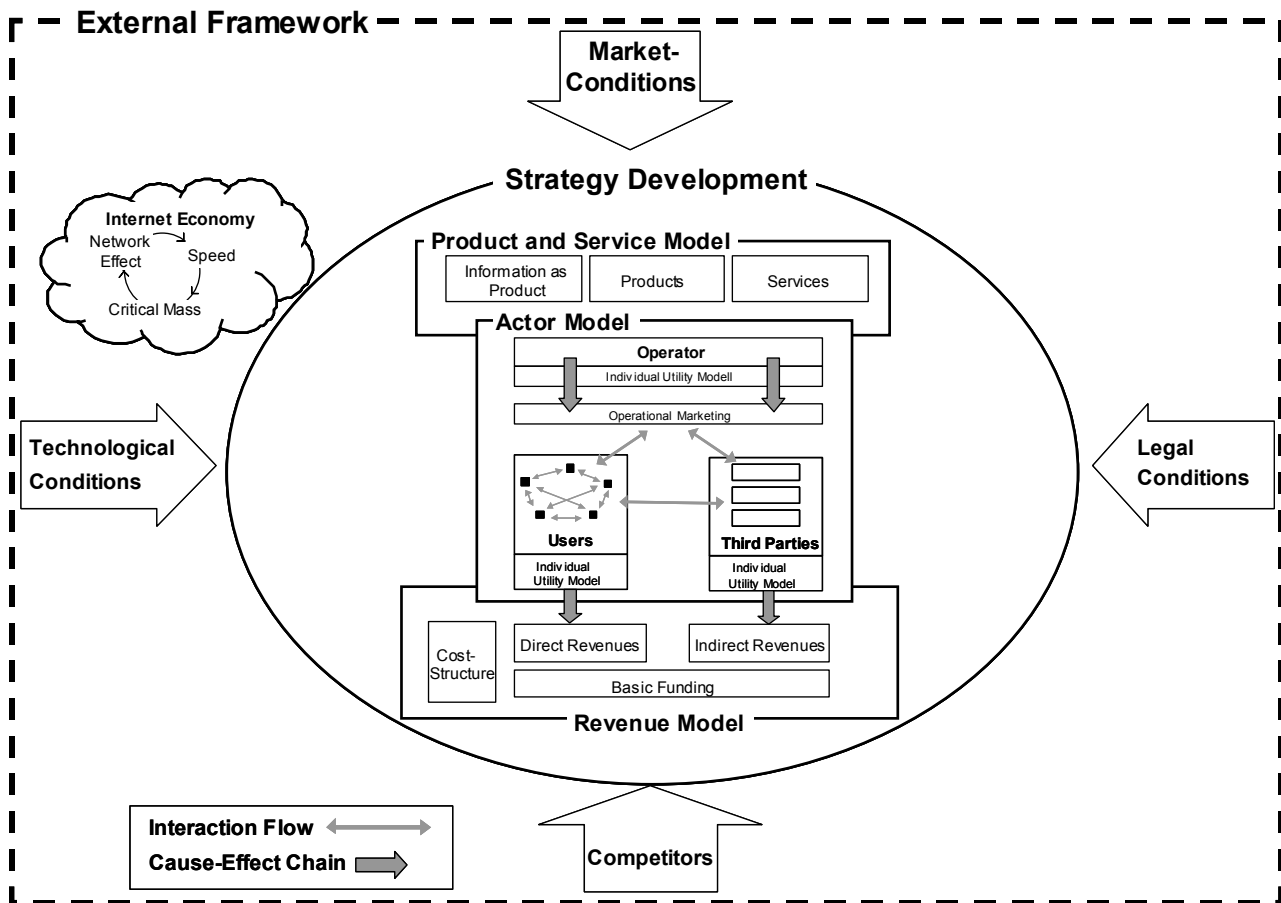


Figure 1. Framework for Analyzing the Business Model of Virtual Communities (Leimeister et al., 2002)

To overcome some of the deficiencies of existing frameworks for describing business models, we present an integrative business model framework consisting of five partial models. The external framework model contains major factors of Porters

Five-Forces-Model (such as competitors, market conditions, etc.). These general conditions belong to the environment of a VC and are therefore identical, non-controllable variables for all competitors. The fast reaction to arising potentials (e.g. from the macro environment) might enable the VC to achieve an advantage of differentiation compared to others. The complete integrative framework consisting of the five partial models is illustrated in Figure 1. Comparable to the outer skin of an onion, the external framework covers the four other models. The strategy model encircles the actor model, the product / service model and the revenue model. Particularizing this general architecture, the streams of interaction and cause-effect-chains are illustrated with arrows; connections between partial models are also visualized through graphical overlaps. Depending on the current situation of a VC, in addition to using the whole model, one can use single elements of the partial models and adapt them to the specific needs in the market.

### **The External Framework Model**

The external framework covers all external factors that might have an impact on the design and development of the business model. These are both technical and legal conditions as well as market and competition conditions. Clients are often considered as external factors, but in this framework they are considered an essential part of a VC (as “prosumers”, producers and consumers of information within a VC). Thus they are part of the actors model; clients are not regarded in the external framework model.

### **The Actor Model**

The actor model considers participants within and beyond their own VC (e.g. suppliers) as well as in their individual utility function. Given that a business model can only be successful if it is beneficial for all parties involved, the crucial role of this partial model becomes evident. Independently from the type of VC, the offerings must give a perceivable benefit to the users, out of which the communities acceptance and attraction results. The operator of the VC has the strategic task to optimize his operative marketing efforts according to his target group or the group available. The operative marketing can be systematically described in three interdependent steps: the announcement, the participation promotion and the development of loyalty. The model of actors also shows the main streams of interaction between the members and the communication between single actors. Within this model the development of trust among members and trust towards the community operators is an important issue. Activities that motivate volunteer workers to support the administration of the VC are also included in the actor model.

### **The Product and Service Model**

The direct connection between the actor model whose actors are either providers or consumers of products or services and the product/service model is illustrated in Figure 1. This sub-model distinguishes between information as a product, products in general and services. The value creation in Virtual Communities occurs mostly by the information that is made available for the members (centrally provided information from the operator or user-generated content) within the platform. This information is an important product of a VC: It yields profit for the members, can be traded and therefore has a value. In addition to product information, the Virtual Community business model offers numerous possibilities for integrating physical products, e.g. the distribution of books by an affiliated bookstore.

### **The Revenue Model**

The revenue model is the foundation of a VC and tracks the origin of each revenue. Due to the relevance of this partial model, we will separately dwell on cost structure, basic funding and direct and indirect revenues in our discussion. An important success factor within this partial model is the optimal combination of different direct and indirect revenues.

### **The Strategy Model (Strategy Development)**

The VC derives its strategy model from the external framework model. The starting point for the corporate strategy is the choice of the strategic position of the virtual community either against or within value chains, as well as the strategic intention of the community. Both factors determine the relevant target group, (in)direct competitors as well as technical and legal conditions. Armstrong/Hagel III described the main management challenge in identifying the right strategy for improving the competitiveness in building up and operating the community as well as in establishing valuable cooperation concepts (Hagel III and Armstrong, 1997). The formation of strategic alliances respective cooperations with complementary companies might offer the possibility to reduce the pressure of competition by addressing a wider target group and by achieving a critical mass of users more quickly than usually possible. Further synergy effects arise from exploitation of cross selling potentials and from a higher finance and innovation potential of several providers which could potentially minimize the risk of all involved.

In the following we will analyze two successful VCs in the German-speaking internet. Both report making a profit, have been in existence for at least six years, currently have more than 250,000 registered members and are still growing in terms of user generated content and registered users.

## APPLYING THE FRAMEWORK - ANALYSIS OF THE BUSINESS MODELS OF EXISTING COMMUNITIES

The introduced framework is applied exemplarily to two cases of successful German-language VCs. The communities are metropolis.de (a dating community) and wallstreet-online.de (a financial community). The analysis of the VCs is a snapshot taken in October of 2003. The dynamic development of both VCs is indicated by using retrospections and outlooks.

### Case Study: metropolis.de

**Background:** The VC metropolis.de was founded in 1996 as a non-commercial project of the new media agency 21TORR GmbH<sup>2</sup>. The original idea was to create a meeting place on the internet for young people and to give interested users an idea of the variety of technical features available on the web. After an initial explosive growth of the VC, the project was transferred to an own operating corporation, the Metropolis AG. The company started with 6 employees and shortly after the launch the United Internet AG (at that time 1&1 AG) acquired a minority stake of the newly founded operating corporation. Thereafter, the VC became an independent company.

The operating corporation provides the community platform for metropolis.de and for other enterprises / VCs. It can be divided into three business units: **technology**, **know-how** and **community**. The development of the (self-developed) community platform as well as the distribution and maintenance of the product is conducted in the technology unit, which includes an ASP (application service provision) offer of single modules or complete community platforms. The consulting services around VCs and platforms are bundled together in the know-how unit. The third business unit (community) is dedicated to the management of the VC metropolis.de. As of October 2003, the VC has approx. 1.6 million registered users of which at least 5% have logged in during the past 2 weeks. The company reports profits since 2001.

**External framework:** Metropolis.de offers its members direct social interaction with each other. The operating company is dedicated (almost exclusively) to the provision of the platform without additional content. Metropolis.de competes with other providers of communication platforms for dating and lifestyle issues. Examples of direct competitors are Friendscout24.de, Knowone.de, Partship.de, neu.de. The market for partner search / dating in the German-speaking internet has to be considered as a mature market and market shares are mostly distributed leading to intense competition in the area.

The platform of metropolis.de has been self-developed and is therefore flexible with respect to adapting to the needs of its members. There is no alternative technological platform meeting the VCs requirements available on the market. Legal conditions mainly relate to regulating the privacy protection of members. These regulations lead to restrictions with regard to usage of member data. With approximately 1.6 million registered users - a third is declared as active by the provider - the critical mass for the realization of network effects such as up-to-date "user-generated content" is surpassed. Metropolis.de is currently the largest "pure" community in the German-speaking internet in terms of both registered users and user activity.

**Product and service model:** Metropolis.de offers products and services which can be divided into three units: communication, themes and services. The unit communication deals with all tools enabling the members to contact each other. These are, for example, chat rooms or guest-books. The online shop and the section "erotic" are covered by the services unit whereas the forums and the culture site are covered by the themes unit. As a result, metropolis.de offers additional services (such as mobile reminder services, calendaring services, events, etc.) in addition to the core functionalities of a community. Metropolis.de concentrates on the provision of the platform and leaves the other services to partners.

**Actor model:** metropolis.de is purely commercial and generates revenues for the operating corporation. Its largest sources of revenue are member subscription fees and advertisements. The scope of services is extended continuously through the addition of offers such as erotic services and shopping opportunities intended to exploit new sources of revenue. Benefits for members include the possibilities of interaction with others, getting to know new people and taking advantage of additional services. Within the "general interest" community, each participant can satisfy his individual needs according to his preferences. The disadvantage of this design is the low focus on specific target groups. Thus, there is hardly a specific distribution channel for certain target groups. As a result, there are efficiency losses concerning advertisement campaigns

<sup>2</sup> The abbreviations GmbH and AG indicate the legal form of companies under German law. The closest to an equivalent in the US would be Inc. for AG and Ltd. for GmbH.

with banners, pop-ups or newsletters. Metropolis.de cooperates with several companies which provide content for the divisions shopping, erotic and sms-services. These actors profit from the revenues generated by the clients that are directed to them through the metropolis.de platform. Additionally, metropolis.de puts its platform at the disposal of other companies for advertisement campaigns, enabling them to achieve early on a critical mass of users. Such a collaboration was performed with Heineken Breweries. External companies can access a wide group of clients through banners or pop-ups.

**Revenue model:** At the launch of the community the costs were paid by the providers themselves and/or their venture capital. As the community grew, funds were insufficient and the operators had to use indirect revenues (advertisements in the beginning). Costs stem mainly from providing the platform and community management but also from the marketing for advertising space. Subscription fees, advertisement revenues, revenues from value added services and provisions from shop sales are the most important revenues.

**Strategy model:** The previous focus of the VC concentrated on the provision of a communication platform for social interaction and did not distinguish itself by a special focus on a specific target group. With the increasing consolidation of community markets, it became necessary to target a specific segment to clearly show one's position in the market and to enable the offering of pre-segmented client groups to potential advertisement partners and others. Metropolis.de has redesigned its business model and now concentrates on the areas of dating and leisure time. The main concept remains unchanged. Metropolis.de has moved from an innovation leader strategy to a market leader strategy in all aspects except technology where the operators still follow an innovation leader strategy.

#### Case study wallstreet-online.de

**Background:** In January 1998 today's wallstreet:online AG (w:o) was founded as GIS Wirtschaftsdaten GmbH with the intention to establish an information platform for individuals (semi-professionals) interested in the stock market. In February 2000 the VC registered 1,000,000 page impressions for the first time and has more than 100,000 registered users. In March of 2000 the Gis Wirtschaftsdaten GmbH changed its name and became the wallstreet:online GbmH. In August of 2000, the company changed its legal form and became the wallstreet:online AG.

The company has five business areas: All marketing activities that are placed on w:o either from the company itself or from other companies are coordinated by the business unit **Online Advertising**. Since the end of 2000 wallstreet:online Trading GmbH (www.wo-trading.de), a subsidiary company of w:o, in collaboration with the Swedish bank SEBdirect offers online brokerage services to its customers (business unit **Online Brokerage**). On its own finance platform, the business unit **E-Commerce** offers several products that are related to the finance interests of its target group. **Content Licencing & Applications** targets business customers and sells content about the stock market produced by w:o's own editorial department. Since April 2001, the 100% subsidiary company brainwire GmbH (www.brainwire.de) offers IT consulting and programming (business unit **IT Consulting & Programming**) services on the market.

**External framework:** w:o offers information about companies to individuals trading on the stock market. Individuals use this information to make decisions about potential investments on the stock market. The market for information about companies is characterised by high speed as information can be published worldwide at the same time. Information is even used by autonomous IT systems to make automated portfolio decisions almost without any time delay. Compared to established financial service providers on the internet, an important success factor of w:o is its role as an innovator. Focusing on its VC as a core part of the offerings, business net effects and exponential growth has been achieved by w:o more quickly than by its competitors. Therefore, the critical mass could be reached more quickly. w:o benefits from having been the first in the market in 1998 when the target group for stock market information was already sizeable and no other comparable offer was available.

In addition, w:o seems to differentiate itself through user guidance and technology from competitors. As the platform is self-developed, it can be changed very quickly according to the needs and wishes of its users. This permits the constant improvement of software. As of October 2003, w:o has over 250,000 registered users of which 10% logged into their account within the past two weeks.

**Product and service model:** Throughout the last years, by constantly extending its information offerings and adding new products and services to its portfolio, w:o has become a comprehensive financial portal. The VC constitutes the connecting element between diverse offerings and enables an interaction between the sub-areas of the website. In addition to the information w:o offers within the financial portal and the discussion boards within its portal, product information is also generated by the members of the community in chat rooms and on boards.

**Actor model:** w:o primarily benefits from the community in a monetary way. Other benefits such as generating user profiles or establishing a knowledge base regarding the stock exchange are really only sub-ordinate targets. The primary goal of w:o is to make profit.

The primary benefit for members of w:o is quick access to and exchange of stock information no matter where they are at any time of day. The high speed of news presented online on w:o plays a crucial role in the success of w:o as members depend on timeliness of information to make quick wins on the stock exchange. More conservative and “long-term-thinking” investors benefit from the opportunity to exchange their opinion about fundamental analyses and annual reports with other members. All members profit from the availability of detailed information resources w:o offers.

The primary benefit of third parties, e.g. companies placing advertisements on w:o or companies cooperating with w:o, is the well-segmented target audience reachable through w:o. Financial services can be easily promoted with hardly any spreading loss and most w:o-users are potential investors for almost any company.

**Revenue model:** At the start, w:o was financed by three venture capitalists. W:o, whose offerings are free for its users, is now financed by a combination of revenues, most of them indirect. The main revenue of w:o comes from advertisements or from companies using the platform for their investor relations activities. Another source of revenue of increasing importance is selling financial content and applications that are published or used on w:o’s own website. A less important source of revenue is the profit made by the brainwire GmbH, a subsidiary company of w:o. Revenue in a direct way is made by the basic fees w:o charges for the offered products and services (news service and online brokerage).

**Strategy model:** The focus of the VC is the provision of a fast, independent and reliable communication and information platform for people interested in stock markets and financial investments. The focus of w:o remains on the segment of B2C, serving individuals (semi-professionals) interested in the stock market. W:o follows an innovation leader strategy.

## COMPARISON OF THE BUSINESS MODELS

In the following, the partial models of the case studies described above will be compared and contrasted with each other. The intention of this comparison is to identify characteristics that are constitutive for a successful business model ‘virtual community’. To gain impetuses for further research from these deductions, this article concludes by stating the main findings in several (unevaluated) theses

**External framework model:** Both VCs operate in highly dynamic market conditions and have several competitors in the online sector. The legal conditions governing both entities can be described as medium-strict: metropolis.de is regulated by German civil code and signature law and w:o is additionally regulated by the Securities Trade Act. From a technological standpoint, both VCs are sparsely restricted.

Concerning the market conditions one can draw the conclusion that a dynamic and global milieu promotes the growth of a virtual community. With regard to the competitive situation and legal conditions the analysis does not permit final assessments.

**Strategy model - part I: development of a strategy:** The conformity of both communities with regard to their strategic intentions results from the fact that this study is focusing on commercial communities and therefore cannot be counted as a specific characteristic that is constitutive for the Virtual Community business model. Both are commercial B2C/C2C VC that follow an innovator marketing strategy. They both apply self-developed technology and use it as a means for achieving competitive advantages

Analysing the competitive strategy of both metropolis.de and wallstreet-online.de it is important to note that the founders of metropolis.de and of wallstreet-online.de pursued the strategy of being the first mover or innovator on the market in their respective field. This complies with the dominant opinion that companies cannot enter markets with a “me-too”-strategy but rather with a differentiating positioning strategy if they want to be successful. This results in thesis 1:

**T1:** A VC business model must have innovative components (“first-mover-advantage”) to differentiate itself from other existing models on the market. This is essential to successfully enter and survive in the market.

With regard to technology, there is a surprising result. Both enterprises strongly prefer self-development. This is contradictory to the advice of Hagel III/Armstrong (1997, 190pp) who dissuade from self-development, but corresponds with the empirical results from the authors’ earlier research on virtual communities (Leimeister et al., 2003). Therefore, thesis 2 can be derived:



**T2:** Advantages of self-development (user friendliness, flexibility in adoption, ...) exceed by far the time benefits gained when using standard software. The platform must be used as a comparative competitive advantage.

Noteworthy is the fact that the usage of tools on both platforms concentrates on “core” functionalities such as chat and forum. In surveys conducted by the operators most users evaluate the technology of the VC by the perceived attributes (performance, design, etc.) of these core functionalities rather than by the perceived attributes of new features.

**Strategy model – part II: operative marketing:** In both cases, word-of-mouth recommendations of members are rated to be extremely important for the promotion of the VC. Mostly, it is an intrinsic motivation that encourages members to participate in the community. This leads to thesis 3:

**T3:** Essential for the announcement of a community is the initiation of word-of-mouth recommendations as well as the promotion of the intrinsic motivation of the members.

Numerous ways to create customer loyalty were initiated by the operators. There is one remarkable characteristic in both case studies: Offline activities (events, fairs, regulars’ tables, meetings) seem to extend the concept of a virtual community into the real world and are apparently a frequently used method to establish customer loyalty. These real world meetings are held at long intervals and announced with grand anticipation. Thesis 4 refers to this conclusion:

**T4:** Customer loyalty can only be achieved by applying various activities. An important activity is the integration of real meetings of the members.

**Product and service model:** Two consistencies are evident through analysis of this confrontation. First, the business model Virtual Community is strongly characterized by offering services. Products play only an inferior role in both case studies. Second, mostly thematically affine services are dominant thus far. The case of wallstreet-online.de shows that there is an existing trend towards services that are affine to the target group but thematically distant from the actual theme of the community.

**Actor model:** With regard to the operators one can find a consistent focus on monetary benefits that reflects the focus of this research on commercial VCs. Concerning members and third parties, no clear pattern can be identified. Nevertheless, from the multitude of described benefits one significant discovery can be derived: For all actors within a community a benefit that is strongly recognisable is essential.

**Revenue model:** In both cases the basic financing is external (venture capital), both generate different revenue-streams and the majority of which is indirect. No extraordinary financing strategies were uncovered by this study. It is interesting to note that the enterprises in the case studies prefer combinations of sources for their revenue. This point is summarized in thesis 5:

**T5:** The combination of different revenue sources and funding sources guarantees security against short-term fluctuations to the company and, therefore, minimizes financial risks.

Regarding the cost structure, it can be deduced that costs for marketing activities are second to costs incurred for staff

**T6:** A large portion of the budget for the operation of a VC must be targeted for staff salaries and marketing activities.

salaries. The case studies do not permit an assessment on the absolute or relative amount of these costs except that they are the main expenditures for the operation of the VCs. Therefore, thesis 6 reads as follows:

These findings are underpinned by newer research on the success factors of virtual communities (Leimeister et al., 2002, Leimeister and Krcmar, 2004).

## CONCLUSION

**In recapitulating** the case studies and in comparison with prior research on the topic, several elements which allude to basic characteristics of the Virtual Community business model can be derived. The deduction of theses (and later theories) on the basis of these case studies represents a bottom-up method for theory development. The intention of such an approach is not to

derive a representative statement, but rather a detailed understanding of distinct units (Eisenhardt, 1989). Therefore, these theses have to be checked and empirically validated by a more representative number of case studies in future research.

No.	Thesis:
1	A VC business model must have innovative components (“first-mover-advantage”) to differentiate itself from other existing models on the market. This is essential for successfully entering and surviving in the market.
2	Advantages of self-development (user friendliness, flexibility in adoption, etc...) exceed the time benefits gained when using standard software. The platform must be used as a comparative competitive advantage.
3	Essential for the promotion of a community is the initiation of word-of-mouth recommendations as well as the support of intrinsic motivations of participating members.
4	Customer loyalty can best be achieved by applying various activities. An important activity is the integration of real meetings.
5	The combination of different revenue sources and funding sources guarantees security against short-term fluctuations and minimizes financial risks.
6	A virtual community needs high investments in personnel and marketing; these are the major expenditures in operating a VC

Table 1: Summary of the theses regarding the business model VC.

According to current research in this field, communities with a supporting function in a company and not a dependency on direct earnings seem to be most promising when it comes to realising the Virtual Community business model. More detailed analyses of the success factors of Virtual Communities with independent business models are necessary. Most existing cases seem to focus on indirect earnings (e.g. ad fees) and are therefore (still) strongly dependent on cyclical fluctuations. It seems to be only a question of time until stand-alone communities change their earning models over to direct earning (e.g. member fees) to achieve more stability in their business models.

Basically it can be stated that there is still no absolute “formula for success” for the Virtual Community business model. Yet, the described framework offers a type of “kit” with different elements. While each operator of a virtual community inevitably has to consider all partial models, he is independent with regard to the design of each partial model and can arbitrarily assemble the offered elements. Success depends on the thriving interplay of these elements and the acceptance of the individual actors within the community, especially of the members.

Future research should pay attention to the further development of the business models as regards their content. Primarily fast technical changes will influence this development. For example, there are possibilities for ubiquitous mobile access to VCs and the inclusion of mobile services into VCs. It remains debateable whether this features will be rated to be an additional benefit for the members of specific VCs or in general. The tested framework has proven to be easy to apply and it supports an integrated analysis of business models. The framework is, however, not capable to integrate a dynamic perspective of the development of business models, an issue which needs to be addressed in future research.

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