

Chapter XXXVI

Diffusion and Oscillation of Telecommunications Services: The Case of Web 2.0 Platforms

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ABSTRACT

The diffusion of a Web 2.0 product or services is, unlike to traditional consumer or industrial goods, not only based on purchase. Full acceptance of Web 2.0 platforms occurs by recurring utilization. The chapter focuses on diffusion characteristics of this innovative category of ICT products and provides management concepts for competition. The concept of critical mass is applied to different growth scenarios. Additional success factors are discussed. Particularly the permanent supervision of a platform regarding its compliance with qualitative, as well as ethical and legal standards is of great importance. Adjustments to external market conditions, proactive management, and a bilateral marketing approach are a key to lasting success within the Net Economy. Markets are never settled, due to the ever changing and oscillating conditions. The chapter shows that there is always a chance to capture a market or at least to grow against competition in a Web 2.0 setting.

CRITICAL MASS AS A SUCCESS FACTOR

The extension of electronic networks and the use of information and telecommunication technolo-

gies for the digitalization of value creation lead to a new economic dimension (Lumpkin & Dess, 2004). This newly established level of value creation, the so-called **Net Economy**, provides room for innovative business models and successful

start-up firms (Kollmann, 2006). An increasing number of companies participate in the economic potential of the internet which leads to a rising level of competition. Competing players either win a market and participate in a stable and sustainable business development or fail with their idea within a short period of time (Shapiro & Varian, 1999). The roots of this phenomenon are derived from an economies of scale effect that keeps aggravating itself instead of declining. Every new user of an offered **platform** (community or marketplace) helps to raise the value of a network and makes it even more attractive for further participants. A higher number of communication and transaction activities are the possible outcome. A rising quantity of community members also increases the perceived attractiveness (site stickiness) of a platform. This can be illustrated by the following two examples: A rising number of members subscribing to an *E-Community* (Kollmann, 2006) raises the chance to meet likeminded individuals or to receive answers to posted questions. Also a rising number of users to an *E-Marketplace* (Kollmann, 2006) rises the probability to find interested customers for offered products of a supplier.

According to the presented scenarios, a special focus has to be put on the **critical mass** phenomenon, because the subjectively perceived attractiveness of a system (e.g. community) is highly correlated with the already registered number of users. A certain number of users within a network are necessary to create value among the participants at a sophisticated level. Reaching this level is essential for a network, because the enrolled participants will be reinforced to use the system on an ongoing basis, and it will become easier to convince new users to join in (Kollmann, 1998). The minimum number of participants to maintain a sufficient utility on a long-term basis is referred to as the **critical mass** (Weiber, 1992).

Especially in a **Net Economy** setting young companies experience a very competitive environment to reach the **critical mass** (Kollmann,

1998). Oftentimes, the winners of this race drive smaller competitors or copycats off the market. This conception reinforces itself in a **Web 2.0** setting (O'Reilly, 2005), where customers or members leave the status of pure information consumers. Their status changes to an active information provider and editor role (O'Reilly, 2005). Therefore, growth at a fast pace in regards to the number of users becomes the critical success factor to leave the zone of competition as a winner. Actually, the winner of this battle is able to establish a close too monopolistic market position (Shapiro & Varian, 1999). The attractiveness for new users to join a network is even higher, if *everyone else* already joined in.

Following the stated assumptions Web 2.0 **critical mass** winners are destined for lasting company performance and profits. But the real life teaches another lesson. Apparently successful market leaders are frequently challenged by various inconveniences with the potential to jeopardize their market position. In accordance with the theoretical model *eBay™* for example, market leader for internet auctions, announced a growing number of membership accounts alongside with rising revenues and profits (*eBay™*, 2006). The unmentioned downside of this success story was a flood of insolvencies among professional *eBay™* dealers. *The International E-Business Association* (IEBA), an association for *power sellers*, sees the roots for many discontinued businesses closely connected with an increasing number of sellers and a resulting higher level of competition. Both factors lower profits and force sellers to predatory pricing strategies. In this context insolvency reasons for most of the dealers are not on an individual, entrepreneurial level. They are based on the market characteristics of electronic marketplaces, and a substantial number of insolvencies by professional dealers of a platform will sooner or later hit the marketplace vendors.

Other **critical mass** winners within the **Web 2.0** environment like the online community *MySpace™* or the video **platform** *YouTube™* are

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