Assessing Connectivity in ICT-Driven Consumer Empowerment

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Abstract

This paper discusses the assessment of connectivity in the context of ICT-driven consumer empowerment. The focus is on examining whether common measurements, such as ICT penetration rates, can be applied in this context. It is argued that commonly used indicators are limited in their usefulness as proxies for connectivity assessment in the ICT-driven consumer empowerment context.

Indicators of connectivity that can be used by businesses are identified. Effective assessment by business encompasses consideration of a large number of aspects pertaining to the business itself, as well as to competitors, to consumers and to 3rd party institutions.

Keywords: Online Connectivity; ICT; Consumer Empowerment

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Introduction

Recent Information and Communication Technology (ICT)-driven consumer empowerment research has focused on the development of a four-stage analytical framework for business and research. Accordingly, once the potential for this form of empowerment has been established by examining connectivity issues, businesses attempting to understand it and to manage it need to account for informational, transactional and strategic dimensions (Pires *et al.,* 2009).

This conceptual paper focuses on assessing connectivity as a prerequisite for other dimensions to be considered. The objective is to examine whether existing measures of ICT usage are effective proxies for connectivity in the context of businesses assessing ICT-driven consumer empowerment. The empowerment process is first discussed, followed by examination of the primary role of connectivity and of the issues hindering its assessment. It is argued that commonly used indicators are limited in their usefulness as proxies for connectivity assessment in the ICT-driven consumer empowerment context.

ICT-Driven Consumer Empowerment Process and Social Media

The use of ICT, particularly the Internet, allows businesses to interact directly with connected individuals, actual and potential consumers. This can be seen as a source of opportunities for businesses from allowing them to match their value propositions more closely to consumers' requirements, to facilitating engagement in co-production activities (Fellenz and Brady, 2008). But this same technology that supports traditional business-to-consumer communications has also been questioned for its potential impoverishing of service relations with consumers (Meyronin, 2004), while allowing them, on their own, to easily gather more information from the market than before, often independently of the communications of any one business in the market. Indeed, recent years have witnessed impressive growth of online social networking, an integrated part of what is called Web 2.0, where members post information about themselves and make contact with others who share similar interests and opinions, including for consumption purposes.

ICT-driven consumer empowerment is a complex phenomenon that is gaining in attention within contemporary consumer marketing (Deighton and Kornfeld, 2009). Examined from a supplier perspective, it has been described as an unintended consequence of marketing. This is because it results from the combination of continued ICT advances with global technological convergence and with marketing strategies developed by competing businesses seeking to take advantage of the globalisation potential of the new channel (Pires *et al.,* 2006). These strategies usually involve the provision of extensive amounts of information about businesses and their products, often together with testimonials from other customers, all of which yield consumers increased market knowledge and independent expertise in online

consumption Moreover, poor online service and a bad experience, for example, may be quickly rewarded with a click of farewell (Wightman, 2000) and preference for an alternative supplier that is just a click away – hence, consumer power.

Clearly, this type of unintended (or unplanned) ICT-driven consumer empowerment is distinct from forms of deliberate strategic empowering of consumers by suppliers, commonly focusing on reducing operational costs and involving customer relationship management (CRM) and customer self-service (CSS) tactics. While suppliers may not wish to empower consumers at all, this is the outcome resulting from consumers' free access to a larger choice set of value propositions and market information provided by the competing suppliers, in attempting to take advantage of opportunities generated within the highly competitive ICT-enabled market environment.

Continued ICT advances also led to the development of supplier independent electronic networks and 3rd party government and non-government information networks - such as those supported by consumer protection organisations and by industry associations - which allow consumers to extend their market knowledge further. Characterised by intense connectivity, these networks are amenable to the development of online consumer/social networks (Kucuk, 2008), such as Web 2.0, commonly identified as social media (Constantinides and Fountain, 2008). This media allows firms to establish participatory networks, such as MySpace (Coté and Pybus 2007) or Glam.com. But it also carries consumer-generated content as in the case of Facebook, including consumers' opinions about products, brands and firms (Donaton, 2006).

Web 2.0 supports blogs, social networking sites, communities, bulletin boards and content aggregators, allowing users to fully customize the web content they wish to access. Importantly, consumers using these media develop trust through the consistency and immediacy of their writing, and by projecting authentic voices ostensibly free from corporate interests (Nudd, 2006). In addition, online social and consumer networks allow consumers to share information with other consumers about suppliers and their value propositions, reducing consumer dependence on suppliers' communications to form their own quality expectations. In certain cases, consumers may gain countervailing power by forming collective buying groups, able to negotiate better terms with suppliers (Hirschey and Pappas, 1993). Hence, not only do bloggers and online consumer networkers take suppliers to task over shoddy products and customer service, but they also build buzz around products they like and suppliers they respect.

Crucial to understanding ICT-driven consumer empowerment, consumers' liberal access to market information from independent media can impair suppliers' ability to influence consumer choice. This is because the empowerment process has the potential to provide consumers with more choice and more information to assist with the choice process. Since the information is from sources perceived as independent from suppliers, these sources can also be perceived as more credible and trustworthy.

Overall, by influence of the information sourced from 3rd parties, the ICT-driven consumer empowerment process supports the possibility of an important change in the power relationship between consumers and suppliers. Hence the need to

understand the roles that third parties can play in this process. These are the premises underpinning the ongoing development of a four dimensional analytical framework for ICT-driven consumer empowerment research and business analysis that accounts for consumers, suppliers (the firm in question and its competitors) and independent market institutions, formal and informal, which support that empowerment.

Dimensions of a Connectivity Test

The framework requires that businesses take into account the environment regarding consumer empowerment creation, namely the extent of market connectivity, as well as own characteristics and other stakeholders behavior, leading to strategic considerations about how to deal with consumer power, if it indeed occurs. The first dimension is essentially a connectivity test that seeks to establish whether this empowerment is of relevance to the context in question. Other dimensions include informational and transactional considerations that need to be considered in devising competitive strategies (the fourth dimension) that will appeal to the empowered consumers. The focus of this paper is on the connectivity test.

The Primary Role of Connectivity

The key to the process of ICT-driven consumer empowerment in a given competitive context lies on consumers' acquisition online of vast amounts of quality consumption information that can be freely used to assist with the making of effective consumption decisions. Requiring consumers to be connected to the Internet, consumption information can be sourced from potential suppliers and/or from a variety of supplier-independent sources, such that control of consumer choice may be beyond any one supplier. Informed consumers are connected consumers who can be in charge of their consumption. They are empowered consumers.

Clearly, the extent of ICT-driven empowerment derives substantially from [1] the availability online of empowering information supplied by a variety of stakeholders and [2] from consumers' ability to make effective consuming decisions using the knowledge appropriated from the online information. Applied to the exchange process, the degree of empowerment is a function of consumers' ability to understand and effectively satisfy their wants and needs by selecting the best possible value proposition on offer using all information available. ICT illiterate consumers will be unable to access online information and, therefore, cannot be empowered. Hence, the primary factor in assessing the degree of ICT-driven consumer empowerment in a given business context is to establish how 'connected' the relevant stakeholders are.

Connectivity Assessment Issues

Connectivity is a term commonly used in the literature to refer to the Internet bandwidth into and going out of a country, and to the quality of the infrastructure within the country for linking to the Internet (Webopedia, 2009). It has been variably assessed by consulting Internet usage statistics at the world, region and country levels of geographic aggregation, in terms of Internet penetration rates (Internet World Stats, 2009) as well as Broadband and mobile telephony penetration rates, in terms of

revenue from online sales data (Forrester Research, 2008), Internet advertising revenue figures (Interactive Advertising Bureau, 2009), and by using the Digital Access Index (DAI – International Telecommunications Union, 2003) and the Networked Readiness Index (World Economic Forum, 2004). Other measures may be derived by assessing Web 2.0 connectivity, and usage statistics for search engines, virtual communities, social and business networks, person to person video sharing, blogging, Wikis, RSS, podcasting, netroots and Mashups (eMarketer, 2009; Multilingual Search, 2009; Singer, 2009).

While the usefulness of the various indicators in the contexts they are used in the literature is not questioned, their application in a narrow context of ICT-driven consumer empowerment is not without difficulty, given the level of aggregation involved. In the absence of more formal connectivity indicators at the narrow level of the firm or of a consumer segment, assessment may involve looking for evidence of stakeholder access to ICT, of technical knowledge and of online activity. A summary of potential connectivity evidence for the various types of stakeholders is presented in table 1.

Table 1: Testing for connectivity in competitive consumer markets

Firm / Competitors	• Readily available and functional websites • Extensive provision of easy-to-understand-by-average-consumer product information • Up-to-date searchable websites without broken links • Evidence of online promotional activity (eg. loyalty programs) • Offer of a platform for consumer forums • Provision of clear contact details • Availability of consumer feedback function • Clear operational preparedness for online exchanges (including order-taking, delivery details, invoicing and payment facilities) • Proportion of on-line sales data
3rd Party Institutions	• Online presence of government and industry institutions devoted to consumer advice, care and protection. • Online presence of independent consumer advisory sources.
Consumers (refers to ease of timely access to and the extent of actual ICT usage in the day-to-day)	• Use of email, online banking and payment of bills • Ability to search, and discern information for evaluating competing value offers (illustrated by some degree of successful past online consumption) • Ability to validate value offers by gathering advice and information from trusted independent sources • Preparedness for online consumption (e.g. perceived risk issues). • Evidence of switching behaviour • Evidence of complaining behaviour • Active involvement in online/virtual social communities

Looking first at supplier based information, high connectivity pre-empts substantial e-commerce participation activity and expertise. In competitive markets this presumes that suppliers have an extensive web presence, domestically and globally, as evidenced by free availability and functionality of up-to-date searchable websites

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without broken links, evidence of online promotion activity, operational preparedness for online exchanges (including order-taking, delivery details, invoicing and payment facilities and a feedback function) and support for independent consumer forums.

Regarding 3rd party (government and industry institutions devoted to consumer advice, care and protection, and other formal and informal independent consumer advisory sources such as community groups and social networks), their presence online can be interpreted to indicate a market with high connectivity. By the nature of their activities and independence from the firm, that presence can be an important online source of consumer empowerment.

Finally, when consumers are concerned, connectivity refers to consumers' ease of timely access to and extent of actual ICT usage in their day-to-day, including their use of email, online banking and payment of bills; their expertise in executing online searches and accessing information about competing value propositions, in seeking validation by gathering advice and information from trusted independent sources, and in the degree of preparedness for engaging in online consumption (including perceived risk issues); their preparedness for complaining and for switching suppliers when deemed necessary; and their active involvement in online/virtual social communities.

Conclusion and Limitations

Common assessments of connectivity are of difficult application in the context of ICT-driven empowerment. Following consideration of technology penetration indicators commonly used in the literature as potential proxies for assessing connectivity, this paper identifies indicators of connectivity that can be used by businesses to assess whether ICT-driven consumer empowerment is of relevancy to them. Clearly, assessing connectivity is easier for businesses who know their customers, their competitors and the market where they operate.

Since the perspective of the ICT-driven consumer empowerment process integrates the participation of various distinct stakeholders in the consumer market, it promises a good degree of analytical reliability in assessing the extent of connectivity at an aggregate level, such as the industry level. However, it is noted that adoption of a solution for ICT driven consumer empowerment by a firm may involve adapting business processes to leverage the power relationship with consumers in order to gain business advantage. This may be market specific.

Even in a globalised environment characterized by technological convergence, different markets will have distinct levels of Internet penetration and usage; hence consumer empowerment may prove to vary from market to market. Similarly, even within a specific domestic market, it is not liquid that the empowerment process can be generalised to all consumers. In fact, reflection on the recurring themes within the framework suggests that different consumer groups can be empowered to different extents, possibly requiring tailored targeting.

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