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Exploiting digital convergence: IPTV, a new way forward for telecoms?

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In Europe, the transition from analogue terrestrial to digital terrestrial television continues to follow different paths which vary from country to country. Telecom operators are entering the digital TV market, but it is not clear if IPTV will be viable. The complexities and dynamics of the TV market could erase the advantage of convergence services like IPTV. This paper examines the Italian case and attempts to answer the question of how the market absorbs IPTV and identify the strengths and weaknesses of telecom operators. The results of this study will help policy makers, researchers and the industry devise new, effective and implementable strategies aimed at changing attitudes towards sustainable development.

Field of Research: Strategic management, telecommunications industry

1 Introduction

In Europe, the switchover from analogue terrestrial to digital terrestrial television will be completed by the end of 2012. The specific market conditions of each country and the complicated interaction of public policies, regulations and commercial incentives (Cave & Nakamura 2006) strictly influence the success of Digital Terrestrial Television (DTT), satellite television, cable television and Internet Protocol Television (IPTV) initiatives. In this context, the transition to digital television and the convergence between media services and telecommunication are revolutionizing competition in the television market (Slot 2007, Kung et al. 2008, Mansell 2004). Taking advantage of the new market spaces created, telecom operators are entering the digital television market as IPTV operators, offering multi-play services based on broadband (e.g. triple play service: phone, Internet and Television over IP/IPTV). The complexities and dynamics of the television market can erase the advantage of convergence services like IPTV. Despite positive predictions, the future of IPTV is still obscure, the biggest barrier being uncertain customer demand (Day et al. 2000, Shin 2007). Convergence may persuade consumers to accept new technologies, but people who are not computer literate are more likely to embrace the Internet, video-on-demand, and value-added IPTV services. Television is easy to operate, requiring almost no training; IPTV tends to be more text-oriented, highly interactive and, in terms of purpose and content, oriented towards business and educated users (Yoffie 2008; Wirtz 2001). The question is how the market absorbs IPTV and what kind of opportunities and threats the telecom operators may have. The aim of the paper is to analyse the external forces that could influence the penetration of IPTV in Italy (these include

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technological aspects, market dynamics and regulatory conditions) and identify the strengths and weaknesses of telecom operators.

2 Technological aspects

IPTV is a system in which a digital television service is delivered using a broadband connection. The official definition approved by the International Telecommunication Union focus group on IPTV (2006) is:

"IPTV is defined as multimedia services such as television, video, audio, text, graphics and data delivered over IP based networks managed to provide the required level of quality of service and experience, security, interactivity and reliability."

IPTV gives carriers a platform for delivering a wide range of advanced and value-added entertainment services (e.g. interactive services, Video on Demand and Personal Video Recorder). This constitutes a superior offer and higher revenue opportunities compared with digital terrestrial television, satellite television or cable television. IPTV is an interactive television that allows two-way client-broadcaster communication, providing channels on-demand as opposed to the standard offer of other platforms. In DTT or satellite TV, using broadcast video technology, all the content constantly flows downstream to each customer and the customer switches the content at the set-top box. In IPTV, on the other hand, a content remains in the network and only the content selected by the customer is sent to the customer's home. In this way, the assortment of content is theoretically limited only by the power of servers and the bandwidth capacity available to each end-user.

In this sense, the diffusion of broadband heavily affects the development of IPTV and its potential market. IPTV cannot function without a broadband access. The existence of an infrastructure is a necessary prerequisite for ensuring access to broadband, but is not enough to ensure its diffusion. In Italy, broadband access availability is still limited in terms of current penetration, growth, coverage and perspective compared with the most important developed countries. There is also a big digital divide between urban and rural areas and the country is plagued by non-homogeneous broadband coverage. According to the OECD (2009), there are approximately 12 million broadband subscribers and broadband penetration is around 19.8%, lower than the OECD average. Despite the low level of current users, the potential broadband market is close to saturation. The diffusion of broadband depends on reaching more than 9 million Italian families who are still not computer literate. Based on the analysis of the technological status in Italy, it seems hard for IPTV to improve its potential market in Italy and makes its positioning more difficult compared with other platforms which do not have the same constraint.

3 Market dynamics

The recent proliferation of broadcasters in the Italian television market and the increasing availability of channels have changed the traditional television

business models in which contents were offered for free by public service broadcasters or commercial broadcasters. Nowadays, advertising and public financial resources are limited and broadcast rights are growing. The Pay TV model is gaining market share, particularly for access to premium contents (live sports and blockbusters). Nowadays, the number of subscribers to Pay-TV services is 4.7 million in satellite TV (Sky), 3.7 million in DTT (Mediaset Premium) and 613 thousand in IPTV (Fastweb TV, Alice Home and Infostrada TV). However, the television market is still being dominated by traditional broadcasters that move from analogue terrestrial to digital television (roughly a 75% share). The traditional broadcasters remain content publishers and distributors who acquire the rights to programmes by producers. The programmes, also produced in-house, are aggregated in the programming schedules. Otherwise, digital platform operators package the channels in a bouquet and can offer interactive services like Electronic Program Guides (EPG), Video On Demand (VOD), games and Personal Video Recorder (PVR). The Italian IPTV operators are in direct competition with satellite platforms and they offer almost the same channels as digital terrestrial television, but, at this stage of technology, the broadcast mode does not allow - via satellite or digital terrestrial television - video-on-demand. Only IPTV offers the possibility of providing both pay-per-view and video-on-demand, with an assortment of content limited only by technological aspects (servers, capacity of bandwidth) and the willingness to pay the holder of the rights.

4 Regulations

In Italy, IPTV has ambiguous regulations which do not allow the activities and the actors involved in the value chain to be clearly identified. The development of a regulatory environment can encourage investments in IPTV. This consideration has been also confirmed by the OECD (2007) which underlines the importance of a regulatory framework for IPTV diffusion:

“The development of IPTV services has benefited from a regulatory framework in most countries which has facilitated access to broadband networks by new entrants through Local Loop Unbundling (LLU), as well as by light touch regulation which has prevailed with respect to abstaining from imposing any onerous requirements for the provision of IPTV. There has been an increasing policy recognition of technological convergence and this has facilitated the development of IPTV”.

Although part of the doctrine considers the regulations on DTT by the same type of TV content fruition applicable, it seems really insufficient on the development of a regulatory environment where there is a sort of network monopoly. In France (the most important IPTV market worldwide), IPTV was regulated early and this attracted investment which was also due to Local Loop Unbundling which forced France Telecom, the former state-owned monopoly, to open up its network to rival operators allowing telecom upstarts and entrenched carriers from other countries to rent access from France Telecom and offer competing broadband services.

5 IPTV business model

The IPTV business model has been discussed from a number of different perspectives. Doherty *et al.* (2004) focus on the right IPTV architecture and quality of services, Liu (2006) analyses the financial prospective of the IPTV model, Carney *et al.* (2006) use Porter's five forces to assess the IPTV business models and Limonard and Tee (2007) focus on the long tail business model (Anderson 2004). In this paper, the business models are classified according to the degree of strategic aggressiveness. Any classification of strategies by types is necessary though somewhat arbitrary and does not consider the infinite variety of circumstances in a continuous changing world, but, at the moment, the classification could be useful for the conceptualisation of the state of the art of IPTV. Miles and Snow (1978) classify firms into one of four groups as prospectors, defenders, analysers, or reactors. If firms have a formal and implied strategic orientation they can be classified into the first three strategic types and as reactors if they do not have a formalized strategic orientation. Assuming a formal and implied strategic orientation of the IPTV operators, reactor strategies are not investigated in this paper. In fact, IPTV operators implement their strategies and business models by analysing all kinds of risks regarding technology, availability of resources, competition, supplier and consumer behaviour, and financial investments. Technical and service design choices explain the fixed cost level of IPTV projects (Bouwman et al. 2008).

The prospector strategy is the most aggressive strategy. It typically involves actions to stimulate new opportunities and new offers to obtain additional market shares. A large proportion of their revenue comes from exclusive contents using a price skimming strategy. They pursue the first mover advantage that will permit them to reach premium pricing opportunities and high margins. Prospector IPTV operators use the premium model subscription formula that allows the user to view basic contents, video-on-demand service and extra services (e.g. games, 3D technology) during a specific subscription period. The video-on-demand service involves choice from a library of content, more or less abundant, distinguished by genre, with varying prices, similar in concept to the catalogue of a library, accompanied by an internal search engine. The operator holds the exclusive rights of premium contents such as football, sporting events and blockbusters. The pay model is applied by operators that attempt to create a critical mass of users to make the acquisition of the exclusive rights of premium contents profitable and can be defined as an aggressive strategy used in market contexts where there is not strong competition between pay-TV platforms. This aggressive strategy has been utilized by Belgacom (Belgium's state-owned telecom company) that, through the high-capacity of broadband services and the rights acquired for live national football matches, is challenging the cable's quasi-monopoly and now controls one-fifth of the digital television market in Flanders (Evens and De Marez 2010).

The analyser strategy is less aggressive than the prospector strategy. Operators have the entrepreneurial problem of how to maintain their shares in the existing markets (Telecom) and how to find and exploit new markets

(Television) and product opportunities. They make gradual and incremental improvements in new products and markets using a penetration strategy. Consequently, they seek technical efficiency to maintain low costs, but they also emphasize new product and service development to remain competitive when the market changes. The analyser strategy adopts a free model where users do not have to pay for contents that mirror the offer available on Free-to-Air DTT. The main source of revenue is advertising. This is the traditional source of revenue for analogue television even though IPTV allows much more interactive and personalized advertising. Video-on-demand is offered in pay-per-view and IPTV operators forge agreements for the reselling of premium contents. The free model is applied by operators that attempt to create a critical mass of users to make the pay per view model (e.g. Orange-France Telecom) profitable and can be considered a quite aggressive and risky strategy. Many telecom operators directly try to compete on the mass-market with DTT and satellite companies. The problem is that Telecom operators expect to take advantage of their expertise and consumer loyalty in the telephone market, but consumers perceive a low convergence between television and broadband service and other platforms have a significant market power. To increase the competitiveness of IPTV, telecom operators that use free model might offer a free value-added service portfolio and, at the same time, an attractive and almost unlimited catalogue (the more content is available, the “stronger” the long tail phenomenon). The focus on contents and low cost of storage and distribution are shifting towards a customized relationship between carriers and consumers which contributes to reducing the churn rate.

The defender strategy is the opposite of the prospector strategy. Defenders try to protect themselves from market changes by keeping low prices for a limited offer and low marketing and technical costs. The defender strategy is applied by operators that attempt to serve a niche of users in market contexts where there is a strong competition and other platforms are market leaders. This is particularly true in Italy where IPTV revenues in 2008 were only 33 million Euros instead of the 2.4 billion Euros of Sky (satellite TV) and the 200 million Euros of Mediaset Premium (DTT) (IEM – Fondazione Rosselli 2010). Defenders use a basic pay model where the subscription formula allows the user to view basic contents and use a certain number of extra services during the specific subscription period at very low cost. In the current IPTV market, all Italian telecom operators (Fastweb, Alice Home TV e Infostrada TV) apply the subscription model (flat rate) and give a internet broadband set-top-box with EPG trying to serve a niche without coming into direct competition with other platforms. Therefore, IPTV operators forge agreements to the reselling of value added contents with Satellite and DTT pay-TV operators. Indeed, satellite and DTT pay-TV operators consider IPTV a promising vector of expansion of their subscriber base with minimal infrastructure cost impact.

6 Methodology and sample

The sample consists of 300 adults living in Rome - Italy (where the digital switchover has been completed) who were interviewed by telephone in January 2010. Telephone numbers were generated from a computerized

random procedure. Characteristics of the sample data are as follows. With regard to gender, 55% were male and 45% were female, with regard to age, 10% were under twenty five years old, 40% were from twenty five to forty years old and 50% over 40 years old and, 10% were unemployed, 35% were temporarily employed and 55% were permanently employed. The survey data were used to answer the following main questions:

1. Are respondents willing to pay for television contents or extra services?
2. Do respondents know what IPTV offers?

Further improvements and research avenues of the study are linked to some limitations to the study. First, the number of observations is limited and future work will involve enlarging the sample of the survey to provide a longitudinal evolution. Second, the respondents all live in Rome whereas a country-wide analysis could represent a good piece of literature on IPTV strategies in Italy.

7 Main results

The subscription-based model and pay-per-view content are becoming a new source of value creation in the television industry because they are accepted by more segments of the population. The survey results show that 35% (satellite 20%, DTT 14% and IPTV 1%) of the respondents are already paid-for-contents users and another 20% is considering paying for extra contents. Although, the availability of contents is considered an important value-adding feature by 20% of the respondents, they are only willing to pay for some exclusive contents: football matches (40%), blockbusters (25%), sports and blockbusters (30%), TV series (7%), interactive services (5%). The offer price is considered the most convincing factor for choosing the digital Pay-TV platform (60%). The superior image and sound quality is perceived as necessary for pay-TV services by 40% of respondents. The survey data suggest that paid-for-contents user can be described as male, from 20 to 40 years old, permanent employed and computer literate. The results demonstrate that users who are willing to pay for extra contents have the same profile as those who are willing to pay for IPTV. However, large proportions of the respondents (80%) do not know what IPTV is. The respondents who claim to be aware of IPTV disagree over how to define it. The confusion declines significantly when an example of an IPTV operator is given. In this case, 30% of the respondents reply that IPTV means watching television via internet access. Age represents the strongest influence on people's awareness of what IPTV means. Younger people are more aware of what IPTV means than people over 40 years old. This represents an important finding with possible implications for the future development of IPTV.

8 Discussion of findings

The potential superiority of IPTV's features in terms of content fruition, quality of the image, interactivity, video-on-demand and pay-per-view channels availability do not guarantee its supremacy over other digital platforms. In Italy, the high lock-in created by satellite and digital terrestrial television makes it harder for people to change platform (due to high switching cost,

time to learn and different infrastructure needed). IPTV has still a marginal role even though it was launched earlier than the competitors. The market share still remains too small and the current financial results do not justify the investment in promotion, design, development of an adequate offer nor attract advertising. The current scenario is likely to push digital terrestrial television to becoming the free-TV standard and consolidate the position of satellite TV as the dominant pay-TV (with DTT as a valid alternative).

It is difficult to estimate future demand for IPTV and predictions are strictly dependent on technological barriers - such as broadband diffusion, the power of servers and the capacity of bandwidth – and consumer behaviour. According to the survey results, there is a widespread misunderstanding or no understanding of what IPTV is. Telecom operators need to proactively encourage the adoption of different consumer behavior in relation to new and different services that can justify the price of premium contents that are perceived by users as being higher than other platforms, because they include the broadband subscription. However, if more customized and personal services are available in the future, a flexible pricing model will become more attractive either by focusing on exclusivity or a wide range of "long tail" niche channels.

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