

**NEW TECHNOLOGY BENEFITS VERSUS RELATIONAL ASSETS: THE CASE OF
THE FAILURE OF INTERNET WIRELESS LOCAL LOOP SERVICE PROVIDERS
IN FRANCE**

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NEW TECHNOLOGY BENEFITS VERSUS RELATIONAL ASSETS: THE CASE OF THE FAILURE OF INTERNET WIRELESS LOCAL LOOP SERVICE PROVIDERS IN FRANCE

Abstract

The goal of this paper is to explain the failure of a new technology initially perceived as promising by European and French Telecommunications regulators (Internet Wireless Local Loop), launched by a new entrant against a long established incumbent. We identify a market segment of demanding users that are more sensitive to the benefits provided by this new technology. However, this market segment also appears to be more sensitive to the existing relational assets of the incumbent company, leaving this new entrant with limited market potential. This research uses the results of a market survey conducted by the authors, on the Small and Medium Enterprises Market, which was perceived as the main market target by this new entrant for this new technology.

Introduction

The aim of this paper is to show how relational assets¹ of a firm can make it hard for competitors to enter a market, by contrasting the ownership of an exclusive technological resource by new entrants, with the relational assets of a powerful competitor.

To this aim, we draw upon the failure of Wireless Local Loop (hereafter WLL)² introduction on the French telecommunication market, through the case of a particular firm called ABC.

Was it a source of competitive advantage? Was its value strong enough to challenge the relational assets of a long established incumbent ?

In the first part we will describe the firm studied (ABC) and in the second part we will present the results of a market survey, whose aim was to go deeper into the analysis of transactional and relational aspects of competition.

ABC and the French Telecommunications market

ABC was the subsidiary of a US telecommunications group offering WLL services to SMEs. The number of employees was about 40 in 2001. The marketing staff was significant (around 12 people), and carefully analysed the market and competitive context before the introduction of services. Several market surveys were conducted with a major consulting firm in order to forecast SMEs' demand, define the offer (trade off study between speed, burst,

¹ The frame of analysis of Resource Based View (Barney 1991, Grant 1991, Wernerfelt 1984), applied to marketing by Srivastava and al. (2001) distinguishes between two types of market-based assets. First, relational assets, that are external assets not owned or fully controlled by the firm, and include relationships with and perceptions held by external stakeholders (channels, customers, networks and eco-systems). Intangible and hard to measure, they are based on factors such as trust and reputation, and may be difficult for rivals to replicate. Second, intellectual assets are internal assets relating to the type of knowledge a firm possesses about its competitive environment. Strongly related to the concept of market orientation (Kohli and Jaworski 1990), they rely on know-what and know-how embedded in individuals and processes, and may be difficult and costly to identify and create. In this framework the key dimensions to assess the value of resources are attributes, benefits, attitudes and network effects.

² Also called fixed-radio access (FRA), WLL is a system that connects subscribers to the public switched telephone network (PSTN) using radio signals as a substitute for copper for all or part of the connection between the subscriber and the switch.

associated services, monthly cost), and define the sales force arguments. It seemed, drawing from the results of these studies, that there was real market potential for the offer.

ABC assumed that the new technology had many advantages over the current competing ADSL technology, which was launched simultaneously by France Telecom: WLL had a higher bit-rate, symmetric bit-rate and a minimum guaranteed bit-rate. ABC claimed that its solutions would allow customers to lower their telecommunications costs from 30 or 40%, compared to the cost of France Telecom's services.

But, quickly after the launch of its services it seemed that the situation turned out to be much more difficult than predicted. It was hard for the German subsidiary to enter its local market, and on the French market, it seemed hard to convince customers. Other WLL providers seemed to experience the same difficulties.

An interview that we conducted in 2001 with the marketing manager of ABC, gave us more information. The main issue outlined was the weight of France Telecom. The marketing manager's analysis was that France Telecom was dominating the education of customers about broadband access. France Telecom, the main incumbent, was trusted by SMEs and they were discovering broadband access through France Telecom³. According to the marketing manager, customers would then try France Telecom offer first, and the only customers ABC could be able to gain were the one disappointed by ADSL. The firm's management therefore considered to restructure its offer: it wondered if it would be useful to propose a non guaranteed, non symmetrical offer similar to the France Telecom's, and to adequately modify the sales forces argument.

According to the marketing manager's analysis, the exclusive licence given by authorities did not seem to be a strong enough resource because of the of customers' needs to

³ France Telecom was currently promoting broadband access by organising "Broadband Days" in the whole country.

decrease their perceived risk. France Telecom's relational assets clearly impeded the development of a new entrant.

Does this argument hold true for all customers? Probably not. It seems reasonable to think that firms for which Internet performance was not crucial would behave in this quasi-automatic way. But, firms which had stronger needs and experience with the Internet would have a more rational approach, more information about market offerings and more confidence in their ability to make the right choice. Hence, the need to be re-assured would probably be lower. But this type of businesses was ABC's core target. Therefore, this explanation of the relative failure of the ABC is not satisfactory.

Another explanation can be given. Some SMEs clearly value the attributes of ABC's offering, but are also sensitive to relationships with their suppliers. The choice of an Internet Service Provider is two-sided. First, there are the characteristics of Internet access, that is the service offered (the transactional context). Second, there is not only the service change but also the supplier change, and here the existing relationship with the supplier must be taken into account. This aspect of customer behaviour seems to have been underestimated by ABC. It raises the following question: would businesses interested in the ABC's offering also be willing to change their supplier, that is, end a relationship even if a better service is available from another supplier? Two questions follow: how important is the relationship with suppliers for businesses interested in the offering? What is the state of the relationship of these customers with their supplier?

The issue considered is the intertwining of transactional and relational contexts in market acceptance, and their importance in defining marketing strategies.

For ABC, it may not have been necessary to modify the product range or sales arguments, because the existing relationships with the operator could be the main market

barrier. A clear and explicit relational policy could have been more beneficial to ABC than their focus on transactional marketing.

The authors conducted a market survey in co-operation with ABC during the last quarter of 2001. The aim of the study was to contrast the two main contexts analysed above: the transactional context (offer characteristics and attractiveness), representing ABC's usual approach, and the relational context (desire for a strong relationship and state of the relationship), that could allow to elaborate a new market approach.

One thousand questionnaires were sent to SME by mail. 53 answers were received. Ten point scales were used measuring agreements.

The questionnaire included measurement of the two main contexts : transactional and relational⁴.

Results

The analysis was conducted in two steps: analysis of the transactional context and analysis of the relational context. Psychometric characteristics of the scales used were tested and were satisfying.

⁴ *Measurement of the Transactional Context (Offer Attractiveness)*. Six benefits were measured: possibility to change bit-rate, expected technology lifetime, speed of transmission, symmetry of bit-rate, guaranteed minimum bite-rate, and cost. We also measured the image of France Telecom, Internet awareness, the desire to have only one supplier, the quality of current equipment, the likelihood of changing bit-rate level.

Measurement of the Relational Context (Relationship Attractiveness). In this part of the questionnaire we used concepts and scales developed in the US research stream of relationship marketing. We draw essentially upon Morgan and Hunt (1994) and introduced items relative to trust, commitment and dependence. Two other concepts of importance for the case we studied were introduced: satisfaction in the relation and relational orientation. Satisfaction in the relation was drawn from Hewett and Bearden (2001). It can be considered as measuring the strength of the relationship (Garbarino and Johnson, 1999; Smith, 1998). If the satisfaction in the current relationship is high, a new entrant may find it hard to win new customers. Relational orientation is derived from the work of De Wulf and al. (2001) and Kothandaraman and Wilson (2000). It is defined as the attitude of the manager toward the involvement in an inter-organisational relationship. Is their a desire to build a long term relationship, to work together for a long time, to be involved or to make efforts in the relationship? We also measured the probability of change of operator.

Transactional Context

Attributes Assessment and Market Segmentation. The aim here was to identify businesses mostly interested in the ABC's offering. Table 1 shows the results of a segmentation exercise based on the main attributes of broadband access technologies. From a hierarchical cluster analysis we can distinguish between two segments. The first segment rates significantly all attributes as less important than the second segments. As the cost attribute is the most important for this segment, we call it the "thrifty users" segment. As the second segment perceives all attributes as important, we call it the "demanding users" segment.

TABLE 1
Segment description according to technology attributes importance (mean rank)

	Segment 1 "Thrifty users" (24 firms)	Segment 2 "demanding users" (21 firms)	Significance of Mann-Whitney's test
Possibility to change bit-rate level rather quickly	14	34	,000
Expected technology lifetime	16	31	,000
Speed of transmission	15	33	,000
Symmetry of bit-rate	16	31	,000
Guaranteed minimum bit-rate	16	31	,000
Cost	19	27	,028

As WLL technology was better than the current ADSL offering on most attributes (especially bit-rate change, speed of transmission, symmetry and guaranteed bit-rate), the "demanding user" segment appears as a possible target for WLL operators. The characterisation of these segments with other items perceived as important can help us to refine our analysis (Table 2).

From Table 2 we can observe that the "demanding users" are (1) more intensive users, are also (2) more demanding concerning more general characteristics of suppliers, and are (3) more aware of the difficulty to manage Internet communications and of the role of the Internet in external relationships. The results for groups (1) and (2) of attributes are congruent with the fact that this segment is more demanding in terms of technology attributes. Concerning group of attributes (2), the fact that this segment is more sensitive to other attributes such as experience, likelihood of continued presence in the market, reputation, commercial

relationships or size, can be interpreted negatively for WLL operators as it is more likely that the market leader would score better on these attributes.

More generally, “demanding users” seem to be more aware of the relational dimension of technology (Information exchange with partners, Internet is improving quality of external relations) and of relations with suppliers (Importance of commercial relationship with an operator).

TABLE 2
Characterisation of segment (mean rank)

	“Thrifty users”	“Demanding users”	Significance of Mann-Whitney’s test
(1)INTERNET USAGE			
Usage of surfing on the Internet	19	27	0,051
Information exchange with partners	19	26	0,060
(2) OPERATORS’ ATTRIBUTES			
Importance of experience	19	28	0,017
Importance of likelihood of continued presence on the market	19	26	0,052
Importance of reputation	19	27	0,047
Importance of commercial relationships	20	27	0,059
Importance of size	18	29	0,005
(3) INTERNET AWARENESS			
The Internet is difficult to manage	19	26	0,037
Internet increase quality of external relations	19	27	0,033

Relational Context

Relational Orientation of Segments. The Mann-Whitney test indicates that mean ranks between segments (16 for thrifty users and 28 for demanding users) are significantly different ($s. = 0,002$). Therefore, “demanding users” are more sensitive to their commitment to the relationship with an operator, whatever the operator. This strong relational orientation of “demanding users” can be interpreted as a drawback for WLL operators, as it can be logically expected that their relational expectations are better met by the main incumbent that benefits from its existing relational assets.

State of Relationships. We deal now with the external aspects (awareness and brand image) and internal aspects (state of relationship) of relationships with operators. In terms of assisted awareness, France Télécom (100%), and Cégetel (92%), the main challenger, are clearly above the main WLL operator (12%). On most image items, France Telecom is also better rated than its main challenger (Table 3)⁵.

TABLE 3
Brand Image: France Telecom vs Cegetel (mean rank)

	France Telecom (market leader)		Cegetel (main challenger)		Wilcoxon's test
	Mean	Mean rank	Mean	Mean rank	Significance
Network experience	9	13	7	8	0.004
Organisational soundness	8	14	8	10	0.006
Geographical coverage	8	18	8	9	0.003
Service quality	8	10	7	9	0.029
Price attractiveness	5	11	6	9	0.002

With regard to the state of relationships with operators, no significant differences appeared between France Telecom and other operators on the following variables : dependence, trust, commitment, satisfaction and propensity to leave existing suppliers. But, the levels of quality of relationships were high, especially in the case of France Telecom.

From these results, it seems difficult for a new entrant to penetrate this market, due to rather high quality of relationships. This is confirmed by the low scores for “propensity to leave existing suppliers”.

Conclusion

The focus of this paper is to contrast the ownership of an exclusive technological resource by new entrants, with the relational assets of a powerful competitor (France Telecom). In particular, it highlights the important role of relational assets, even in industries

⁵ Due to the low number of respondents, WLL operators could not be included.

with a strong technological component such as the telecommunications industry⁶. The results of the market survey presented here show that the value of this resource, measured in terms of benefits, is positively perceived by a group of “demanding customers”. However, it also shows that these benefits must be balanced with other more general attributes, such as reputation, market coverage, commercial relationships, experience, likelihood of continued presence in the market, or service quality. Moreover, the group of “demanding customers” also shows a more pronounced relational orientation towards their operator, that we assume to be more beneficial for the incumbent firm than for new entrants. Finally, we find that France Telecom benefits from a better brand image on most items than other competitors.

Therefore, one possible interpretation of the relative failure of WLL operators is that the benefits associated with this new technology could not balance the relational assets developed by France Telecom over time. This hypothesis is all the more plausible as we did not identify “lock-in” effects or significant switching costs for customers in adopting this new technology. The adoption of WLL implies the installation of specific equipment, whose costs were mostly borne by suppliers. It does not have any impacts on issues such as standards of communication or computing, information systems or employee training. The only switching cost was the cost of dealing with more than one supplier, as WLL operators were not supplying a full range of telecommunications services at that time. Obviously France Telecom benefits from ex-ante limitation to competition from its past monopoly status. In the 90’s, France Telecom adopted a market orientation (Vialle 1996), and had enough time to develop relational assets, that can be the source of competitive advantage.

⁶ See also Vialle and EpINETTE (2003), for an analysis of the partnering strategy of France Telecom from a resource-based perspective.

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