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3G

Killer Application – the Business Model

Swisscom Reprotechnik

Operators are scrambling to find the killer application that will allow them to maximise their 3G ROI (Return on Investment). But are they looking in the right place for this ROI? They may be scrambling after something that does not exist. Profits do exist, but the killer application does not. In order to profit from 3G services, operators need to look beyond traditional consumer markets and focus on enterprises and communities of interest.

Once the appropriate services are identified for these groups, a tried and true business model featuring compelling services and pricing targeted to the distinct needs of the market will be the killer application that will allow them to bring in the highest profit.

SERGE SOUDOPLATTOFF

3G – Beyond Gambling Games and Girls

Since its introduction, and particularly since the recent demise of some of telecommunications giants, 3G has generated hopes, hypes, quotes. The titles of three articles from Zdnet show the evolution of the industry's 3G temperature, from hot in 2000 to cold in 2002.

- 3G: The next dot-com stock-rush? (August 2000)
- 3G: Operators will wait 15 years to recoup 3G costs (October 2000)
- 3G: Do not believe the hype (June 2002)

Executive managers of wireless operators' 3G programs across the globe have invested millions of dollars or euros in 3G, including the licences, and now wake up every morning with the same questions: Where is the money in 3G? Who is going to buy it? What will be the learning curve? And to sum it all up: What is the killer application for 3G?

If this marketing manager were to look up «3G Killer application» in a search engine, here is a sample of the answers provided among hundreds of articles:

- quality imaging [1]
- show and tell [2]
- location based services [3]
- uniting the congress [4]
- Girls Gambling and Games [5]

But all these proposed answers mean that there is no real answer. Marketing managers must face up to the fact that there is no killer application for 3G, and there never will be.

The recent problems of decreasing ARPU and market saturation exacerbate the lack of a killer application for 3G, and makes recuperating investments in this cooling technology an exercise in imagination. In this article, we will show that instead of killing themselves over the killer application, executives should be looking for proper business models that address the specific needs of various markets. This can only be done through extensive testing of the price, not through free trials, as so many operators believe. Testing and refining is the rule in the present economy.

Potential Extra Revenues Exist

Wireless operators have built their image, network, and revenues based on what the «average» consumer wants. These operators search for the application that would attract the largest numbers of users in order to generate the maximum revenue. For example, NTT Docomo generated 650 M € of revenues in 2001 with i-mode. Ring tone accounted for the largest share of this revenue (25%), Horoscope services came in second (17%).

Does this mean that ring tone is the killer application? The revenue generated is far from impressive, and the gain in ARPU is very modest. If we consider the few million users of i-mode at that time, ring tones augments the ARPU only by € 3. The total i-mode application augmentation of ARPU is € 12 [1]. This is good, but only covers the drop of ARPU on voice, and the overall result is flat. Extra revenues generated so far do not cover investments. Just for the UMTS licence, wireless operators have spent € 1000 per user.

If extra revenues cannot be found in pseudo killer applications, nor in price increases, they must be found in the exploration of markets which have not yet been properly addressed. Wireless operators must bring very specific applications to these new markets which are found beyond traditional consumer markets. Two such markets are explored below: enterprises, and communities of interest.

Enterprise Market

The enterprise market has its own needs for specific services. Probably the most important is a seamless integration of services with the intranet of the company. This is true also with convergent services. For example, companies have recently launched mobile data access platforms that deliver groupware services over mobile phones. This is something that the general public does not care about, but represents high value for professional use.

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[1] http://www.haas-abc.org/docs/Yoshikawa_Berkeley_Mar2002.pdf

Considering the number of people working for companies, and the amount of money spent professionally, this represents a lucrative market. The amount of people working in corporate enterprises is roughly equal to half the number of subscribers of wireless services. The number of teleworkers has increased by 17% in 2001 in the US. Wireless services for these professionals may cost up to € 100 per month for the users and their companies. This represents an increase in ARPU of approximately € 25. Due to increasingly congested traffic, pollution, cost for travel and other inconveniences linked to working in an office, both mobility and home working will continue to increase.

Traditionally, corporate telecommunication customers have been astute negotiators for the price of their voice services in order to control the cost of their heavy use of telecommunication services relative to the consumer market.

With the advent of convergent voice and data services, pricing continues to remain a primary concern for corporate buyers. However, corporate users are often responsible for the launch of new types of services that do not necessarily attract the consumer market yet – such as mobile access to a network of corporate information. Therefore, operators need to know how to put the right price on the right service in order to take advantage of this spring board for new services.

Technically speaking, it is getting easier to develop new wireless services. The differentiating factor for wireless operators or MVNOs is their capacity to deliver proper pricing for services, while maintaining a profitable margin. This requires the capacity to:

- offer pricing that will satisfy the customers,
- negotiate with all partners (content and services providers, access providers, etc.) to ensure the operator's margin,
- rapidly financially test and implement the entire business model, including new price plan and partner revenue sharing.

Rapidly modelling the business ecosystem within the operator's IT system is fundamental to choosing content and service provider partners.

Moreover, the recent growth of chargeback functionalities in the US is likely to reach Europe. Not only do enterprises want the best prices, but they want global offers with the capacity to manage accounting and internal price management among divisions, business units, geographical cost centers, subcontractors, etc. The service provider is the one who traditionally hosts chargeback functionalities for corporate companies. The ROI for implementing these chargeback services for corporate clients is very fast, usually a few months. Traditionally, chargeback is applied on network access and storage services, but corporate clients will obviously want to apply the same methods to 3G services. There is no killer application here, just common sense, and potential revenues for everybody.

Communities of Interest

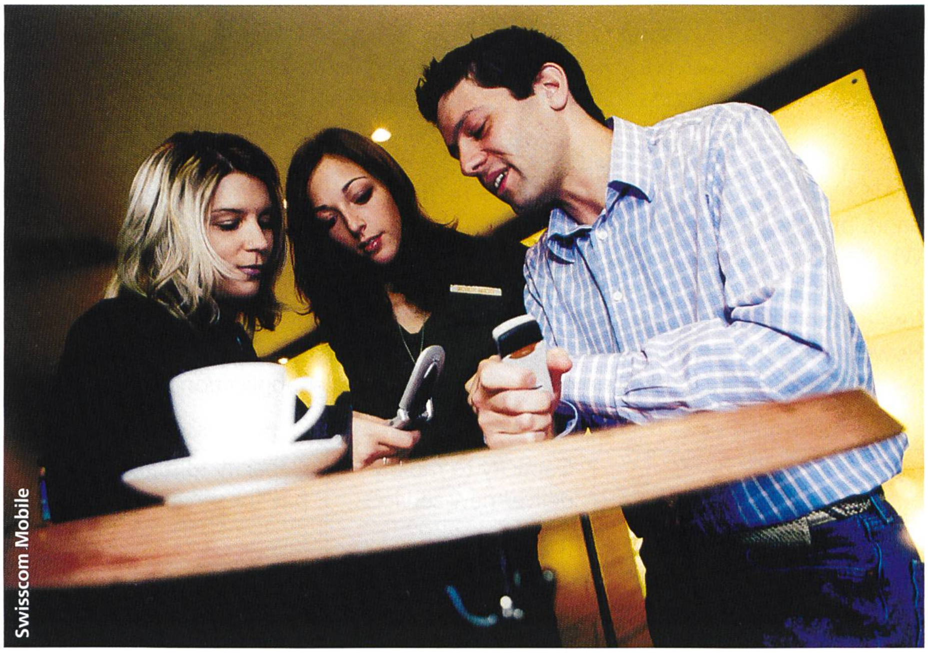
For our purposes we could define a community of interest as "a small group of people who share a common interest, whether a profession or leisure activity, which leads them to exchange information."

Providers such as Yahoo Groups (formerly egroups) host forums on topics which vary from candle making to classical music or Adobe Premiere users. "Alerts" among the members of the group may indicate the discovery of a rare book or CD, a concert where new tickets are suddenly available or a cheap place to shop. I am a member of one of these communities myself. When I found a rare CD in a bookstore one day I thought that it would have been nice to be able to browse a database to research its value and send a message to some of my co-enthusiasts in order to make the decision or not to buy the three remaining CDs, all this of course while still in the shop.

As an example, approximately 70% of French people are members of an association. If the proper services are delivered to the members of communities of interest, this can again represent a huge potential for increasing ARPU.

Communities of interest also include professionals, such as lawyers, doctors, etc. They are all consuming information, sharing practical information with each other, and they all have great needs in terms of services and mobility. For example, a doctor needs different services at home than those he may need while he is in his surgery or travelling or making rounds at the hospital. In each of these situations he needs to keep track of information, be part of the hospital extranet, share with colleagues, etc.

Another example is the French Automotive Mechanics association. Members range from small two-employee garages to full-service car dealerships employing 150 people. The association wanted to offer many services such as labour legislation information, access to automotive technical databases, links to insurance companies, and the possibility to communicate with car owners through SMS


Swisscom Mobile

(to send updates on the car repairs).
The person in charge of setting up these services does not need help with the services, he needs help creating his business model, pricing his services and managing his value chain of partners.
Considering the range of repairmen adhering to the association, pricing was not easy: the two-man operation does not have the same resources or needs as the 150-employee dealership. If innovative pricing is applied and tested, then each "client" member can be satisfied and all partners providing services or content can be rewarded.
On all markets, the winning player is the one who is able to set up an economy very rapidly, including finding the proper partners, jointly creating the value, capturing the value, and sharing the value. In those markets, there is a huge potential for revenues and profit, and the killer application is nothing mysterious, it is simply the killer business model.

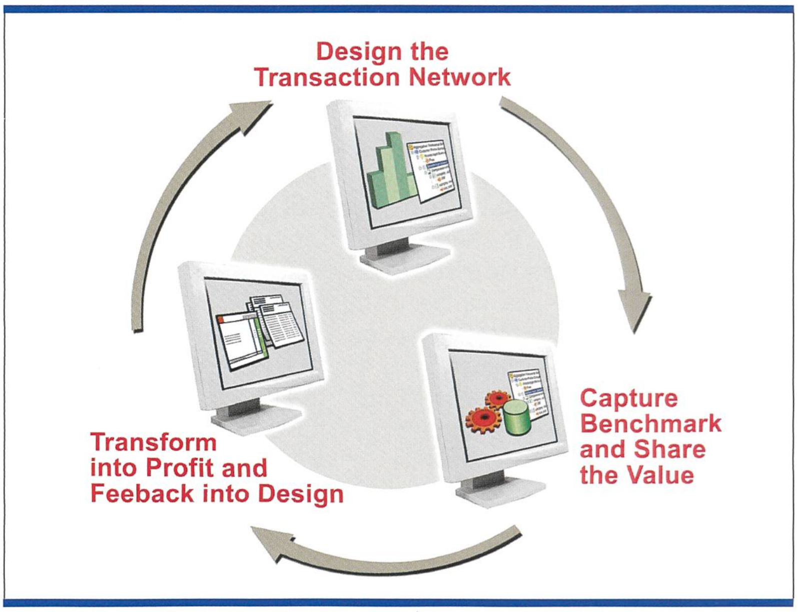

Design the Transaction Network
Capture Benchmark and Share the Value
Transform into Profit and Feeback into Design

Figure 1

Internet versus Wireless

3G is facing a potential threat, called WI-FI.
WI-FI was born with the same culture as Internet. A culture of freedom, network, small players who do not hesitate to try new technology, a culture where first comers more are concerned with social aspects of their activity than with the financial rewards.
The price of becoming a provider of access is low. All you need is:

- WI-FI antenna: 700 $
- DSL line: 50 $ a month
- Computer
- PCMCIA card on the laptop side: less than 150 $

With this, anyone within a 200 m radius can have a 2 Mbit/s access to the Internet.
As a mobile person, why should I go to UMTS? With my GSM phone in one hand, my WI-FI card in the other, and WI-FI spots in airports, hotels, trains, airplanes this is all I need to access the Internet with the same speed.
However, like the Internet, WI-FI has a major drawback: the business model. Trial and error for free is meaningless. Yahoo! is still dealing with the consequences of switching from free to pay content.
The disadvantage for wireless operators is that keeping up with market trends and delivering new services involve costly implementation and lengthy lead times. However, to overcome this hurdle, they can take the lead from other actors in the telecommunications space such as AOL.
The Internet world is continuing to develop the concept of the "Walled Garden." AOL pioneered the concept of providing password protected environment where users can access AOL's branded pay-per-use services.
This concept is well known by wireless providers and has become their strength. Table 1 shows the service delivery/technology matrix as it stands today. In the future, winning companies will have to be able to display "High" in both the delivery and pay categories.
The "Walled Garden" concept could allow the Internet/WI-FI services to attain a high capacity for making people pay for services. On the other hand, if wireless operators understand the thousands of services they can offer, and understand that the killer application is the business model, then they too may reach a high capacity for making people pay for services.

	Capacity to rapidly deliver new services	Capacity to make people pay for services
Internet (and WI-FI) World	high	low
Wireless world	low	high

Table 1

Dynamic Transaction Management

Traditionally, in order to test a market for a new application, providers tend to launch a six-month free trial. This has two drawbacks:

- The pricing question cannot be answered by six months of free usage. At the end of the trial period, the provider still does not know what the users are willing to pay.
- After the trial period, users tend to either go away or pay reluctantly. And those who stay are very few in number. Therefore, customers, whether real or potential, are unhappy.

Now, the question is to convert this negative process into a positive one. In today's intangible economy, values are no longer in the production of goods but in the transactions surrounding value-added services. Simple relations between buyers and vendors have become a complex web of relations within a business eco-system, where end users of services are not necessarily the payers. In this new world, business models need to adapt to the dynamic aspect of this network economy.
The question is then how to dynamically design, and change business models. The process consists of the following steps (fig. 1):
Design the Transaction Network:

- identify groups of people with common needs (the communities of interest), or

- identify and segment the enterprise and corporate market
- identify content or services which they need (they will tell you)
- identify all partners necessary in the business eco-system

Capture, Benchmark, and Share the Value:

- manage the entire business model: What are the contracts in the B2B part of the ecosystem? What is the final price for the final users?

Transform into Profit and Feedback to Redesign:

- Repeat the process, add new services, change price plans very often until the killer business model is found.

This is what Yankee Group calls DTM, for Dynamic Transaction Management[2]."

Design the Transaction Network

- Capacity to design, or change, all contractual relationships within partners, in a short time, whatever the topology of the transaction network (forward value chain, bundle, settlement, commissioning, sponsorship, etc.) and to manage multiple accounting systems (standard money, loyalty scheme, bartering, roaming, clearing etc.)
- Capacity to design, or change, all price plans in a very short time, whatever the complexity, and for any type of convergent service (voice, data, application, content etc.)
- Capacity to simulate profit on the network, and to play different scenarios

Capture, Benchmark, and Share the Value

- Fast implementation of all contractual relations between partners in the network.
- Real-time rating of all convergent transactions in the network, for different accounting units, and over the whole network
- Efficient management of high volume of data

Transform into Profit

- Capacity to report efficiently inside the network
- Capacity to track profit in real time
- Capacity to use the results to feedback changes in pricing structures

Billing systems were traditionally designed to manage a linear, stable, tangible economy. The set of DTM tools answers the question of how to manage such a dynamic intangible economy. Simulation capacities, fast implementation and change of price plans, automatic computing of everybody's share of the value becomes the killer function to transform value into profit.

Zusammenfassung

Das Geschäftsmodell als Killer-Applikation

Die Betreiber suchen fieberhaft nach der Killer-Applikation, die ihren Return on Investment (ROI) aus dem 3G-Geschäft zu maximieren verspricht. Doch suchen sie am richtigen Ort? Und gibt es sie überhaupt? Die Gewinne, die gibt es, aber die Killer-Applikation gibt es nicht. Wenn die Betreiber aus den Diensten der dritten Generation Kapital schlagen wollen, müssen sie ihr Augenmerk über den traditionellen Konsumgütermarkt hinweg auf die Firmen und Interessengemeinschaften richten.

Wer das Erfolg versprechende Geschäftsmodell finden will, muss sich in die Verbraucher in allen ihren Lebenslagen hineindenken und sie verstehen können. Denn es gibt nicht nur den John, der Klingeltöne herunterladen und ein bisschen spielen will. Es gibt auch den John in seinen vier Wänden, den John am Arbeitsplatz, den John im Club, den John am Sonntag und viele weitere Johns, und jeder von ihnen möchte sein Mobilfunkgerät entsprechend seiner augenblicklichen Beschäftigung nutzen können.

Die Wertschöpfung erfolgt in der heutigen immateriellen Wirtschaft nicht mehr durch die Herstellung von Gütern, sondern durch die Transaktionen, die im Umfeld der Mehrwertdienste stattfinden. Aus den Beziehungen zwischen Käufern und Verkäufern ist ein komplexes, in ein wirtschaftliches Ökosystem eingebettetes Beziehungsnetz geworden, in dem die Endbenutzer der Dienste nicht immer auch die Zahler sind. Und mit der Dynamik dieser vernetzten Wirtschaft muss das Geschäftsmodell mithalten können.

Das aber kann es nur, wenn es sich ebenso dynamisch entwerfen und anpassen lässt. Der Prozess, der dies zu leisten vermag, läuft wie folgt ab:

Transaktionsnetz entwerfen

- Die Personengruppen mit gemeinsamen Bedürfnissen (Interessengemeinschaften) ausfindig machen bzw.
- den Firmen- und Unternehmensmarkt bestimmen und segmentieren.
- Die Inhalte und Dienste ausfindig machen, die sich diese Interessengemeinschaften wünschen. Welche das sind, werden sie Ihnen schon sagen.
- Alle Partner ausfindig machen, die es in diesem wirtschaftlichen Ökosystem braucht.

Wertschöpfung bestimmen, benchmarken und mit den Partnern teilen

- Das Geschäftsmodell in seiner Ganzheit beherrschen: Welche Verträge gibt es in dem Teil des Ökosystems, der auf das B2B-Geschäft entfällt? Welchen Endpreis bezahlen die Endbenutzer?

Gewinn und Feedback aus Geschäftsmodell zu dessen Umgestaltung nutzen

- Den Prozess wiederholen, neue Dienste hinzufügen und die Preispläne so oft ändern, bis das Killer-Geschäftsmodell gefunden ist.

Das ist es, was die Yankee Group «Dynamic Transaction Management», abgekürzt DTM, nennt.

Der Erfolg von 3G wird davon abhängen, wie gut das Geschäftsmodell verstanden wird: Mit wem muss ich zusammenspannen, wenn ich einer Gemeinschaft oder einer Firma schnell die richtigen Dienste anbieten will, wenn die Preise und Entgelte stimmen sollen, wenn ich mir die technischen Hilfsmittel verschaffen will, die mir diese neue Wirtschaft zu meistern erlauben? Es gibt keine andere Killer-Applikation als das Geschäftsmodell.

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[2] "The Evolution of Price Modelling: From Billing to Dynamic Transaction Management" – Paul Hughes, Copyright © 2002 by the Yankee Group.

Conclusion

To provide the right business models, consumers need to be understood in a variety of contexts. There is not only one John who statistically wants to download ring tones or do some gambling. There is John at home, John at work, John at the club, John on Sunday, etc. and each of them has different needs in terms of mobile access.

The success of 3G will be the combination of a good understanding of the business model: whom shall I partner in order to quickly deliver the proper services to a community or an enterprise and the proper pricing and rewarding, and the use of proper tools to manage this new economy?

There is no other killer application than the business model. 2

***Serge Soudoplatoff**, Co-founder and Chief Strategy Officer of Highdeal, Caen, France.*

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Links

[1] http://comment.zdnet.co.uk/story/0,t479-s2117015,00.html
[2] http://zdnet.com.com/2100-1107-531198.html
[3] http://www.computing.co.uk/News/1117763
[4] http://www.nwfusion.com/news/2001/0612killerapp.html
[5] http://www.mobile.commerce.net.story.php?story_id=1333

Glossary

ARPU	for Average Revenue per User
AOL	America-online, largest online-service in US

4. SICTA-Kolloquium

MOBILKOMMUNIKATION QUO VADIS?

Donnerstag, 10. April 2003, 09:30–16:20 Uhr
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Was sind die Voraussetzungen für eine erfolgreiche Einführung von «next generation mobile networks and services»? Wie sind die Zukunftsperspektiven für UMTS in der Schweiz bezüglich geographischer Versorgung, Roaming und Shared Infrastructure? Wo sind die Grenzen mobiler Kommunikation?

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