Jos Gerrese
Holtlant 16, 2353 GC Leiderdorp
Phone: +31(0)71 5416959; Fax: +31(0)71 5894800; email: j.gerrese@wxs.nl

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Title: Pricing in the "Newest Economy"

About the Author:

Jos Gerrese was born in 1944 in Rotterdam.
He graduated in 1973 from the Technical University of Delft – Telecommunications Technologies.
Currently he is president-owner of **GANESHA consult** which he started in August 2001, operating in the Telecom / ICT and Interim Management arena.
He began his career with PTT Telecommunications - now KPN - and held a large range of positions in research, marketing, organisation development and new services introduction.
From 1984 till 1989 he was Director of a Post and Telecoms consultancy firm Nepostel in Indonesia responsible for South East Asia.
From 1989 onwards he held senior product- and marketing management positions in KPN, AT&T-Unisource and latest Ipulsys till May 2001.
From 1990 – 1993 he was president of a European Telecom Operators Consortium EBIT, later GLOBAND, building the first switched broadband network over Europe.
Jos is a frequent speaker and did lectures at over 40 international telecom seminars throughout Europe on a wide range of topics over the last two years. He is a respected member of FITCE in which he held several positions.

PRICING IN THE "NEWEST ECONOMY"

1. Summary

The recent years have shown a dramatic decline in telecommunications profits. At least three main reasons for this can be identified.

1. the lack of proper business planning in the IP services sector resulting in high investments which were not met by sufficient revenues
2. over-extension in banking loans to cover for wild investments in UMTS licences, resulting in interest commitments that put a too heavy burden on normal revenue generation
3. the incredible price erosion for trunk capacities, resulting in a serious almost non-recoverable gap between investments per megabit and revenues per megabit

The last year and only recently we have seen major and seemingly successful companies (Global Crossing, Carrier 1, GTS, KPN-Qwest [1]) hit the rocky shores.
It is clear that the telecoms world operates in a non-sustainable business model which cannot last much longer.
The article will analyse the problem causes and will give directions for solutions for a return to a potential healthy telecom business environment. The article is structured as follows:

[1] At the time of writing this article warnings of near-bankruptcy of KPN-Qwest appeared in the press.

An overview of the current telecommunications situation (chap. 2); an analysis of a range of causes that led to the current situation (chap. 3); introduction of the concept "Newest Economy" (chap. 4); indication of possible solutions (chap. 5); a couple of attention points (chap.6); and conclusions (chap.7).

2. Current Situation

The past 30 months have shown that a complete industry sector could turn from a very prosperous situation into a very worrisome state where one company after the other hits the rocky shores and needs to be salvaged or completely disappears. The first point to make here is that short-term prosperity is not the same as long-term health. The comparison with a couple of verbs comes to mind: building castles on ice – when the ice melts, the castle disappears -; building air-castles – the bubble can burst- and maybe the combination of the two applies to the current situation. In general it can be said that three main causes can be identified for this miserable situation.

Cause 1. It started with the explosion of the internet TCP/IP services. Triggered by the first steep exponential growth of residential use companies started to make growth projections and to commit to investments in cable systems that should meet the projected demands. Fierce competition, price erosion, huge over-capacity and failing demand caused the down-hill.

Cause 2. The second main factor which initially affected mainly the incumbents is again far over-optimistic planning of mobile telecommunications services, culminating in the infamous UMTS auctions. This initially brought a couple of companies almost on their knees, but a direct effect was that the banking sector became over-extended in the telecoms portfolio and had no room for further investments in telecoms and related developments.
Governments can be held partly responsible for forcing these mechanisms.

Cause 3. The third factor lies in the fact that deregulation drove new market entrants into huge infrastructure investments which by a combination of price erosion and failing market shares never came to fruition.

Despite the fact that the industry is in a bad situation it can be stated that telecommunications is still a growing market segment and if the hype effects are taken out of the trends, a still healthy normal growth pattern remains *(Fig. 1).* Existing users increase their voice and data volumes constantly, globalisation continues and requires new service types, new connection strategies and new applications. Therefore there is basically no reason why the telecoms industry could not be a very healthy segment.

3. How did it come that far
3.1. The Internet hype.
Since the first boom of the public Internet and the WWW, American and subsequently European visionaries and marketeers forecasted that IP would be the one and only solution for all applications to be used by everyone. Ordinary telephony would be replaced by IP-voice services; companies would gradually move from physical to electronic business models. Incumbents and new telcos anticipating this development started building the terrestrial and cross-ocean fiber infrastructures to support the

exploding traffic volumes. At the same time in this euphoric state everyone with a potential idea was able to raise money, start a company to develop the idea and sell it on the potential value before any results were available. In the ownership chain people made huge financial profits on shares but the last owner often faced the problem of a not operable or non-sellable service.
Many corporation had just undergone un uplift of the telecom infrastructure by investing in Frame Relay data services. The forecasted rapid take-off of IP-VPN services did not take place and still has hardly appeared on the map because customers have no money for new investments and rightfully they do not yet trust the quality, the reliability and the security of the internet based services.

3.2 The Infrastructure
Predictions for required capacities to carry all the IP traffic ranged from doubling per year to doubling per quarter. MCI-WorldCom for instance preached at each and every seminar which they attended that the industry should build for a doubling per quarter and they warned for disastrous effects if it would not be done *(Fig. 2).*
At the same time the new telcos were building European-wide country and city-rings, all in parallel, all suffering from the same problem of the last mile to the customer sites and from fierce competition which was stimulated by national and European regulators.
As a result of new technologies, the competition and lacking growth the new built infrastructures are now estimated to be 90% idle (non-lighted) and the unit prices have fallen about 90% in the same time[2].
Companies can today recover only 10 – 25 % of their investments on a unit basis. This means that basically each deal yields not enough to recover costs and is most of the time loss-making *(Fig. 3).*
An article in Communications International by Elizabeth Briddlecombe provides interesting details.

3.3 The Mobile world.
We have seen a number of now almost classic mistakes in the telecom world. The mistakes are that clever developers design things that are technical feasible, beautiful and attractive. They expect that the world sees it the same way. Good examples are ISDN, Videotex, ATM, WAP, beautiful designs but commercial disasters.
The Internet / WWW is about the only service which reached its position by shear customer demand and requirements. The developers in this case were running after the facts while trying to catch-up.
With the boom of the GMS usage it was no surprise that the combination with IP-Internet was made. Forecasters dreamed of personalized, location based IP based services for the mobile customer; for students without money; for stupid traveling businessmen who do not know where to go, where to sleep or where to eat; games were going to be used by youngsters (games / SMS), infotainment and porno by adults, and all types of business oriented applications for people on the move. In reality the games and the porno are doing well [3]. These people assumed that customers on the move really want to browse the internet, receive advertisements, shop-offerings on their mobile phone handsets while walking or driving through the crowds. These untested scenarios would scream for

[2] Report The Silence of the Lambdas by Yankee group
[3] If porno was removed from the internet the bandwidth capacity would reduce to about 50 % (Comm's International)

broadband mobile services and GPRS followed by UMTS appeared on the radar screen as the next developments, all based on the assumptions that users would USE it and PAY for it. During two years of seminars nobody has come forward with even one killer application (unless interpreted in a very literal way), neither has the industry indicated possible price levels for usage.
A next example of the classic mistake by technology push was born.
Since governments control the airspace and the frequency spectrum they found a very attractive source of fresh money by selling licenses via auctions and beauty contests to potential operators. These made it possible for governments to cash in 10 years of tax advances, leaving the license buyers near broke or at least over-exposed with the banks.
GSM in the meantime is reaching market saturation. The real bad news is that the payments for licenses have only covered the right to deploy UMTS. To be able to operate the service comparable amounts of money have to be invested in new infrastructure, development of applications and marketing. Hardly any company has started to make these investments for deploying the UMTS. KPN has introduced I-Mode with GPRS and probably awaits its success before investing in UMTS. It must be stated here that market trials were people can try the service for free are never representative for the later success under normal commercial conditions where user have to pay the price. These tests are only good to test the proper operations of services.

3.4. The Money Trail
Of the funds invested in new fiber networks 70-90 % is dead money because of idle capacities.
Money paid for UMTS licenses is dead money at least for the next five years and comparable amounts of money have to be invested first in infrastructure, and service applications and marketing before these investments can be brought to life.
Venture capitalists, investment bankers and other funding suppliers have learned that "castles build on ice" do not bring the expected profits and they have been decreasing and cutting off the money flows. Companies are falling over by the day because they are in a non-sustainable business environment were, although revenues are growing, the losses grow as well and sometimes faster.
Banks have a policy to divide their money over various industry segments. Currently the telecom sector is over-exposed. This means that for new telecom developments even with very positive expectations no money can be found because banks must invest in other industry segments to restore the balance.

3.5 The "New Economy" concept of the late nineties.
Taking this concept slightly cynical it can be summarized as "Do without Thinking".
Entrepreneurship in this new style has failed royally. Because of this failure companies had to sell their products and services at just any price to make a bit of contribution and therefore giving discounts was the competitive and suicidal tool. The customer gets what he wants at any price (sometimes no price) because having the customer was more important than (profitable) revenues. "The many **dot.com** have turned into **dot.gone**".
The concept of free-service became popular. Customers liked it but rapidly required service quality comparable to regular services. This requires additional investments and operational efforts.
"When something is free, usually someone else is paying the bill".
The New Economy has proven not to be a viable concept and the exploding business balloons all around demonstrate that sufficiently.

Something else is needed.

4. The "Newest Economy" of 2002.
In a recent column for the FITCE Forum the concept of the "**Newest Economy**" was introduced. The "Newest Economy" is based on a very simple concept namely **PROFIT**. The telecom industry has obviously forgotten that a long-term successful enterprise needs profits to make the success sustainable. To refresh some fundamentals: *profits will be the result when the revenues are higher than the costs*. To implement this and to run a business so that indeed profits are generated is a bit more complex than just the simple equation given above.
Important elements or conditions are:

- each individual service must be cash flow (NPV [4]) positive after a defined time frame
- each customer must be profitable on the total portfolio sold to him almost from the beginning
- all financial analysis must be based on integral costing and pricing.
  Exceptions to this rule can be temporarily allowed for new product introductions but they should be managed very carefully.
- The Free Service concept is no longer viable. Customers must pay a fair price for services the use.

5. Solution Directions
Implementation of the "Newest Economy" requires a series of carefully planned activities including:

Policies in general: companies must state what they want to do in their business, how they want to do it and to define some key values to be achieved (like a x% profit margin after tax).

Pricing and costing: product pricing should be done in such a way that prices incorporate direct + indirect costs + allocated overhead costs. If the staff drives Porsches as company cars the products must pay for those as well.

Business planning geared for profits: business planning must incorporate all eventualities and especially should take into account the whole system of discounting. Discounts are to be considered as a risk and cost factor and must be build-in into the pricing.

Control of the sales process: the common practice in the industry is that sales persons are remunerated on a percentage basis of the revenue value of the sale when a sales has been closed. It is recommended that sales commission should at least be partially based on
- the annual value, stimulating multi-year contracts and account management
- the profitability of the deal and not just the revenue value
- The time a service becomes operational and starts generating revenues. There could be a substantial time lapse between contract closure and first revenue in the bank.

[4] Net Present Value

Sales is by nature more driven by closing a deal at all cost than by the profitability of the deal. Discounts are a very dangerous tool and they should be controlled forcefully.

Service Development strategies: The time-to-market requirements for new products are becoming shorting and shorter. This means that little time is available for market testing. This raises the risk level of failed introductions. It is therefore necessary to control the service development steps rigorously and make optimal use of available resources and opportunities. Stopping a project in time can be a lot cheaper than launching a service too late. Many developments will not end in success. The "chasm and tornado" [5] [6] theory is very important *(Fig 4)* because it warns against over-optimism in launching new products and services. Often development projects are undertaken without a proper justification but under the heading of strategy [7].

Discount budget control: As stated above it is very important to control the discounting. Bringing the discount into the prices is one thing; allocating budgets to the various responsibility levels in a company is an other very helpful tool. It basically means that if for some "strategic" reason the Sales boss decides to give an extra non-standard discount for a bid it will be subtracted from his budget and not from the Product management budget. It is a fair way to manage performance and give performance bonuses. It is also an additional tool to watch over profitability.

For each of the above given elements there are complete textbooks and study programs in the top business schools. It should not be taken lightly.

Bandwidth price erosion:
The given situation of the dramatically fallen unit prices of bandwidth capacity is an issue in itself. The new companies that have invested heavily in new fiber capacity have a couple of options, depending on the strength of the finances.
If they are strong enough like some of the incumbents they can take their losses and start selling the network at prices that are profitable against the new cost base. This will mean in general that prices for bandwidth will go up. Interestingly this has already been announced by KPN-Qwest and also by KPN itself. They are raising the price levels for international capacity, and in the case of KPN for the ADSL connections (25%).
Companies with a weaker purse have basically two options:

1. be bought under a M&A (Mergers and Acquisitions) [8] program and after re-organisation continue with the business;
2. continue with the business as a loss-making enterprise and go broke eventually. Other going companies may pick up the pieces at reasonable prices and re-create a profitable business. This is a Darwin-type approach of survival of the fittest. Although we may not like the sound of this, it will sort-out the telecom environment relatively fast, repair at least some of the share values and restore the positive image of the telecom sector.

[5] book: Inside the Tornado by Geoffrey A. Moore
[6] Proceedings FITCE congress 2001, pg 159
[7] "If you want to do something, but lack the business justification and still want to do it, you call it strategy (Gerrese 1997)
[8] sometimes called: Murders and Assassinations

The victims of such a process could apply for some help from the governments – probably with little success - as their regulating bodies are at least partly responsible for this situation. Competition was almost forced upon the market and the auctions for UMTS made it worse.
A new approach has now been proposed (for instance by a company named Q-Optics) where bandwidth from various owners is brought into a pool structure and is managed as such. Companies in need of capacity especially for short-term can arrange a lease contract for the required capacity and period with the pool manager. The unit price is of course higher but the cost of owner ship is much lower.

6. Attention Points

- Data volumes have surpassed the traffic volumes for traditional voice. A statement made proudly by companies and analysts who seek arguments for infrastructure investments, including UMTS. The raw fact however is that almost nobody in the world has made any profits on data (IP) traffic. The only profitable service is traditional voice with perhaps a bit of profit on the traditional Frame Relay. One should not too easily migrate to voice over data solutions. Only if substantial cost savings and acceptable quality can be achieved it may be worthwhile, for instance on in-company networks.

- The upfront investments necessary in infrastructure to start and run a telecommunications business are more than substantial. Severe audits on the business case and on the incoming business results may avoid serious shipwrecks later.

- The concept of "The customer is King and he should always get what he wants" is still valid, however under the important new condition that the king should render profitable revenues. Nobody needs a loss generating customer (king). Customer satisfaction must go hand in hand with supplier satisfaction.

- The role of European and national regulators should be reconsidered. The artificially created competition climate has stimulated a series of new companies to enter the business. In general realistic possible market shares were insufficient to create momentum and a sufficient revenue base to ever become profitable. When ten companies each claim to reach a 20 % market share something is bound to go wrong.

- Many operators try to escape the revenue trap by attempts to climb the value chain. The main reason is that higher value products and services generate higher profits per unit than for instance bandwidth and transport services *(Fig 5)*. It is often overlooked that a small percentage on a large amount of money (bandwidth) may be a lot more cash than a higher percentage on a unit of value added service. Apart from the cash aspect it requires a totally different skill set in management and sales to run a value added service *(Fig 6)*.

- Non-standard bids should be managed very carefully, especially with respect to pricing. If a non-standard development is customer specific, that customer should pay in full. If the development can be shared (become a standard feature) one can spread the costs and price accordingly.

7. Conclusions

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Holtlant 16, 2353 GC Leiderdorp
Phone: +31(0)71 5416959; Fax: +31(0)71 5894800; email: j.gerrese@wxs.nl

1. Although the industry as a whole is still in a bad shape it must be possible to recover since telecoms as such will not disappear and will continue to grow.
2. Companies not aiming for profit will disappear and the ones which organise their commercial and administrative systems such that they are profitable will be able to survive successfully.
3. Companies that are overstretched in the bandwidth area will either be bought or go broke. The survivors will pick up the remains at cheap cost and will build new profitable businesses creating new shareholder value.
4. The concept of profit making is called “The Newest Economy” as follow-up on the failed New Economy concept.
5. Regulators should leave the business alone or should have the weakest influence possible.