

Case Study: “Rivalry on Video Games” -The SEGA Situation-

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All statements and conclusions are based on data, information and hints given in the Case Study “Rivalry in Video Games”. It’s ‘August 2002:

1. Management Summary

SEGA hit the ground, standing on the ruins of their assets of their long lasting history in operating Amusement Center, developing & publishing game software and producing & providing platforms for videogames. So question arise, how to “survive and prosper”.

Analysis will show, that the new core playing field for SEGA is in games, the market for developing and publishing games for different platforms like PS2, XBOX and perhaps even PC’s. Here it can show and realise relevant strengths like branding, know-how, publishing capabilities, well known game characters personal resources and so on.

A possible strategic direction is to become a big game publisher with high internal development skills and a special world-leading know-how in internet-based online games and other networking features.

Nevertheless with this strategy SEGA will become a more risky company, because of the uncertainty of the success of a special game in a special market¹. Similar to movie companies stock value of SEGA will seesaw stronger according to success or failure of blockbusters. This can be countervailed in part by the number of publishing activities but not at all. So shareholder is faced to a new kind of company and has to anticipate this.

2. Analysis of relevant markets – Where we are?

Looking on assets, revenues and history of SEGA, company has still stakes in these markets:

- ◆ Amusement Center Operations
- ◆ Platform provider
- ◆ Software

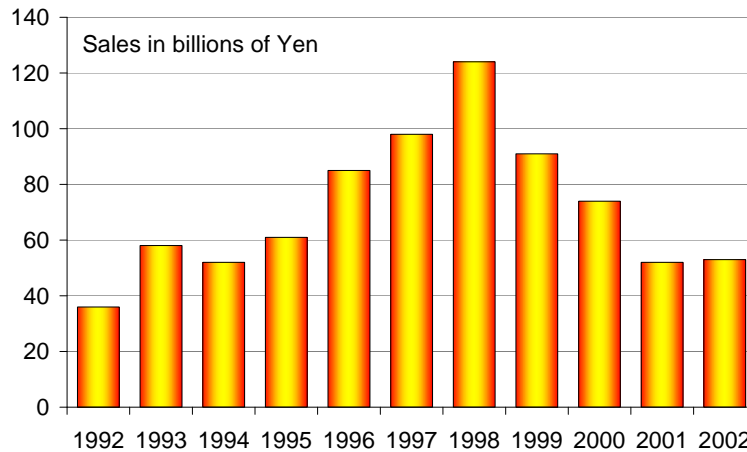
2.1 Amusement Center Operations

Once being the main field of SEGA activities, right now it’s a market beneath. This is due to the fact, that in the 80es and 90es amusement machines played a vital role, because they offered best state of the art games on a dedicated hardware, which was unaffordable for home buyers. Technological development in PC and Videogames industry was fast so that in the nineties 32-Bit generation outrun amusement machines with home games of similar quality.

Market will probably stagnate. It seems not be a good place to make it to a strategic core field and to invest heavily in.

¹ In comparison to a successful console manufacturer

SEGA's Amusement Center Operations 1992-2002



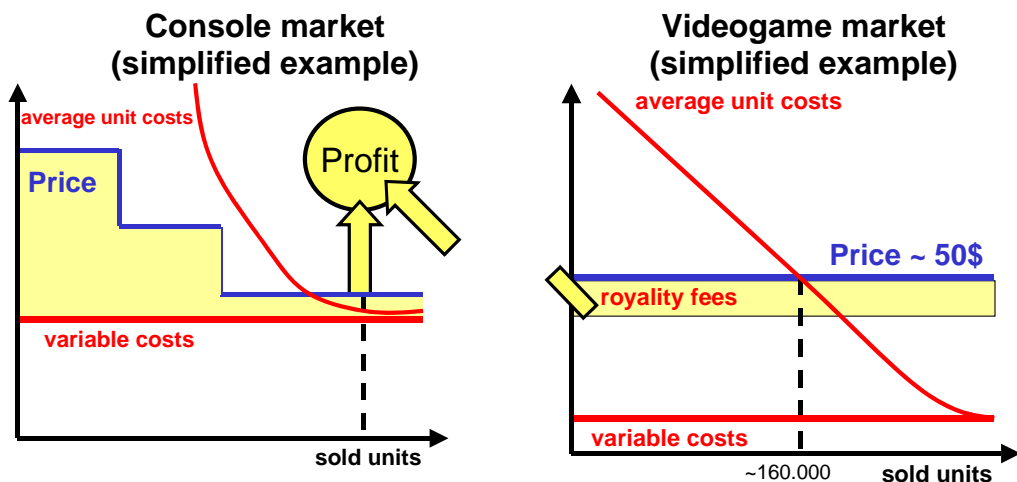
2.2 The Hardware Market

As the videogame market has very special characteristics, we have to shortly analyse the mechanisms of actions in this market and the key success factors to make profit. This is important to understand why SEGA failed to success and to judge whether there is a strategic opportunity for SEGA to return to the market.

2.2.1 Costs and profit

It's a sunk costs market. Launching a new console is involving heavy investments in developing, building up production capacities, making exclusivity agreements with third party publishers, marketing etc.

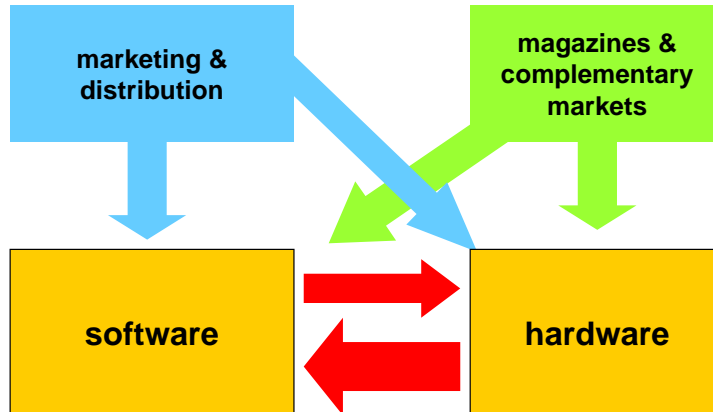
Production costs of hardware and software are in comparison to this very low. Consequence is, that you have to dominate the market to refinance your investments by selling enough units.



Software producer have to pay a royalty fee to console manufacturers for each sold copy of their game. This is the ultimate origin of hardware manufactures profit. Since there is a dependency between sold units and sold games (marked by games per console ratio) installed base has to be huge to succeed. Market volume is limited, so only one to three companies are able to survive.

2.2.2 Market mechanisms

Console market has to be analysed in combination with the respective software market. This is because both markets are interacting between each other. Main reason to buy a console is to play games with it. So the one is the complement of the other:



Due to this following substantial mechanisms are in action:

- ◆ The bigger installed base, the bigger the variety of offered games for this platform is in terms of quantity and quality. This is because (third party) game developer see a better chance to refinance their investments
- ◆ Sales of hardware support sales of hardware and the other way around.
- ◆ Once critical mass of installed base is reached self-enforcing mechanisms are in action pushing hardware and software sales
- ◆ “Winner-takes-it all”: Because of these positive feedback loops and economies of scale only a few consoles, in history never more than two dominate the recent market

Taking into account these mechanisms early reaching of critical mass is crucial for fail or success.

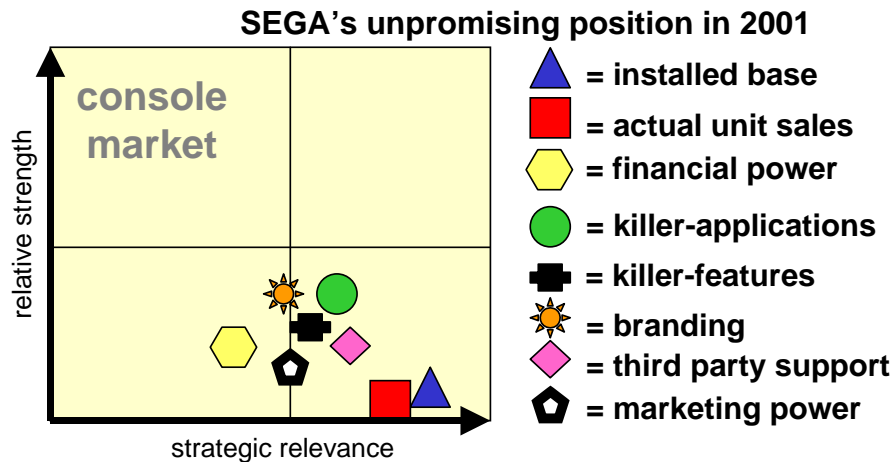
- ◆ Huge investments in marketing are necessary to give awareness of new performance and new features to console players all over the world
- ◆ Unique selling propositions are necessary to persuade consumer to switch from their old console or to come new in the market
- ◆ These unique selling propositions can be Killer-features of hardware²; or Killer-applications³
- ◆ One main reason for console manufacturers to develop games by their own is, that they want to provide exclusive killer-applications for their platform
- ◆ If all efforts are failing and critical mass is not reached early enough, negative feedback loops take action. No believe in the future of the console leads to lacking supply of software. Without new software, console sales will drop, and so on.

² Like DVD- or internet- or downwards compatibility

³ Bestseller games exclusive available for this platform. You have to buy the hardware to play the game

2.2.3 Key success factors and why SEGA failed

SEGA's position in 2001, measured in Key Success Factors can be sketched as follows:



Sega failed to establish as a main player in the new market for 128-bit consoles. It couldn't reach critical mass of buyers early enough before the PS2 of Sony was launched. Accompanied by "hype and expectation" PS2 quickly get in led and took over market leadership in the console market, especially supported by the big installed base of 32-Bit Playstations. With Microsoft's XBOX a new entrant was knocking on the door of the market, a company with massive power, great know-how, well branded and pockets full of money.

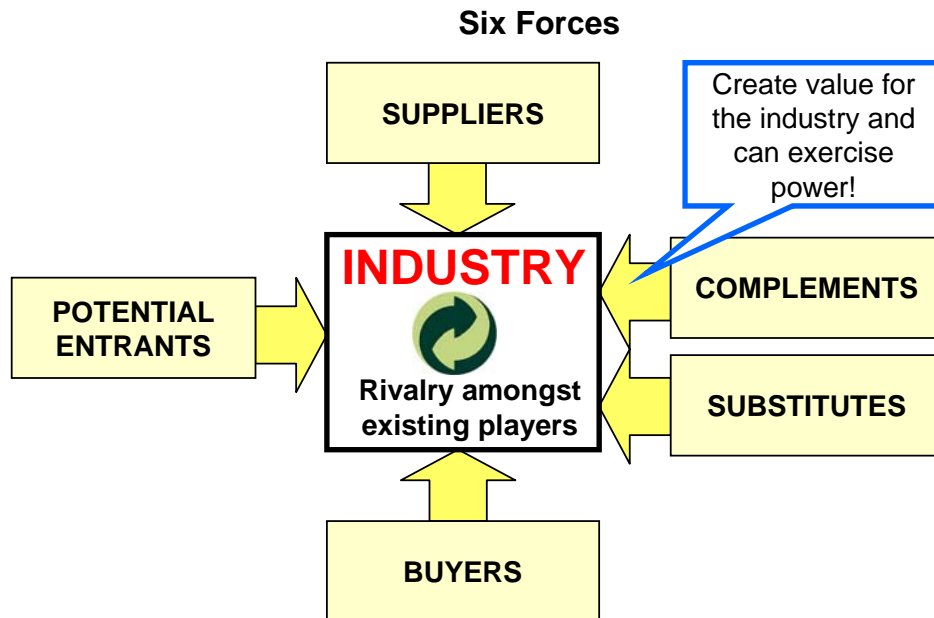
SEGA was literally squeezed out of the console market by these two giants⁴.

⁴ Two strategic misjudgements are main reasons for this failure. The Killer-Feature of Dreamcast was internet capability. SEGA thought this as the killer-feature to push sales. But market demand was not ready for it in 1999/2000. Of course nowadays this feature is becoming more and more important but SEGA was simply too early in the market. Much more by directly integrate a modem connection SEGA took away technological sustainability of this network feature. High Speed connections are the future and Dreamcast was not ready for this. Meanwhile PS2 chose a modular solution, which allowed a later plug-in of this hardware feature, in this way anticipating further technological developments. Beyond it counterattacks with a feature underestimated by SEGA, DVD-Compatibility exactly in time when DVD-market cut across critical mass. And Sony topped this feature by downwards-compatibility to old Playstation games, in this way assuring many customers out of their huge installed base of over 50 millions Playstations. Second big misjudgement was the underestimation of the hype around PS2 nearly a year before launch. Described killer-features, especially downwards compatibility, pre-announcements of killersoftware and a good marketing bundled to a big drag, which shift much demand from Dreamcast to PS2 long time before the launch of PS2. Due to the restricted financial resources there was only one shot free for SEGA to stimulate sells massively. The company gave away the Dreamcast for free bundled with a to year subscription to the SEGA Net Service. Unfortunately this "Killer-feature" was overestimated. Market was not ready yet for this feature, so demand was low and last financial resources of SEGA seeped away.

2.3 The software market

Focus is on the videogame market due to the current position of SEGA in 2002. PC market is also taken under account because it's a possible market to expand in.

Analysis is made according to Porter's Five Forces and is concentrating on publishing and developing. A sixth force adds the scheme, namely the suppliers of complements.



2.3.1 Suppliers

Looking on the supplier side, production suppliers don't play an important role. This is because of the low production costs of CD's⁵.

But there are other kinds of suppliers, which become more and more important: content provider. Well-known characters, popular story-lines respectively complete movie themes significantly support the possible success of a new game. Companies without own content built-up in the past, have to license these from movie companies or comic industry.

In this view SEGA's position is relatively strong. During its long lasting history as software developer and amusement machines operator many popular game series have been invented as well as well-known characters like Sonic. SEGA is not dependent on movie themes or sport club licenses. Of course it more and more will have influence when inventing in new game areas but content of SEGA is popular yet and still will be in the future.

⁵ But console manufacturers often produce the CD's or cartridges for the publishers. They decide at least about delivering conditions, prepayments and time lags. Game Publishers have to anticipate this behaviour to calibrate their distribution and marketing policy to effectively launch the game.

2.3.2 Substitutes

Substitutes for videogames are seen in the PC-Market. Crucial advantages of consoles are:

- ◆ Reliability of software (no bugs)
- ◆ Comfort of software (no configuration necessary – plug & play)
- ◆ Integration in Home Entertainment Center (playing on the couch)

PC market has nothing yet to beat these features. But with integration of PC elements in home entertainment centre new kinds of PC-based entertainment platforms will gain relevance.

2.3.3 Complements

The supplier of complements plays a vital role in the software market. They deliver the necessary game hardware to the customer. In the video-game market much more they determine directly and indirectly price, profit margin, distribution conditions, etc.

On the other hand you can make lucrative exclusivity contracts about special games with them. Manufacturers need killer-applications to push their units sale numbers especially after the launching of a new console.

In producing software you have to decide for which platform you develop a game. Time to the product is normally 24 months. The complete life cycle of a console is not longer than five years. So developing and publishing companies have to project the installed base of a console to project own chances to earn money with the product. In 2002 three players make out the video hardware market:

- ◆ Sony again is the indisputable market leader with its PS2.
- ◆ XBOX sells fairly well. Arrived late in the market XBOX shows big marketing power and special unique features. Seems to be on the way to become a constant and strong player in the videogame zone.
- ◆ Nintendo has to struggle to remain in the console sector. But as a strong brand with a big installed base it can survive based on the core target group of young player. Since target group widened to older ages it is questionable whether it can be more than the number three in market.

2.3.4 Potential entrants

As game market revenue is to exceed Cinema box-office receipts more and more movie characters or complete themes are licensed from big movie companies, which mostly belong to large entertainment conglomerates. The other way around first games are transformed to movies. These conglomerates are setting up interactive divisions to create titles based on their characters or movies.

On the other hand many small developer companies emerge, mostly without any publishing power but sometimes trying to publish by the use of affiliate or co-publishing programs.

2.3.5 Buyers

Customer base has enlarged over the last years. Customers average age is increasing. The growing diversity of customer base aimed in a greater diversity of target groups. Price of a game is relatively high and apparently

consumers take care of their buying decision⁶. This decision is eased up, if games are based on well-known characters or sequels of well-known games. Branding also plays a vital role.

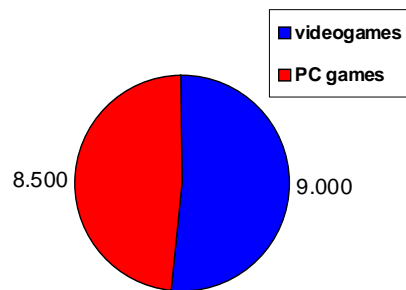
With diversifying consumer demands there are at least two kinds of market segments. On the one hand there is an overall mainstream trend towards multi-featured, action-packed games. In future especially multi-player games and with them online capability of software and hardware is important to succeed. On the other hand numerous niches have established and special interest games gain more and more market share.

2.3.6 Rivalry amongst existing firms and SEGA’s position

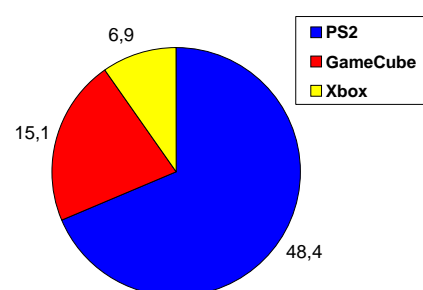
2.3.6.1 Volume and market expectation

The game market is hot in terms of volume and growth expectations. The market volume for videogames is near to \$10 billion, for PC games over \$8 billion, both markets still growing. And there are additional game markets for handheld, amusement machines and handys.

Market volume 2002 in millions \$



Sold units in Mio. 2002



2.3.6.2 Price and Cost Structure, break-even

Prices for videogames have been amazingly stable during the last decades with an average price per game dithering around \$ 50. Variable costs of producing a game are extremely low after programming work is done. But to develop a game is extremely expensive⁷. Development costs are in a range between \$2 million and \$5 million per game, with some games exceeding \$10 million. Number of units that have to be sold to reach break-even is between 150.000 and 400.000 depending on console. Heavy investments in marketing are necessary to support good sales.

Increasing fix costs are sunk costs and combined with the unknown success of a game, it’s clear that game developing is a risky undertaking. But on the other hand “a successful title could bring \$200 million to \$300 million – similar to box office revenues from a blockbuster movie”⁸. Since games software is “almost entirely a sunk-cost business”⁹ many games try to assure the success by basing on former games (sequels) or well-known characters.

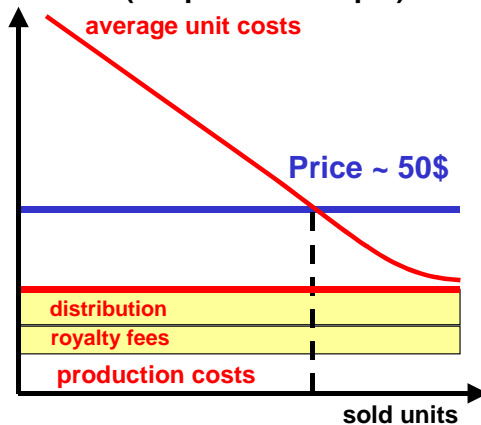
⁶ Games per console ratio is quite low.

⁷ With growing performance of the hardware, more and more cost pushing elements have to be integrated in modern games to beat competitors and be state-of-the-art. Increasing demand “for multi-featured, action packed game titles has driven up the cost of developing new game titles in the past five years”.

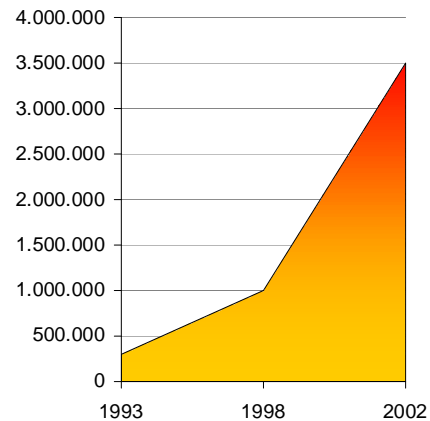
⁸ Case Study, Page 237

⁹ Case Study, Page 237

Costs structure of software games (simplified example)



Average developing costs for software games



A company in console market also has to pay royalty payments between 5% and 15% to the hardware manufactures and additionally has to pay for distribution. Distribution conditions are as well heavy influenced by manufactures.

2.3.6.3 Competitors

There are many competitors in the videogames developing and publishing market.

On the one hand a whole bunch of small competitors in the game developing market. Since game developing is becoming a more and more cost-intensive business, most of them are dependent on big publishing companies. This is also driven by the necessarily to repay the huge investments by being present in the big geographical markets Japan, USA and/or Europe.

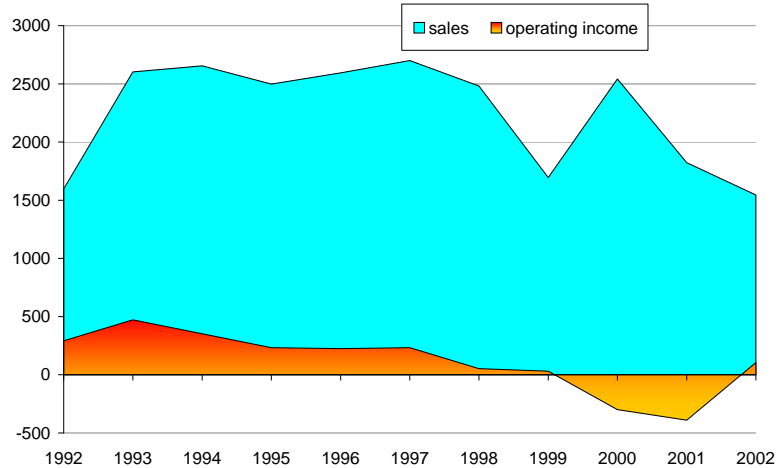
On the other hand we have the big three manufacturer Microsoft, Sony and Nintendo. They all have great experience and power in developing and publishing software. They really have a good know-how of their consoles and how to develop a blockbuster for them. The only weak point we can figure out is the fact, that they concentrate on their own consoles and often exclusively develop games for them in order to push console sales out of strategic reasons.

SEGA is somewhere in between. Programming and publishing know-how had been concentrated on the own console market. This specific knowledge is lost with substantial programming-know-how still remaining. Fortunately strategic decisions two years ago probably led to an intensive learning in programming for other platforms.

2.3.6.4 Financial Situation of SEGA

The biggest strategic restriction for SEGA is the financial situation. In failing two times by trying to get market leadership in a new generation of consoles much money was lost. But SEGA still is viable and despite off bad performance in the last year, the equity rate with 34% is fair enough to have the possibility of big invests.

SEGA's sales and operating income in Mio. €



2.3.6.5 Resources & Capabilities

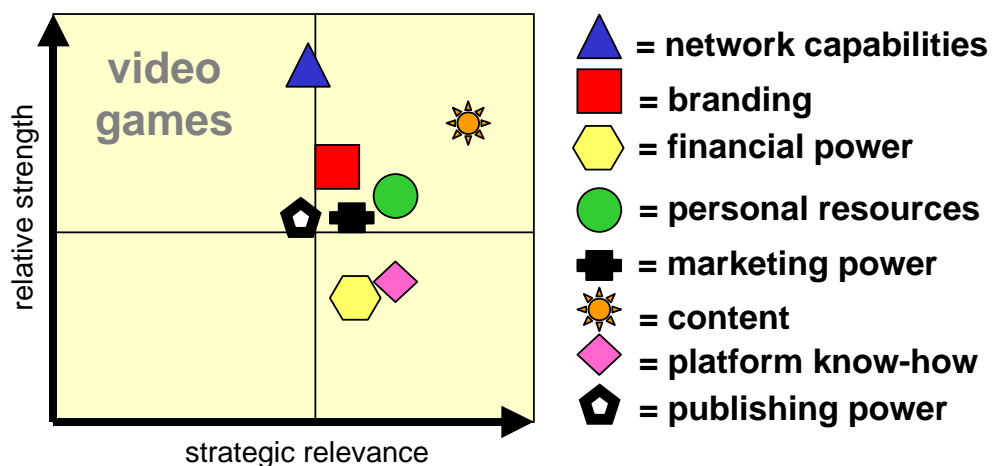
With its long lasting history in games programming SEGA has:

- ◆ Big experience in this area and a bunch of excellent programming-teams
- ◆ Big experience in marketing & publishing
- ◆ Well-known branded as game developer & publisher
- ◆ Special experience in programming arcade games out of the Amusement Machine Business
- ◆ Special experience in online-gaming
- ◆ Financial resources are strained but strong enough to develop modern games and also to risk blockbuster publishing

2.3.7 Key-Success-Factors

In summarising descriptions and conclusions made above SEGA's strategic position in software market is strong:

Key success factors & the position of SEGA in 2002



Over all SEGA is well positioned in the market for videogames.

Problems can be seen especially in areas with big strategic relevance but relatively bad performance of SEGA and in fields where it is the other way around:

- ◆ Lacking programming know-how for market-leading platforms
- ◆ Financial power could be too low to fail with too many blockbuster investments
- ◆ Publishing experience for XBOX, PS2, Gamecube and PC-Game-title is lacking

3. Possibilities of action

SEGA has to face up three markets, where decisions have to be made. So arising questions are:

3.1 Amusement Center Operations: Hold?

Should SEGA change anything in this segment? Do we have enough information or hints to give a recommendation?

3.2 Hardware market: Return?

Try to return into the console market or go away?

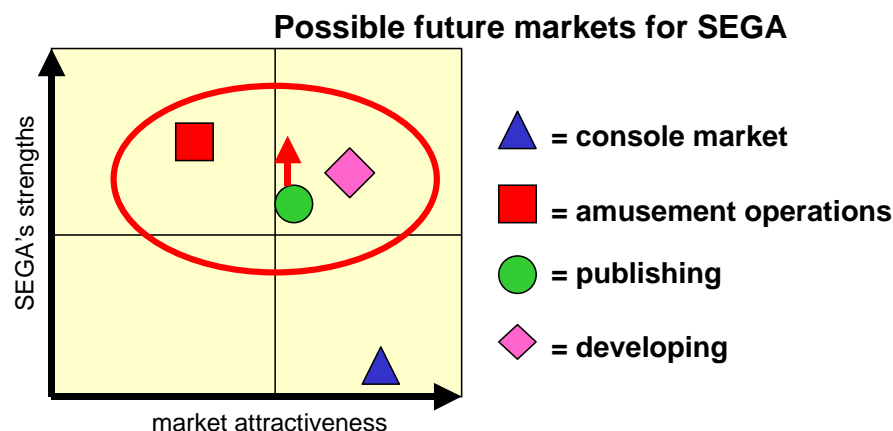
3.3 Software market: Developer and (Third Party-) Publisher?

So here we have to decide:

- ◆ What kind of company we would like to become?
- ◆ What kind of software we would like to publish and produce
- ◆ For which different platforms we should provide software?
- ◆ Should we focus on a special region?
- ◆ What are the target groups?
- ◆ Should we specialise to sub segments connected with networking games (multi-player) to enlarge our knowledge head start in this area?

4. Strategic recommendations

Decisions have to be made in all three markets SEGA has stakes. According to above analysis of SEGA's strategic strength in each market as well as market overall attractiveness¹⁰ SEGA's substantial strategic position can be sketched:



¹⁰ Market attractiveness can be measured in terms of volume, growth, profitability, etc.

4.1 Hardware market – Stay Away!

Right now SEGA is out of the market, costs are sunk and return to this market would need a massive investment to shift relative strength of key success factor to competitive regions. And -lessons learned during the last two console generations- nevertheless the outcome is unknown.

Financial resources are strained and there is not enough money and market power to make a third try¹¹.

So leave the market and don't throw good money after bad money. Try to sell the specialised assets and -if it's possible- try to sell licenses of your technology to other markets like handy or handheld industry. So SEGA could generate new customers for necessary software, it has a special know-how in.

4.2 Amusement Machines – Hold!

There is not much to say about Amusement machines business. In lack of information we can only state that it seems to be a reliable business in a shrinking market. Nevertheless it's still a strong market, with SEGA sales worth € 400 Mio in 2002. If market stabilise, SEGA can probably make further money in it. Built up resources in programming game software can be used by PC- and Videogame-Programmer and the other way around. Mutual support produce synergy effects in game development. The additional and exclusive distribution channel furthermore add to the marketing and distribution chain, producing more economies of scale.

There are no hints why to leave the market. So stay in and invest moderately.

4.3 Software – develop, let develop and publish!

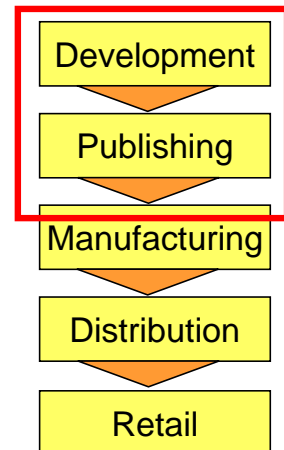
This is the core segment of the future. All recommendations are given in consideration of restricted financial resources. Build-up financial power to lift equity ratio and to enlarge investing power is the central task for the future. According to the analysis above following recommendations can be made towards future strategic orientation:

4.3.1 Become a big developing Publisher!

Publishing market is very interesting. Market thresholds are relatively high since publishing for different markets and different platforms needs much market power and substantial resources.

SEGA has a strong position in this market yet and can expand massively. Market is hot and publishing can be concentrated on online games, perhaps even supporting an overall strategy towards competence in networking.

Become a leading publisher, expand your know-how and enlarge third party developer base to generate constant value and cash for your investments. Maybe concentrate on online games to support a unique branding.



¹¹ Because of economies of scale in history never more than two companies could dominate console market and right now there are three; two of them, Sony and Microsoft, are almost giants with huge market power and inexhaustible financial resources to counterattack every dangerous hit.

4.3.2 Online gaming is core competence!

Online features didn't hit the spot in 1999. But with the growing Internet connections all over the world interactivity is the customer wish of the future. Demand will grow rapidly and with it demand for interactive games and networking software for the home entertainment centre. SEGA's is a step ahead in this sector with growing strategic relevance.

So invest here and maybe use it to define core competence of your company. Since SEGA has launched a online-gaming website, it has resources yet to built-up a world-leading internet platform for online games.

4.3.3 Main platforms, all regions!

Since software is a sunk cost business, SEGA should deliver to all markets to realise scale effects. First leading platforms have to be delivered, before smaller markets have to be taken into account. Also PC market could be a deal. So a dedicated developing and carry-over strategy is necessary. Also keep handheld and handy games market in mind. Invest in know-how in other platform technologies to follow this strategy and to deliver competitive quality.

Take the chance, to win new customers in game market. There are no strategic constraints to special platforms anymore.

4.3.4 Take care of your content!

Content is SEGA's biggest value. So take care of it. With all the well-known games and characters SEGA isn't dependent on third party content. A big brand amongst the target group of hardcore player is also a good pre-condition to remain market power in content.

Try to enlarge this content and make it to the base of your future success



4.3.5 Always have the development pipeline filled!

This is important to have a relative constant cash-in. With a time lag of two years on average, SEGA has to anticipate future developments in and of the respective markets, it is developing and publishing for.

4.3.6 Blockbusters and special niches!

On the one hand SEGA has to try to produce best-seller games based on its unique account. Mainstream customer orientation towards multilevel, action packed games helps SEGA to exploit its strengths.

On the other hand specialised games for example derived from arcade games out of the amusement machines business will help to gain new target groups and to enlarge customer base.

4.3.7 Think about a strategic investor!

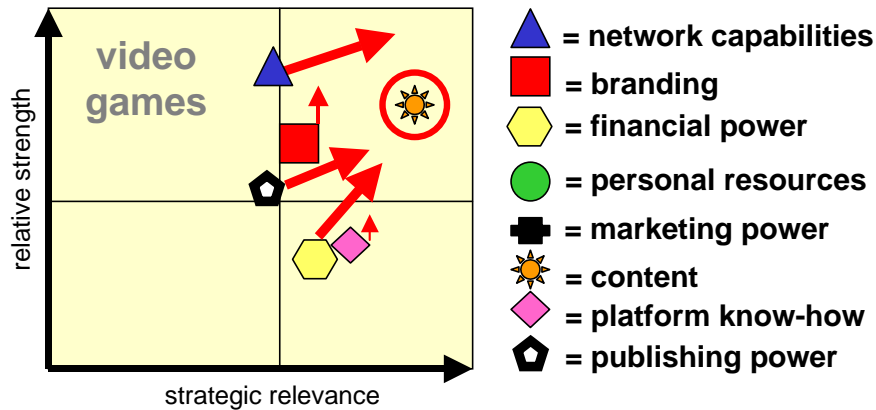
Before running out of money in efforts to fill up developing pipeline, it's better to search for a strategic investor, who believes in your strategy.

5. Strategic mission

SEGA has to become a world-leading publisher and developer with a special know-how in online games & software for the main platforms. In calibrating this strategy by using recommendations above strategic position can be improved, relative strengths can be enlarged and leading position in the chosen segments can be received.



Key success factors & the position of SEGA in 2002



Expectations for the games market are fairly good; most experts think overall demand will increase massively. With well-known characters like SONIC, and well-known blockbusters out of their history as platform provider, they have a bunch of good games in their production pipeline. Fortunately many of them right now face a bigger potential market, since production decisions are not longer restricted by strategic decisions of the console. As a platform agnostic developer and publisher whole game market is open for SEGA.

SWOT

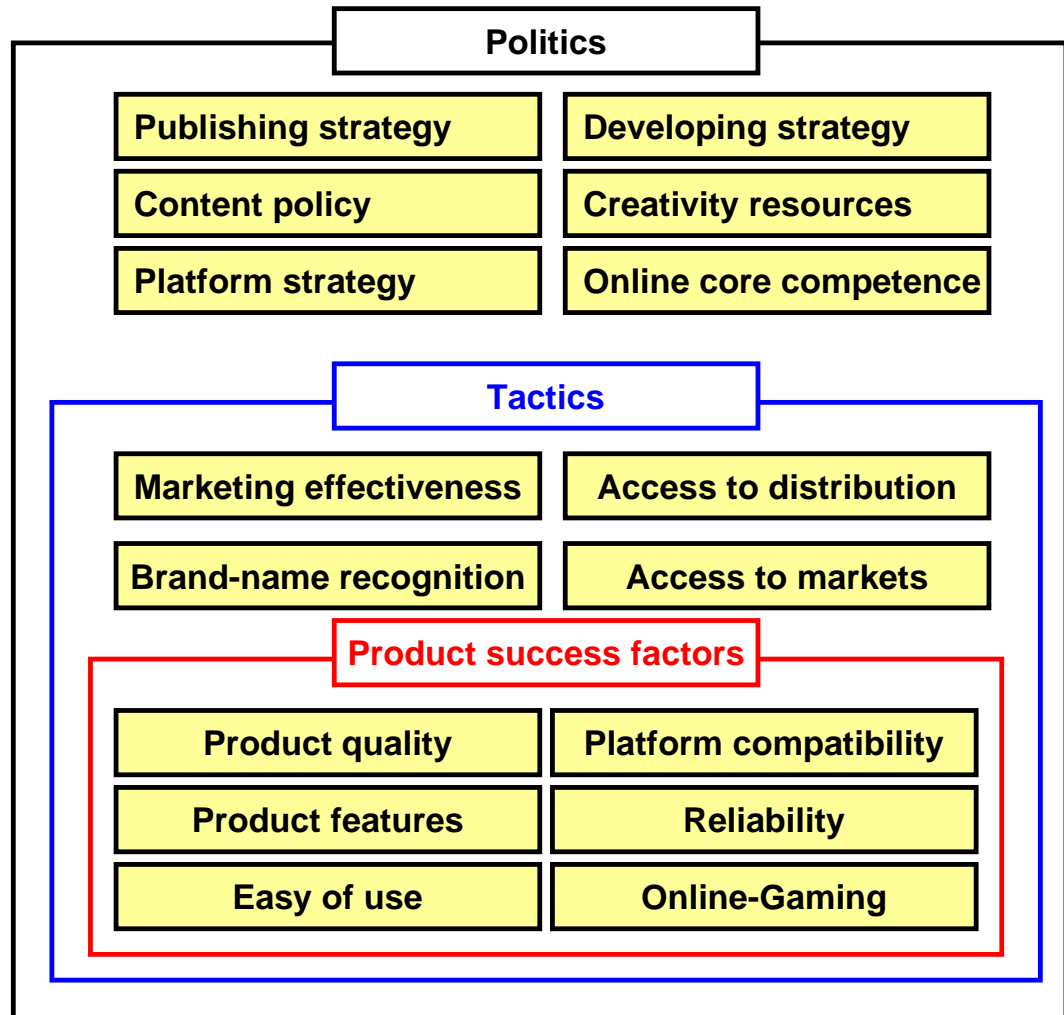
<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> → Publishing Know-How & Resources → Content → Develop. Know-How & Resources → Branding- Name Recognition → Customer Base → Online Know-How & Resources → Strong in Arcade business → Strong in US, Japan & Europe 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> → Financial Resources → Platform Know-How (XBOX, PS2, Gamecube) → Strong in USA, but relative weak in Japan, Europe
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> → Over all market growth → Deliver to different platforms → Expand to PC-market → Growing demand for internet features (especially online-games) 	<p style="text-align: center;">Threads</p> <ul style="list-style-type: none"> → New entrants (entertainment conglomerates) → Failing blockbusters → Financial bottlenecks

6. Next Steps

Because of market and customer segmentation a dedicate strategy has to be chosen to prosper.

The biggest challenge are restricted financial resources, which will not allow to fail with too many blockbuster games. Besides it is important to gain more know-how to transform games to other platforms and to use publishing power in the right way.

By choosing adequate politics and tactics SEGA can establish as a big publisher and the world's number one games developer:



May we can further help you to find the right way!