The role of autonomy in platform subsidiary governance. The case of Sega Saturn.

By Matt Farrell

Center for Applied Business Research

Austin Peay State University
CLARKSVILLE TENNESSEE

Center for Applied Business Research

About the Author

Dr. Matt Farrell, an Assistant Professor of Management, is the Assistant Director and Faculty Fellow of the Center for Applied Business Research (CABR). Dr. Farrell has published research studies on topics such as strategic management, corporate governance, and qualitative comparative analysis.
Dr. Farrell received his Ph.D. from Old Dominion University.

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Executive Summary

This paper explores the often overlooked complexities of subsidiary autonomy within two-sided markets, using Sega and its international subsidiaries as a case study. The research draws on leaked and public internal documents and interview data to examine the role of autonomy over time for a platform provider. Contrary to prevailing theories, the study finds that autonomy should not be granted based solely on a subsidiary's performance feedback. Instead, the findings suggest a contingency-based approach to autonomy, where the context and evolving circumstances of the subsidiary dictate the level of autonomy.

The study challenges the assumptions of upper echelons theory, which posits that top executives are the primary drivers of firm performance. It highlights that Sega's varying success during the study period occurred under the same leadership team, suggesting that factors beyond executive characteristics influence outcomes. Additionally, the research contributes to the platform governance literature by examining how autonomy in subsidiaries evolves dynamically in platform settings, and it cautions against the potential risks of granting too much autonomy based solely on a subsidiary's past success.

The paper also offers practical insights, providing a new perspective on Sega Saturn's commercial failure and suggesting that platform success should be evaluated on a regional basis. The findings have implications for how companies manage autonomy within their subsidiaries, particularly in complex, platform-based markets. It also offers practitioners practical insights for granting autonomy to subsidiaries.

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Introduction

Platforms have come to play an important role in the world economy, and a burgeoning literature has arisen in management to study platforms. Within this literature, much scholarly effort has examined platform governance (e.g., Chen, Tong, Tang, & Han, 2022; Gorwa, 2019; Zhang et al., 2022), due to its impact on performance. Through the design and implementation of effective governance systems, platforms can influence the actions of complementors and, consequently, the platform's success (Claussen et al., 2013; Kretschmer & Claussen, 2016; Rietveld et al., 2019). In platform companies, complementors are independent businesses or individuals that provide products, services, or content that enhance the value of the platform to its users. These complementors contribute to the platform ecosystem by offering complementary goods or services that are compatible with or enhance the core offerings of the platform.

Although the stream of existing research has enhanced knowledge of platform governance, relatively less work has examined the international implications of platform governance (Stallkamp & Schotter, 2021). For example, subsidiary autonomy has been the object of much international business research (see Geleilate, Andrews, & Fainshmidt, 2020 for a meta-analytic review). Yet, much of the literature on platform autonomy has revolved around the autonomy platforms grant to providers of complementary offerings (e.g., Hagiu & Wright, 2018; Schilling, 2000; Tiwana, 2018) — that is, inter-firm autonomy, leaving the intrafirm aspect of autonomy less explored.

Drawing on insights from subsidiary evolution theory (Birkinshaw & Hood, 1998), this gap is a critical one given the highly contingent nature of the subsidiary autonomy-firm performance relationship (Geleilate et al., 2020), which should be exacerbated in the context of platforms for several reasons. For example, greater autonomy is often associated with a higher need for coordination between a firm's headquarters and its subsidiaries (Andersson et al., 2002; Bartlett & Ghoshal, 1989). However, coordination can be especially difficult in the context of platforms, where more traditional solutions to coordination problems, such as integration, are impractical due to the sheer quantity of complementors that might be participating (Zhang & Tong, 2021; Chen et al., 2022; Islam et al., 2023).

This study attempts to address this gap in the literature with a microhistorical investigation of the rise and fall of Sega Enterprises, Ltd. Microhistories permit the researcher to "zoom in" to events as they unfold and "zoom out" to examine broader implications; an approach well-suited for our data, which include interviews and internal documents (Hargadon & Wadhwani, 2023). In the early 1990s, Sega broke Nintendo's monopoly on the home video game console industry, bringing their control of the market from a tiny fraction to a slim majority by 1994 (Pettus et al., 2013). This lead was erased within the remainder of the decade, and Sega officially exited the industry in 2001. This tumultuous ascent and rapid decline can be in part attributed to the autonomy granted Sega's US-based subsidiary.

A platform ecosystem allows for the creation of more value than a single company could achieve alone, through interactions and collaborations between different participants within the platform.

Sangeet Paul Choudary
CEO of Platformation Labs
and author of Platform Revolution

Using Sega as a case study shifts focus to intra-organizational mechanisms, enabling theory building through storytelling and in-depth analyses (Dyer & Wilkins, 1991). Thus, this case offers several important contributions on platform and platform governance. First, this study challenges the assumptions of upper echelons theory (Hambrick & Mason, 1984), which holds that the background and intrinsic characteristics of high-ranking executives are the most consequential drivers of firm success. Indeed, the success of Sega's Genesis platform and the failure of its successor, the Saturn, were overseen by the same CEOs and many of the same top management team members (Pettus et al., 2013). Second, joining the literatures on subsidiary evolution theory and platforms allows us to highlight the dynamic nature of parent-subsidiary autonomy in a fresh context (e.g., Ambos, Asakawa, & Ambos, 2011; Birkinshaw & Hood, 1998; Dzikowska, Gammelgaard, & Andersson, 2023). In turn, this allows us to answer calls for studies that examine the consequences of autonomy over time, and to "...further develop theory of when autonomy is beneficial" (Geleilate et al., 2020, p. 9). We further extend subsidiary evolution theory by revealing a potential dark side of a subsidiary's track record of success (Birkinshaw & Hood, 1998). Finally, for practitioners, our results suggest a new reason for Sega Saturn's commercial failure beyond those offered by Schilling (2003) (i.e., distribution) and Zhou (2017) (i.e., pricing). Moreover, Saturn's initial success in Japan vindicates many of the strategies employed in its design, suggesting that platform success should be evaluated on a regional basis.

KEY INSIGHTS FOR PRACTITIONERS:

Three key insights for practitioners from the study on Sega Enterprises, Ltd.:

1. **Importance of Contextual Autonomy**: The study highlights the dynamic nature of parent-subsidiary autonomy. Practitioners should recognize that the level of autonomy granted to subsidiaries needs to be carefully managed and continuously assessed. While autonomy can lead to success, as seen with Sega's US-based subsidiary, it can also contribute to failures if not aligned with the broader corporate strategy or if it becomes excessive over time.
2. **Challenges to Upper Echelons Theory**: The research challenges the assumption that a company's success is primarily driven by the background and characteristics of its top executives. Practitioners should consider that even with consistent leadership, other factors such as market conditions, organizational dynamics, and product-specific challenges can significantly influence outcomes. This implies that a broader approach to leadership evaluation and decision-making is necessary.
3. **Regional Differences in Platform Success**: The case of Sega Saturn's initial success in Japan versus its failure in other markets suggests that platform success should be evaluated on a regional basis. Practitioners should be cautious about applying a one-size-fits-all strategy across different markets and instead tailor their approaches to the specific needs, preferences, and conditions of each region. This can prevent misalignment and maximize the potential for success in various geographical areas.

MANAGING IN PLATFORM-BASED MARKETS

Corporate governance research often operates from large datasets that are drawn from major international stock exchanges (Boyd, Gove, & Solarino, 2017), meaning insights about the unique governance challenges faced by platform firms are often obscured due to the aggregated data. Yet, platforms differ in distinct ways, and a variety of studies have honed in on platform governance as a distinct subset of the governance literature. The differences are numerous, and can include regulatory concerns, trust and feedback mechanisms between users, and the "chicken and egg" problem of subsidizing one side of the market or the other to gain users (e.g., Chen et al., 2020; McIntyre & Srinivasan, 2017; Rietveld & Schilling, 2021).

Relevant to this study are the coordination problems faced by platform firms across their subsidiaries and partners. One solution to this, according to classic strategy literature, is to vertically integrate (e.g., Williamson, 1991; 1996). However, the large number of users and partners involved can make this approach impractical, and it may hinder the company's ability to create effective contracts that prevent disputes (e.g., Zhang & Tong, 2021; Chen et al., 2022; Islam et al., 2023).

Coordination issues are also a major focus of the literature on multinational corporations, which often have local subsidiaries. Issues such as global alignment of strategy, resource allocation, or efficiency matters (such as avoiding duplication of effort) make coordination critical in this context (e.g., Friesl & Silberzahn, 2017).

Although much theorization has been developed in terms of both platforms and subsidiary governance, ironically, these may be ill-suited to examine governance of platform subsidiaries. This study evaluates an extreme case wherein firm and subsidiary governance theories only partially apply.

Problems with giving a subsidiary its wings – and reigning it in

A "microhistorical" approach (Hargadon and Wadhwani, 2023), was used for this case study which allows one to "zoom in" to these events as they occurred and "zoom out" to their broader implications for platform subsidiary autonomy. Building theory with this approach makes the choice of the "strategic research site" critical (Bijker et al., 1987) as generalization of our findings occurs in an analytical, rather than a statistical, sense (Eisenhardt, 1989).

The meteoric rise and almost equally speedy decline of Sega is examined to provide practical insight and is especially salient given the subsidiary governance issues involved. Sega's US subsidiary was granted a great deal of autonomy and increasingly expanding charters in response to their success. As a consequence, navigating the transition between different platform generations became difficult.

The data collection for this case study was extensive so as to facilitate the development of a detailed and holistic accounts of events at the time of their unfolding. It consisted of a three-pronged effort. First, 15 books covering the sector by industry experts, academics, and individuals embedded in specific projects were examined. Second, major business databases such as ABI/Inform, Lexis-Nexis, and the Business Periodical Index were leveraged through keyword searches of "Sega Saturn," "Sega Genesis," "Kalinske," "Nakayama," "Sony PlayStation," "Sega Dreamcast," and "Nintendo 64" to obtain published information on the 1990s console wars. A "snowball" approach was used in adding search terms in these databases expanded this analysis. As the gaming media and popular press have covered this era extensively, abundant information available in the public domain provided a detailed narrative of relevant events.

Finally, peer-reviewed studies and case studies written about this phenomenon were examined. Collecting data from multiple sources allowed for a triangulation of findings and establish a deep understanding of the events that transpired relevant to Sega's internal activities in the 1990s. Focus on documenting actions and statements as events unfolded had the added effect of limiting the influence of hindsight bias. Poole and colleagues (2000) suggest that explaining dynamics of ongoing change requires constructing an analytic narrative that shows how events unfold sequentially. This chronological ordering of events, in addition to organizing the narrative, better enables the establishment of causality. Additionally, the theoretical framework was refined through continuous discussions and alignment with the collected data, ultimately adopting subsidiary evolution theory after several revisions. This iterative process enabled descriptive historical accounts to be converted into analytical insights, which were then compared with existing literature to expand and strengthen the prevailing theory.

HISTORICAL ANALYTIC NARRATIVE

Genesis - 1990

Sega diversified from arcades into home video games with its SG-1000 console in 1983, with minimal success. As of 1990, they had been crushed across three succeeding hardware generations by Nintendo. SG-1000 was released on the same day as Nintendo's Famicom console, which was so successful that 1 in 3 Japanese households eventually owned one. Famicom, rebranded the Nintendo Entertainment System (NES) in North America, also made quick work of Sega's successor to SG-1000, the Master System, in major markets. Despite Master System's superior technical specifications, Nintendo's restrictive licensing policies towards external software producers meant that most games found their way to the system that had far and away the larger installed base - the NES.

In 1990, a year after Sega launched their 16-bit Genesis console in the US, it appeared Genesis was headed for a similar fate. Genesis was based on Sega's most sophisticated arcade hardware of the time and well eclipsed the NES technologically. Further, Sega of America CEO Michael Katz had aggressively pursued a two-pronged strategy. One, he took a confrontational stance against Nintendo in advertising. Two, he emphasized arcade games and sports in the Genesis software library, using celebrity endorsements (e.g., Michael Jackson, Joe Montana) and popular licenses to boost sales. Yet, Genesis had only sold half of its one-million-unit goal.

Sega of Japan's CEO, Hayao Nakayama, responded by firing Katz and bringing in industry outsider Tom Kalinske. Kalinske had experienced outsized success with his previous stints as CEO of Mattel and Matchbox Toys, and was retired and "literally lying on a beach" in Hawaii when Nakayama initially made overtures. Yet, Kalinske was convinced of the Genesis' potential - "I fell in love with the technology," he gushed after a technical demonstration. His plan for its success was rooted in a classic razors-and-blades strategy. He would cut the price of the console drastically - from $189 to $129 - and bundle Sonic the Hedgehog along with it. Further, Kalinske wanted more software to be developed in the US itself. Sega's Japanese board of directors was infuriated by these proposals, yet Nakayama greenlit them anyway. He told Kalinske, "...we hired you to make all the decisions for the United States and Europe, and so, that's what we want you to do, even though we think you're crazy and don't agree with it, go ahead and do it."

Kalinske's plan was rapidly and explosively successful, catapulting Genesis from less than 1 percent market share in 1990 to over 50 percent by 1994. Yet, it was also expensive. Sega's annual reports show overall liabilities nearly quadrupling over the same period. Further, Kalinske's love affair with technology continued. Sega released the Game Gear portable console (1990), Sega CD attachment for Genesis (1991), and the Pico children's computer (1993). By 1994, with the release of the Sega 32X, Sega was supporting 5 platforms concurrently, with a sixth (Saturn) being rolled out in Japan. Further, with 32X's introduction, Sega of America's charter again evolved, adding hardware development to software and Westernized marketing.

32X and Saturn Development - 1994

Despite having taken a majority of the console videogame market by 1994, Sega faced new threats on multiple fronts from well-resourced competitors. In North America, a resurgent Atari planned to release its 32-bit Jaguar console in late 1993. At the same time, multinational behemoth Sony planned to release its PlayStation console in 1994. Initially developed as a CD-based expansion for Nintendo's Super Nintendo console, Sony's last-minute demands for exclusive licensing control had led Nintendo to cancel the partnership. Inspired by the recent success of 3D Sega games such as Virtua Fighter in arcades, PlayStation was redeveloped from the ground up to be capable of advanced 3D graphics.Sega decided to deal with these threats by releasing more platforms. Joe Miller, head of Sega of America's R&D department, took the lead in developing the 32X expansion for Genesis. The 32X, at Miller's insistence, would not be a standalone unit but instead expand the capabilities of the Genesis console. Later, Sega would release the disc-based Saturn to compete with PlayStation. Saturn would be developed internally, but only after much desperate wrangling from Kalinske. First, Kalinske attempted to recruit Sony into a partnership in much the same way Sony had partnered with Nintendo. The partners would share the development, marketing, and sales loss of the platform, but generate software separately.

"I remember we had a document that [Sony employees] took to Sony that said they'd like to develop jointly the next hardware, the next game platform, with Sega, and here's what we think it ought to do. Sony apparently gave the green light to that. I took it to Sega of Japan and told them that this was what we thought an ideal platform would be, at least from an U.S. perspective, based on what we've learned from the Sega CD, and our involvement with Sony and our own people. Sega said not a chance." (Source: Horowitz, 2006)

It is perhaps telling that Kalinske refers to Sega of Japan as simply "Sega" in this quotation, highlighting an increasing rift between Sega of Japan and its US subsidiary, as the US continued to enjoy success that Sega of Japan felt was ill-merited and debt fueled. Although Nakayama has been reticent to give interviews, his rationale for rejecting the deal was presumably related to Sony's poor behavior in their recent, failed partnership with Nintendo.

Kalinske then attempted to recruit Silicon Graphics (SGI) to develop Saturn's chipset, but Nakayama again rejected the deal. This time, the rationale seemed to center around engineering: While SGI felt that their chipset was ideal for a video game console, Sega of Japan's engineers did not share their optimism. In this respect, Nakayama would seem to have been vindicated historically: SGI's chipset wound up in the Nintendo 64 console, which was beset by issues. In addition to being suited for cartridge games at a time when optical media were far cheaper, SGI's chipset was difficult to program for, even more so than what Saturn eventually became.

According to game developer Treasure's CEO Masato Maegawa, who developed for both systems,

"It [Nintendo 64] is pretty difficult. Compared to the Saturn, I think it's more difficult."

Nintendo 64 also launched much later than Saturn and PlayStation, and speed was a key component to Nakayama's strategy for dealing with PlayStation.

Indeed, Saturn development had begun as early as 1992, but when Sony unveiled the specifications for PlayStation, it was clear that Sega's planned 2D system would not be competitive. Saturn developer and future Sega president Hideki Sato recalled this about Saturn's SH-2 processor jointly developed with Hitachi:

"When we found out about that [PlayStation], we realized we were in trouble. At that point, the Saturn had only a single SH-2 for its main CPU, so we added a second SH-2 to boost the console's processing power. Thankfully, the SH-2s could be linked in a cascade connection. A large amount of geometry calculations are required to do polygon graphics, and a single SH-2 was completely insufficient."

While common in modern computing and among arcade developers such as Sega, parallel processing was foreign to most developers in 1994. Consequently, Saturn had a steep learning curve. According to Yu Suzuki, the programmer behind many of Sega's hits:

"One very fast central processor would be preferable. I don't think all programmers have the ability to program two CPUs—most can only get about one-and-a-half times the speed you can get from one SH-2. I think that only 1 in 100 programmers are good enough to get this kind of speed [double one SH-2] out of the Saturn."

While doubling the speed of the SH-2 was arguably not necessary for Saturn to be competitive with PlayStation, this quote does illustrate the fact that it took great programming to get the most out of Saturn's capabilities. Yet, it was simply too late to redesign the machine from the ground up.

Adding to the confusing nature of Saturn's development kits for most third-party software providers, 32X development kits were shipped at the same time. Many opted to support Saturn, as 32X was seen (and even marketed) as something of a stopgap measure, and shared Saturn's dual SH-2 architecture.

Market Reception

Bernie Stolar, Sega of America COO and President, 1996-1999 on the Saturn, comments on market failure,

"I really think it was a combination of things. Bad timing, high price, launch software that didn't sell the hardware, no Sonic at launch, limited retail distribution, and the 32X didn't help out our position at retail, with the customer or with the developer/publisher community."

While Kalinske's 32X, as well as the hardware it was designed to compete with (Atari Jaguar) failed and disappeared from the market relatively quickly, the Saturn as Nakayama had envisioned it was successful in Japan, perhaps enormously so considering Sony's financial advantages. Saturn remained roughly tied with PlayStation in terms of overall console sales from 1994 until 1997, when it became clear that Saturn had failed in the West and Sega began designing its successor. Further, Saturn enjoyed a higher attach rate than PlayStation, meaning more Saturn games were sold per Saturn owner and hence, more royalties were obtained for Sega. "Nobody could have succeeded marketing that thing [Saturn]," Kalinske told the Wall Street Journal in 1999, despite being fully aware of his failure relative to Nakayama. In March 1996, he sent an internal email:

"It is one thing to hear/read about how well we are doing in Japan vs. Sony, it's another to personally witness it. I just visited 10 retail stores in Tokyo (most in Akihabara); it's now spring break so the crowds of teens/college kids are huge. We are killing Sony. In every store, Saturn hardware is sold out and there are stacks of PlayStation."

Despite Saturn's rushed development, Nakayama was able to more or less follow a strategy similar to that JVC had used to crush Sony in home video cassette players just a few years before. First, Saturn would include memory for game saving, clock features, and an extra controller, helping to justify its higher price, while Sony asked customers to purchase these features separately or not at all. This closely mirrored Beta video's reliance on external timers. Second, Saturn was produced by an alliance of multiple producers, with Hitachi, JVC, and Sega all producing their own models. Although it was more expensive in 1994, by 1996, Sega was leading the way in slashing console prices, forcing Sony down to $199 for a base PlayStation in response to their own price cuts. This also helped Saturn's

distribution, as Hitachi and JVC both operated high-end electronics stores in Japan. Sony, in contrast, had entirely vertically integrated PlayStation production just as they had for most of Beta's life span. Finally, Saturn was more flexible in terms of incorporating later technological advancements. Its cartridge port in particular was able to host additions to the system's RAM, which by 1997 resulted in much higher quality arcade conversions of hits such as X-Men versus Streetfighter. Although this was somewhat similar to JVC's undercutting of Sony's advancements in VCR technology, such as Betascan, it came too late in the Saturn's life to make a difference in the overall success of the hardware.

Although it may be impossible to test Bernie Stolar's assertion that Saturn's failure worldwide was due to a combination of factors, we can deduct from the available evidence that some factors that are typically blamed may be post-hoc rationalizations at best. "We initially didn't go out at the right price and I think everybody is aware of that now," Kalinske told the New York Times upon his resignation in mid-1996. Yet, the two consoles had a price difference that was roughly comparable in both Japan and the US (Sony's ¥39,800 versus ¥44,800 as opposed to $299 versus $399); and marketing research is inconclusive as to whether US or Japanese consumers are more price sensitive. Similarly, the lack of a Sonic the Hedgehog title at launch may not have sunk Saturn, particularly given that Sega CD, 32X, and Dreamcast all had well-received Sonic titles at or near launch, and these platforms still failed. Finally, Saturn is often cited as a machine that was difficult to program, and one that was poorly supported by Sega in terms of development tools. In fact, Sega had contracted Alias Research to provide Saturn's initial development tools, one of the world's premier firms on that front. Further, Saturn was programmable with SNASM, which was commonly used with personal computers and other devices. Early PlayStation developers —notably Namco's arcade hit Ridge Racer, often cited as PlayStation's first "killer app" — had also discarded Sony's development tools in favor of homemade ones. Finally, programming difficulty has been used in other highly successful platforms (e.g., PlayStation 2, Atari 2600) to "lock in" developers by having them devote specific resources to the platform.

Still, two major factors differentiated Saturn's fortunes in the East and West. The first was Saturn's surprise launch, mandated by Nakayama in 1995. Saturn's launch date was moved forward several months before its previously announced date in the US and Europe. Yet, Sega failed to open up a lead over PlayStation in terms of installed base, as PlayStation outsold Saturn on its second day in the market in the US. Kalinske attributes this failure to hardware and software shortages; yet, such shortages have characterized many console launches since. Early PlayStation 2 units, for example, sold for more than triple their retail value as consumers clamored to obtain the machine amidst manufacturing shortfalls. It was arguably the way Kalinske handled the shortages that created problems. He only offered the console to specific retailers. KB Toys, the second largest toy retailer in the US, was infuriated by their exclusion from this list, and never sold Sega hardware again.

Second, Kalinske arguably never intended to provide significant support for Saturn in the first place. Having been shot down twice on the Sony and SGI deals, Kalinske simply began developing yet another platform in secret. In cooperation with Nvidia, Kalinske began to prepare a cartridge-based system to compete with Nintendo 64. He devoted his North American developers to creating a Sonic the Hedgehog title for the effort, leaving Saturn not only without Sonic but with only one football game offered for the 1996 season. Further, Saturn's burgeoning Japanese library remained largely unlocalized. Nakayama's response was to mandate all of Sega to focus exclusively on the Saturn, leaving 32X customers jilted and potential Genesis sales on the table.

With 32X a total failure and Saturn left far behind in the Western 32-bit war, Kalinske resigned in mid-1996. According to Kalinske, this owed to his frustrations with Nakayama, although according to his successor, Soichiro Irimajiri, he was asked to step down. Irimajiri, alongside his new executive vice president for product development, Bernie Stolar, failed to reverse Saturn's fortunes in the US. "When I got to Sega, I immediately said, 'We have to kill Saturn'" Stolar admitted some years later. Yet, the expansion of the US team's charter into hardware apparently remained in place. "[Nakayama and I] spoke about building a new hardware platform that I would be very, very involved with," claimed Stolar.Development on this new platform, the Dreamcast, began in early 1997 after the drubbing Saturn received in the 1996 holiday season. Despite matching PlayStation's price and bundling Saturn with three free games, it still badly lagged PlayStation in terms of overall sales and Nintendo 64 in terms of momentum in the West. "Saturn is not our future" Stolar warned the development community in 1997.

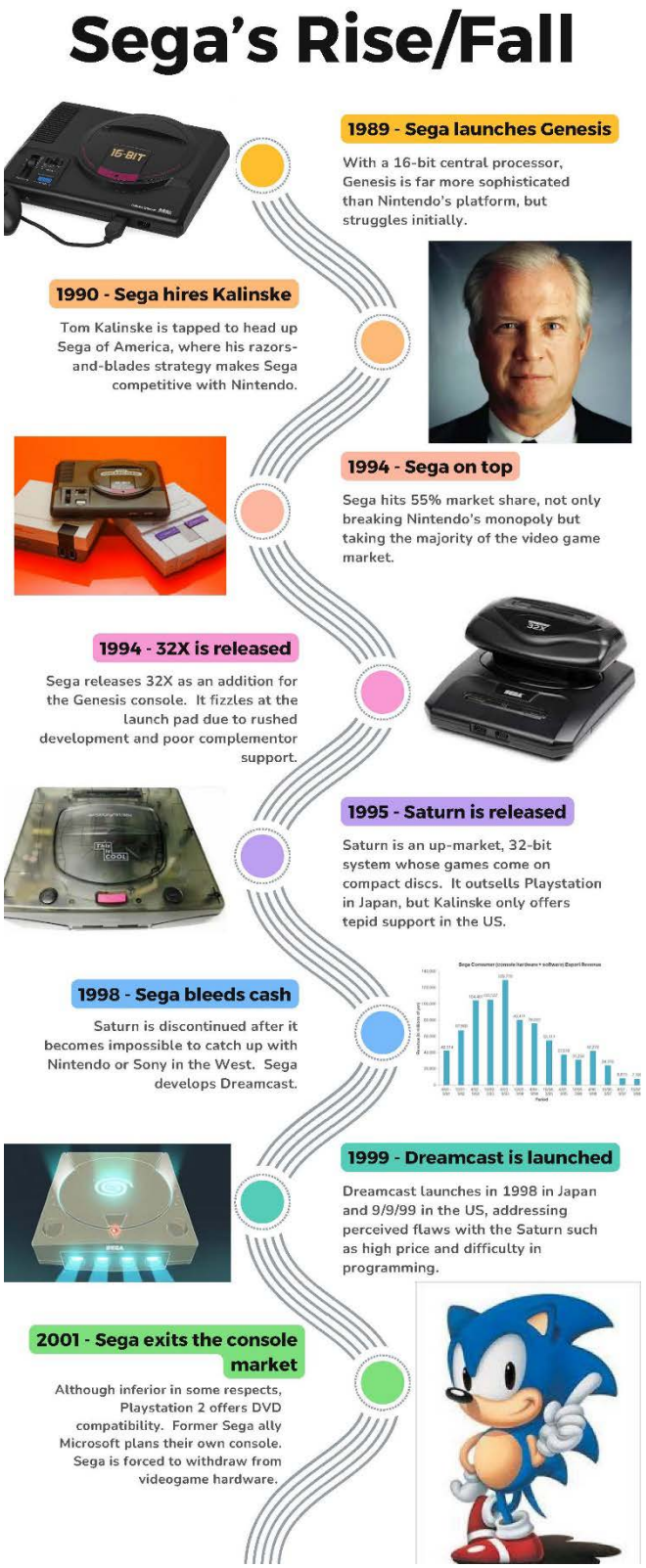
Dreamcast

The US hardware development charter created issues immediately with Dreamcast's development. Sega of America worked with 3DFX to create the Dreamcast prototype's graphics processing unit, while Sega of Japan worked with Nvidia to do the same. When Nvidia was awarded the contract, 3DFX sued, claiming that Sega had misled them in order to access confidential technology. Sega settled to the tune of $10.5 million. Irimajiri, meanwhile, had to prop up struggling Nvidia with an investment for $5 million. Finally, Nvidia's issues in producing the chipset meant that Sega missed out on a quarter of a million console sales for Dreamcast's Japanese launch.

Perhaps a larger issue was Stolar's insistence that the Dreamcast platform follow his vision: "There were three things that I wanted in Dreamcast: an online network (for multi-player and digital downloads), DVD support, and internal storage…Online was most important to me, so I chose that over DVD and internal storage because my plan was to add those later." Consequently, each Dreamcast was sold with a dial-up modem attachment.

While Dreamcast's online functionality was arguably forward thinking, it was also an added burden for both Sega and third-party developers. First, it was expensive to offer online gameplay or downloads as this often meant owning and maintaining servers. Even some major Sega releases, including Daytona USA or Sega Rally 2, were forced to have online functionality removed for overseas releases. Second, a lack of online functionality was often a source of criticism for the gaming press. Noted Game Informer magazine about Sega Rally 2: "the one truly innovative feature the game was to have, Network play, is absent." Consumers, similarly, were not sympathetic to the costs involved with online offerings. Sega were subject to BBC Watchdog complaints for emphasizing the console's online capabilities in their advertising, when in fact no games offered at launch included online multiplayer. Finally, online gameplay was often glitchy due to the low speed capabilities of dialup modems. The action-oriented arcade conversions Sega was known for particularly suffered as a result.

Stolar's gamble on online functionality ultimately failed to save Dreamcast. Notwithstanding a successful launch in late 1999, by early 2001 the system was discontinued in the US. Despite a stellar software library, intense competition from PlayStation 2 as well as Sega's tarnished reputation are often cited as reasons for its failure.



Recommendations

The case of Sega in the mid- to late-1990s offers a fascinating account of the antecedents and effects of subsidiary autonomy over time for an international platform firm. After receiving negative market feedback on its Genesis platform in the US market, Sega retooled its strategy and installed an outside CEO in its US subsidiary. Kalinske, as he had been with Mattel and Matchbox, was successful in his assignment by dethroning Nintendo in terms of overall market share. This runs counter to what might be predicted by subsidiary evolution theory, which holds that positive (not negative) feedback should lead to an increase in subsidiary autonomy via charter expansions. Yet, it is consistent with the upper echelons perspective, which suggests CEO characteristics are drivers of firm success.

Later, Kalinske's success led to further charter expansions, with Sega of America leading the way in development of platforms such as the 32X. Yet, Kalinske's strong and arguably misguided distaste for Saturn's complicated architecture meant that Sega failed to support it to the maximum extent possible. Instead, Kalinske tried to develop a separate console with Nvidia. The expansion of Sega of America's charter into hardware after its success with Genesis is consistent with subsidiary evolution theory. Yet, the failure of Saturn contradicts upper echelons theory, as the same team which was so successful with the Genesis platform should have done similarly well during the next console generation.

In the context of platforms, there may be an optimal level of autonomy for subsidiaries to enjoy regardless of perceptions of success or failure, and regardless of who is in charge. The idea that autonomy should be granted with caution is not new. Birkinshaw and Hood (1998), for example, caution against granting subsidiaries autonomy in areas where they have not developed appropriate capabilities. In Sega's case, their hardware capabilities were not necessarily underdeveloped. They were simply not necessary. Miller's insistence, for example, that 32X be an addition for Genesis and offer developers a "stepping stone" to working with Saturn did not stop either console from failing. Similarly, the internal competition during Dreamcast's development over its graphics suite (Birkinshaw, Hood, & Young, 2005), as well as Stolar's insistence on a modem, may have harmed that platform more than they helped.

Conclusions

Performance is typically cited as the reason subsidiary autonomy should be withdrawn as well as granted. Galunic and Eisenhardt (1996) argue that negative performance feedback as well as certain instances of internal competition should lead to reduced subsidiary autonomy. Others have found empirical support for the idea that poorly-performing subsidiaries receive fewer resource allocations and reduced incentives to take risks (Sengul & Obloj, 2017). Yet, in Sega's case, infusions of cash and autonomy proved invaluable, at least initially.

Kalinske's razors-and-blades approach to the Genesis was successful in making inroads to a market that was, at the time, dominated by Nintendo. This was despite Sega of America's poor prior performance and its parent company's opposition at the board level. In sum, Sega's story indicates that using prior performance as a mechanism to grant (or withdraw) autonomy to a subsidiary may, in the context of platforms, constitute a strategic mistake. Instead, autonomy should be granted (and withdrawn) on a contingency basis, and not as a "reward" for superior performance.

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