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Chance, Strategy and Change: The Structure of Contingency in the Evolution of the Nokia Corporation, 1986–2015*, **

ABSTRACT

Earlier research has analyzed how chance influences strategic choices, yet it has largely ignored the processes that chance events generate. We address this issue by analyzing how chance events and political dynamics co-produce strategic change. We study the history of the Nokia Corporation between 1986 and 2015, focusing on the event structures that led to the divestment of core businesses on two separate occasions. Our findings show how chance events and resulting political dynamics generate periods of collective indeterminacy where multiple, competing strategic scenarios become apparent. These emerge either directly from chance events or indirectly from political dynamics as coalitions translate chance events into their preferred scenarios. The search for a new strategic direction then ensues through the emergence and elimination of alternative scenarios until an acceptable scenario is converged upon, ending the period of collective indeterminacy.

Keywords: Strategic change; chance; organizational politics, event structure analysis; Nokia Corporation

*Authorship in alphabetical order. All authors contributed equally.

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INTRODUCTION

The COVID-19 pandemic, the war in Ukraine, and other recent events have stimulated managerial interest in the role of chance in the strategic management of firms. Chance is also an established concept in strategy research (Denrell, Fang, & Liu, 2015). However, the processes by which chance emerges and influences managerial decisions are challenging to investigate because chance events typically emerge without any obvious design (de Rond & Thietart, 2007). Subsequently, earlier research has rarely addressed the processes through which chance intersects with strategic decision-making and results in choices concerning the strategic direction of a firm. Instead, earlier research has mainly focused on the impact of chance on strategic outcomes such as firm growth, performance, or survival (see Denrell et al., 2015 for an overview).

Our study aims to augment the extant literature by analyzing organizational processes related to chance. Drawing from recent theorizing in historical sociology, we turn our attention to event sequences that are characterized by chance processes that Ermakoff (2015) calls *the structure of contingency*. A precondition of such a (structure of) contingency is a period of *collective indeterminacy,* wherein organizational members come up with different scenarios (i.e., possible strategic choice options) but are unable to make an immediate choice between the scenarios due to conflicts of interest and mutual uncertainty. Herein *contingency* refers to the processes by which the collective indeterminacy is resolved through some scenarios' becoming decreasingly viable and others increasingly so. Over time, these processes can produce outcomes that may have seemed surprising, unforeseen, or improbable at the outset. This is because certain likely scenarios may become less viable over time, while novel scenarios may gradually gain prominence and possibly become selected at the end. Building on these conceptual leads, we aim to answer the following research question: *how and why does chance become part of processes that result in strategic change?*

We analyze the major strategic changes of a prominent global company, the Nokia Corporation. We concentrate our empirical analysis on strategy processes that led to two major strategic turning points in the firm's history[1]. First, in the early 1990s, Nokia eliminated its core businesses of consumer electronics and information systems to focus on mobile phones and telecom networks. Second, in the early 2010s, Nokia sold off its then globally dominant core business of mobile phones to Microsoft. By analyzing these two strategic turning points, we move towards an enhanced theoretical understanding of the role of chance in strategy processes.

We offer two contributions. First, we develop a process viewpoint to chance. We show how chance events may not only open new strategic opportunities (Rond & Thietart, 2007) but they can also influence the entire decision-making process and affect the closure of strategic avenues and the selection of one of them. Chance not only changes the outcome, but also the process of getting there. Second, we complement the understanding of how chance functions within strategic decision-making processes. We discover that power struggles among competing top management coalitions are a key component in engendering the structure of contingency. Chance both enables and forces political coalitions to reposition themselves in terms of what they perceive to be the future strategic direction of a corporation. During these kinds of situations, strategy processes intersected by chance generate shifts in power positions that render some scenarios decreasingly viable, create totally novel scenarios, and gradually lift some scenarios to prominence. These events guide decision-makers through collective indeterminacy towards an eventual convergence on one scenario

[1] Nokia's history and strategic turning points have received extensive attention by academic scholars and participants. See, for example, Laamanen, Lamberg and Vaara (2016), Lamberg, Lubinaite, Ojala, and Tikkanen, 2021, Aspara, Lamberg, Laukia, and Tikkanen (2013), and Häikiö (2001a, b) for the commissioned history of Nokia.

that gets implemented. In so doing, both chance and political dynamics participate in co-producing strategic change. This finding focuses on the topological patterns of how chance intercedes with strategy, giving rise to a theoretical and empirical discovery.[2]

The paper is organized as follows. We first overview previous literature on the role of chance in strategy processes and develop a sensitizing framework for our empirical research. The framework guides our historical research and subsequent event structure analysis (ESA) of Nokia's strategy processes. Finally, the findings from our empirical work provide the grounds for theorizing how chance and political dynamics co-produce strategic change.

THEORETICAL BACKGROUND

Chance refers to an "event happening in the absence of any obvious design (or randomly), one … of which the cause is unknown" (de Rond & Thietart, 2007: 535–536). In the organizational context, this means that *a chance event is an occurrence that is unexpected, unanticipated, and unforeseen, a priori, to most members of the organization*.[3] The majority of strategic management studies that discuss chance have focused on the effect of chance events on strategic outcomes such as firm growth, performance, or survival (see Denrell et al., 2015 for a review).[4] In contrast, research focusing on the role of chance in affecting the strategic choices, decisions, or conduct is sparse. In the few studies that address the influence of chance on strategic choices, chance is mostly understood as a coincidence

[2] We thank Reviewer 1 for helping us to verbalize our most important contributions.

[3] Conceptually, chance is also related to luck and serendipity. Luck is mostly referred to when the causes of (chance) events are attributed to 'good luck' or 'bad luck' (Liu & de Rond, 2016), while serendipity refers to situations where events, activities, or pieces of information can be combined in an unexpected and often innovative and productive manner (de Rond, 2014). The use of these concepts in prior literature remains mixed, and somewhat inconsistent. To alleviate the risk of confusion, we focus in present research on the concept of chance.

[4] When it comes to the notion of what 'chance' essentially is, these studies have typically adopted an ecological view of chance as natural variation, a mathematical view of chance as statistical random variance, or a combination of these two views.

that is unexpected by management and which alters the pre-conditions or assumptions the firm's current strategy is based on (de Rond & Thietart, 2007; MacKay & Chia, 2013). That is, chance events are seen to alter the feasibility of the firm's current strategy (MacKay & Chia, 2013) or elicit new opportunities for strategic renewal (de Rond & Thietart, 2007).

Several studies have analyzed how chance events are linked to evolutionary processes in firms. For instance, studies have shown that chance can influence network formation and multimarket competition (Baum, Shipilov, & Rowley, 2003; Korn & Baum, 1999) or that unforeseen events such as disasters are framed as being caused by chance to enable inter-firm cooperation (Rao & Greve, 2018). Moreover, although not explicitly discussing chance, Cattani (2006) found that the accumulation of technological knowledge at Corning proved to be an unanticipated asset when developing fiber optics, and McKinley and Scherer (2000) showed that, in a turbulent environment, restructuring initiatives can lead to the unintended consequence of eliciting further restructuring initiatives.

As the extant strategy literature does not much discuss the linkages between chance and organizational processes, we build upon recent literature on historical sociology addressing chance-induced processes (Ermakoff, 2015, 2019) as well as on strategic management literature focusing on the role chance in strategic choices and conduct (de Rond & Thietart, 2007; MacKay & Chia, 2013). We draw especially on the concept of the *structure of contingency* (Ermakoff, 2015), which refers to processes by which chance emerges and exerts its influence on agents' strategies, behavior, and choices. According to Ermakoff (2015), contingency involves processes that have a structure of their own, as well as interdependencies with other processes in which the strategic agents are involved. Adopting this view enables us to analyze how individual chance events influence processes and lead to major strategic choices.

A key concept of our framework is *collective indeterminacy* in decision-making (Ermakoff, 2015), which refers to periods of indecisiveness that are induced by the occurrence of events that seriously question the organization's current strategy. References to such periods are common in the strategic management literature. Examples include corporate managers lacking a unified understanding of how to act when existing decision-making procedures cease to provide guidance for strategic actions (Denis et al., 2011), managers becoming uncertain about their standpoints in a decision-making collective regarding how to respond to a novel situation (Bogner & Barr, 2000; Combe & Carrington, 2015; Floyd & Lane, 2000), conflicts emerging among decision-makers in challenging situations (Smith & Tushman, 2005), and managers simply not knowing what to do next (Cohen, March, & Olsen, 1972; Mosakowski, 1997).

Periods of collective indeterminacy typically involve the emergence of alternative *scenarios* representing different options for strategic choice. The collective indecisiveness concerns these alternative scenarios and which of them should be chosen to be realized. During these periods, decision-makers gradually discover and become aware of alternative scenarios as potential courses of action and partake in their construction. Organizational actors have different personal views and preferences towards different scenarios, and these personal views and preferences also tend to evolve during the period (Ermakoff, 2015). For this reason, our analysis addresses individual decision-makers' preferences—as collective indeterminacy can emerge when individual preferences are aggregated to the collective level where they result in conflicts (Hardin, 2013).

The period of collective indeterminacy ends when the viability of one of the scenarios becomes dominant, and when the viability of other scenarios is reduced or eliminated. To understand how this happens, we analyze the *direct and indirect effects of chance*. Here, chance events are understood as occurrences that are unexpected,

unanticipated, and unforeseen, a priori, to most members of the organization. Chance events can then exert direct influence on strategic choice-making, when the outcome of a chance event is the emergence or the elimination of a scenario, or indirect influence when they trigger a chain of events that leads to the emergence or elimination of a scenario. Together these events can lead decision-makers towards the resolution of collective indeterminacy as the participating actors eventually align around a single scenario that becomes actualized (Ermakoff, 2015). We apply this framework as a sensitizing tool in studying two periods of collective indeterminacy which occurred in Nokia within the last 30 years and resulted—twice—in the surprising strategic choice to divest the company's core businesses. Before that, we elaborate on the methodological choices underpinning our study.

METHOD

Research Design

To study how chance becomes part of organizational processes that lead to strategic change, we use historical (Ermakoff, 2019; Heise, 1989) and process research methods (Langley, 1999; Pentland, 1999). We had unique access to data concerning both time periods in which Nokia divested its core businesses (1986–1996 and 2004–2015). For the first period, Nokia granted us unconditional access to its corporate archives. For the second period (and partly for the first period, too), executives who had personally experienced the period could be contacted and interviewed, giving us access to informants with first-hand experience of the events.

Our research is characteristically abductive, informed by theoretical preunderstanding yet resulting in a new theoretical discovery (Bamberger, 2019). In particular, we follow the guidelines by Mantere and Ketokivi (2013) in the form of three principles derived from their conceptual work:

1. *Preunderstanding*. We did not start from a tabula rasa yet were informed by the literature on chance in strategy and theoretical work on the structure of contingency in historical sociology. According to Mantere and Ketokivi (2013: 81), abductive

research is always informed by existing theories, and, thus, "[…] abduction is a process driven by an interplay of doubt and belief, which, in turn, fuels the imaginative act of creating new knowledge."

2. The principal of *reflexivity.* During the research process, theoretical priors guided our archival work yet we simultaneously, remained open to "being challenged by the data by continually calling into question their preunderstanding" (Mantere & Ketokivi, 2013: 82). Along the process, we tried multiple theoretical lenses, from biological analogies to leadership theories, yet ended up with an emphasis on coalition politics after the final encounters of new data.
3. Finally, we *draw conclusions* from our data, inferring the co-dynamics between chance-induced processes and organizational politics. This is, again, in line with Mantere and Ketokivi (2013: 82), who state that "even in the case of a priori theory, the interpretation of evidence is always an inference to an explanation—that is, an abduction."

Within the genre of case study methodology, we use Nokia as a revelatory (Yin, 2003) and exceptional (Ermakoff, 2014) case. The pervasiveness of changes in Nokia's strategy "magnifies relational patterns that in more mundane situations lack visibility" (Ermakoff, 2014: 223). Simultaneously, our unique access to Nokia's archives makes our study revelatory because we had "access to a situation previously inaccessible to scientific observation," making the study "worth conducting because the descriptive information alone will be revelatory" (Yin, 2003: 43). In summary, the aspects described above, combined with pre-existing conceptual and analytical ideas, sensitized us and provided "a foundation for [our] new study" (Fisher & Aguinis, 2017: 441).

Data Collection

We collected data by utilizing three techniques that are commonly used in historical case studies (Kipping, Wadhwani, & Bucheli, 2014): (a) collecting secondary research and public literature written about the company; (b) gathering archival documents from company archives; and (c) conducting semi-structured interviews with key actors in the style of oral histories. Table 1 provides an overview of these data sources and the purposes they were used for.

Insert Table 1 about here

Secondary sources. Nokia has ranked among the largest companies in Finland for decades. Accordingly, much of the prior literature on Finland's industrial, economic, and corporate history in general provides background information about Nokia's history (Häikiö 2001a, b). We first familiarized ourselves in detail with this background material. Besides the general literature sources, we collected a variety of qualitative and quantitative material focusing on the history of Nokia in particular (for an overview Laamanen, Lamberg, and Vaara, 2016). This resulted in a significant collection of Nokia-specific material, consisting of academic publications, biographies of its ex-CEOs, and studies by former Nokia managers. The corpus also included Nokia's annual reports, SEC filings, and articles in professional magazines.

Archival data. Concurrent with the collection of secondary data, we conducted an extensive search of Nokia's corporate archives. These archival collections had been previously restricted to internal use, but we were permitted unconditional access to all corporate archival documents up to the year 2000. This extensive material includes protocols of the top management team and board meetings, business and strategic analyses, correspondence between managers and business units, and other memoranda. Due to our focus on strategic changes and the preceding periods of collective indeterminacy, we concentrated on analyzing archival documents related to business portfolio investments and divestments during the late 1980s and the early 1990s. Our access to archival data was limited to the years up to 2000 due to the recent nature of later key events and their partly confidential nature. Therefore, interviews as well as recent biographies of Nokia's executives played a larger role in the analysis of strategic changes that took place in the second period of analysis, after the beginning of the new millennium.

Interviews. To complement our archival and secondary sources, we conducted in-depth interviews with former Nokia top managers, members of the board of directors, and middle managers and experts. Each semi-structured interview lasted between 30 and 80 minutes. The interviewees were initially asked to express their general views about Nokia's evolution during the period. Subsequently, as the interview progressed, the interviewee was asked to reflect on specific episodes of business portfolio changes, investments, acquisitions, and divestments at Nokia. We specifically probed the interviewees about decisions in which they had personally been involved. Altogether, we conducted 27 interviews and our key informants included one former CEO of Nokia, several former top management team members, and two former chairmen of the board. The interviews were recorded and transcribed verbatim.

Data Analysis

Our analysis proceeded in four stages that were iterative in nature, as is typical with historical research (Kipping et al., 2014).

Stage 1: Identifying periods of collective indeterminacy and alternative strategic scenarios. Ermakoff (2019: 595) suggests that analyzing the structure of contingency requires: "(a) the ability to identify moments of collective […] and (b) the ability to gauge the range of possible collective scenarios and their likelihoods at different points in the process"

To accomplish this, we first wrote narratives to familiarize ourselves with the data and make sense of the events (Pentland, 1999) that occurred during the two periods in question. We also set temporal brackets (Langley, 1999) to outline the points in time when Nokia's top management started to experience indecisiveness about the strategic direction of the corporation. These points occurred in early 1988 for the first period, and in early 2009 for the second.

When analyzing the periods of collective indeterminacy, we followed Ermakoff's (2015) suggestion to identify alternative strategic scenarios as the events unfolded. This was done to avoid explaining the eventual decision as a necessity or as a fully logical outcome of a linear decision-making process and to account for the role that chance events have when decision-makers waver between different scenarios and eventually converge on a decision. Specifically, we identified the alternative decision-making scenarios from documents and interviews pertaining to the periods of collective indeterminacy. Not all alternative scenarios could be found in any one document at a certain point in time. Rather, the scenarios emerged at different points of time and many of them were also overruled or ceased to be viable before the final choice was made. The ambiguous nature of the scenarios was accentuated by the fact that different scenarios were often conceived or supported by different coalitions among the top management.

Stage 2: Identifying events leading to the emergence of alternative scenarios. After identifying periods of collective indeterminacy and alternative scenarios through the development of narratives, we used event structure analysis (hereafter ESA) to trace event sequences that led to the emergence of alternative scenarios (Heise, 1989). ESA is a particularly suitable method for this tracing since it requires that the researcher systematically unpack narratives into events before reconstructing causal interpretations of how the events are related to each other (Griffin & Korstad, 1998). This is done by determining which previous events are required for the current event to occur, and the systematic analysis of all the events ultimately produces a diagram of event relations (Heise, 1989).

In the first stage of ESA, we identified events that led to the emergence of the alternative *strategic scenarios*. The initial chronological coding of events was based on the historical narratives developed in the previous analytical stage and covered the two periods in full. Coding the events also enabled us to triangulate them across multiple sources, reducing

the limitations that reliance on singular sources can generate (Kipping et al., 2014). When coding the events, we also paid particular attention to the identification of chance events. We treated events as being chance events if they seemed to be occurrences that were unexpected, unanticipated, and unforeseen, a priori, to most members of Nokia's (top) management. In practice, our operationalization of this was that at least one of our interviewees or archival sources should describe the event to have been largely "unexpected," "unanticipated," "unforeseen," "unpredictable," "surprising," "sudden," "out of the blue," or the like to the management of Nokia broadly, at the time when the event happened or unfolded. Tables 2 and 3 identify these chance events from the two periods and link them to our key data sources.

Insert Table 2 about here

Insert Table 3 about here

After the initial chronological coding of events, we used the computer program ETHNO[5] to construct the event sequences. ESA and the associated ETHNO computer program help in the development of a logical structure of event relations by assuming a production system logic where events have prerequisites that need to occur before the focal event can happen (Heise, 1989). This means that events remain latent until all their prerequisite events have happened. It is also assumed (with some exceptions) that an event depletes its prerequisites (i.e., uses up the prerequisite events) and that an event is not

[5] Available at: http://www.indiana.edu/~socpsy/ESA/

repeated before it becomes depleted by future events (Corsano & Heise, 1990). These assumptions guide the development of event sequences.

The analysis began by entering the chronological list of events into the program. Thereafter, the program guided us forward in the event chronology while simultaneously asking us to identify which of the previous events were prerequisites for a given event to occur. By following this procedure, the computer program helped us to systematically identify which previous events are required for any given event to occur (Griffin, 1993). This process necessitated that we consider the rationale of why certain events were related to each other by way of spelling out what needed to happen for a certain event to take place and resulted in a network of event relations. This helped us to clarify why certain events were related to each other and how the event sequences developed over time.

After the initial event sequences had been constructed by one of the authors, the other authors worked together to corroborate the initial analysis. While assessing the initial analysis, new events were iteratively added to the sequences so that all prerequisites for the events were met, while events that were not part of a sequence were removed. This followed the procedure of iterative addition and removal of events and re-interpretation of event relationships during the analysis process (Heise, 1989). The analysis process generated a network of necessary antecedent events for the alternative strategic change scenarios, resulting in a comprehensive understanding of how the scenarios emerged.

Stage 3: Closure of scenarios. The next stage of the ESA aimed to identify events that exerted significant influence on the viability of alternative strategic scenarios. While the previous stage focused on the emergence of different scenarios, this stage focused on the "closure of alternative futures" (Ermakoff, 2015: 111) and the eventual strategic choice to realize one of the scenarios. This closure was assumed to happen when parallel events either intersected with the scenarios to reduce their viability or when the scenarios

became unfeasible since there were no events that would have facilitated their realization. By doing so, these parallel and intersecting event sequences were considered as leading towards the realization of one scenario.

We analyzed how parallel events and event sequences influenced the viability of the different scenarios. Certain initially promising scenarios could be left unrealized, while other less likely scenarios were eventually realized. The intersections of these parallel events and event sequences then led towards the resolution of collective indeterminacy and to an eventual strategic choice. In analyzing these intersections, we also paid special attention to the role of the agency of individuals and different groups of individuals. These events were then integrated into previously developed event sequences that focused on the emergence of scenarios. Together these event sequences therefore depict the key events that led to the emergence and closure different scenarios and how these events led to a decision to realize one of the scenarios, ending the period of collective indeterminacy. Simplified visualizations of these event sequences are presented in the analysis section (see Figures 1 and 2), while the full event sequences are visualized in Figures A1 and A2 in the online appendix.

Stage 4: Analytical generalization and theory development. In the final stage, we analyzed how chance events and political dynamics influenced the different scenarios. By comparing the two periods, we identified commonalities in how chance influenced different scenarios and how different coalitions of the top management supported and opposed scenarios. This helped us to discover how chance events and political dynamics produce strategic change. In this way, we arrived at analytical generalizations that could be potentially valid beyond the focal case (Langley et al., 2013).

EMERGENCE OF STRATEGIC CHANGE: CHANCE IN TWO ACTS

Next, we present accounts of the two periods of strategic change. For both periods, we start by identifying a set of key events that resulted in the emergence of *collective indeterminacy*.

We then analyze the *emergence of alternative strategic scenarios* during the period of collective indeterminacy where we highlight the direct and indirect effects of chance events on the emergence of the different scenarios. After this, we analyze the *closure of alternative strategic scenarios* for both periods, again highlighting the direct and indirect effects of chance events on the viability of scenarios. These analyses are grounded in our event structure analyses, simplified versions of which we present in this section. The analyses also include identifiers of specific event codes from the full event sequences, which can be found in parentheses with a hash symbol (e.g., #FinMark).

First Period

Events leading to collective indeterminacy. After decades of tight financial regulation, in 1986, Finnish corporations were allowed to operate in the international financial market and acquire financing with fewer restrictions than before (#FinMark). Nokia's CEO, Kari Kairamo, took full advantage of this change. His ambitions had been earlier curbed by the power of the two largest Finnish commercial banks, the CEOs of which acted as the chair and vice-chair of Nokia's Board of Directors. Now, Kairamo regarded financial market deregulation as an opportunity to address the perceived power deficit of his.

Kairamo's plan had two parts. First, he politicked a change in the governance model of the corporation (#InternalBoard). The two bank CEOs and the rest of the Board of Directors were moved to a newly established administrative council while Kairamo's own executive management team become Nokia's official (albeit internal) board of directors. Second, empowered by the availability of foreign capital, Kairamo and the new board outlined "Corporate Vision 1990," which stated that strong corporate growth would be pursued primarily through international acquisitions (#StratVision). They had a vision that the business areas of Consumer Electronics (primarily TVs) and Information Systems (primarily PCs) would be key to Nokia's growth (#InvestStrat). The decision to expand into

electronics was made because there was a widespread belief in Europe that these areas would drive the development of a wide variety of future technologies, industries, and businesses (#TvPcBelief).

Early in 1987, Nokia's stock was also listed on the London Stock Exchange, which further increased pressure on its management to grow internationally (#StockPressure). To live up to these expectations and put the corporate vision into action, Nokia acquired two European TV manufacturers, the French company Oceanic and the German Standard Elektrik Lorenz (SEL), to strengthen their Consumer Electronics business (#TvOcreanicSelAcq). For the Information Systems business, Nokia acquired the data and computer systems division of the Swedish technology behemoth Ericsson, known as Ericsson Data (#PcErcissonAcq). Smaller acquisitions were also made in the Cable business area and the Tele Networks business area. These acquisitions put the corporate vision into practice:

> To reach the mentioned goals, it requires that all divisions behave more aggressively than what normal market growth would bring. […] For consumer electronics, this means forming significant strategic alliances and growing our own business to secure the necessary prerequisites to compete during the 1990s. (Summary of corporate vision 1988–1996, May 9, 1988, Nokia Archives, ELKA)

With these acquisitions, Consumer Electronics and Information Systems were established as the core business areas, even though the business areas of Cables, Tele Networks, and Mobile Phones were also considered to have strong growth potential. The acquisition of Oceanic and SEL made Nokia the third largest producer of TV sets in Europe and enabled the firm to engage in negotiations with the Japanese firm Hitachi concerning possible collaboration. However, constant changes in the business area's management as well as the scrapping of an important cost-cutting initiative hampered the profitability of the TV business. These troubles rapidly escalated when large European TV producers started to dump their inventories on the market and move their production to Asia (#TvIndShock). For Nokia's top management, this event was a largely unexpected chance event.

> We had such a great number of successes behind us. That then obviously leads to miscalculations. I think we were all guilty of over optimism now that I think about it after the events. (Interview with a former member of Nokia's top management team 1)

In parallel to these events, the newly acquired Ericsson Data was also being restructured and had severe problems. In December 1988, Nokia top managers presented dire financial figures to the administrative council (#TvPcCritical), indicating that difficulties in the PC/Information Systems and TV/Consumer Electronics businesses had rapidly become a threat to the survival of the company. Almost immediately after these financial difficulties became public knowledge, Nokia's CEO Kari Kairamo suddenly committed suicide (#KairamoDeath). The event was an unexpected chance event concerning Nokia's (internal) management and organization, the impact of which was made more acute in the light of another tragic chance event that happened just a few months earlier: the death of Kairamo's presumed successor, strategy director Timo Koski, who suddenly passed away in April 1988 (#KoskiDeath).

> The CEO and chairman of Nokia's board Kari Kairamo, 55, is dead. […] Different sources have confirmed to Helsingin Sanomat that Kairamo's death of was a suicide. (Helsingin Sanomat December 13, 1988)

The ever-worsening condition of the Consumer Electronics and Information Systems units, combined with the chance events (i.e., the TV industry shock and the death of two key top executives), initiated a period of collective indeterminacy in Nokia's top management. The indecisiveness concerned potential ways of addressing the financial situation of Consumer Electronics and Information Systems, and the situation was aggravated by the lack of an established power structure in top management, after the death of two key executives.

Collective indeterminacy and the emergence of alternative strategic scenarios.

The beginning of the collective indeterminacy marked a situation in which multiple interest

groups among the top management sought to either benefit from Nokia's situation or turn it around towards a new future. This led to the emergence of four alternative strategic change scenarios (the choice between which was subject to collective indecisiveness). These scenarios were (a) "entering a corporate partnership in Consumer Electronics and/or Information Systems," (b) "pursuing a turnaround of Consumer Electronics and/or Information Systems," (c) "selling the company off as a whole or in pieces," and (d) "focusing on Mobile Phones, Tele Networks, and Cables (divesting all other businesses)." The presence and viability of these scenarios changed throughout the period of collective indeterminacy as they were influenced by further chance events as well as by power dynamics among the top management and key shareholders. To illustrate how the period of collective indeterminacy evolved and was influenced by chance events, Figure 1 provides a simplified version of the event sequence that took place.

Insert Figure 1 about here

The aggressive growth by acquisitions in Consumer Electronics and Information Systems had led these two units to become Nokia's core business areas. While the unforeseen shock to the European TV industry came as a chance event, an initial plan had been drafted to save these business areas already before the death of Kairamo and Koski. This plan was centered around the first scenario, involving (a) "entering into a corporate partnership in Consumer Electronics and/or Information Systems." Central to this scenario were the preliminary partnership talks that were initiated in the late 1980s between Nokia's top management and Hitachi (#TvHitachi) regarding the TV business:

> …we had discussions, very confidential discussions with the top management of Hitachi. Hitachi would have contributed to our TV business with their technologies and in exchange they wanted

> technology related to mobile phones. (Interview with a former member of Nokia's top management team 1)

In the Information Systems business area, there were also initial partnership talks with Honeywell, Olivetti, and ICL. Even if not all the talks with different partners were entirely earnest, many members of the top management considered such a partnership or joint venture as a viable scenario which would help the core businesses solve their profitability problems.

The second scenario, (b) "pursuing a turnaround of Consumer Electronics and/or Information Systems," gradually emerged as a related option to the first scenario (a). This was essentially a do-it-yourself alternative to the scenario of engaging in a partnership when it came to solving the mounting unprofitability problems. This scenario was in the interests of those top management team members who had themselves previously been central actors in expanding these business areas. This group of executives was also very aggressive in their political actions. For example, with the aim of adding mobile phones to their business portfolio, they had leaked information to the media in order to generate changes in the board of directors, now consisting of Nokia's own top executives.

The emergence of the third scenario, (c) "selling the company off as a whole or in pieces," was influenced by further chance events in the early 1990s. The emergence of this scenario dated to 1990–91 when Finland entered the most severe banking crisis in its history (#90Depression), which was further exacerbated by the collapse of the Soviet Union (#USSRCollapse). Due to these chance events, Nokia's largest shareholders—the commercial banks KOP and SYP—spiraled into financial troubles and KOP announced the intention to sell their Nokia shares. When Ericsson, one of Nokia's main competitors, suddenly contacted Nokia's main shareholders in 1991 and indicated its interest in acquiring the firm, negotiations were initiated (#Ericsson). Because the CEOs of these banks served, at that time, as the chairman and vice-chairman of Nokia's board of directors, the banks' interest in selling

Nokia, either as a whole or in pieces, became a viable scenario for the rest of Nokia's top management as well:

> It was KOP, no it was not their thing, but the initiative came from there because Ericsson was in contact by chance with Teppo Taberman, who sat in the board of directors of Ericsson's Finnish sister company. In fact, after that it was a joint project in all respects which Pohjola joined, and which then went through different phases as I have depicted. (Interview with a former member of Nokia's board of directors 1)

Finally, especially the collapse of the Soviet Union played a role in generating the final scenario, (d) "focusing on Mobile Phones, Tele Networks, and Cables (divesting all other businesses)." Nokia's executives and shareholders noticed how quickly Nokia's sales recovered from the loss of exports to the USSR, even though its Tele Networks and Cables businesses were heavily exposed to the loss of that market (#NetRebalance). The Tele Networks business had started to experience strong market demand in GSM mobile networks and equipment due to the deregulation of the telecommunications market in Europe and elsewhere (leading to an increasing number of mobile telecom operator customers for Nokia). This growth in demand for mobile network equipment compensated for the vanishing demand of fixed-line telecom equipment in the USSR. Moreover, the construction of mobile telecom networks also required the telecom operators to make considerable investments in cable infrastructure (e.g., cabling between radio towers). Consequently, the business rationale of focusing on the triumvirate of Mobile Phones, Tele Networks, and Cables became much stronger than it would have been had the USSR continued to be a central market for Nokia. Not surprisingly, the heads of these three business areas were among the strongest advocates of the viability of this scenario.

Choice through closure of strategic scenarios. Between 1988 and 1995, Nokia's top management wavered between different scenarios in search of a new direction for the ailing corporation. During this period, the previous chance events as well as certain new ones

came to exert influence on the closure or elimination of the scenarios. When it came to scenario (a) "entering a corporate partnership in Consumer Electronics and/or Information Systems," the unforeseen death of Kairamo in 1988 essentially eliminated this scenario. The death undermined the trust that Hitachi's management had in Nokia as a prospective partner and Hitachi pulled out from the talks with Nokia's Consumer Electronics business.

> Then intervened this unfortunate incident that Kari [Kairamo] committed suicide, the death of Timo [Koski] had already been bad, and he was replaced by Simo Vuorilehto and that amounted to nothing but mess. (Interview with a former member of Nokia's top management team 1)

The death of Kairamo also had an indirect influence on the viability of the scenario (b) "pursuing a turnaround of Consumer Electronics and/or Information Systems." This was because after Kairamo's death, it quickly became apparent that the new management team was a dysfunctional group of quarrelsome and politically scheming individuals. As a result, the viability of this strategic scenario gradually decreased.

Scenario (c) "selling the company off as a whole or in pieces" had emerged because of a chance event—discussions with Ericsson executives and joint understanding between the main shareholding banks to sell Nokia. However, the negotiations with Ericsson never led to a conclusion because Ericsson did not want to acquire Nokia's poorly performing Consumer Electronics business, a position unacceptable to Nokia's main shareholders.

A sequence of events took place after the negotiations ended without an agreement. KOP was still keen to sell its stake in Nokia because of its own financial troubles and it was also ready to accept losing its position in Nokia's board of directors. Therefore, KOP sold its Nokia shares to the insurance company Pohjola and the CEO of KOP stepped down from Nokia's board. When this happened, the remaining large shareholders (e.g., SYP, Pohjola) sitting on the board found a new kind of harmony in 1991. This led to an agreement on the need to appoint a new CEO for Nokia in 1992, Jorma Ollila.

> CEO Vuorilehto informed the top management team of a decision made by the board this morning to nominate Jorma Ollila as the new CEO, the resignation of Kalle Isokallio and his own retirement on June 1, 1992 when the corporation's top management transforms into a form where it has only a chief executive. (Nokia top management team meeting January 16, 1992)

Ollila's appointment boosted the viability of the remaining scenario, (d) "focusing on Mobile Phones, Tele Networks, and Cables and divesting all other businesses." This was due to Ollila having previously served as the head of the Mobile Phones unit and being personally familiar with the growth prospects of that business. The mobile phones unit also operated in the same industry as Tele Networks and Cables. Because the viability of all alternative scenarios had been simultaneously reduced, the top management's strategic choice eventually converged on this scenario:

> When Jorma [Ollila] was the chosen as the CEO in 1991, 1991–1992 at turn of the year, he was like, he really knew the mobile phone business. In this sense I would say that all these are a sum of chance events and then from 1992 onwards things might start to be somewhat rational, but I don't know about that. (Interview with a former member of Nokia's board of directors 1)

Second Period

Events leading to collective indeterminacy. After the decision to refocus the business portfolio on Mobile Phones, Tele Networks, and Cables in 1993, Nokia divested the previous core businesses of Consumer Electronics and Information Systems. Other non-core businesses were also divested in the mid-1990s. Eventually, Nokia even divested the Cables business, as it decided to further narrow down its corporate focus to Mobile Phones and Tele Networks. In the mobile phone market, Nokia bypassed Motorola and other competitors in the late 1990s, becoming the global market leader.

A logical next step for Nokia was an expansion to the mobile services market. This was done under the auspices of "Club Nokia" which was available to owners of Nokia's mobile phones in 1997. From there onwards it was further developed to provide a variety of

services, applications, and ringtones to Nokia customers. This decision later came to haunt Nokia, as it put the company on a collision course with its telecom operator customers, who perceived ringtones as their territory. In 2004, Nokia failed again in the eyes of the telecom operators. This time the failure related to Nokia's unpreparedness to introduce mobile phones featuring the clamshell design (like Motorola's RAZR) that were experiencing intense demand from end-consumers. Around this time, many major telecom operators wanted to teach a lesson to the market leader and unexpectedly began to cut down on the orders of Nokia's products (Doz & Wilson, 2018). This sudden block of orders (#NMPBlock) was an unexpected chance event for Nokia's top management. They responded to it by halting the development of Nokia-branded multimedia services, in an effort to reconcile the sudden sour relationship with the major telecom operators.

In 2006, Olli-Pekka Kallasvuo, Nokia's Chief Financial Officer, was appointed as the new CEO of the firm (#KallasvuoCEO). Jorma Ollila, CEO since 1992, moved to serve as the full-time chairman of the board of directors. At this point, Nokia was the clear market leader in the global mobile phone market and reported record profits in 2007. Accordingly, Kallasvuo was reluctant to make major changes in the strategy of the Mobile Phones business area. Kallasvuo would demonstrate this intransigence in the wake of the chance event that occurred soon after his appointment: the release of Apple Computer's first mobile phone model, the iPhone, in 2007 (#iPhone). Nokia's top management assumed that Apple Computer would remain a marginal player in the mobile phone markets and be unlikely to threaten Nokia's market leader position. Another largely unexpected chance event was Google's launch of the Android OS in 2008 (#AndroidOS). The only immediate responses from Nokia's top management to these two chance events was to acquire the full ownership of the Symbian OS from other mobile phone manufacturers (e.g., Samsung), as well as to open the new Nokia OVI store for selling services and apps for Symbian-based mobile

phones (#NMPOvi). Simultaneously, Nokia started to develop the MeeGo OS (#NMPMeeGo) with Intel, intending this OS to replace Symbian in the future:

> Nokia's plan, like you well know, was that Symbian would be phased out at some point and it would be replaced with MeeGo product family which would be the platform that helps Nokia to retain complete market dominance. That was the scenario. (Interview with a former member of Nokia's board of directors)

In the last quarter of 2008, the Mobile Phones unit—now called Devices & Services unit—experienced a sudden 29 percent drop in the sales. This drop was initially understood as resulting from the outbreak of the global financial crisis in 2008 (#FinaCrisis). As a response, CEO Kallasvuo initiated immediate cost-cutting measures in all business units. However, there remained a question mark as to whether changes beyond mere cost-cutting were needed in the strategy of Nokia and its Devices & Services unit in particular.

By 2009, the iPhone had already established itself as a legitimate competitor in the market and Nokia's old competitors, such as Samsung, HTC, and Huawei, began to heavily promote Android devices (#AndroidPhones). The migration of app developers from Symbian to iPhone and especially to Android in the wake of this development was particularly worrisome for Nokia's top management. As one former member of Nokia's top management team told us:

> But when the Android platform and iPhone platform started to grow […] then app developers quite quickly realized that it is much easier to develop apps for these architectures than for others. And then even greater number [of developers] abandoned the Symbian platform and started to initially develop for Apple and later for Apple and Android.

In summary, the growing concerns about the competitiveness of Nokia's mobile phones and Symbian OS, reinforced by several chance events (telecom operators' temporary block on Nokia; global financial crisis; Google's launch of Android OS; Apple Computer's launch of iPhone), initiated a second period of collective indeterminacy in Nokia's top management.

The indecisiveness related to potential ways of revitalizing the competitiveness of the Devices & Services business. However, the situation was aggravated by the complicated power structure in top management, with the ex-CEO Ollila still serving as the chairman of the board above the new CEO Kallasvuo.

Collective indeterminacy and the emergence of alternative strategic scenarios.

Altogether six scenarios emerged as alternative choice options during the second period of collective indeterminacy: (a) "accelerating and boosting the development of the Meego operating system," (b) "combining Meego and Android operating systems," (c) "choosing Google's Android operating system as the main operating system," (d) "choosing Microsoft's Windows Phone as the main operating system," (e) "utilizing both Microsoft's Windows Phone and Google's Android operating systems." and (f) "selling Mobile Phone and Smartphone units to Microsoft." Figure 2 provides a simplified version of the event sequence that took place.

Insert Figure 2 about here

The first four scenarios resulted from the realization that drastic measures were needed to respond to the unanticipated success of both the iPhone and Android phones. The first scenario, (a) "accelerating and boosting the development of the MeeGo operating system," was conceived by the head of Devices & Services business unit Anssi Vanjoki, who oversaw the joint development of the MeeGo OS by Nokia and Intel. This plan crystalized when he was tasked by the board of directors to investigate Nokia's R&D units and draw up a new strategy for Devices & Services after the unexpected market success of both the iPhone and Android phones. The content of this plan was straightforward:

> It would have included a restructuring of new product development workforce that would have been more focused. We would have freed a lot of resources from the mobile phone and Symbian side, which were unnecessary since you don't need that many engineers when you need to develop one set of software and we were developing forty. (Former member of Nokia's top management team)

The second scenario was adjacent to the first one since it focused on (b) "combining Meego and Android operating systems." Evidently, Google's launch of the Android OS and the rapidly growing success of competitors' (especially Samsung) Android-based smartphones were the main drivers of this scenario. Both scenarios would have enabled Nokia to retain significant in-house software development, a traditional source of pride for the company.

The third scenario, (c) "choosing Google's Android operating system as the main operating system," also stemmed from the success of Google's Android OS. When the development efforts of Meego turned sour (as described below in connection with the closure of the scenarios), this scenario was considered in conjunction with the fourth scenario (d) "choosing Microsoft's Windows Phone as the main operating system." This scenario would have been inconceivable to Nokia's top management only one or two years earlier, given its earlier strategy to avoid becoming dependent on companies like Microsoft.

As an intermediate outcome, Nokia decided to enter a strategic partnership with Microsoft and to adopt its Windows Phone OS as the main platform for Nokia's smartphones. However, the partnership with Microsoft did little to alleviate Nokia's financial troubles. The development of new smartphones running on Windows Phone was slow and it took too long to launch them. Simultaneously, the demand for existing Symbian OS-based phones continued to plummet. As one Nokia VP noted of the situation:

> It was really chaotic, that period of time. People felt that we had nothing to sell. There was no transparency or understanding about the relationship with Microsoft. And then it became later clear that the whole operating system development had been transferred to Microsoft.

Soon after this, Microsoft suddenly launched the Surface tablet, without informing Nokia's top management in advance (#MicrosoftSurface). Fearing that Microsoft would start to compete against Nokia's smartphones with its own hardware products, Nokia's top management began to develop further scenarios to respond to this risk:

> In June 2012, Nokia initiated strategic planning, as requested by the board of directors, to evaluate the relationship between Nokia and Microsoft, including the existing commercial contract. During summer and fall 2012, Nokia's top management and board of directors analyzed different strategic options and visions for the future of cooperation between Nokia and Microsoft as part of the aforementioned strategic planning. (The official meeting material of the extraordinary general meeting of Nokia Corporation, September 18, 2013)

The first of the new scenarios focused on (e) "utilizing both Microsoft's Windows Phone and Google's Android operating systems." It was a realistic possibility since Nokia had the option to renegotiate the terms of the strategic partnership with Microsoft after three years. This would have been an especially viable alternative if Microsoft had entered the mobile phone market with their own smartphone. Relatedly, scenario (c) "choosing Google's Android operating system as the main operating system" also re-emerged as an option. The final scenario was (f) "selling Mobile Phone and Smartphone units to Microsoft." While this scenario was indirectly influenced by the launch of the Surface tablet, another chance event directly influenced this scenario when the CEO of Microsoft, Steve Ballmer, contacted Nokia's chairman of the board and initiated discussions concerning the acquisition of the Mobile Phone and Smartphone divisions (#MicrosoftProposal).

Choice through closure of strategic scenarios. Between 2010 and 2013, Nokia's top management again wavered between the different scenarios, regarding how to respond to their situation. These scenarios' viability also continued to be influenced by some of the previous chance events, as well as by some new ones. The proliferation of Android devices continued to increasingly undermine the market share of Nokia's Symbian OS-based

smartphones. This led Nokia's board of directors to initiate a search for a new CEO to replace Olli-Pekka Kallasvuo in the spring of 2010.

The main external candidate was Stephen Elop, a Microsoft top executive, while the main internal candidate was Anssi Vanjoki, the head of Nokia's Devices & Services. Elop was ultimately chosen, possibly because Vanjoki had previously underestimated the strategic challenge posed by both Apple and Google and because his appointment might not have resulted in radical enough change at Nokia. The appointment soon led to the elimination of two of the scenarios: (a) "accelerating and boosting the development of the Meego operating system" and (b) "combining Meego and Android operating systems." This development was a direct result of Vanjoki resigning from Nokia after losing the race for the CEO position and holding responsibility for the development of a plan to save MeeGo. Instead, Elop convinced the board to choose scenario (d) "choosing Microsoft's Windows Phone as the main operating system." Indirectly, this decision led to the elimination of scenario (c) "choosing Google's Android operating system as the main operating system." In February 2011, Nokia and Microsoft officially announced their partnership:

> Nokia and Microsoft intend to jointly create market-leading mobile products and services designed to offer consumers, operators and developers unrivalled choice and opportunity. As each company would focus on its core competencies, the partnership would create the opportunity for rapid time to market execution. (Microsoft press release, February 10, 2011)

However, Nokia's smartphone sales did not recover sufficiently, even after the successful market launch of Nokia's Lumia-branded Windows Phone devices in 2011–2012. Then, in 2012, Microsoft's launch of the Surface tablet computer directly decreased the viability of scenario (d) "choosing Microsoft's Windows Phone as the main operating system," which had already been put into action. As described above, this led to the emergence of three novel scenarios: (c) "choosing Google's Android operating system as the main operating system,"

(e) “utilizing both Microsoft’s Windows Phone and Google’s Android operating systems,” and (f) “selling Mobile Phone and Smartphone units to Microsoft.”

Less than a year later, talks about Microsoft’s potential acquisition of the mobile phone business units of Nokia were initiated by Microsoft’s CEO Steve Ballmer (#MicrosoftProposal):

> Discussions about a potential strategic business combination between Nokia and Microsoft began on concrete level in February 2013 when the CEO of Microsoft Steve Ballmer contacted the chairman of Nokia’s board of directors Risto Siilasmaa and proposed a meeting where they could discuss the possibility to deepen the partnership between Nokia and Microsoft. (The official meeting material of the extraordinary general meeting of Nokia Corporation, September 18, 2013)

These discussions eventually led Nokia to converge on scenario (f) “selling the Mobile Phone and Smartphone units to Microsoft.” This scenario was further reinforced by changes in Nokia’s top management, when Risto Siilasmaa replaced Jorma Ollila as the chairman of the board of directors. Siilasmaa was much less attached to the mobile phone business than Ollila was, who saw himself as the creator of the once hugely successful mobile phones business. This made it easier for Siilasmaa to be open-minded about selling the mobile phone business to Microsoft, as well as being able to convince the rest of the board of directors to adopt this course of action. Thus, after protracted and challenging negotiations with Microsoft, Nokia announced the deal to sell the mobile phone business to Microsoft in September 2013.

EXPLAINING STRATEGIC CHANGE THROUGH CHANCE AND POLITICAL DYNAMICS

Nokia’s two strategic change periods were characterized by collective indeterminacy and attempts to solve it by finding a new strategic direction for the corporation. In both periods, indeterminacy was initially triggered by various developments seriously questioning the

company's strategy. From that point onwards, both chance events and the existence of competing management coalitions led to the emergence and elimination of scenarios.

To analyze the influence of competing management coalitions, we draw from existing literature on coalition politics. It posits that indeterminacy can lead to a power struggle when competing decision-maker coalitions seek to define the goals of the organization (Cyert & March, 1992; March, 1962; Ocasio, 1994). Power struggles are then acted out through organizational politics, which consist of activities that different actors use to enhance their power to influence decisions (Eisenhardt & Bourgeois, 1988). Such political dynamics commonly take place among and between top managers (Eisenhardt & Bourgeois, 1988), boards of directors (van Ees, Gabrielsson, & Huse, 2009), and key shareholders (Jara-Bertin, Lopez-Iturriaga, & López-de-Foronda, 2008). We draw from this literature to analyze how the intermingling of chance and politics eventually led Nokia's top management to choose a novel, often surprising strategic course for the company. Table 4 presents the scenarios in terms of chance and political dynamics by showing how chance influenced the scenarios, which management coalitions supported/opposed each scenario, and what happened to the individual scenarios. In doing so, the fate of each scenario was determined by a trifecta of chance along with the support and opposition of and by different top management coalitions. Next, we analyze chance and politics independently and then focus on their interplay.

Insert Table 4 about here

How Chance Influenced Nokia's Strategic Change

Our analysis of Nokia's two periods of strategic change show that chance played a central role in both of them. The initiation of each period was influenced by chance events, which

generated collective indeterminacy, catalyzed changes in top management, and created tensions at the top of the corporation. In the first period, these chance events were the sudden shock in the European TV market and the deaths of the CEO Kairamo and his heir apparent Koski. In turn, the second period of collective indeterminacy was fueled by the sudden outbreak of the global financial crisis as well as the unanticipated launches and successes of both Google's Android OS and Apple's iPhone. Thus, chance events contributed to collective indeterminacy by disrupting existing courses of action.

During the periods of collective indeterminacy, Nokia's top management became susceptible to the influence of chance. The emergence and elimination of all strategic scenarios were either directly or indirectly influenced by chance events. The direct influence of chance means that chance events presented immediate opportunities for strategic change, such as the possibility of selling off Nokia to Ericsson in the first period. Likewise, chance also directly prevented some scenarios from being realized, such as when the death of both Kairamo and Koski in 1988 brought an end to the partnership negotiations with Hitachi. In so doing, chance directly opened novel avenues for strategic action (as already suggested by de Rond and Thietart, 2007) but also directly blocked several scenarios from being realized.

While chance exerted a direct influence on some scenarios, even more scenarios were indirectly influenced by chance. In other words, chance events created the circumstances for the emergence of scenarios, or their elimination, but the actual emergence or elimination occurred through a further, separate sequence of events afterwards. A clear example of this is the scenario of "Accelerating and boosting the development of the MeeGo operating system," strongly advocated for by Anssi Vanjoki, who led the smartphone division and oversaw the development of this software platform. Thus, akin to how chance events can be organizationally framed in numerous ways (Rao & Greve, 2018), they can also be used to create alternative scenarios for action, where some scenarios are developed to serve the

interests of distinct organizational coalitions. Next, we take a closer look at how different management coalitions functioned during the periods of collective indeterminacy.

The Role of Political Dynamics in Nokia's Strategic Change

During both periods, there were several organizational coalitions that held diverging views of the future of Nokia. The theoretical importance of political dynamics is well-known among Carnegie scholars and our research materials offer abundant evidence of significant power struggles between political coalitions once they sought to define what Nokia should become. To understand how different coalitions influenced Nokia's strategic change, we analyze the two periods from this perspective (see Table 4 above for a summary).

In the first period of strategic change, the unforeseen deaths of Kairamo and Koski created a power vacuum that different coalitions tried to fill. These coalitions had already begun to emerge before Kairamo's death, as different business units had attempted to increase their relative power within the corporation. The first two scenarios that focused on salvaging the TV/Consumer Electronics and Information Systems businesses were strongly favored by those top management team members who led these business units. These actors clashed repeatedly with the new CEO Vuorilehto, who was trying to maintain some control over the corporation. While the death of Kairamo directly blocked the scenario of partnering with Hitachi, the scuffles between top managers stifled the turnaround scenario and eventually rendered it infeasible as well.

While the quarreling among top management persisted, the key shareholding banks temporarily set aside their differences when the opportunity to sell Nokia to Ericsson emerged through a chance occurrence. Even if this scenario was supported by the two main shareholder banks who could have made it happen, Ericsson did not want to acquire the troublesome consumer electronics business and eventually terminated the negotiations.

In the first period, the situation in Nokia was finally resolved when KOP bank sold their Nokia shares and the remaining shareholders came to an accord. This also led to changes in the top management team and solved the persistent stalemate that had hampered their decision-making. This redistributed power balance made it possible for the new CEO Jorma Ollila to chart a new direction for Nokia by adopting the scenario of focusing on mobile phones, tele networks, and cables while divesting all other businesses.

In the second period of strategic change, the search for a new CEO presented an opportunity to define a new direction for Nokia. In the race to become the new CEO, Anssi Vanjoki relied on his previously developed plans to save the development effort of the MeeGo OS and spearheaded the idea of retaining in-house software development. This scenario, however, was indirectly blocked by Nokia's major shareholders who wanted more radical change and Vanjoki was sidelined as a candidate.

When Microsoft's Stephen Elop was hired as the new CEO, he eliminated both scenarios involving the further development of MeeGo. With the defeat of the coalition that had been advocating for in-house software development, this left only the Android and Windows operating systems on the table as possible platforms for Nokia's smartphones. When Elop proposed Windows Phone as the new OS, no opposition subsisted and Nokia entered into a strategic partnership with Microsoft. Finally, when the decision to sell the entire mobile phones business to Microsoft was made, the scenarios and the final decisions can also be seen as responses to recent chance events, but with, at the time, little indication of coalition politics.

Based on this re-reading of the two periods, coalition politics served two major functions. Coalitions both translated chance events into scenarios that served their own interests and opposed scenarios that were seen as unfavorable to them. Through these political actions, coalitions tried to gain power or block competing scenarios so as not to lose

their strategic positions within the corporation (Eisenhardt & Bourgeois, 1988). Since these major decisions offered little space in which to bargain and compromise, the decision on Nokia's future course was largely defined through chance-induced power struggles at the top of the corporation. As a result of this, power struggles between different organizational coalitions largely subsided when one coalition gained the upper hand. In the first period, this happened when the financially ailing commercial bank KOP sold their shares, while in the second period the removal of Anssi Vanjoki from the CEO race ended hopes of continuing software development within Nokia. Accordingly, winning scenarios did not emerge autonomously (Burgelman, 1994) but in a complex process of power shifting between established and newly founded coalitions (such as two arch-rival banks willing to sell Nokia to Ericsson). As we will next show, chance was a decisive factor in this process.

Chance, Politics, and Strategic Change

When we take the two previous analyses together, we can see how chance and political dynamics work together during periods of significant strategic change (see Figure 3). First, chance events as well as the existence of coalitions play a central role in generating and propagating collective indeterminacy. While chance events contribute to disrupting earlier strategic courses of action and create organizational indecision, contestation among coalitions also creates indeterminacy that emerges from conflicting preferences (Hardin, 2013). Collective indeterminacy is thus not only caused and propagated by chance, as the existence of competing coalitions can also serve a similar function.

Insert Figure 3 about here

Second, both chance events and political dynamics can generate novel strategic scenarios, but they can also block scenarios from being realized. In so doing, chance events

can directly generate and block scenarios, whereas different coalitions translate those chance events into scenarios that are favorable to them as well as oppose scenarios that are not in their interest. In this way, collective indeterminacy proceeds through the emergence and elimination of strategic scenarios until a viable strategic choice is reached. For instance, the first period of strategic change led to the sequential emergence of four scenarios, where the first three scenarios were eliminated one by one until the final scenario was chosen as the new strategic direction for Nokia. Coalitions play an active role in translating chance events into potential courses of action.

Third, based on the role of chance and political dynamics, we can also see how collective indeterminacy emerges and develops over time until a strategic choice is made, ending the period of collective indeterminacy. During these periods, the development and elimination of scenarios move from local options towards distant alternatives when the local scenarios lose viability and cease to exist. This process can be facilitated by the exit of coalitions that favor local scenarios. By doing so, Nokia's top management moved away from the initial scenario towards initially unforeseeable outcomes.

DISCUSSION AND CONCLUSIONS

Our study advances research on the role of chance in strategic change by analyzing the interplay of chance events and political dynamics resulting in radical strategic choices. Although an increased interest in the influence of chance on strategy processes has become apparent (Baum et al., 2003; de Rond & Thietart, 2007; Korn & Baum 1999; MacKay & Chia, 2013; Rao & Greve 2018), the understanding of organizational processes related to chance has remained limited so far.

Uncovering the Dynamics of Chance and Politics in Strategic Change

The first contribution of this study is that it advances our understanding of how chance and political dynamics produce strategic change. By drawing on Ermakoff's (2015) concept of the structure of contingency, we have shown how chance and organizational politics produce process dynamics that lead to the emergence and elimination of strategic scenarios that can result in drastic, previously unanticipated strategic change. Chance events not only directly provide opportunities for strategic choice and change (as suggested by de Rond & Thietart, 2007), but they also indirectly influence processes through which different choice options are elicited and developed as well as contested and eliminated. We suggest these processes are the most frequent manifestation of chance in strategy making since individual chance events often provide numerous avenues for developing a response.

By simultaneously analyzing chance and coalition politics, our findings elucidate the interrelationship between chance and agency in shaping strategic choices. Previous research has posited that the influence of chance is realized by unexpected incidents affecting organizations (e.g., Cattani, 2006; de Rond & Thietart, 2007; MacKay & Chia, 2013). In contrast, our research implies that chance events are actively used by different organizational coalitions to generate and shape opportunities for change. Chance not only happens to organizations, but it may also be actively—or at least, semi-actively and implicitly—managed in the strategy process. Chance and agency therefore co-produce strategic change where neither one is necessarily subservient to the other.

Advancing the Processual View of Chance

Our second contribution focuses on how chance becomes embedded in the strategy process. In strategy process research, chance has primarily been treated as an event or circumstance that influences a process or its outcome (de Rond & Thietart, 2007; Mackay & Chia 2013; Rao & Greve, 2018). Our elaboration of the structure of contingency at Nokia reveals how

chance becomes embedded in the strategy process through collective indeterminacy and the emergence and elimination of alternative scenarios.

The structure of contingency, which centers around collective indeterminacy, sensitizes processes to chance as it results in event sequences that affect both the generation and elimination of scenarios for strategic choice and change (Ermakoff, 2015). At any point in time, there can be multiple scenarios and their actualization will be dependent on parallel events that directly influence the viability of the scenarios or alter the power balance between coalitions; this results in the elimination and selection of scenarios. From this perspective, chance therefore becomes embedded in the features of the process—the strategy process itself becomes, in part, a chance process with unforeseeable outcomes. Bunge (2018: 238) notes the following on this processual view of chance:

> Would an omniscient being play dice? Of course not, for he would be able to predict the outcome of every throw. Indeed, he could find out the initial positions and velocities of all the dice and, using the laws of classical mechanics for solids, he could compute the final configuration. In other words, such a being would beat chance of the second kind, or derivative chance, as I will call it.

Our findings show chance of this second kind—a processual chance where chance is part of the strategy process. A key feature of this perspective is that the scenarios are indeterminate: the future remains open as to whether or not they are realized (Eagle, 2019). Parallel events then lead to the elimination and selection of new courses of action based on how the process evolves. From this perspective, chance manifests through the intersection of events that are fully independent from each other, but also from event series that are semi-independent and contingent (as suggested by Ermakoff, 2015). Chance is thus not fully exogenous and random, but rather a characteristic of the process, whereby the outcome is unforeseeable.[6] Yet, without collective indeterminacy, even chance events such as the sudden death of

[6] See also Stanford Encyclopedia of Philosophy entry on chance and randomness: https://plato.stanford.edu/entries/chance-randomness/

Kairamo and Koski could have generated a unified response rather than the gamut of scenarios that were generated by different coalitions in the wake of these events. In that case, chance events would have remained external to the strategy process to which managers could have responded, rather than becoming part of the strategy process itself.

This view of chance also makes it possible to *study* chance, as we can understand the elements of which chance is composed, and how these elements function over time. In the study of contingency, for instance, Ermakoff (2019) has already provided guidance concerning how this can be done. However, our study only provides initial empirical insights into the processual nature of chance, and these should be further elaborated in subsequent studies.

Limitations and Future Research Avenues

The main strength of studying revelatory cases, such as that of Nokia, is that they can "magnify relational patterns that in more mundane contexts lack visibility" (Ermakoff, 2015: 223). This results in a limitation for the research, as there is a risk of overestimating the importance of explanations that are drawn from exceptional circumstances (Collier & Mahoney, 1996). We recognize the need to further study how chance manifests in other strategy-making situations within different industries and organizations. We also recognize the need for further research on certain topics we identify as important, but which were difficult or impossible to study with our data.

Our first suggestion for future research concerns time and timing. Regarding the role of timing, we view subjective time (Shipp & Cole, 2015) and its interplay with the structure of contingency to be an important research topic. For instance, how do individual actors respond to different kinds of chance events in terms of perceived urgency? Our use of historical data constrained us from focusing on these issues in a more detailed manner. Ethnographic field studies or simulations would allow this aspect of contingency to be

studied in more detail. Timing is important because our results imply that chance-based processes have a strong dependence on recent organizational outcomes (Page, 2006). Accordingly, discrete decisions (e.g., hiring a new CEO or envisioning a new strategy) may result in a multiplicity of interdependent causal effects which emphasize the importance of the individual and shared cognition of time and, subsequently, the timing of such key decisions.

The second suggestion concerns the interplay of chance and politics as they happen. Our study has provided initial insights on the structure of contingency and how chance and politics can lead to strategic change. It is possible, however, that in some circumstances, unexpected outcomes may involve political coalitions developing and advancing strategic scenarios despite prior unfavorable chance events. Likewise, some outcomes may indicate that specific coalitions fail to use prior favorable chance events as a springboard in the development of pursued strategic scenarios. Along these lines, we suggest that future studies should explore how participants in strategic change processes experience events and the process as they unfold over time. This could add to our findings by bringing a phenomenological perspective to the structure of contingency and elaborate how decision-making processes are experienced as the happen.[7]

Our third suggestion for further research is methodological. Following the recent debate on transparency and replication in qualitative research (see Pratt, Kaplan, & Whittington, 2020), we suggest that incorporating considerations of contingency can strengthen the transparency of qualitative research. By examining moments of collective indeterminacy and emerging alternative strategic scenarios, a researcher is required to examine and report alternative ways of seeing situations that are indeterminate. This gives

[7] We are grateful to Reviewer 3 for rising this issue as a potentially important research focus.

credence to the different ways in which strategic change processes evolve. In future research, more micro-level data should be used to be able to tap deeper into the intentions, views, and actions of individuals in the strategy process. These data could include anthropological observations, interpersonal e-mails, and the minutes of the top management team and board meetings, as well as interview data concerning the personal views and influence of key actors. Altogether, they would allow the researcher to better recognize how chance events generate influence at the micro level.

Managerial Implications

At the core of strategic management is the notion that decision-makers must consider different factors when developing and implementing future scenarios. However, the uncertain nature of some of these factors can make it difficult to predict the outcomes of actions. While Levinthal and March (1993: 110) famously argued that "[…] magic would be nice, but it is not easy to find," our findings imply that chance may resemble a form of "strategic magic" in simultaneously amalgamating internal leadership and external determinism—unlocking difficult choice situations to bring about radical strategic change. Accordingly, our findings offer several ideas that would be valuable in the strategic management of firms.

Our findings first suggests that organizations can improve their strategic planning and risk management by considering the role of chance in decision-making. We propose three enhancements to the traditional risk management practice, which typically identifies risks and indicates "mitigating actions" to reduce the likelihood or impact of the identified risks. First, we propose separating the "mitigating actions" into two sub-categories: one for actions that reduce the likelihood of the risk occurring and another for actions that proactively reduce the impact of the risk on the organization. This separation could encourage top management to consider both types of actions because some risks may be beyond managerial control and chance events may cause them to materialize. Second, we suggest adding a new category to

risk management models: "alternative scenarios if the risk is realized." This category would identify alternative actions or choices that the management can take if the risk is realized. These options can serve as "Plan B" strategies to mitigate the impact of the risk. Third, we propose enhancements to how responsibilities are assigned in risk management. Conventionally, one top management team member is listed as the responsible for the "mitigating actions" for each risk. We propose that different top managers should be assigned as the responsible persons for reducing the likelihood of the risk occurring, proactively reducing the impact of the risk on the organization, and for planning alternative scenarios if the risk is realized. These enhancements to the traditional risk management models can help organizations more effectively identify and address strategic risks, particularly those that may be influenced by chance events.

Second related finding elucidates the importance of understanding several pathways that are feasible with differing sets of choices—in other words considering counterfactual histories originating in sets of choices (Durand and Vaara, 2009). Counterfactual histories are alternative versions of events or outcomes that did not actually happen. In the context of chance-related processes, counterfactual histories can be used to help decision-makers think about the potential consequences of different actions and choices. For example, a company may be considering two different strategies for expanding into a new market. By creating counterfactual histories for each of these strategies, the company's leadership can consider the potential outcomes of each option and evaluate which one is likely to be more successful. Combining sensitivity to chances and the use of counterfactual histories can provide valuable insights and help decision-makers think more critically about the potential consequences of their actions. It can also help companies identify and mitigate potential risks, as well as develop more robust and effective strategies. While Nokia's top managers did not fully control the final strategic choice, they developed the scenarios from which the selection was

made. This does not necessarily mean that all the involved decision-makers were familiar with the potential scenarios, as different actors conceived partly different scenarios for resolving the situation. Therefore, in situations that are influenced by collective indeterminacy and chance, understanding, and mapping the scenarios becomes crucial so that the involved actors know the scenarios from which the final selection is made. This brings structure and control to situations that are riddled with indeterminacy.

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REFERENCES

Aspara, J., Lamberg, J. A., Laukia, A., & Tikkanen, H. 2013. Corporate business model transformation and inter-organizational cognition: The case of Nokia. ***Long Range Planning,*** 46: 459-474.

Bamberger, P. A. 2019. On the replicability of abductive research in management and organizations: Internal replication and its alternatives. ***Academy of Management Discoveries*****,** *5*: 103–108.

Baum, J. A., Shipilov, A. V., & Rowley, T. J. 2003. Where do small worlds come from? ***Industrial and Corporate Change,*** 12: 697-725.

Bogner, W. C., & Barr, P. S. 2000. Making sense in hypercompetitive environments: A cognitive explanation for the persistence of high velocity competition. ***Organization Science,*** 11: 212-226.

Bunge, M. 2018. Chance: Individual indeterminacy or collective randomness? ***The Review of Metaphysics,*** 72: 234-244.

Burgelman, R. A. 1994. Fading memories: A process theory of strategic business exit in dynamic environments. ***Administrative Science Quarterly*****,** 39: 24–56.

Cattani, G. 2006. Technological pre-adaptation, speciation, and emergence of new technologies: How Corning invented and developed fiber optics. ***Industrial and Corporate Change*****,** *15*: 285-318.

Cohen, M. D., March, J. G., & Olsen, J. P. 1972. A garbage can model of organizational choice. ***Administrative Science Quarterly***, 17: 1-25.

Collier, D., & Mahoney, J. 1996. Insights and pitfalls: Selection bias in qualitative research. ***World Politics***, 49: 56-91.

Combe, I. A., & Carrington, D. J. 2015. Leaders' sensemaking under crises: Emerging cognitive consensus over time within management teams. ***The Leadership Quarterly,*** 26: 307-322.

Corsano, W. A., & Heise, D. R. 1990. Event structure models from ethnographic data. In C. Clogg (Eds.), ***Sociological methodology,*** 1-57. Cambridge: Basil Blackwell.

Cyert, R. M. & March, J. G. 1992. ***A Behavioral theory of the firm*** (2nd ed.). New Jersey: Prentice Hall.

Denis, J. L., Dompierre, G., Langley, A., & Rouleau, L. 2011. Escalating indecision: Between reification and strategic ambiguity. ***Organization Science,*** 22: 225-244.

Denrell, J., Fang, C., & Liu, C. 2015. Perspective—Chance explanations in the management sciences. ***Organization Science,*** 26: 923–940.

de Rond, M. 2014. The structure of serendipity. ***Culture and Organization,*** 20: 342-358.

de Rond, M., & Thietart, R. A. 2007. Choice, chance, and inevitability in strategy. ***Strategic Management Journal,*** 28: 535–551.

Doz, Y., & Wilson, K. 2018. ***Ringtone: Exploring the rise and fall of Nokia in mobile phones.*** Oxford: Oxford University Press.

Durand, R., & Vaara, E. 2009. Causation, counterfactuals, and competitive advantage. ***Strategic Management Journal***, 30: 1245-1264.

Eagle, A. 2019. Chance, determinism, and unsettledness. ***Philosophical Studies,*** 176: 781-802.

Eisenhardt, K. M., & Bourgeois III, L. J. 1988. Politics of strategic decision making in high-velocity environments: Toward a midrange theory. ***Academy of Management Journal,*** 31: 737-770.

Ermakoff, I. 2014. Exceptional cases: Epistemic contributions and normative expectations. ***European Journal of Sociology***, 55: 223-243.

Ermakoff, I. 2015. The structure of contingency. ***American Journal of Sociology,*** 121: 64–125.

Ermakoff, I. 2019. Causality and history: Modes of causal investigation in historical social sciences. ***Annual Review of Sociology*****,** vol. 45: 581–606. Palo Alto, CA: Annual Reviews

Fisher, G., & Aguinis, H. 2017. Using theory elaboration to make theoretical advancements. ***Organizational Research Methods,*** 20: 438-464.

Floyd, S., & Lane, P. J. 2000. Strategizing throughout the organization: Managing role conflict in strategic renewal. ***Academy of Management Review,*** 25: 154-177.

Griffin, L. J. 1993. Narrative, event-structure analysis, and causal interpretation in historical sociology. ***American Journal of Sociology*****,** 98: 1094–1133.

Griffin, L. J., & Korstad, R. R. 1998. Historical inference and event-structure analysis. ***International Review of Social History,*** 43: 145-165

Hardin, R. 2013. ***Indeterminacy and society.*** Princeton: Princeton University Press.

Heise, D. R. 1989. Modeling event structures. ***Journal of Mathematical Sociology,*** 14: 139–169.

Jara-Bertin, M., López-Iturriaga, F. J., & López-de-Foronda, Ó. 2008. The contest to the control in European family firms: How other shareholders affect firm value. ***Corporate Governance: An International Review,*** 16(3): 146–159.

Häikiö, M. 2001a. ***Sturm und Drang: Suurkaupoilla eurooppalaiseksi elektroniikkayritykseksi 1983–1991.*** Helsinki: Edita.

Häikiö, M. 2001b. ***Globalisaatio: Telekommunikaation maailmanvalloitus 1992–2000.*** Helsinki: Edita.

Kiander, J. 2001. Laman opetukset: Suomen 1990-luvun kriisin syyt ja seuraukset. ***Valtion taloudellinen tutkimuskeskus.***

Kipping, M., Wadhwani, R. D., & Bucheli, M. 2014. Analyzing and interpreting historical sources: A basic methodology. In M. Bucheli & D. Wadhwani (Eds.). ***Organizations in time: History, theory, methods*****,** 305–329. Oxford: Oxford University Press.

Korn, H. J., & Baum, J. A. 1999. Chance, imitative, and strategic antecedents to multimarket contact. ***Academy of Management Journal,*** 42: 171-193.

Laamanen, T., Lamberg, J. A., & Vaara, E. 2016. Explanations of success and failure in management learning: What can we learn from Nokia's rise and fall? ***Academy of Management Learning & Education***, 15: 2-25.

Lamberg, J. A., Lubinaitė, S., Ojala, J., & Tikkanen, H. 2021. The curse of agility: The Nokia Corporation and the loss of market dominance in mobile phones, 2003–2013. ***Business History***, 63: 574-605.

Langley, A. 1999. Strategies for theorizing from process data. ***Academy of Management Review*****,** 24: 691–710.

Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. 2013. Process studies of change in organization and management: Unveiling temporality, activity, and flow. ***Academy of Management Journal,*** 56: 1-13.

Liu, C., & De Rond, M. 2016. Good night, and good luck: Perspectives on luck in management scholarship. ***Academy of Management Annals,*** 10: 409-451.

MacKay, R. B., & Chia, R. 2013. Choice, chance, and unintended consequences in strategic change: A process understanding of the rise and fall of NorthCo Automotive. ***Academy of Management Journal*****,** 56: 208–230.

Mantere, S, & Ketokivi, M. 2013. Reasoning in organization science. ***Academy of Management Review,*** 38: 70-89

March, J. G. 1962. The business firm as a political coalition. ***The Journal of Politics,*** 24: 662-678.

McKinley, W., & Scherer, A. G. 2000. Some unanticipated consequences of organizational restructuring. ***Academy of Management Review,*** 25: 735-752.

Mosakowski, E. 1997. Strategy making under causal ambiguity: Conceptual issues and empirical evidence. ***Organization Science,*** 8: 414-442.

Ocasio, W. 1994. Political dynamics and the circulation of power: CEO succession in US industrial corporations, 1960-1990. ***Administrative Science Quarterly,*** 39: 285–312.

Ollila, J., & Saukkomaa, H. 2013. ***Mahdoton menestys***. Helsinki: Otava

Page, S. E. 2006. Path dependence. ***Quarterly Journal of Political Science***, 1: 87-115.

Pentland, B. T. 1999. Building process theory with narrative: From description to explanation. ***Academy of Management Review*****,** 24: 711–724.

Pratt, M. G., Kaplan, S., & Whittington, R. 2020. Editorial essay: The tumult over transparency: Decoupling transparency from replication in establishing trustworthy qualitative research. ***Administrative Science Quarterly*****,** 65: 1-19.

Rao, H., & Greve, H. R. 2018. Disasters and community resilience: Spanish flu and the formation of retail cooperatives in Norway. ***Academy of Management Journal,*** 61: 5-25.

Shipp, A. J., & Cole, M. S. 2015. Time in individual-level organizational studies: What is it, how is it used, and why isn't it exploited more often? ***Annual Review of Organizational Psychology and Organizational Behavior*****,** vol. 2: 237–260. Palo Alto: Annual Reviews.

Smith, W. K., & Tushman, M. L. 2005. Managing strategic contradictions: A top management model for managing innovation streams. ***Organization Science,*** 16: 522-536.

Van Ees, H., Gabrielsson, J., & Huse, M. 2009. Toward a behavioral theory of boards and corporate governance. ***Corporate Governance: An International Review,*** 17: 307-319.

Yin, R. K. 2003. ***Case study research: Design and methods*** (3rd ed.). Thousand Oaks: Sage.

TABLE 1
Summary of Data Sources

Description	Sources	Dataset	Purpose
Secondary sources	Academic publications, biographies of former key executives, studies by former Nokia managers	2490 pages of material	Making sense of the events and their relationships, situating events in a timeline, and orienting archival work and interviews
	Media coverage and articles in professional magazines (e.g., Helsingin Sanomat, Talouselämä, Kauppalehti Optio, NET, Suomen Kuvalehti, Forum för Ekonomi och Teknik; Tekniikka ja Talous)	2343 pages of material	
	Annual reports, SEC filings and other official documentation	4797 pages of material	
Archival data	Data from Nokia corporate archives until the year 2000	8826 pages of material	Understanding past events as they happened, understanding personal viewpoints and reactions to events, and recording key decisions
Interviews	Interviews with former Nokia top managers, members of the board of directors, and key technology analysts	28 interviews, 702 double-spaced pages	Filling gaps in archival work, testing emergent theory on informants, and getting an insider perspective on the events

TABLE 2
Chance Events in the First Period

Chance events (ESA code in parentheses)	**Chain of evidence**	**Exemplar quotes before the event**	**Exemplar quotes after the event**
The whole TV industry faces a shock (TvIndShock)	When the European TV industry faced a shock and large producers started moving production to Asia, Nokia's financial figures in consumer electronics collapsed in April 1988. The change in the competitive landscape was totally unanticipated by Kairamo and other members of the board, and subsequently Nokia's growth strategy lost its credibility.	"One of the major market achievements last year was that Salora-Luxor rose to become the largest seller of color TVs in the Nordics." (Review from the CEO of Nokia, annual general meeting 25.3.1987)	"The operating income of consumer electronics is -89 million FIM which is -35 million FIM below budget and -91 million FIM lower than 1988. The budget difference is caused by both lower sales than predicted and lower gross margins." (Nokia interim report January–April 1989, Nokia Archives, ELKA)
Timo H.A. Koski suddenly passes away (KoskiDeath)			"Timo Koski passed away in London last Friday evening broken by a cerebral thrombosis. On Wednesday he was in good health and leaving for Helsinki on Finnair afternoon flight. When the plane rolled onto the tarmac, Timo had a sudden bout of illness." (Letter from CEO Kairamo to the board, cited from Häikiö, 2001a: 257)
CEO Kari Kairamo commits suicide (KairamoDeath)	Kairamo had actively managed several partnership negotiations with Volvo, Hitachi, and Olivetti and had given no signs of either resigning or of his troubled state of mind, despite increasing dissatisfaction among major owners. Accordingly, the suicide was relatively unexpected and the organization was ill prepared to its consequences.	"Looking at my own work situation now, having resigned from TKL's presidency and, I believe, will be resigning from ERT in March 1989. Given our enormous growth and many new problems, I try to use my own capacity from today, and especially next year, more and more for purely Nokia matters." (Nokia's governance model, letter from Kairamo to Vuorilehto, 29.10.1988, Nokia Archives, ELKA)	"and then they [the major owners] were in quite a panic after Kari's suicide and then when the numbers dropped. (Interview with a former member of Nokia's top management team 1)
Finland enters its heaviest peacetime recession (90Depression)	The Finnish economy faced several shocks and entered into an unforeseeably heavy recession. Nokia's budgeting and strategic plans include no evidence of Nokia's preparations for the magnitude of the recession.	"A corporate jet: which one should we buy?" (Kairamo circular letter to the board on 1.4.1988, Nokia Archives, ELKA.)	"In the years 1989–1991 the Finnish economy faced a number of shocks. […] From the fall of 1990 onwards total production and exports rapidly declined and unemployment rose." (Kiander 2001: 23–24)

The USSR ceases to exist and trade agreements end (USSRCollapse)	Nokia had forecasted steady demand despite the economic and political problems in the Soviet Union. When the collapse started, Nokia rapidly adopted a crisis management mode yet the executives clearly had not anticipated a total loss of market potential.	"After the change in the trade to the Soviet Union the sales forces will be strengthened to achieve both more intensive marketing to our current key customers (the energy sector) and to expand to new customer groups." (Telenokia Dedicated Networks Strategy 1990–1992, 27.4.1989, Nokia Archives, ELKA)	"The completed evacuation plan includes: - the way to reach Nokia employees working in Moscow - information about cars and car phones - maps and assembly points - fuel stocks - It has been agreed with Finnair that the transport can take place without a ticket if necessary" (Evacuation plan 20.12.1990, Nokia Archives, ELKA)
Initiating negotiations with Ericsson on selling the company (Ericsson)	Ericsson was Nokia's main competitor in telecommunication equipment. Ericsson's willingness to acquire KOP (a major owner) and the bank's willingness to sell came as a surprise to Nokia's executives and owners who had previously seen Ericsson as a potential acquisition target or at most their main competitor.	"Subject: Potential acquisitions in collaboration with Volvo 1. Ericsson: Interesting, very international, well-known but impossible or very difficult to buy due to Wallenberg control. Requires cooperation. Volvo meets the Swedish requirement and Nokia offers industry knowledge. Any progress requires very carefully considered strategy and tactics." (Memorandum, breakfast meeting between Kairamo and Gyllenhammer, 17.9.1987, Nokia Archives, ELKA)	"This initiative from Ericsson was very significant because they were the initiators and the first [step] was when the deputy CEO of KOP Teppo Tabermann sat on the board of Ericsson's Finnish subsidiary and someone from Ericsson had said that: shouldn't we find some time to discuss this? Then it kind of started from there that they were worried about Nokia." (Interview with a former member of Nokia's board of directors 1)

TABLE 3
Chance Events in the Second Period

Chance events (ESA code in parentheses)	**Rationale**	**Exemplar quotes before the event**	**Exemplar quotes after the event**
Operators block orders from Nokia for services and slow product introductions (NMPBlock)	The development of Club Nokia created a rift between Nokia and major telecom operators that resulted into an unforeseen retaliation when Nokia failed to introduce folding phones	"Mobile-network operators grumble that Nokia has too much clout, much as PC makers grumble about Microsoft. [...] Club Nokia offers Nokia-specific features, such as ringtones, games and logos, which customers can take with them from one network provider to another." (The Economist, 23.11.2002)	"The secret counter from operators culminated in February 2004 in Cannes [...] There operators simply agreed to reduce their buying from Nokia within a certain degree. They wanted to teach Nokia a lesson." (Ollila & Saukkomaa, 2013: 368)
Apple enters the mobile phone market with iPhone (iPhone)	The success of the Apple iPhone was unanticipated by Nokia executives since it was technologically inferior and offered services which operators had previously disrespected Nokia for	"Apple's entry to the market is a great thing. It brings more growth power to the industry. [...] Apple does not have very high ambitions." (A comment from Anssi Vanjoki, the head of Nokia's smartphone unit, on Apple's entry to the smartphone market in Taloussanomat newspaper on 11.1.2007)	"That AT&T started to promote the iPhone which had a weak radio, and AT&T had said that they will never again promote a product with such a weak radio, was a surprise. Particularly because it was AT&T." (Interview with a former member of Nokia's top management team 1)
Global financial crisis begins (FinaCrisis)	The global financial crisis began and had an impact on mobile phone sales in general and Nokia in particular	"Nokia continues to expect industry mobile device volumes in 2008 to grow approximately 10% from the approximately 1.14 billion units Nokia estimates for 2007." (Industry and Nokia outlook for full year 2008, Nokia annual report 2007)	"But the fact is that the sales of mobile phones dropped tremendously globally at the beginning of 2008. The market went to somewhere around third of what it had been a year earlier." (Interview with a former member of Nokia's top management team 1)
Google announces Android OS (AndroidOS)	Google announces the Android OS and it is perceived as just one of the possible Oss, with little indication of its oncoming success	"In the market for converged mobile devices, new ecosystems are developing around major software platforms, including Symbian, MeeGo, Android and Apple's iPhone." (Analysis of risk factors in Nokia SEC Filings for the fiscal year 2009)	"I guess during 2010, Android was one of the main concerns and biggest competitive elements. Was that understood already in 2009? Then definitely not, it would have been impossible to understand." (Interview with a former member of Nokia's board of directors)

Large competitors introduce Android phones (Android Phones)	Large mobile phone companies begin to adopt the Android platform and the popularity of the OS starts to skyrocket		"The availability and success of Google's free open-source Android platform has made entry and expansion in the smartphone market easier for a number of hardware manufacturers which have chosen to join Android's ecosystem, especially at the mid-to-low range of the smartphone market." (Analysis of risk factors in Nokia SEC Filings for the fiscal year 2010)
Microsoft unexpectedly introduces the Surface tablet (Microsoft Surface)	Microsoft introduces the Surface tablet, which comes as a surprise to everyone and indicates that Microsoft wants to expand into hardware business	"Conceived, designed and engineered entirely by Microsoft employees, and building on the company's 30-year history manufacturing hardware, Surface is designed to seamlessly transition between consumption and creation, without compromise." (Microsoft press release, 18.6.2012)	"…everyone was dumbstruck, some had been told two weeks earlier but to the overwhelming majority this knowledge came as a complete surprise…" (Interview with a former member of Nokia's board of directors)
Microsoft initiates negotiations to acquire Nokia Mobile Phones (MicrosoftProposal)	The CEO of Microsoft, Steve Balmer, contacts Nokia's chairman of the board in order to initiate negotiations about acquiring Nokia Mobile Phones		"Discussion about the potential strategic M&A between Nokia and Microsoft began in February 2013 when Microsoft CEO Steve Balmer contacted the chairman of Nokia's board of directors Risto Siilasmaa and proposed a meeting where they could discuss the opportunity to deepen the collaboration between Nokia and Microsoft." (The official meeting material of the extraordinary general meeting of Nokia Corporation, 18.9.2013)

TABLE 4
The Influence of Chance and Coalition Politics on Different Scenarios

Scenarios	The influence of chance	Supporting coalition	Opposing coalition	Outcome
Period 1				
a) Entering a corporate partnership in Consumer Electronics and/or Information Systems	**Direct and indirect** The TV industry shock led to the emergence of this scenario, while the deaths of Kairamo and Koski directly blocked the scenario from being realized	**Present** Kairamo and Koski before their death and top management team members who led the TV/Consumer Electronics and Information Systems businesses	**Absent** The scenario emerged before contestation between coalitions	**Not realized** The deaths of Kairamo and Koski directly blocked this scenario from being realized
b) Pursuing a turnaround of Consumer Electronics and/or Information Systems	**Indirect** The TV industry shock led to the emergence of this scenario, while the death of Kairamo stifled it as new top managers quarreled	**Present** Top management team members who led the TV/Consumer Electronics and Information Systems businesses	**Present** The new CEO, Vuorilehto, who tried to gain control over the corporation	**Not realized** Chance facilitated the emergence of this scenario, but opposition stifled it until the scenario became infeasible
c) Selling the company off as a whole or in pieces	**Direct and indirect** Chance discussion with Ericsson generated the scenario, while the banking crisis made major shareholders favorable toward it	**Present** Nokia's largest shareholders, KOP and SYP banks	**Absent** The main shareholders' interests aligned with Nokia's top management over this scenario	**Not realized** Chance directly generated the scenario, but it was never realized due to Ericsson

	d) Focusing on Mobile Phones, Tele Networks, and Cables (divesting all other businesses)	**Indirect** The collapse of the USSR directed business areas to focus on growth markets, while the economic depression influenced key shareholder dynamics	**Present** The new CEO, Jorma Ollila, who had led the mobile phone business and who was supported by the largest shareholder, SYP bank	**Absent** When KOP relinquished their Nokia ownership, it removed political opposition and aligned remaining major shareholders	**Realized** Chance facilitated the emergence of this scenario and political proponents realized it due to lack of opposition
Period 2					
	a) Accelerating and boosting the development of the MeeGo operating system	**Indirect** The unforeseen success of Android and the iPhone led to the emergence of this scenario	**Present** Anssi Vanjoki, who led the smartphone unit and oversaw the development of MeeGo	**Present** Key shareholders who wanted radical change executed by a new CEO coming from the outside	**Not realized** Chance facilitated the emergence of this scenario, but key shareholders blocked it
	b) Combining MeeGo and Android operating systems	**Indirect** The unforeseen success of Android and iPhone led to the emergence of this scenario	**Absent** The scenario did not have direct proponents in top management	**Absent** The scenario did not have direct opponents in top management	**Not realized** Chance facilitated the emergence of this scenario, but it gained no proponents before it was eliminated
	c) Choosing Google's Android operating system as the main operating system	**Indirect** The unforeseen success of Android and iPhone led to the emergence of this scenario	**Absent** The scenario did not have direct proponents in top management	**Absent** The scenario did not have direct opponents in top management	**Not realized** Chance facilitated the emergence of this scenario, but it gained no proponents before it was eliminated
	d) Choosing Microsoft's Windows Phone as the main operating system	**Direct and indirect** The unforeseen success of Android and iPhone led to the emergence of this scenario, while the launch of Surface tablet directly reduced its viability	**Present** The new CEO Elop and his top managers	**Absent** The scenario did not have direct opponents in top management	**Realized** Chance facilitated the emergence of this scenario and its proponents realized it without opposition
	e) Utilizing both Microsoft's Windows Phone and Google's Android operating systems	**Indirect** The launch of Surface tablet led to the emergence of this scenario	**Absent** The scenario did not have direct political proponents	**Absent** The scenario did not have direct political opponents	**Not realized** Chance facilitated the emergence of this scenario, but it lost viability when another scenario was realized
	c) Choosing Google's Android operating system as the main operating system *(reconsideration of the scenario)*	**Indirect** The launch of Surface tablet led to the emergence of this scenario	**Absent** The scenario did not have direct proponents	**Absent** The scenario did not have direct opponents	**Not realized** Chance facilitated the emergence of this scenario, but it lost viability when another scenario was realized
	f) Selling Mobile Phone and Smartphone units to Microsoft	**Direct and indirect** The launch of Surface tablet led to the emergence of this scenario and the contact from Microsoft directly helped to realize it	**Absent** The scenario did not have direct proponents	**Absent** The scenario did not have direct opponents after Ollila stepped down from the board of directors	**Realized** Chance facilitated the emergence of this scenario and directly helped to realize it

FIGURE 1
Simplified Event Sequence of Period One

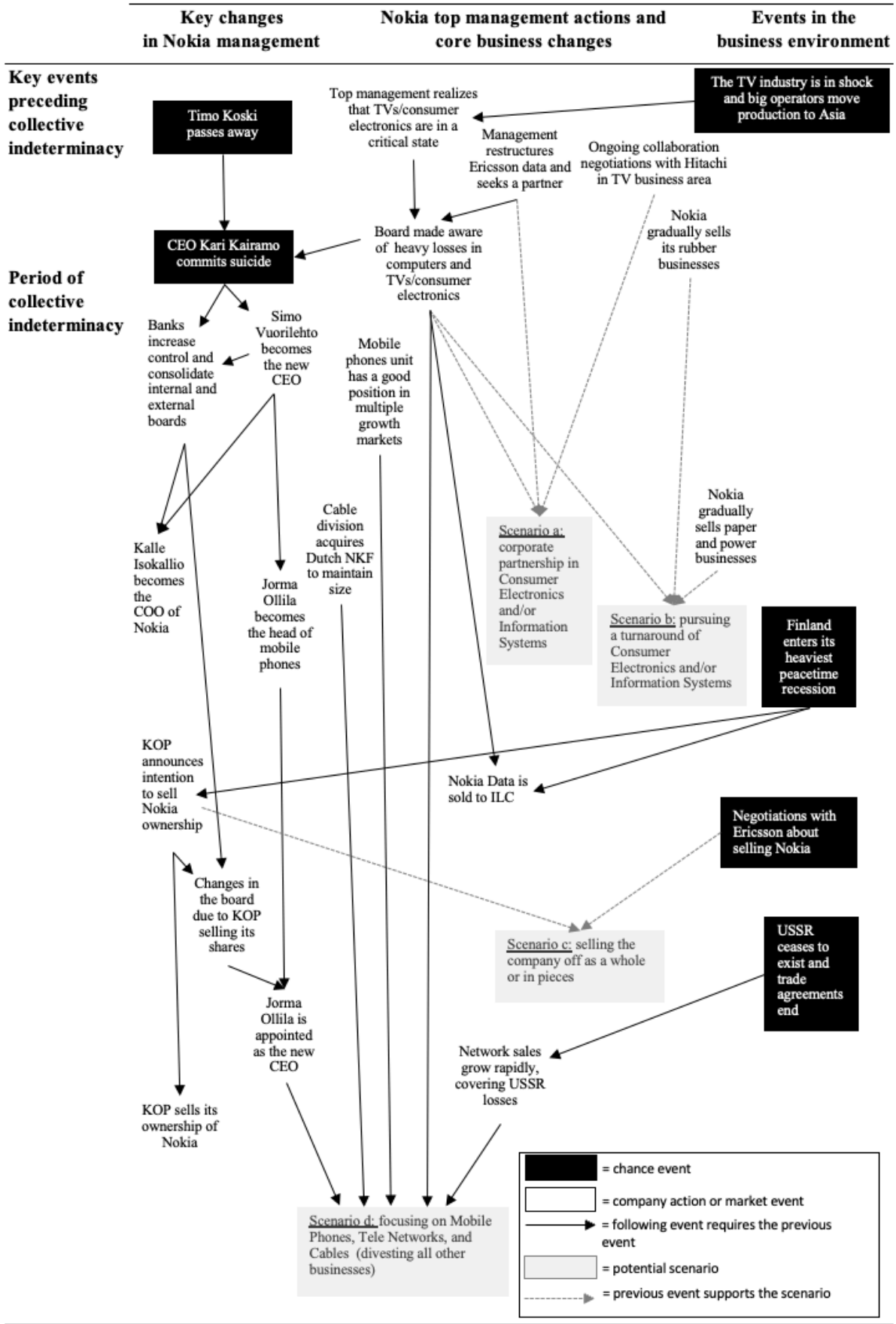

FIGURE 2
Simplified Event Sequence of Period Two

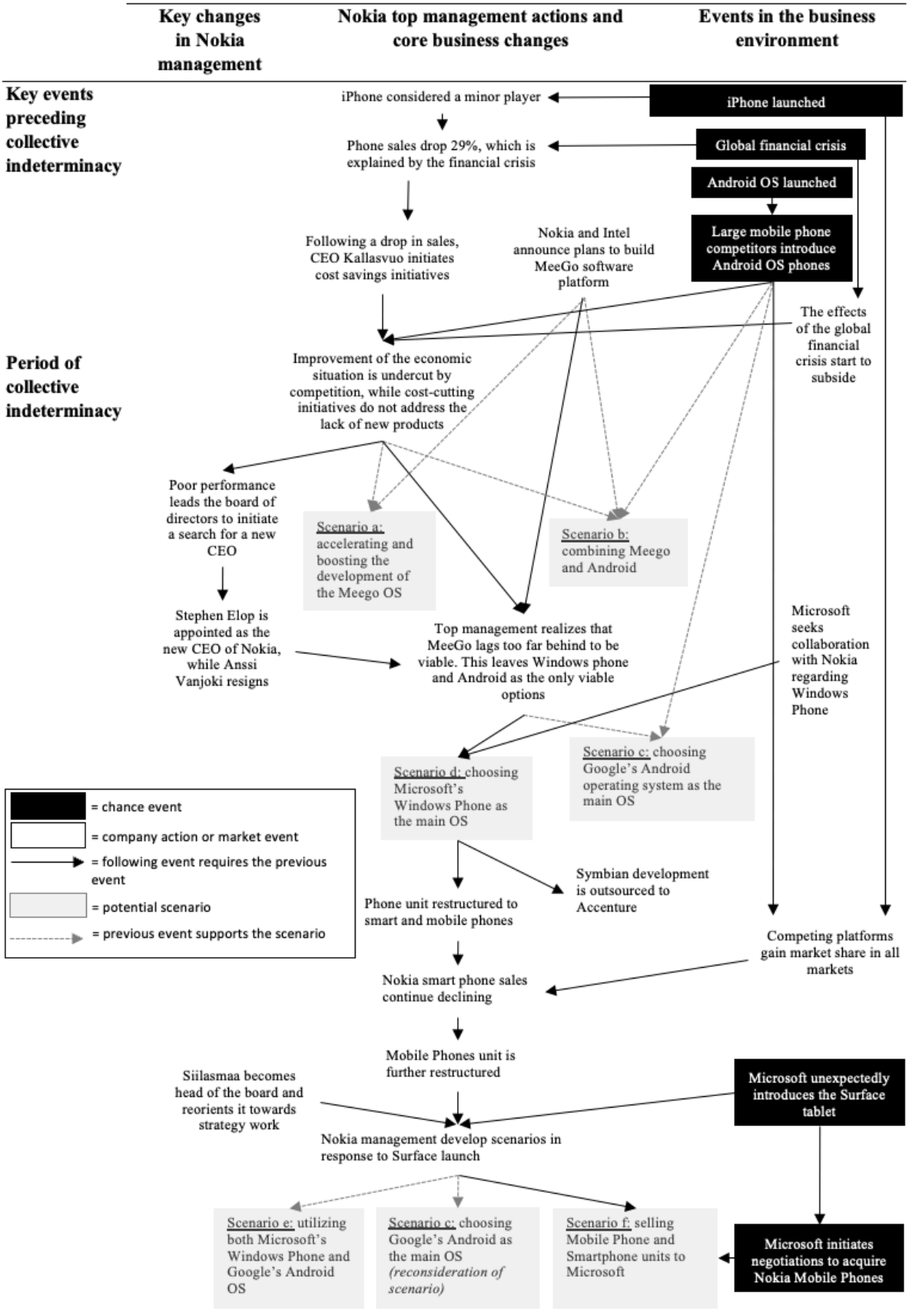

FIGURE 3
The Interplay of Chance and Politics in Strategic Change