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Industry consolidation as a strategy: an acquisition program perspective

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Abstract

Purpose – The purpose of this paper is to enlighten the intriguing process of industry asset consolidation. It is critical for firms to manage their business acquisitions strategically for survival in this industry life cycle process, which develops through multiple company mergers. The companies extensively acquiring industry assets have utilized acquisition programs consisting of both pre-acquisition strategizing and post-acquisition integration; however, the existing literature on acquisition programs focuses on post-acquisition integration activities. This study aims to bridge this gap.

Design/methodology/approach – This study focuses on pre-acquisition strategizing of acquisition programs and proposes a model in which an acquiring company could manage its acquisitions for industry asset consolidation over the industry evolution.

Findings – Empirically, in the multi-case study of telecommunications infrastructure companies, the authors collect an extensive set of archival records accumulated over the whole industry life-cycle, spanning more than 30 years, and they apply a qualitative data analysis to reveal strategic actions within the companies.

Research limitations/implications – The discoveries elaborate on activities comprising the acquisition process model: social legitimacy, strategic alignment, resource fulfillment, consolidation pursuit and merging.

Practical implications – The counterintuitive findings are that the companies strived to ensure legitimacy early in the telecommunication infrastructure markets before they reached strategic alignment with their owners.

Originality/value – The results extend the understanding of industry asset consolidation as an organization-level phenomenon and show how contextual factors connected to industry life-cycle phases, such as regulatory regimes and financial cycles and industry evolution, influence the attributions of an acquisition program.

Keywords Industry asset consolidation, Acquisition program, Business acquisition, Horizontal integration

Paper type Research paper

1. Introduction

Industry life cycles seem characteristically to proceed through phases of establishment, growth, leadership and renewal, and over the evolution, the level of industry concentration evolves from a

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low level early in the life cycle to a high level in later phases (Deans *et al.*, 2002), The strategies for industry consolidation vary among single companies. One company may directly acquire others on the market that have already accumulated revenues, assets and customers (Klepper and Graddy, 1990), which enables it to rapidly increase its market share and market power. Another company may first consolidate industry knowledge and innovations through acquisitions, which allow it to build a competitive advantage or sustainable capability in some area (Karim and Mitchell, 2004) enabling the company to take over rivals in the later phase. Furthermore, it seems that early entrants build the industry's reputation and legitimize a novel industry as part of society more broadly (Kim and Park, 2006), In any case, the phases imply that market consolidation is possible only if there are enough players with the right characteristics at the right time, indicating that there is a correlation between the industry life cycle and the number of mergers.

Although nearly all industries evolve through similar characteristic industry life-cycles, it turns out that asset-heavy industries may follow the process more strictly due to high asset specificity (Riordan and Williamson, 1985). A firm operating in an asset-heavy industry needs to be able to acquire other companies as well as their industry assets to increase the size of its asset base and to avoid take-overs in the long run (Genakos *et al.*, 2018; Warf, 2003). Also in this case, the development not only leads to the consolidation of market power, but also to the concentration of industry assets (Grover and Lebeau, 1996; Koval, 2013). Eventually, the process leads to industry maturity and growth stagnation (Anand, 2004; Maksimovic and Phillips, 2008).

There are various reasons why a company may find it impossible to acquire others, including being unable to build an effective acquisition organization (Bruno and Leidecker, 1988), failing to identify acquisition opportunities and market changes (Chattopadhyay *et al.*, 2001) and not being able to raise the necessary funding (Beck and Demirguc-Kunt, 2006). The consequences of non-growth are manifest in the form of a negative loop: the organization may become stigmatized in capital markets and thus shunned by potential investors (Sutton and Callahan, 1987), which may lead to an eventual business takeover by a competitor (Martin and McConnell, 1991). The inability to acquire may force the company to focus on optimizing the company internal processes rather than finding external growth opportunities (Ferreira and Serra, 2010). Hence, the acquiring company faces the problem of not being able to acquire industry assets to ensure its survival while maintaining legitimacy in the market over the evolution of an industry.

Serially acquiring companies tend to utilize a strategic acquisition program for managing their acquisition portfolios. The study of acquisition programs has focused on post-acquisition aspects (e.g. Angwin, 2015; Chatterjee, 2009; Meyer and Tran, 2006), but in spite of incremental advancement (Kim and Park, 2006; Lechner and Kreutzer, 2010; Smit and Moraitis, 2010), the existing literature does not show how dominant industry asset holders emerge and evolve in their consolidating markets over longer periods. It is well understood that industry-level fragmentation, high asset specificity and high market growth allow companies to become super-sized (Balakrishnan and Fox, 1993; Porter, 1980; McDougall *et al.*, 1994), but what is happening in those companies during the industry asset consolidation era remains to be clarified. The question is this: *Through what process a company may consolidate industry assets and become a dominant player in a market?* It is a question that should be addressed on both the theoretical and the practical level to enhance understanding of the process in which companies acquire other market participants in the different industry maturity phases. Despite recent activity by business acquisition scholars (Evens and Donders, 2016; Genakos *et al.*, 2018), this study finds that the extant literature is silent about the consequential process of acquisition and its organization-level grounds on an asset-heavy industry such as telecommunications infrastructure. The phenomenon is multidimensional, with factors that have yet to be discovered. For example, the cyclic and oligopolistic nature of the telecommunications industry (Noam, 2006) indicates that currently distributed industry assets will be concentrated, and it is crucial to understand this consolidation process for better policy-making as it is not a negligible question of how the most valuable assets of modern societies become distributed. Over the recent decades, two camps have emerged – the companies who acquire the others and the ones who become acquired.

We elaborate on the key process activities of the acquisition program of an acquiring company. We model the acquisition program as a consolidation process consisting of strategic organization-level activities. Our empirical base is a multi-case case study concerning three telecommunications infrastructure companies and their acquisition activities between 1990 and 2020. The case companies accumulated their telecommunications infrastructure asset-base through a series of acquisitions. We analyze the cases using qualitative data analysis and we trace the respective process of an acquisition program and corporate evolution over the past 30 years. This time frame also covers the emergence, growth and maturity phases of the corresponding industry life-cycle.

On this basis, we propose an acquisition program model that identifies the strategic functions a telecommunication infrastructure company may utilize if it is to achieve excellence in the industry asset consolidation. In terms of the theoretical context, the model assumes non-monopolistic market structures, relatively high asset-specificity and the provision of utility or asset-sharing services within telecommunications infrastructure markets. Our analysis reveals how the role of the process activities changes over time, indicating specific activities may be cyclic in nature, initially playing a crucial role in the acquisitions and then becoming less important.

Our telecommunications-focused study contributes to the research on acquisition programs and acquisition strategies. First, our model of the business acquisition program complements earlier research on business acquisitions. Existing research explains how certain company and market-level attributes may constraint or enable consolidation (e.g. Chatterjee, 2009; Colombo *et al.*, 2007; Kim and Park, 2006; Rouzies *et al.*, 2019). We show how a telecommunication infrastructure company using an acquisition strategy and a programmatic process has become a dominant player in the market over a longer time. Second, our study provides a novel perspective on industry asset acquisition strategies. Existing literature mostly provides tools for analysis and managing one-off acquisitions (Cuypers *et al.*, 2017; Smit and Moraitis, 2010), our model provides a framework to assess a continuum of acquisition strategies on telecommunications infrastructure markets including market legitimacy, ownership liaison and resource perspectives.

2. Background

2.1 Industry life-cycles and acquisitions

The extant literature on industry evolution phases points out that the industry life-cycles seem characteristic to proceed through phases of establishment, growth, leadership and renewal, and typically the level of industry concentration evolves from a low level early in the life-cycle to a high level in later phases (e.g. Deans *et al.*, 2002). This intriguing industry-level phenomenon materialize in the varying company-level strategies and market actions. While one company may try to rapidly increase its market share and market power by acquiring others on the market that have already accumulated revenues, assets and customers (Klepper and Graddy, 1990), then again another company may try to take over rivals in the later phases after establishing industry understanding and innovations through knowledge acquisitions, which allow it to build competitive advantage or sustainable capability in some area (Karim and Mitchell, 2004). This temporal shift suggests that early entrants may have certain advantages over late-comers in that early-entrants build the industry's reputation and legitimize the novel industry as part of society more broadly (Kim and Park, 2006). Anyway, the temporal relationship between market formation and industry asset emergence implies that market consolidation is possible only if there are enough players with the right characteristics at the right time, indicating that there also is a correlation between the industry life cycle and the number of mergers.

Industries have been found to follow a characteristic consolidation curve over evolution; however, the model does not make strong distinctions between different types of industries

(Deans *et al.*, 2002). It turns out that asset-heavy industries follow the process more strictly due to high asset specificity (Riordan and Williamson, 1985). Several studies suggest that dominating companies in asset-heavy industries typically combine other players from the market by acquiring and integrating them (Alexandridis *et al.*, 2012; Noam, 2006). It is well known that firms have several reasons to acquire and merge other companies, such as competence, resource or assets acquisition, market-entry, scale increase and a strive to decrease competition (Al-Laham *et al.*, 2010; Berggren, 2003; Falch, 2006; Warf, 2003). In some rare cases, a one-off business acquisition can fulfil the objectives of a company, but typically companies face the pressures to carry out multiple mergers, and this is especially the case for multinational corporations (Greve and Mitsuhashi, 2004; Rosen, 2004) operating on an industry that has not reached its maturity (Anand, 2004). A company utilizing this acquisition strategy becomes a series acquirer (Smit and Moraitis, 2010).

When an acquisition becomes the major tactic for the growth of a company, a strategic acquisition program can be utilized to ensure the required stream of opportunities and coherent management (Chatterjee, 2009). In addition to enhanced strategic awareness and clarifying business logic, the acquisition program may introduce dynamic insights to a strategy in means of real-options (Smit and Moraitis, 2010), it can balance the formal and informal activities of acquisition coordination (Lechner and Kreutzer, 2010), and it may improve the processual understanding of capital allocation (Strauch *et al.*, 2019). Thus, developing capabilities to pursue acquisitions and managing acquisitions may allow a company to focus on the actual assets of potential acquisition candidates rather than to the processual details of those.

Several studies show that the majority of acquisitions fail somehow (Doan *et al.*, 2018; Homburg and Bucerius, 2006). However, another set of studies show that an acquiring company leveraging an acquisition program succeeds more often than a company without a program (Ansoff *et al.*, 1970; Buckley, 1975). An improved success rate is not the only reason to deploy a program, but also reasons such as, clarified business logics, better identification of market inefficiencies and support for competitive advantage development motivate acquiring companies to deploy a programmatic approach to acquisitions (Chatterjee, 2009; Very, 2011). Although an acquisition program may help in planning, communicating and implementing strategic targets, it can be seen as an operational and tactical level tool for managing firm-level growth and providing support for the strategy.

The majority of the extant management literature takes a process view of acquisition programs. This is mostly due to the embedded temporal dimension in the programs. Chatterjee (2009), for example, concentrates on the stages of target identification, negotiation and integration, which are all operational phases in time. This process view posits the stages as a series of activities for one individual acquisition, but also as concurrent sub-processes in the overall program. Moreover, Rouzies *et al.* (2019) propose four separate sub-processes to the integration phase, namely, coordination, cohesion, disconnection and alienation, and suggest that these phases are not disconnected from the rest of organizational development but are highly intertwined in time and space. Yet, Colombo *et al.* (2007) observed that managing a geographically expanding program is a true challenge for multinational enterprises (MNEs) pursuing cross-border acquisitions, but a proper pre-planning, acquisition experience and previous relationship with the acquisition target influence positively the performance of managerial resources redeployment in acquisitions, and thus to the performance of a whole acquisition program.

2.2 Acquisition programs

Scholars on acquisition programs typically assert that a successful program can provide target candidates that have a good strategic fit. One way to measure strategic fit is to analyze possible synergies between the target and the acquiring company in financial terms

(Clarke, 1987). The challenge in this approach is that it requires a significant number of details and facts from the target company in the phase where the acquirer does not necessarily have unlimited access to company internals. Moreover, some studies indicate that, despite proper planning practices in the acquiring firm, not all synergies identified in the pre-acquisition phase actually pays-off (Mahajan and Wind, 1988), but especially the seek for investment synergies tend to result in decreasing return on invest. Due to these challenges, there have been several efforts to ease assessing acquisition targets, using methods such as a directional policy matrix approach (Newton, 1981) that helps evaluate qualitative properties, a risk analysis approach (Hertz and Thomas, 1982; Thomas, 1983) that helps to understand uncertainties and a strategic fit measurement method (Clarke and Brennan, 1990) that helps to evaluate possible synergies in diversified business in financial terms. When these factors are linked to industry life-cycle phases, it can be assumed that finding a strategic fit between companies on the early life-cycle phases is more challenging than in the later phases in that company strategies vary more when an industry is novel but strategies tend to converge due to isomorphic nature of industry evolution in the later phase.

Part of the acquisition program literature focuses on communicating with and relationships with external stakeholders. For example, related to acquisition activities, companies typically need to disclose some future-looking plans and make predictions of their operations for external stakeholders such as shareholders, regulatory authorities and industry analysts (Graebner *et al.*, 2017). It is beneficial for the company to disclose as realistic information as available, but at the same time to be able to keep confidential information private. An increase in industry-specific information disclosure, for example, is found to influence positively ownership stability (Gietzmann, 2006), and thus it decreases the risk of shareholder intervention. Moreover, the information collected through an acquisition program can help executives build an adequate reputation for the acquiring company on financial markets, which in turn helps to open access to the lowest-cost financing (Mazzola *et al.*, 2006). As these examples suggest, the outputs of an acquisition program turn out to be boundary objects that can be interpreted differently based on the agent that interprets it.

Although a company and its executives may have developed a sound acquisition program which produces successful mergers, the process may also produce misfits for some reason. Both successes and failures provide learning opportunities for the company, but it is up to the capabilities of the company if it can actually benefit through these learnings. Baumard and Starbuck (2005) observed that not all acquiring companies were able to improve their operations although they faced failures such as (1) the over-estimation of customer demand, (2) attempted growth into a new domain that holds an excessive competition, (3) transferring an old model to a new situation although foundations have changed, and (4) escalation of commitment in a losing business. However, in other studies, companies were able to learn through certain failure events, such as divestitures due to erroneous acquisitions (Doan *et al.*, 2018) and misalignment of strategies (Heracleous and Werres, 2016). Moreover, in the performance management literature, Dossi and Patelli (2010) elaborate that one of the key success factors for learning is the existence and use of performance measurement systems in a company, and the systematic monitoring of both financial and non-financial indicators helps company executives not only to improve strategic alignment, but also to improve dialogue between regions in MNEs. And yet, when an acquiring organization is searching for strategic options, it should learn how to find a balance between the extent of the search and the stability of options to avoid premature lock-in to the most obvious choices (Rivkin and Siggelkow, 2006). As learning becomes the crucial part of a successful acquisition program, it can be argued that a successful program may not necessarily seek minimized risks but rather ensure that insights from the previous acquisitions are leveraged to improve the performance of subsequent acquisitions.

While most of the acquisition program literature focuses on post-merger activities, there remains a question of what are the antecedents and prerequisites for a successful program. In a more general setting, the literature suggests four strategic perspectives which contribute to the formation of successful acquisition programs; legitimacy, alignment, resources and learning.

2.3 Legitimacy

Several strategy scholars agree that markets, rivalry and legitimacy are socially constructed, meaning that the cognitive images of an internal organization and external environment are formed by company managers and other stakeholders to interpret the context (Porac *et al.*, 1995; Suchman, 1995). However, past experiences influence these individual-level interpretations, which, in turn, influence the strategic choices made by company managers (Bromiley and Rau, 2016). On the organizational level, in this cognition construction process, an organization collectively forms its identity and posits itself among peers in the environment to strengthen its organizational purpose and mission (Scott and Lane, 2000). When some event triggers a need for identity change, an organization has to rebuild its internal image, first by overcoming resistance to the change and controlling the emotions of stakeholders, and second by reframing the content of legitimacy judgments (Huy *et al.*, 2014). These events may emerge, for instance, from corporate spin-offs (Corley and Gioia, 2004), mergers (Clark *et al.*, 2010), or the formation of knowledge networks (Lifshitz-Assaf, 2018). These aspects suggest that forming or retaining legitimacy within an organization requires the mastering of the complex social process through instrumental, relational and moral evaluations (Tost, 2011), that in turn allows organization managers to build trust.

External stakeholders of an organization likewise evaluate the legitimacy of the organization through cognitive images. Market audiences rely on categories to interpret how the organization compares to other peers, and based on the judgments, the audience can penalize the organization if it was found to be non-compliant with the category (Hsu *et al.*, 2009). For example, suppliers can price-discriminate downstream markets based on the perceived proficiency level of a customer (Dahan *et al.*, 2010). In the early evolution phase of a market, it is typical that market categories are missing as market audiences have not yet formed the required structures to comprehend the behavior of an organization, and to overcome this limitation, the organization needs to actively help audiences to build these categories (Kennedy, 2008). This means in practice that, for example, the organization needs to acknowledge adjacent markets and competitors publicly (Hargadon and Douglas, 2001). However, it may turn out that the market audiences resist the change of underlying institutional structures, which may force the organization to change its legitimizing tactics or to acquiesce in the institutional context (Aldrich and Fiol, 1994).

2.4 Strategic alignment

Strategy can be defined in various ways. Mintzberg and Waters (1985), for example, propose that "a strategy is a pattern in a stream of decisions" and not all these decisions are deliberate nor intentional, but some parts of the patterns may be highly emergent or even latent. To make these decisions, an organization needs to interpret events and changes in its environment to make sense of how it compares to others and what actions it has to take to reach strategic targets (Weick, 1995). However, it turns out that a company manager has no absolute control over these decisions, but several factors constraint these actions.

Constraining factors, such as a corporate structure, strategy planning practices, ownership structures and decisions made in history, they all influence future decisions. First, the distribution of decision-making power varies between corporate structures

(Chandler, 1991). For instance, if the head-quarters (HQ) holds strong financial control, a subsidiary may have relatively large strategic decision-making power as long as the financial targets are met. Then again, if the HQ holds strong strategic planning control, the financial control mechanisms the subsidiary faces are relatively weak. Second, different modes of strategizing may produce different outcomes (Mintzberg and Waters, 1985). For instance, if top managers allow the emergence of entrepreneurial initiatives and distributed vision formation, they also have to acknowledge that the emerging strategic path cannot be fully anticipated. Or, if the industry holds a strong regulatory regime, the imposed strategy may be initiated by policy-maker. Third, the impact of company owners on selected strategies takes place through different mechanisms (Katz and Niehoff, 1998). For instance, external owner-controlled companies tend to select more profit-maximizing risk-taking approaches than, let say, companies that are owned by managers due to selective perception (Hambrick and Mason, 1984). Or, companies with strong external owner control tend to seek more scale-increasing acquisitions than companies with low external owner control due to manager's tendency to avert risks (Amihud and Lev, 1999). Moreover, corporate governance structures have been found to impact the financial performance of a firm (García-Ramos and Díaz, 2020), which suggests that strategies also are impacted. Fourth, decisions made in history imprint the firm's institutional context aligning future decisions (Patel and Pavitt, 1997). This path-dependent nature, together with selective perception, constraints the capacity of a firm to make changes to strategies. Hence, organizations need to anticipate this complexity by implementing adaptive and context-aware strategic capabilities.

The strategy literature includes several approaches to how this adaptation and awareness could be achieved. For example, Ocasio (1997) proposes an attention-based view of the firm to set frames for cognition-building activities. By structural distribution of attention, company managers can control the formation of situated attention and focus, which in turn aligns the formation of strategic plans and strategic implementation activities. In practice, this structural distribution can be implemented through the process strategy, which brings control on how the strategy is formulated and in which context, leaving the actual content open (Heracleous and Jacobs, 2008; Mintzberg and Waters, 1985, p. 264). These capabilities may in turn become the enablers of strategic alignment and competitive advantages.

2.5 Resource acquisition

A firm requires resources to be able to acquire the assets of another business entity. These strategic resources consist of tangible and intangible assets and knowledge (Teece, 1998; Wernerfelt, 1984), and with careful development and bundling, the firm may turn these resources into sustained competitive advantages (Barney, 1991). In the development of these competitive advantages, the firm may, for example, utilize iterative development approaches for resource allocation to avoid premature lock-ins and over-committing of resources, which would otherwise result in suboptimal opportunity selection (Noda and Bower, 1996). However, it turns out that some resources are actually scale-free and are not subject to opportunity costs, and as Levinthal and Wu (2010) argue, those scale-free assets should be utilized whenever possible by the firm. On the other hand, the authors also argue that those assets that are non-scale free and are subject to opportunity costs should be allocated critically to ensure optimal division of resources. Hence, the types of resources, the timing of allocation and the allocated use of resources turn out to be strategic decisions company managers need to make.

Firm resources are not disconnected from its surroundings but are highly embedded into the firm's wider dynamic environment (Grewal and Slotegraaf, 2007). Factors, such as technological evolution, changing industry structures and instability of market demand, constraint the firm's capabilities to utilize its resources efficiently compared to other industry participants (Sirmon *et al.*, 2007), which in turn limits the firm's ability to efficiently value creation. Sirmon *et al.* (2007) propose a dynamic resource management model of value creation for structuring, bundling and leveraging resources within a high-uncertainty regime. This approach allows the company to strategically manage the resources it has also in the case of acquisitions.

2.6 Learning

Scholars on organizational learning agree that organizations need to take collective action on learning in order to survive and prosper in the long run (Bapuji and Crossan, 2004; Fiol and Lyles, 1985). While sustaining dynamic capabilities and knowledge resources are the end results of collective action, these processes require appropriate organizational routines, resources and knowledge reconfiguration practices to be able to realize (Easterby-Smith and Prieto, 2008). Håkonsson *et al.* (2016) argue that the adoption of new routines, i.e. learning, takes place when an organization perceives a recent sub-standard result within a positive habitat. This is especially true in the case of a backward-looking logic of stimulus-response learning (Gavetti and Levinthal, 2000), which suggests that organizations need to ensure the timely capturing of learning opportunities and fostering of a liberal environment for capturing errors embedded in the existing environment. Moreover, this routine changing activity may require some institutional work to overcome institutional stability, carry out reshaping and finally restabilize the practices (Zietsma and Lawrence, 2010). The strategy literature sees this change as a deliberate strategic renewal process, in which organizations learn and reconfigure themselves through characteristic renewal paths depending on environmental factors (Volberda *et al.*, 2001). Hence, despite industry ambiguity and uncertainty amid the asset consolidation era, an organization needs to be able to reflect on its past events and anticipate future changes in the levels of operations, tactics and strategy to change its behavior based on the learnings.

Industry uncertainty may constraint the capabilities of an organization to perceive the market accurately. To overcome this ambiguity, strategic sensemaking may help company managers to interpret meanings of phenomena seen in the environment and to better identify its own identity within that context (Gioia and Chittipeddi, 1991). One of these sensemaking activities is the evaluation of an organization's fitness for its environment in terms of strategies, capabilities and leadership skills (Beer *et al.*, 2005), which in turn enables the organization to improve its strategic management processes. In addition, the path-dependent nature of managerial decision-making may help identify changes more quickly adjacent to previous choices, but it may also prevent novel aspects from emerging (Bergek and Onufrey, 2014). Hence, learning through environmental factors requires an organization to be able to compare its present being and current actions to the existing environment and to compare its planned future identity and actions to the anticipated future environment. These interpretations allow identifying the actual change needs.

2.7 The research question and propositions

Most of the extant mergers and acquisitions (M&A) research focus on the post-acquisition phases of M&A processes or on the specific strategic aspect of acquisitions. Despite a few meritorious papers on acquisition programs (Chatterjee, 2009; Doan *et al.*, 2018), the literature is rare on strategic acquisitions programs focusing on industry consolidation or specifically on the industries that are assets-heady such as telecommunications infrastructure. However, several signs indicate that the pre-acquisition strategic planning practices and strategic decisions linked in the industry life-cycle phases hold a significant impact on the stream of successful acquisitions. As telecommunications infrastructure has become critical for modern societies, it has also become paramount to understand the consolidation process of these assets for better strategizing as it is not a negligible question that how the most valuable assets of modern societies become distributed. The industry transition from the establishment to a growth phase and then to maturity does not happen by itself, but it is the strategic actions of the industry-participating companies that drive the change (Maksimovic and Phillips, 2008). It has become evident that currently distributed industry assets will be concentrated due to the cyclic and oligopolistic nature of the telecommunications industry (M'Chirgui, 2006; Noam, 2006).

Based on the literature review, this research sets out a proposition as follows. *An acquiring company can improve its long-term capability to consolidate industry assets by strategically balancing its corporate legitimacy, developing right-on-time resources, striving towards alignment in strategies of the stakeholders and utilizing learnings from past events.*

3. Methods

We conducted an in-depth multi-case study on the historical development of telecommunications infrastructure companies. Through our analysis and modeling work, we enhance the understanding of the activities and temporal dimensions of acquisition programs. We accumulated a combination of public data, company archival and public interview data on the evolution of the companies in the telecommunications infrastructure market. We use qualitative data analysis (Bazeley, 2013) to organize our data to reveal emerging themes and dimensions through coding. Our curiosity allowed us, first, to find a theoretical context and then to select an empirical basis. To frame the theoretical context, the model assumes a non-monopolistic industry structure and relatively high asset-specificity, and that a company provides utility or asset-sharing type services in telecommunications infrastructure markets. In this context, the phenomenon is seen from the pre-acquisition and single-company perspectives. In selecting the case companies, we considered firms engaged in activities related to telecommunications infrastructure. The selection criteria were (1) at some point in time, the company operated only in the telecommunications infrastructure market; (2) the company was established before the year 2000 and had succeeded in building a dominant position in the market using extensive acquisition tactics; and (3) the company had followed several different paths in search of growth. The mapping identified several prospective companies for the study, and from this candidate list, we selected three case companies, American Tower Corporation (AMT), SBA Communications (SBA) and Crown Castle International Corp (CCI). The selection criteria are aligned with the theoretical context, thus we used theoretical sampling. All three case companies were publicly listed at the time of the study, and they provided a wide range of public information related to matters such as historical market activities, company structure, strategies, business changes and decisions made. We collected materials from the company web pages, authority databases and online media sources. We used the public information we collected as a basis for the coding, hence these materials constitute the empirical basis of our study. Although there are only three case companies, we eventually collected and analyzed more than 2,300 pages of textual data as follows: 80 press releases, 17 annual reports, 16 transcripts of interviews with company representatives and 38 scientific and news articles. This data was collected between November 2019 and May 2021. We selected the "Atlas.TI" application as a qualitative data analysis tool. We imported all the materials into the application and grouped them based on the case company and the expected content.

We started the analysis phase by reviewing all the case material we had collected and familiarizing ourselves with the major events and industry trends. This gave us an understanding of the structural evolution of the companies over the industry development as evidenced in our data. During this phase, we positioned all the industry-asset consolidation events on the timeline and built a historical view of how each company evolved. We were able to identify three major evolutionary phases, namely, company establishment, early growth and major growth. We set the phases so that the company establishment phase ended when a company was listed on a stock exchange (IPO), and the major growth phase started when the asset base of a company started to increase rapidly. Our data also suggests that the case industry has reached maturity in that the growth has started to slow down. The case company timeline, the major market events and the case narrative helped us to focus the data collection and analysis on both market and non-market actions. Our aim in collecting and coding the data was to find activities that influence company development and the causal relationship between the factors on acquisition activities. By means of open coding, we labeled the elements in the data that described the activities and relationships. We focused on certain events, and we analyzed different data sources simultaneously to identify the activities that lay behind the realized acquisition transactions. The data collection and coding continued to the third iteration when no new factors or relationships were identified. We then categorized these codes into 40 first-order themes.

Common dependency among the first-order categories constituted the basis for our next analysis, in which we linked the categories that shared the same goal. We identified these second-order themes by iteratively reviewing the first-order categories, the original data and the supporting literature. In the next step, we connected the emergent themes by integrating the second-order themes into compound theoretical dimensions. As we constructed these dimensions, we examined their temporal aspects and common characteristics, which helped us to identify company-level functions and formulate our model. The analysis resulted in 10 dimensions which we improved iteratively and allowed us to identify the five main stages in the process, in which four of them related to the pre-acquisition phase, and one of them related to the post-acquisition phase. The identified stages are building social legitimacy, strategic alignment, resource fulfillment and pursuing consolidation in the pre-acquisition phase; merging businesses in the post-acquisition phase accordingly.

Table 1 lists some of the highlighted events and the major company eras. Figure 1 illustrates the three characteristic time horizons in evolution, and it shows some of the major global events as well as technology standard evolution.

4. Results

Our process model of acquisition program sheds light on how the telecommunications infrastructure firms ended up acquiring industry assets, the series of strategic activities that built favorable conditions for acquisitions and for the concentration of industry assets. The model reveals a series of actions a company took to improve environmental embeddedness, ensure alignment of interests and get access to resources. Figure 2 depicts the model constructed around the five phases that emerged from our study. It turned out that the acquisition of industry assets is fundamentally an adaptive and iterative process that is enabled jointly by the focal company and key stakeholders in its environment, hence we refer to the model as *an adaptive acquisition program* comprising four pre-acquisition phases and one post-acquisition phase. The process lasts from the industry establishment phase until maturity. From the establishment phase until major growth, the process mainly drives within industry consolidation and when the industry turns into a mature phase, the process shifts to drive diversification.

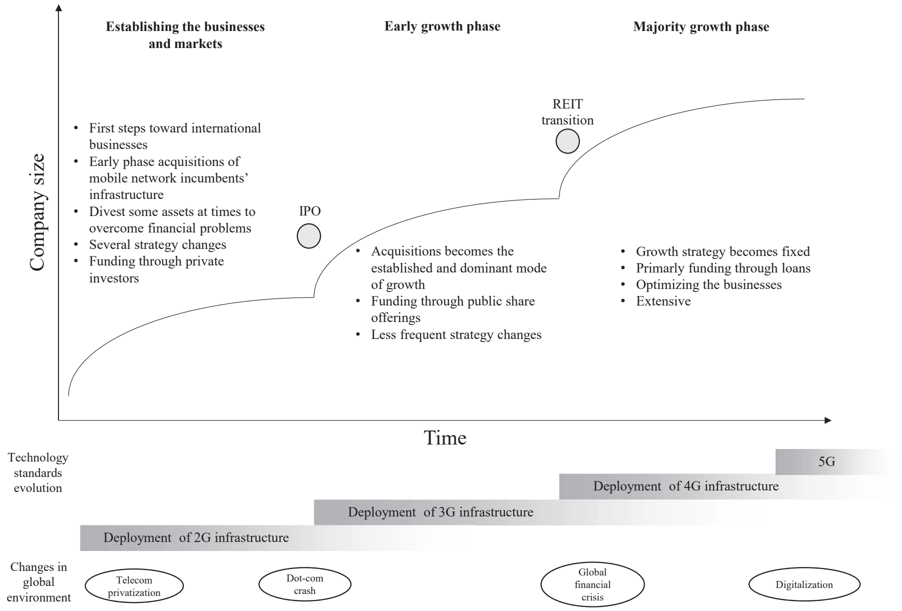
The case companies were found to follow similar phases in their evolution. The first phase was *social legitimacy*. A company became a legitimate choice in some specific local market, which in turn allowed the company to seek acquisition opportunities (e.g. media announcements or collaboration with regulatory authorities and tower companies). Second, in the *strategic alignment* phase, the company did set out a strategic vision describing how the planned maneuver will add value for owners, and then it aligned its views

Year	Company	Event
1989–1999 Establishing the businesses and markets (pre-IPO)		
1989	SBA	Est. Start of consultancy business in the USA
1994	AMT	Est. Start of tower leasing business in the USA
1994	CCI	Est. Start of tower leasing business in the USA
1997	SBA	Start of the US tower leasing business
1997	CCI	Start of UK operations
1998	AMT	Merger of AMT and ARS
1998	AMT	Initial public offering (IPO)
1998	AMT	Start of Brazilian operations
1998	CCI	Initial public offering (IPO)
1999	AMT	Acquisition of AT&T tower operations
1999	AMT	Start of Mexico operations
1999	SBA	Initial public offering (IPO)
1999	SBA	Sell some of the towers to competitors to get cash
1999	SBA	Acquisition of Horizon and Com Net tower operations
2000–2009 Early growth phase (post-IPO)		
2000	SBA	Sell towers to competitors to acquire cash
2001	SBA	Acquisition of Unwired tower operations
2003	AMT	Sale of ancillary businesses
2004	CCI	Sale of UK operations
2005	AMT	Acquisition of SpectraSite operations
2005	SBA	Second public offering to acquire cash
2006	SBA	Third public offering to acquire cash
2007	AMT	Start of Indian operations
2008	AMT	Start of Peru and Chile operations
2008	SBA	Acquisition of TowerCo tower operations
2009	SBA	Start of Canada operations
2010– Majority growth phase		
2010	AMT	Start of African operations
2012	AMT	Transition to REIT business logic
2012	SBA	4th public offering and acquisitions of TowerCo and Mobilitie
2013	SBA	Start of Brazil operations
2013	AMT	Start of dividend payments to owners
2014	CCI	Transition to REIT business logic and start of dividends
2015	CCI	Sale of Australian tower business
2017	SBA	Transition to REIT business logic
2019	SBA	Start of dividend payments to owners

Source(s): Authors' own work

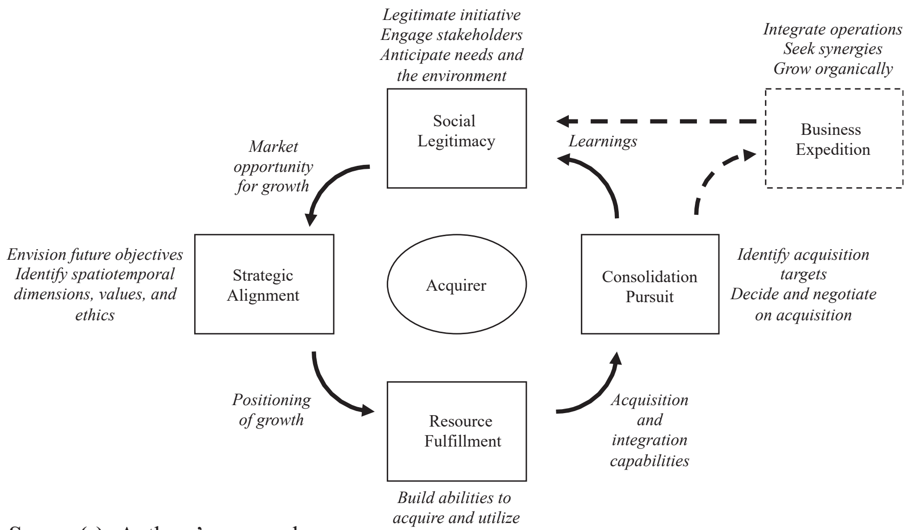
Table 1.
Timeline

with the views of the owners (e.g. the promise that increasing the number of towers results in larger dividends). Third, in the *resource fulfillment* phase, the company did seek funding to exploit growth opportunities and pursue developmental activities, the aim being to build the core competencies that are required to execute expansion (e.g. professional-level skills on mobile technologies and collaboration ties with infrastructure funds). Fourth, in the *consolidation pursuit* phase, the company identified a business-expansion opportunity in the form of an asset acquisition, and it pursued the transaction (e.g. screening and selecting an alternative, as well as closing the deal with the local target company for acquisition). At this point, the asset value of an acquiring company had significantly grown compared to the previous state (in terms of, e.g. mobile towers or cell-sites). Finally, there was a *merger* phase during which the asset bases became integrated (e.g. merge networks, organizations and customer relationships).



Source(s): Authors' own creation

Figure 1.
The companies evolved over the three characteristic time horizons



Source(s): Authors' own work

Figure 2.
An adaptive process of market consolidation

4.1 Social legitimacy

In acquiring *social legitimacy*, the case companies executed actions in two distinct categories. First, the company built a certain level of legitimacy on the market for customer adoption. Companies used the corporate political activity to influence policy-making and they launched campaigns for brand-building purposes and to promote novel business ideas to potential customers and acquisition targets. Among the objectives of these external activities was to ensure legitimacy in the market, which supported the availability not only of potential customers for organic growth, but also of regulatory regimes and acquisition opportunities for inorganic growth.

4.2 Strategic alignment

The case companies had to possess alignment between the company strategies and its owners' preferences. While the company prepared its strategic plans and set its strategic visions, its owners considered the identified business opportunity in terms of timing and return-on-investment. These views were accommodated and integrated through formal discursive practices leading to eventual *strategic alignment*. In practice, events such as annual general meetings, and meetings of the board of directors or senior managers served as a proxy for this practice.

The need for strategy formulation varied at different stages of development. In its early life, the companies needed to pursue its strategic vision work more actively, given that the markets were not yet well-known and knowledge has not yet accumulated. As the understanding of the aspects deepened, major changes in strategy became less frequent and less dramatic. Desired market positions, selected business areas and geographics, and business logics developed over the iterations, whereas uncertainty diminished. On the other hand, the companies also found out what competences and resources they need to develop, and what practices its competitors are using.

The companies and its owners had different views about the pace and directions of the development at times. Collaboration with the owners gave the company strategic guidance and did help it to communicate its vision. These views gradually converged, and the consensus was finally reached. This, in turn, created congruence between the firm and its owners and gave the company the independence to pursue strategic actions without needing to report every operational issue. Through these activities, the company managed to define and agree on the positioning of growth.

4.3 Resource fulfillment

The *resource fulfillment* phase comprised two major activities. First, the companies arranged the most feasible funding for the up-coming acquisition and the increasing need for working capital. Second, they built the required core competences and accumulated resources to facilitate the integration.

Although the objective of seeking funding was generally the same over the company's life-span, the source varied. The need to establish contact with different stakeholders in capital markets was more pressing in the establishment phase than in the major growth phase. For example, venture-capital firms or venture funds provided initial growth funding in exchange for equity and without tangible security. Funding was sought in a series of public offerings in the early growth phase, whereas loans were typically taken in the phase of majority growth when the company had assets that could guarantee debts. In all these phases, the companies needed the right social network with access to capital markets and negotiation processes. Thus, seeking funding was about finding the right financing partner and selling the business idea to it.

This was also the phase in which the company built the core competencies that enabled it to acquire and integrate. In practice, activities such as prospect research, acquisition negotiations and due-diligence checks were crucial steps in assessing and evaluating acquisition targets. Although the company sought a dominant position in the market, it needed to be critical and selective in its acquisitions to ensure positive business results. Another set of competences was related to integration. The desired level of integration varied firm by firm, but basic levels of governance and cross-subsidiary synergy were typically pursued in all acquisitions. These activities required managers to be capable of extracting, executing and reporting necessary changes in organizational structures and practices and then communicating the information to the organization. Different regulatory authorities also mandated specific post-integration practices in certain regions for regulatory reasons and some of the competencies related to practices within a new regulatory authority or a new cultural area. This phase of *acquiring resources* resulted in the development of capabilities related to acquisition and integration.

4.4 Consolidation pursuit

The objective in the *consolidation-pursuit* phase was to expand the strategic business areas to increase the scale and obtain a bigger market share. The first major step for the companies was to conduct research on prospective businesses that could be acquisition targets with a good strategic fit and a significant assets base. In line with its strategic choices, the company critically evaluated different opportunities and then proceeded with the most feasible. The company managers examined the business of its acquisition targets as thoroughly as possible to identify any risks and realistic synergies and ensure that the transaction would fit its portfolio. Candidate selection was based on the choices made in the strategic-alignment phase, related to aspects such as geographical area or product offering. Acquisition targets were then selected from existing or new areas.

If the strategic focus areas changed in the strategic alignment phase, it was justified to divest some of the existing businesses at times. Included in the rationale behind possible divestment was the need to improve operational efficiency in the case of certain business areas that do not provide the required economies of scale: a split was supposed to sharpen the focus on operations by removing some of the ancillary offerings and to free capital to allow other expansion activities. During or after these divestments, the company started looking for candidates from a novel business area.

When a transaction with the acquisition target was completed, the companies still needed to merge their operations to ensure proper corporate governance and the retention of extant businesses. Thus, the expanded business or offering was the output of this phase.

4.5 Merger

The core process comprised four pre-integration phases ranging from *social legitimacy* to *consolidation pursuit* phase. However, there was yet another phase that was critical – the *merging* of the acquired business and assets. There were potential synergies if the acquired business was integrated into the existing enterprise structures. These integration activities included the merging of assets, the transitioning of processes toward adopting common methods, organizational consolidation and, most importantly, the introduction of composite management practices. In carrying out these activities, the companies sought to realize synergies through economies of scale, meaning decreased operational costs, more efficient processes and the leveraging of joint complementary assets. In addition, the companies sought to realize synergies through scale-free assets, meaning process and business innovations, social networks and intellectual property rights. Complementing these internal synergies, some of the companies also realized market synergies by providing added value to the joint customer base through a wider offering or a more extensive geographical reach.

4.6 Learning loop

The learning loop completed the acquisition program in terms of providing feedback on lessons learned from end to beginning. Potential feedback information included the impact of the realized acquisition on existing markets, how regulatory authorities saw the company and any change in a public image due to the acquisition. Furthermore, in some cases, internal stakeholders had changed their perceptions if the acquisition was somehow different than previous ones: this is why all lessons learned from previous acquisitions were evaluated critically and possible changes were identified. This “rearview-mirror” practice had an impact on the practicalities of the acquisition process or stakeholders involved.

Finally, the cycle of the acquisition program reached its end, and repeating iterations continued to provide companies with consolidation opportunities, thereby moving the company in the direction of strategic vision. However, no company or industry was able to grow infinitely and all companies were forced to start seeking adjacent markets for continued growth.

5. Discussion

The objective of this study was to enhance understanding of the strategies on how a company achieves a dominant position in a consolidating market by acquiring industry assets over a longer period of time. We, therefore, conducted a study of the telecommunications infrastructure industry, which could be described as oligopolistic, and we traced the journey of three case companies from the establishment to maturity. Adopting qualitative data analysis, we built an acquisition program model of industry asset consolidation based on our case analysis and the existing literature. Not only does the model describe the strategic role of social legitimacy, strategic alignment, resource fulfillment and the pursuit of consolidation, but it also shows how companies learn through these activities.

Our study thus makes contributions to the research on acquisition programs and acquisition strategies. First, our model of the business acquisition program complements earlier research on business acquisitions. Whereas existing research explains how certain company and market-level attributes may constraint or enable consolidation (e.g. Bauer *et al.*, 2016; Chatterjee, 2009; Colombo *et al.*, 2007; Lee *et al.*, 2020); we show how a telecommunications infrastructure company using an acquisition strategy and a programmatic process may become a dominant player in the market. In addition, our model focuses on pre-acquisition phases, whereas existing research mostly examines post-acquisition phases (Meglio and Risberg, 2011; Rouzies *et al.*, 2019). Second, our study provides a novel perspective on acquisition strategies. Whereas existing literature mostly provides tools for analysis and managing acquisitions (Cuypers *et al.*, 2017; Smit and Moraitis, 2010), our model provides a framework to build successful acquisition strategies, which require companies to pursue other activities than just acquiring.

5.1 The firm-level process: consolidation management

Our main goal was to build an acquisition program model of how a firm could manage its business acquisitions to become a dominant player in the market by consolidating industry assets. As we found in our case study, American Tower, Crowne Castle and SBA Communications all succeeded in reaching a dominant position by acquiring mobile communications towers, fiber cables, cell-sites and small-cell infrastructure. They did so through their acquisition programs by strategically collaborating with other external stakeholders to legitimize the social image of the company and the emerging market, by identifying and agreeing with owners on the spatial-temporal dimensions of the strategy, by building up the required competencies and access to capital markets and finally by acquiring the selected targets and their telecommunications tower assets. Thus, our model differs from others with respect to the activities needed to carry out successful acquisition strategies.

We perceive two major ways in which our model differs from those in existing studies, and which we suggest as the core of successful consolidation. First, it emphasizes the pre-acquisition phases of the consolidation, whereas existing literature tends to assess success in terms of post-acquisition integration activities. More specifically, our model implies that consolidation requires an organization to engage in strategic activities that ensure alignment between stakeholders in the environment and in the company. It is especially pertinent in the establishment and growth phases of the industry. Pre-acquisition work related to legitimacy, strategy and resource accumulation reduces post-acquisition risk, ensures a strategic fit and improves the probability of success. Separate bodies of extant literature support our findings (e.g. Al-Laham *et al.*, 2010; Chalençon *et al.*, 2017; Morosini *et al.*, 1998; Rabier, 2017; Song *et al.*, 2021; van Kranenburg and Voinea, 2017; Öberg and Holström, 2006). In addition, such pre-acquisition work could be seen as a learning process that enables an organization to adapt to ever-changing environmental circumstances. Over the years, technologies and best practices tend to change and the company must be able to adopt these novel aspects in the evolution.

Second, our model takes an active stand on the deemed inevitability of stagnation in the mature phase of industry evolution. A telecommunications infrastructure company that anticipates the industry is able to steer its strategic course toward new products or geographical areas and thereby overcome single-market constraints (Lin *et al.*, 2020). In addition, acquiring a business from adjacent offering areas may open up a new opportunity space faster than building capabilities in-house (Lee *et al.*, 2017; Lee and Lieberman, 2010). This strategic shift not only requires an organizational commitment and compliance (Madsen and Waldorff, 2019; Whalley and Curwen, 2017), but also a capability to learn and unlearn throughout the evolution. Or as the organization scholars define it, the company should hold an organizational ambidexterity (O'Reilly and Tushman, 2011). For example, CCI expanded its business from mobile towers to fiber networks, and SBA expanded its business from mobile towers to data center premises.

Considered a theoretical construct, industry asset consolidation could be described as a latent force that gradually reduces the number of companies in the industry and shifts the power from the many to the few. However, from the firm-level strategy perspective, it is necessary to change our proposition thus: industry asset consolidation is an exogenous latent force that does not constraint a firm otherwise than to grow until opportunities cease to exist and stagnation occurs. To put it simply: if you don't buy those assets, someone else does. On the basis of our findings, we argue that companies without the ability to adapt to industry-asset consolidation forces experience industry consolidation as disruptive (Lähteenmäki *et al.*, 2017) and are forced to exit or to merge with others. Hence, a company operating in a consolidating market needs to understand the part of the industry logic that forces companies to acquire each other.

5.2 Company evolution as part of the industry's life cycle

We found in our analysis that the evolution phases of a company and the industry's life-cycle are interrelated. If the industry has already matured and a major growth era is coming to an end, it is challenging for a new entrant to enter the market and pursue major growth strategies. Hence, if a company wishes to consolidate industry assets, it needs to be on the market before major consolidation takes place. As shown in Table 1 and illustrated in Figure 1, we divided the evolution of the case market into three phases. There is no clear doming design in the establishment phase, and already dominant companies consolidate the market in the major growth phase. Hence, we argue that the optimal time to enter the market is during the late establishment era, but before the early-growth phase starts. This window of entry opportunity not only influences how the firm performs (Suarez *et al.*, 2015), but it also suggests that the prior acquired experience in a local market improves the survival rate of an entrant (Tschoegl, 2002). This prerequisite supports the use of alliances and joint-ventures for market entry. However, as also proposed by Long and Miao (2020), the market entry may also vary based on the product the company provides, as there may be markets for multiple qualities for different customer segments. Based on these views, it can be argued that an acquisition program should be implemented in the acquiring firm by the market entry time.

5.3 Boundary conditions

Although our study revealed a latent acquisition program process of the industry-asset consolidation within the selected case companies in the telecommunications infrastructure market, we should also consider the possibility that the companies were unique in their position which could limit the transferability of the model to different contexts. Due, in part, to the historical perspective and the restriction to a single country, it could be argued that our study features a timing issue that gave a wider range of timely opportunities to the case companies than, let us say, to an industry or a country that is emerging nowadays. However, we believe that this does not take into account the cyclic nature of any industry or the constant technological evolution: these aspects have opened up growth opportunities historically (Fuentelsaz *et al.*, 2015) and are likely to do so in the future.

We identify two specific boundary conditions in our model. First, although the theoretical model includes factors that seek to influence markets, the framework is inherently rooted in one individual company and it also depicts the process from the perspective of a single company. Whether or not the company's performance is better than that of its competitors, or better than the industry average, is a relevant question, but our model can only suggest that companies with an acquisition program may have a better-than-average survival rate.

Second, we analyzed all the case companies from the establishment phase until the maturity phase. Our model does not address the ambivalence of situations such as if a company is already established in one market and then pursues a major strategic shift towards another industry (Meglio *et al.*, 2015) and how its renewal occurs. According to our model, this new venture starts from the establishment phase and then progresses. However, in this case, the establishment phase might be funded by the parent company.

5.4 Limitations and future research opportunities

We acknowledge that our model has some implicit constraints, which provide opportunities for further research. The constructed theoretical dimensions represent strategic activities that acquiring telecommunications infrastructure companies need to carry out, but how the strategic vision is formulated in practice, for example, is beyond the scope of our study: there is the potential for managerial contributions in this area in particular. Moreover, we did not cover any aspects of corporate political activity (e.g. lobbying), nor did we seek any unethical signs. All the case companies currently have a code of conduct in place, but what happened in their early days remains open. Furthermore, given that we only studied companies that leveraged their publicly-listed-company status on their evolution path, whether or not the ownership structure influenced the growth process remains an open question. Although the studied companies were global, they all operated through a US-based headquarters, hence future research could replicate this study for non-US-based companies.

Because our study is based on qualitative methods, the results do not provide any evidence through quantitative and statistical means. Mathematical modeling or statistical testing of the proposition may bring further support for the results, which opens an opportunity for future research.

The infrastructure utilized in the case companies was designed for generic public telecommunication services, hence we do not know if different types of infrastructure would influence the process. Several governments have separated the critical infrastructure for national security into distinct units, and this market may not necessarily consolidate as easily. These special-purpose cases open up opportunities for further research, given that such markets are highly special.

6. Conclusions

Starting from the ambiguous situation of the market for telecommunication infrastructure and the market activities of the case companies, we developed a model to explain how a firm utilizing an acquisition program can manage the growth of its asset base through industry asset consolidation and become a dominant player in its market. Although our case is historical and represents one type of industry (oligopolistic, asset-based), we believe that the topic is highly relevant to all sizes of companies in several industries. Some assets-based markets such as data center and cloud infrastructure are consolidating heavily, for example, whereas others non-assets-heavy markets such as machine-learning software and artificial intelligence markets are gaining new entrants at an accelerating speed, which will open up new consolidation opportunities. As the attribution of business acquisitions, acquisition programs and market consolidation in different organizational contexts continues to evolve, business theorists have a key role to play in explaining the processes underpinning such consequential development.

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