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# **The Financial and Competitive Sustainability of the Transatlantic's Most Environmentally-Sustainable Airline: Can Norwegian Survive and Thrive?**

*An exploratory case study of Norwegian Air Shuttle's ability to cultivate a sustainable competitive advantage*

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# Executive Summary

This thesis investigates the extent to which Norwegian Air Shuttle ASA (Norwegian) possesses the resources and capabilities required to cultivate a sustainable competitive advantage. By creating and leveraging an integrated framework to conduct a nuanced internal analysis of a unique and ongoing case of strategic innovation, the research provides the first in-depth means for investigating Teece et al's (2016) efficiency and agility trade-off in the context of a capital-intensive firm. This investigation is carried out through a single, exploratory, qualitative case study research design. The research collects and analyzes secondary data in the form of semi-structured interviews conducted by Norwegian's investor relations department, and various data measuring the fuel efficiency and competitive and financial positions of Norwegian and its competitors in the northern transatlantic market.

The findings and analysis illustrate that, conditional on sustained liquidity and solvency, orchestrating zero-level and dynamic capabilities to realize synergies between fuel efficiency and profitability; achieve economies of scale, scope, and even first-mover advantages from its global, low-cost, low-fare, point-to-point route network; and maintain socially-complex assets and processes such as employee engagement, innovation, and organizational dynamism may enable Norwegian to cultivate a sustainable competitive advantage. Further, the company's ability to execute a dual strategy of cost-effective service excellence would widen any such economic moat.

The research's findings are subsequently related to broader literature on the resource-based view of the firm, dynamic capabilities, and resource orchestration. Finally, this study suggests that future research investigate the applicability of tenets of the lean methodology to other capital-intensive firms and examine the sustainability of competitive and financial success resulting from other firms' pursuit of strategic innovation strategies.

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# 1. Introduction

The airline industry is notoriously unprofitable and environmentally degrading. Recent advances in fuel efficiency afforded by new generations of aircraft provide the opportunity to significantly improve firm-level profitability and environmental impact. However, capitalizing on this requires firms contend with pervasive challenges of capital intensity, high fixed and variable costs, especial vulnerability to exogenous events, seasonality, cyclicalities, and government support for unprofitable competitors in a dynamic and hypercompetitive industry.

These challenges are amplified for firms competing in the transatlantic market.<sup>1</sup> As the world's busiest and most competitive long-haul market, the recently-liberalized transatlantic airspace has traditionally been dominated by legacy carriers charging high fares (Soyk et al, 2017; AOPA, 2019). While low-cost carriers (LCCs) have revolutionized short-haul markets, extending the low-cost model to long-haul markets has been prohibitively difficult; in the transatlantic market, all attempts thus far have proven unsuccessful (De Poret et al, 2015). Recent developments, mainly modern aircraft technology, the increasing number of ancillary and cargo revenue possibilities, and greater freedoms permitting new market entrants have rendered a transatlantic low-cost long-haul (LCLH) point-to-point (P2P) business model feasible (De Poret et al, 2015, p.272). Despite these developments, the LCLH model remains extremely difficult to execute profitably given its especial sensitivity to variations in demand and fuel prices (ibid) and the persistence of significantly reduced cost advantages relative to short-haul operations (Francis et al, 2007; Daft & Albers, 2012; De Poret et al, 2015).

At present, Norwegian is the only independent LCLH operating transatlantic routes, having entered the market six years ago with a new and fuel-efficient aircraft fleet. Acting as a strategic innovator, Norwegian expanded aggressively and captured substantial market share from legacy incumbents; success it hopes to replicate in its now-global low-cost 500-route P2P network. While its brand has gained exposure and association with innovation and customer satisfaction, Norwegian's profitability and financial position have deteriorated alongside its expansion. Early last year, the company indicated its plans to shift its focus from growth to profitability. Then, aircraft manufacturer Boeing exacerbated Norwegian's liquidity problems through costly delivery delays and engine issues, as did other

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<sup>1</sup>The transatlantic market is defined as two-way passenger travel between the United States and Europe for the purposes of this research.

unforeseen and expensive developments. This past winter, the media was quoting Norwegian at days to survive.

Within the last three months, Norwegian has reported one of the largest operating losses in its history, conducted an emergency rights issue, and seen its most comparable transatlantic competitor file for bankruptcy. With 15 percent of its short-haul planes expected to remain grounded through August, again owing to problems from Boeing, the launch of North American low-cost carriers on transatlantic routes expected later this year, and fuel prices continuing to rise, whether Norwegian's investments in growth will yield scale, profitability, unprecedented success, or financial collapse is uncertain. Within this research setting, this qualitative exploratory thesis investigates the following research question:

To what extent does Norwegian possess the resources and capabilities required to cultivate a sustainable competitive advantage?

## 2. Theory

*This chapter presents the theory underpinning the development of the above stated research question and delineates the literature gaps which the research findings and analysis strive to fill.*

### 2.1 The Resource-based View of the Firm

The Resource-Based View (RBV) of the firm contends that resource heterogeneity is fundamental to variations in firm performance (Wernerfelt, 1984; Prahalad & Hamel, 2006; Barney, 1991). The RBV, in contrast to the Structure Conduct Performance paradigm (Chamberlin & Robinson, 1933) and subsequent Industrial Organization view (Bain & Mason), argues that sustainable competitive advantage (SCA) is best accomplished through exploiting *internal* resources than *external* factors. This thesis adopts Wiggins and Ruefli's (2002) definition of competitive advantage: "a capability (or set of capabilities) or resource (or set of resources) that gives a firm an advantage over its rivals which ceteris parabis leads to higher relative profitability" (p.84). While industry effects have been found to explain up to 20% of variance in firm profitability (Porter & McGahan, 1997; Schmalensee, 1985; Porter & McGahn, 2002; Mauri & Michaels, 1998), "Porter's and subsequent economic approaches" fail to explain "the relatively high degree of *intra*-industry variability in profitability over long periods," which is thus the focus of the RBV (Pisano, 2015, p.7, emphasis added; Wernerfelt, 1984, Barney, 1991; Amit & Schoemaker, 1993).

The RBV has been and remains a central concept in strategic literature. As such, decades of research and refinement have extended it and overcome several criticisms thereof. This includes, but is not limited to, the contribution of concepts like asset stock accumulation (Dierickx & Cool, 1989), dynamic capabilities (Teece & Pisano, 1997), resource orchestration (Sirmon et al, 2011), examination of the RBV's microfoundations (Foss, 2011), focus on more proximal outcomes in conditions of heightened dynamism and hypercompetition (Wiggins & Ruefli, 2005), managing firm resources in dynamic environments (Sirmon et al, 2007), and conceptualizing competitive advantage as a moving target requiring firms to achieve a series of temporary competitive advantages (D'Aveni et al, 2010 qtd in Hitt et al, 2016, p.108). Such scholarly contributions have improved the breadth, prescriptive nature, and transferability of the RBV.

Recent strategic management discourse (e.g. Helfat & Peteraf, 2015; Kim et al, 2015; Teece et al, 2016; Kabongo & Boiral, 2017) confirms the enduring relevance of an internal focus in analyzing SCA. These

and other scholars further substantiate Teece and Pisano’s extension of the RBV which claims that “wealth creation in regimes of rapid technological change depends in large measure on honing *internal* technological, organizational, and managerial processes *inside* the firm” (1997, p.509, emphasis added). Their work views “identifying new opportunities and organizing effectively and efficiently to embrace them” as “more fundamental[...]” than engaging in *external* strategizing (ibid). The attention afforded to and thus presumable continual improvement of the RBV make it a worthwhile foundation for strategic analysis. The RBV is well-suited to analyzing firms in capital intensive industries for which efficient resource orchestration and utilization is fundamental to survival. The creation and sustainability of favourable competitive implications from their technical resources is more important than for other firms given their reliance on these assets to generate value in excess of the high costs they represent. The RBV differentiates between resources and capabilities; both concepts will be defined and discussed in the paragraphs to follow.

### 2.1.1 Resources

Under the RBV, resources are defined as the tangible and intangible assets that a firm controls that can be used to conceive and implement strategies (Barney & Hesterly, 2015, p.86). Barney and Hesterly suggest four overarching classifications for these assets: financial, physical, human, and organizational as shown in Figure 1. Financial and physical resources can be grouped together under the concept of technical resources, given their greater tangibility versus human and organizational resources which have greater social complexity. The RBV takes as given that these resources are heterogeneous as a basis for their contribution to variations in firm performance (Barney & Clark, 2007).

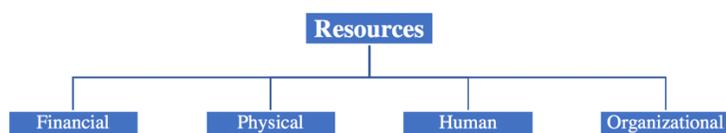


Figure 1: Resource Categorizations, from Barney and Hesterly, 2015

The extent to which a firm possesses heterogeneous, immobile, valuable, and unique resources that are costly for its competitors to imitate, and the organizational capabilities necessary to exploit the full competitive potential of such assets informs its competitive position and profitability (Barney & Hesterly, 2015), as summarized in Figure 2. The RBV is built on the assumptions that firm-level competence differences exist within the same activity or industry, and that such differences may be long-lasting due to costs of development or acquisition.

Is a resource or capability:					
Missing?	Valuable?		Costly to imitate?	Exploited by the organization?	Competitive Implication:
Yes	Yes		Yes		<i>Sustainable Competitive Disadvantage</i>
Yes	Yes		No		<i>Temporary Competitive Disadvantage</i>
Yes	No	<b>Rare?</b>	No	No	<i>Trivial Competitive Disadvantage</i>
No	Yes	No	-		<i>Competitive Parity</i>
No	Yes	Yes	Yes	↕	<i>Potential Competitive Advantage</i>
No	Yes	Yes	No		<i>Temporary Competitive Advantage</i>
No	Yes	Yes	Yes	Yes	<i>Sustainable Competitive Advantage</i>

**Figure 2:** The VRIO Framework, from Barney and Hesterly, 2015, p.103 and Lien og Jakobsen's SVI-analyse av ressursanskaffelseskostnader, 2015, qtd. In Kapitel 7 Ressursbasert Analyse p.169

The difficulty of building an economic moat around valuable and rare resources is proportional to the degree of costliness of imitation thereof, which stems from unique historical conditions, causal ambiguity, social complexity, and sometimes patents (Barney & Hesterly, 2015, p.97). If first-mover advantages and path dependencies underpin a firm's low-cost access to important resources, rival firms' ability to achieve the same or similar access is impeded or even impossible. As well, time compression diseconomies may result in barriers to imitation for otherwise easily replicated resources, particularly technical ones. Resources and capabilities being embedded in or manifested as "complex networks of relationships between individuals, groups, and technology" or "widely diffused across people, locations and processes" also significantly increases the cost and feasibility of their imitation (Barney & Hesterly, 2015, p.99). Finally, socially complex resources are very likely to be imperfectly imitable. Competitors have scant capacity to systematically imitate assets like brand, franchise, reputation, culture, or complex social phenomena through direct duplication or substitution irrespective of their accumulation of other asset stocks. In contrast to physical technology, complex social resources and capabilities cannot be purchased in supply markets, reverse engineered, or cost-efficiently diffused among competing firms (Barney & Hesterly, 2015, p.100)

Resources that have all four resource attributes (valuable, rare, inimitable, and organized, acronymized as 'VRIO') are *sources* of SCA. Importantly, these inherently precious resources do not in and of themselves generate long-term enterprise value; they must be orchestrated by dynamically capable managers following sound strategies (Teece, 2014, p.341). As the law of averages would imply, the majority of firms' resources are valuable and common which results in competitive parity, although increases chances of firm survival (Barney & Hesterly 2015, p.95). While this type of resource does not represent a source of competitive outperformance, lacking such resources may put firms at a competitive disadvantage.

## 2.1.2 Capabilities

Capabilities are a subset of the resources articulated in the RBV that arise from “learning and organizational resources and histories” (Teece, 2014, p.329). Capabilities “enable a firm to take full advantage of the other resources it controls,” though are not capable of the conception or implementation of strategies in isolation (Barney & Hesterly, 2015, p.86). This characteristic is illustrated in Figure 3.

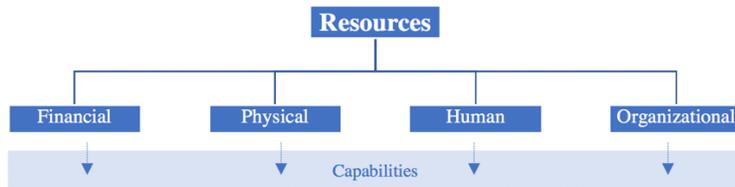


Figure 3: Capabilities enable resource mobilization, *adapted from Barney and Hesterly, 2015*

Such necessary but common, or “ordinary,” capabilities enable the production and sale of defined and hence static products and services (Winter, 2003). The strength of these capabilities reflects the firm’s technical fitness and proficiency in efficiently finishing defined tasks (Teece et al 2016, p.19; Teece, 2014). Since they are necessary components of, but do not of themselves foster, SCA, ordinary capabilities earn zero economic profits if they are the only capabilities possessed (Teece et al, 2016, p.19). Efficient management of ordinary capabilities can maximize a firm’s operations on the production possibility frontier with a given resource endowment, while insufficient ordinary capabilities may have negative competitive implications. Ordinary capabilities are used to limit and hedge against downside risk (Miller & Reuer, 1996; Miller and Leiblein, 1996; Ruefli, Collins, and Lacugna, 1999 qtd. in Drnevich & Kriauciunas, 2011), likewise not an uncommon activity among firms yet one that can have adverse consequences if foregone. Capabilities can also “potentially obviate[e] the need to enable agility through the firm’s asset base” (Barney, 2015, p.111). Ordinary capabilities as mentioned are not sources of competitive advantage in and of themselves, however special combinations may have favourable competitive implications or serve to concretize and widen existing resource advantages. *Extraordinary* managerial capabilities, especially “dynamic” capabilities, however, are themselves sources of competitive advantage.

## 2.2 The Dynamic Capabilities Framework

“[...] even high-potential resources must be astutely managed (orchestrated) to boost enterprise performance. Managerial coordination of resources is not featured in the resource-based approach, but is critical in dynamic capabilities.” (Teece 2014, p.340).

As referenced, Teece and Pisano (2003) championed an expanded paradigm for developing and sustaining competitive advantage in an increasingly interdependent global market. Their dynamic capabilities approach (DCV) sought to complement, extend, and modernize established resource-based theory by explaining how the assets described in the RBV are deployed and rent streams therefrom are extracted and sustained (Teece, 2014, p.341). This was accomplished by bringing into the theoretical realm the authors' observed outperformance of firms possessing, *inter alia*, VRIO assets that relate to Barney and Hesterly's human or organization categories. Specifically, management capability to effectively coordinate and redeploy competencies (Teece & Pisano, 2003), especially through "entrepreneurship, innovation, and learning" (Teece, 2014, p.341) as these amplify the important economic concept of inimitability (*ibid*, p.344). A firm's organizational resilience capacity, defined as its ability to take "situation-specific, robust and transformative actions" can be viewed as an "antecedent to strategic agility and as a moderator of the relationship between a firm's dynamic activities and subsequent performance" (Lengnick-Hall & Beck, 2009, p.1&2). Here, strategic agility is conceptualized as capturing firms' ability to develop and apply dynamic capabilities (*ibid*). Teece (2014) also espouses the importance of the role of dynamic capabilities' in fostering timely responsiveness and rapid and flexible production innovation. The DCV echoes the RBV's view that SCA is best accomplished through exploiting *internal* resources, putting forth that the competitive advantage of firms stems from "dynamic capabilities rooted in high performance routines operating inside the firm, embedded in the firm's processes, and conditioned by its history" (Teece & Pisano, 1994, p.553). It emphasizes "the key role of strategic management in adapting, integrating, and reconfiguring" the RBV's internal competencies, with the added dimension of a view to doing the same for "*external* organizational skills, resources, and functional competencies toward a changing environment;" scholars of the DCV are extending the RBV to "dynamic markets" (Helfat & Peteraf, 2003; Helfat & Peteraf, 2007 *qtd in* Wu, 2010 p.28; Teece & Pisano, 2003, *emphasis added*). Eisenhardt (2000) defined dynamic markets as those characterized by rapid and unpredictable change (p. 1106). In addition to valuing and extending the importance of *internal* competencies described by the RBV, the DCV situates these competencies in relation to the firm's *external* environment, which is of great consequence for analyzing firms' ability to effect SCA in dynamic contexts.

The DCV is the seminal coherent framework offering prescriptions for *developing* and *renewing* firm-specific capabilities. This builds on Barney's (1991) foundational assumption of resource immobility by examining how firms can increase rivals' costs of imitating their capabilities by focusing on socially complex capability development and updating the RBV's practical relevance for dynamic market environments (Teece & Pisano, 1997). The dynamics of capability creation and accumulation and their

strategic significance offer actionable means for responding to differences in resources and capabilities and thereby for improving firm-specific competitive implications (Teece & Pisano, 1997), and underpin Sirmon et al’s recent work on resource orchestration (RO). RO is a burgeoning research stream that further extends the pertinence of management capabilities to resource-based theorizing (Sirmon et al, 2011).

In their review of extant DCV literature, Vogel and Guttel (2013) established the research field’s core developments as centered on the relationship between firm performance and learning and change capabilities. The DCV represents a confluence of organization theory and strategic management to yield a modern and nuanced tool for assessing the cultivation of SCA in an ever-aggressive market ecosystem. The importance of DCs and RO jibes with an exploding research interest in both strategic management and organizational theory discourse in recent years (e.g. Garcia-Morales et al, 2012; Taylor et al, 2014; Engelen et al, 2015) in capability-based resources and transformational leadership in the new knowledge-based innovation economy, amidst the “4<sup>th</sup> industrial revolution,” (Schwab, 2017) and in the context of an ever-more hypercompetitive, uncertain, and dynamic competitive environment. The key tenets of the DCV are DCs and RO, which will be elaborated on in the paragraphs to follow.

## 2.2.1 Dynamic Capabilities

While the “ordinary” or “zero-level” capabilities required to extract value from firm-controlled resources and facilitate baseline survival and function to hedge against unfavourable competitive implications and risk, *dynamic* capabilities (DCs) involve higher-level activities to extend, modify or create ordinary capabilities (Winter, 2003; Teece, 2014). Central to DCs is the concept of “orchestrating” ordinary resources and capabilities toward high-payoff endeavors (Sirmon et al, 2011; Teece, 2014, p.328). Some differences between ordinary and dynamic capabilities are summarized in Figure 4.

	Ordinary capabilities	Dynamic capabilities
<b>Purpose</b>	Technical efficiency in business functions	Achieving congruence with customer needs and with technological and business opportunities
<b>Mode of attainability</b>	Buy or build (learning)	Build (learning)
<b>Tripartite schema</b>	Operate, administrate, and govern	Sense, seize, and transform
<b>Key routines</b>	Best practices	Signature processes
<b>Managerial emphasis</b>	Cost control	Entrepreneurial asset orchestration and leadership
<b>Priority</b>	Doing things right	Doing the right things
<b>Imitability</b>	Relatively imitable	Inimitable
<b>Result</b>	Technical fitness (efficiency)	Evolutionary fitness (innovation)

Figure 4: Selected Differences between Ordinary and Dynamic Capabilities, from Teece, 2014, p. 332

Beyond the static differences between resources, some firms are better able to create and cultivate capabilities that enable them to enjoy sustained competitive advantages and superior profitability therefrom. A firm’s DCs govern how it integrates, builds, and reconfigures internal and external competencies to address changing business environments (Leonard-Barton, 1992; Teece et al, 1997). DCs are key determinants of a firm’s “capacity to innovate, adapt to change, and create change that is favourable to customers and unfavorable to competitors” (Teece et al, 2016, p.18) and “determine the speed and degree to which resources can be aligned with the firm’s strategy” (Teece, 2014, p.335). Representing a specific type of organizational and managerial competencies, DCs are inherently VRIO given their non-tradable nature, context-dependent value, and indefinitely-defined property rights. DCs can be categorized into three main groups: sensing, seizing, and shifting (Teece, 2000; Teece, 1981). Refer to Figure 5 for a summary of these three primary clusters.

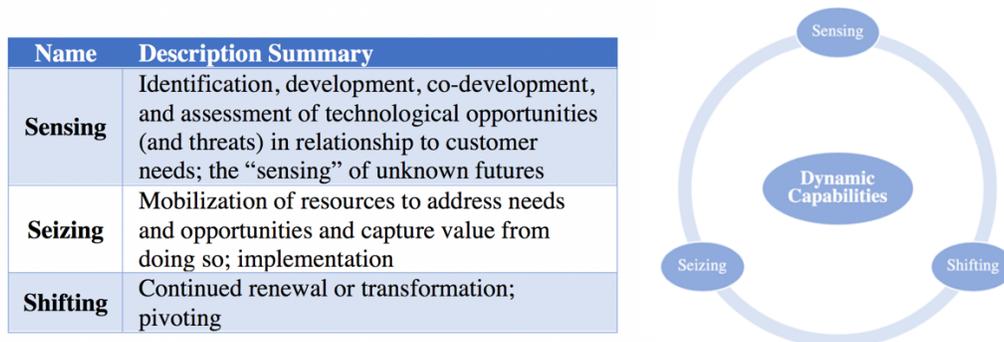
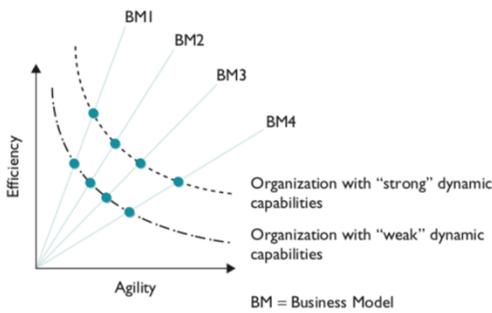


Figure 5: Primary Clusters of Dynamic Capabilities, adapted from Teece et al, 2016, p.18

Sensing, seizing, and shifting are now essential if the firm is to sustain itself in the longer-term (Teece, 2007). Further, strong DCs are especially difficult to imitate given the fact that they are built up over time and need to be astutely orchestrated via entrepreneurial capabilities which are themselves, valuable, scarce, and inimitable (Dosi et al, 2008). Hitt et al (2016) argue that firms have to ‘manage the fit’ across all of their activities to “produce superior value for customers and achieve a competitive advantage. Thus, the challenge for those trying to imitate rivals may not be in specific practices or capabilities, but *how* the capabilities are coordinated (synchronized)” (p.108, emphasis added). Hitt et al elaborate by highlighting the especial difficulty of imitating a *series* of capabilities required to perform practices, even if the *practices* themselves may be imitated. This characteristic of DCs can result in a non-linear payoff whereby entrepreneurial firms enjoy outsized performance benefits relative to their incumbent competitors despite a comparative lack of zero-level resources, if they are able to achieve a sufficient level of scale in their operations (Wales, 2013).

Today's global innovation economy is characterized by deep uncertainty, making DCs requisite for firms to maintain competitive parity, much less achieve advantages relative to their rivals (Teece et al, 2016; Derfus et al, 2008). Drnevich and Kriauciunas (2011) prove that this environmental dynamism negatively affects the contribution of ordinary capabilities and positively affects the contribution of dynamic capabilities to relative firm performance. In such conditions, "doing the right things is more important than doing things right"; sacrificing the technical and operational efficiency of ordinary capabilities and resources may be necessary (Teece et al, 2016, p.15). Efficiency in this instance "specifies the ability of the [firm] to produce the maximum quantity of output [...] from a specific input bundle" of costly resources (Low & Lee, 2014, p.23). "Superior managerial cognitive capabilities" such as *sensing* DCs are needed to discern what in fact constitutes the "right things." It follows that firms possessing superior DCs are characterized by "highly effective entrepreneurial management teams" which enfranchise the *seizing* of opportunities identified via said superior capabilities (Teece et al 2016, p.14 & 16).

Echoing the use of ordinary capabilities to hedge risk, firms with strong DCs can foster a hedge for uncertainty: organizational agility (Teece et al, 2016). Organizational or strategic agility (agility) is defined by Doz and Kosonen as the "capacity to continually adjust and adapt strategic direction in a core business [...]" (2008, p.65). Agility is a costly capability, however it is "sometimes even more costly if it is nonexistent" as the consequences of reactive uncertainty management can be as dramatic as firm failure (Teece et al, 2016, p.17). Moreover, the net benefits of agility increase with the degree of uncertainty in an organization's competitive environment (Bourgeois et al, 1988). DC-enabled, agile firms are also likely to have a superior ability to differentiate between and thus manage risk and uncertainty. In the multidisciplinary context of the firm, "change is costly and achieving agility often involves sacrificing efficiency [...]; knowing when and how much agility is needed and being able to deliver it cost effectively is a crucial managerial capability" (Teece et al, 2016, p.13-14). Strong DCs can yield agility while minimizing the cost of achieving it, thereby allowing management to achieve a more favourable trade-off between agility and efficiency besides, as illustrated in Figure 6 (Teece et al, 2016 p.29).



DC Type	Example of its Means for Effectuating Agility
Sensing	Generative sensing, sensemaking, use of scenario planning, “purchase” of real options use of abductive reasoning
Seizing	Using organizational slack as a buffer against operational outages/failures, leveraging flexible sourcing arrangements (outsourcing manufacturing, preserving contractual flexibility), reengineering rule-bound hierarchies, adopting open innovation processes
Shifting	Engaging “build-measure-learn,” and “lean start-up” methodologies

Figure 6: Uncertainty and the Trade-off between Efficiency and Agility in Organizations with Strong/Weak Dynamic Capabilities and Means for Effectuating Agility from Dynamic Capabilities, from Teece et al, 2016 p. 29

## 2.2.2 Resource Orchestration

Resource Orchestration (RO) is another means by which socially complex resources can be used to improve firm performance. RO theory involves integrating the concurrently developed frameworks of resource management and asset orchestration (Barney et al, 2011, p.1306). Figure 7 depicts how the RO framework merges the frameworks and outlines the processes and subprocess that comprise each. RO extends the RBV by offering a process orientation that recognizes the importance of managements’ organizational capabilities across the scope of the firm and its different levels and stages of life cycle maturity (Barney et al, 2011, p.1306). Beyond meta-analytic empirical support for the importance of VRIO characteristics to firm performance (Crook, Ketchen, Combs, & Todd, 2008 qtd in Sirmon et al, 2011), there is empirical support for the conclusion that “what a firm *does* with its resources is at least as important as *which* resources it possesses” (Perry & Reese, 2004, p.1280, qtd in Sirmon et al, 2011, p.1391, emphasis added). Thus, “the full value of resources for creating competitive advantages is realized only when resources are managed effectively” (Sirmon et al, 2011, p.1391).<sup>2</sup> Even within the resource management framework that addresses this concern, it is argued that the synchronization of its components is perhaps more important to value creation than are the individual processes (Sirmon, Gove, & Hitt, 2008, qtd. in Sirmon et al, 2011, p.1391). So, synchronization is “vital for competitive advantage” (Holcomb, Holmes, and Connelly, 2009, qtd. in *ibid*, 1393).

<sup>2</sup>As well, “Ndofor, Sirmon, and He’s (2011) results show that managerial actions mediate the resource–performance linkage, thereby providing support for the manager’s role in creating a competitive advantage. Additionally, Morrow, Sirmon, Hitt, and Holcomb (2007) show that valuable and rare resource management actions are important to the recovery of firms facing performance crises. Finally, Sirmon, Hitt, Arregle, and Campbell (2010) show that managers’ actions must simultaneously address capability strengths and capability weaknesses in order to realize a competitive advantage.” (Sirmon et al, 2010, p.1393)

The following processes of resource management are termed managerial capabilities:

**Structuring:** using the subprocesses to form the firm's resource portfolio

**Bundling:** integrating resources to form capabilities

**Stabilizing:** making minor, incremental improvements to existing capabilities

**Enriching:** extending current capabilities

**Pioneering:** creating new capabilities

**Leveraging:** exploiting the firm's capabilities and taking advantage of market opportunities

**Mobilizing:** the plan or vision for capabilities needed to form requisite capability configurations

**Coordinating:** involves integrating capability configurations

**Deploying:** a resource advantage, market opportunity, or entrepreneurial strategy is used to exploit capability configurations formed by the coordinating subprocess

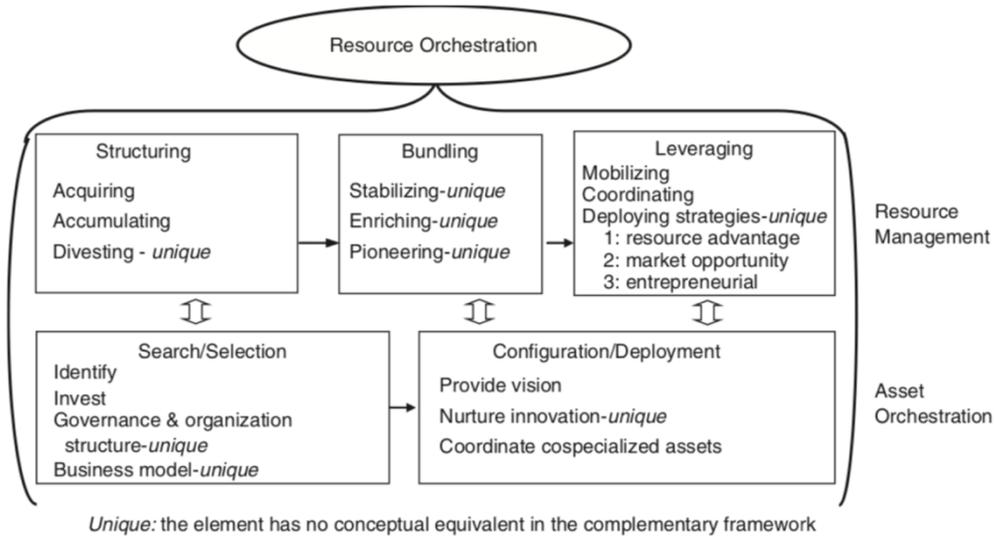


Figure 7: The Resource Orchestration Framework, Sirmon et al, 2011, p.1395

Especially interesting is the application of RO and the “dynamic management of resources” to organizational decline and turnaround:

“Organizational decline occurs when a firm’s performance or resource base deteriorates over a sustained period of time (Bruton, Oviatt, & White, 1994; Weitzel & Jonsson, 1989). Causes of organizational decline originate from external factors, such as gradual changes in the competitive landscape or sudden environmental jolts (Park & Mezias, 2005; Short, Ketchen, Palmer, & Hult, 2007), as well as internal factors, such as operational deficiencies and ineffective resource management (Morrow, Sirmon, Hitt, & Holcomb, 2007).” (Trahms et al, 2013, p.1278)

The challenges of organizational turnaround are “unique and distinct from those of improving performance in a non-decline situation” as the former takes place in a context of resource scarcity, and increased stakeholder conflict and restrictions (Trahms et al, 2013, p.1278). It is worthwhile to reflect on the relevance of such challenges as they relate to strategic innovators (Markides, 2004) which may experience temporary organizational decline as they engage in short-term resource sacrifices in attempt to disrupt incumbent firms.

Combining the RBV, DCs, and RO gives greater depth to explanations of how firms outperform others or how resource mismanagement may underpin firm decline. Importantly, RO’s integration of the resource management and asset orchestration frameworks, which draw on RBV and DC theory respectively, enables a more comprehensive view of the role of socially-complex managerial capabilities

in mediating performance differences derived from the former two theory types. The combination also underscores that the former can be the deciding factor of whether or not resource attributes that suggest a potential competitive advantage may be parlayed into sustainable superior firm performance.

## 2.3 Resources, (Dynamic) Capabilities, and Their Orchestration in the Airline Industry: Low-Cost Long-Haul Carriers

Investigating how resource heterogeneity leads to intra-industry variability in profitability is especially interesting for firms operating in industries that, overall, are not profitable. The airline industry is characterized by complexity, capital intensity, and hypercompetition. Such extreme likelihood-of-failure conditions necessitate strategies that transcend sufficient management of key resources (the difficulty of which should not be understated: airlines have arguably the hardest time of any industry in managing ordinary capabilities and notably technical resources) to promote proactivity and catalyze sustained positive differentiation. Franke (2007), for example, poses that “innovation may become the decisive driver of progress” for airlines in this second paradigm of competition, “comprising advanced business models, customer segmentation, and technologies” (p.23). McGrath posits that, “[...] to win in volatile and uncertain environments, executives need to learn how to exploit short-lived opportunities with speed and decisiveness[;] structures and systems [...for] extract[ing] maximum value from a competitive advantage are liabilities – outdated and even dangerous – in a fast-moving competitive environment” (2013, p.xi). Costa et al (2002), for example, claim that airlines experience more volatile economic fluctuations than most other industries, making McGrath’s statements salient in this context (qtd in Low & Lee, 2014).

In turn, the new millennia and the post-financial crisis era have seen a resurgence of the low-cost long-haul (LCLH) business model, the economic viability of which has been widely explored and challenged in recent theory (e.g. Gudmundsson and Vidar, 2015; De Poret, 2015; Soyk et al, 2017; Soyk et al, 2018) and practice as evidenced by the prevalence of recent and historic LCLH failures (e.g. Laker, 1982; People Express, 1987; Song (Delta), 2003; Ted (United), 2004; Zoom, 2008; Oasis Hong Kong, 2008; Flyglobespan, 2009; MetroJet (US Airways), 2015; Primera, 2018; Joon (Air France), 2019; WOW, 2019). In both theory and practice, the LCLH strategy has predominately been assessed from an operational or economic point of view, as is logical given its explicit focus on resource efficiency and the capital intensity which characterizes the industry. Coupled with the recent resurgence of the LCLH phenomenon, this means that the potential for LCLH carriers to orchestrate and leverage DCs to manage resources with various competitive attribute implications in innovative ways remains virtually

unexplored. Recently, Frery et al (2015) made the case for formulating business strategies around the “innovative use of ordinary resources” using the example of Southwest Airlines, a low-cost carrier (LCC), although not one that operates long-haul routes (2015, p.69). The authors’ findings related to the costliness of valuable strategic assets, as one example, suggest potentially interesting lines of inquiry into what effect innovative resource use could have on firms controlling resources with various competitive attribute implications. Further, as suggested above, capabilities like innovation are often socially-complex and likely to be the result of unique historical conditions, accumulated experience, or casually ambiguous. There are usually high costs to imitating innovative capabilities, and they can be in and of themselves sources of SCA.

Foregoing strategies tied to rare, valuable resources may foster greater flexibility, or at the very least result in reduced exposure to the threats of resource imitation or obsolescence. As the airline industry demands both efficiency and flexibility, especially for those carriers attempting to gain an SCA with a LCLH model, the importance of innovation in managing this paradox is paramount. The challenges of succeeding with an LCLH model offers a contemporary encapsulation of the tenets of Teece et al.’s agility-efficiency trade-off, thus acting as fertile grounds for practical exploration thereof (Teece et al 2016, p.19). Further, the nascent universe of both discourse and mainstream analysis of the LCLH model has been resource-focused; this means that the contribution of the also-somewhat-nascent theory related to DCs thereto has yet to be represented in academic literature. The case of LCLH carriers’ ability to orchestrate efficiency-enabling resources in uncertain environments and the extent to which DCs may enable management of unknowns necessary levels of agility in a cost-effective manner is a live and worthwhile question (Teece et al 2016, 13). Specifically, whether LCLH carriers can cultivate DCs or engage in RO to extract greater benefit from their resources and capabilities than may immediately be perceptible and therefore compensate for a lack of ordinary capabilities is unclear. The extent to and duration over which the latter may compensate for the former will determine whether and for which firms the model can show long-term viability.

## 2.4 An Integrative Framework for Assessing and Developing Sustainable Competitive Advantage

Conducting a hybrid approach to analysis by leveraging the RBV, DCs, and RO frameworks affords a holistic and nuanced assessment of the key determinants of firm-level performance. The integrated focus is useful for making explicit trade-offs and complementarities along three fundamental dimensions that have been contested, underappreciated, or considered disparately in strategic management discourse to

date. This approach unites under the same analytical framework the dimensions of managing: external and internal competencies, risk and uncertainty, and differences in resource and capability complexity as they pertain to resource and capability assessment, development, and orchestration. The resulting integrative framework for assessing the key determinants of firm-level performance is offered in Figure 8.

While their elements are mutually-exclusive, the frameworks are also mutually-reinforcing and collectively exhaustive of the key determinants of firm-level performance differences over which managers can exercise influence. Thus, it serves to illustrate the trade-offs and parallel processes that underpin their decisions, and acts as a practical map for evaluating resource and capability management. Assessing a firm's DCs alongside the resources it controls yields a more nuanced strategic analysis, as the former also integrates the firm's *external* competencies. The concept of leveraging DCs to hedge uncertainty is an incisive and perhaps somewhat counterintuitive counterbalance to the RBV's focus on striving for the most efficient use of the best resources to hedge risk. The new economy's competitive landscape necessitates proactive and concurrent differentiation between and management of risk and uncertainty. Thus, an evaluation of firm-specific resources, ordinary capabilities, RO, and DCs is fundamental to holistically understanding its competitive position. Finally, this integrated approach enables an assessment in which resource gaps can be identified and narrowed through innovative RO and engaging DCs.

# Key Determinants of Firm-Level Performance: An Integrative Framework

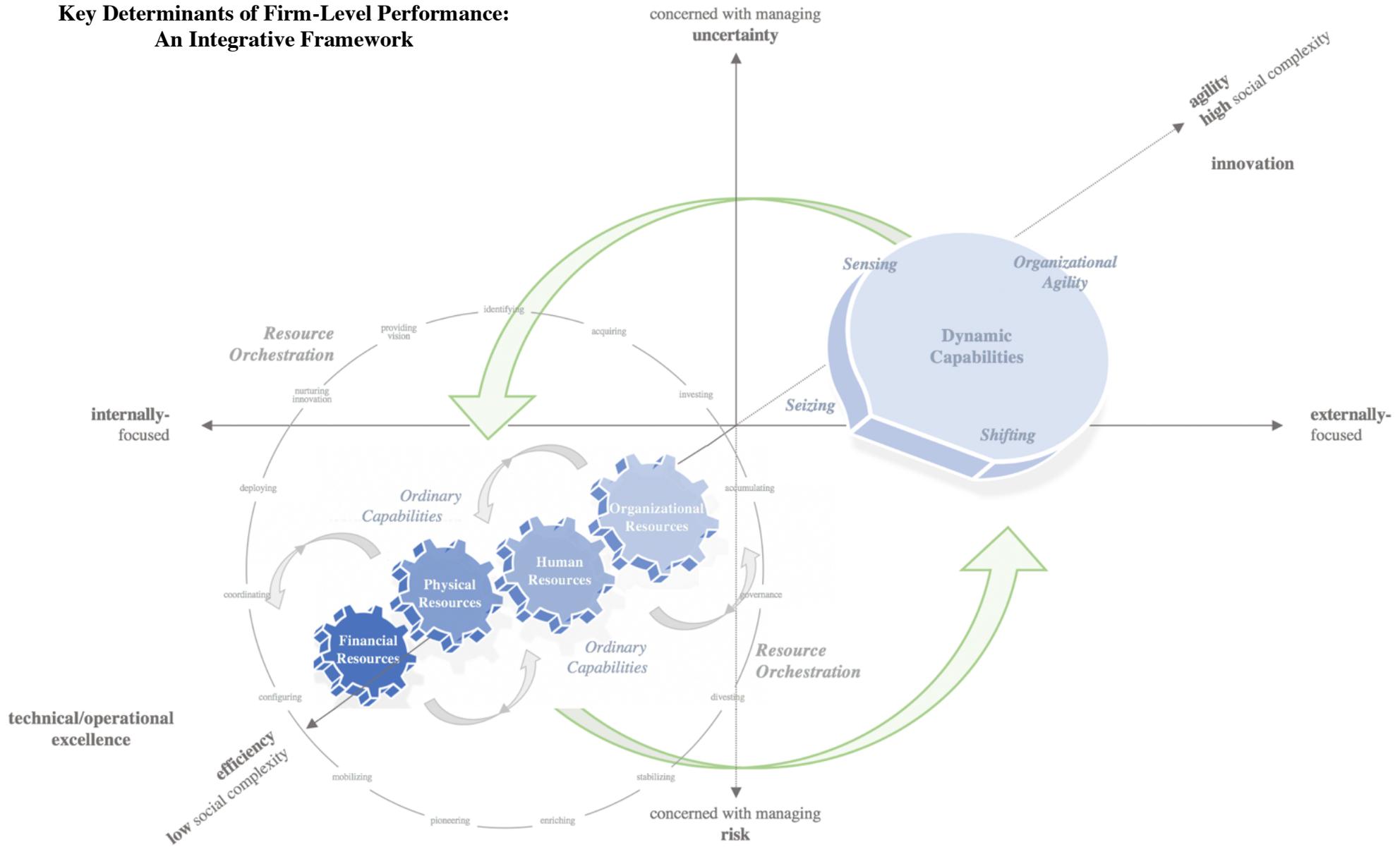


Figure 8: Key Determinants of Firm-Level Performance Integrative Framework, own creation

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### 3. Research Setting

*This chapter defines and details the research's relevant unit of analysis: Norwegian Air Shuttle ASA (Norwegian)'s Northern Transatlantic business segment (NTS) (Sage, 2019). A brief description of Norwegian, NTS, and the Northern Transatlantic (NT) market will be provided to give context for the analysis of NTS's resources and capabilities and the sustainability of their competitive implications. This section draws on information from the secondary data sources described in the Methodology Chapter to follow, and was informed by discussions with industry experts and investment analysts, and proprietary equity research on Norwegian.*

Norwegian Air Shuttle ASA (Norwegian) is arguably the most successful independent carrier operating a LCLH model on transatlantic routes to date. However, there is significant concern for its long-term viability. Having entered the transatlantic market in mid-2013, Norwegian's fleet is the youngest and most fuel-efficient of its competitors' by a wide margin. When coupled with the company's demonstrated service quality and innovation advantages, this may suffice to offset some of the challenges that history has shown to be insurmountable for other LCLH carriers operating transatlantic routes (Franke, 2007). Norwegian has taken substantial risk to act as a "strategic innovator" in the transatlantic market, and gained significant market share therein by "creating an entirely new market" for low-fare air travel between the US and Europe (Markides, 1997; Norwegian, 2017). However, mounting financial constraints threaten the company's survival; following its rapid expansion and the deterioration of its financial position alongside is concern for whether the company has achieved sufficient scale. Will the risk taken and financial position sacrificed to achieve transatlantic growth yield profitability? If so, will it be sustainable?

Central to this is founder and CEO Bjørn Kjos's leadership capabilities: whether he affords Norwegian superior DCs or his aggressive growth strategy leaves the company at a competitive disadvantage or unable to meet its financial obligations. Does the company have especially innovative or well-orchestrated resources and capabilities that enable it to accomplish what many comparable companies have failed to? If "doing the right things" is more important than "doing things right," transatlantic long-haul market entry may lead the company to unprecedented success despite the initial imperfectness of its resources to do so, especially its balance sheet and cash reserves. Thus, this research project will investigate the

extent to which Norwegian has the requisite resources and capabilities to cultivate a sustainable competitive advantage in the northern transatlantic market.

### 3.1 Norwegian's History and Transatlantic Expansion

Founded in 1993, Norwegian began operating as a European low-cost carrier (LCC) in 2002. From 2005 on, it was *relatively* profitable and expanded rapidly in the subsequent decade to become Europe's 3<sup>rd</sup>-largest LCC.<sup>3</sup> Since 2013, Norwegian has pursued an aggressive growth strategy by expanding its low-fare model to transatlantic routes to become the world's first LCC to operate both short-haul and transatlantic long-haul. The LCLH model is extremely difficult to execute; no independent LCLH carrier has grown as large or survived as long as NTS. Since 2017, Norwegian's financial position has deteriorated<sup>4</sup>, increasing ever-present uncertainty about whether NTS's growth will yield scale, profitability, acquisition, or financial collapse. Norwegian's development can be categorized into four overarching eras (Figure 9), and will be explained in further detail below. An overview of Norwegian's growth, profitability, and financial strength since inception are included in Figure 10. Below that, a chart of its share price performance since it was first publicly-listed is shown to provide a view of investor sentiment about the business developments over the same period (Figure 11).



**Figure 9:** Overview of Norwegian's Business Development Since Inception, *own creation*

<sup>3</sup>Today, it is one of the world's fastest growing airlines. By passenger numbers, Norwegian is the largest airline in both Norway and Scandinavia, the third-largest low-cost carrier in Europe (behind easyJet and Ryanair), the eighth-largest airline in Europe, and the ninth-largest LCC in the world. By transatlantic passenger capacity, it is tied for 9<sup>th</sup>-largest (ICCT, 2017).

<sup>4</sup>Norwegian has had a net 2.6 billion NOK loss since it entered the NT market. This compares to 1 billion NOK profits in its first ten years of operations.

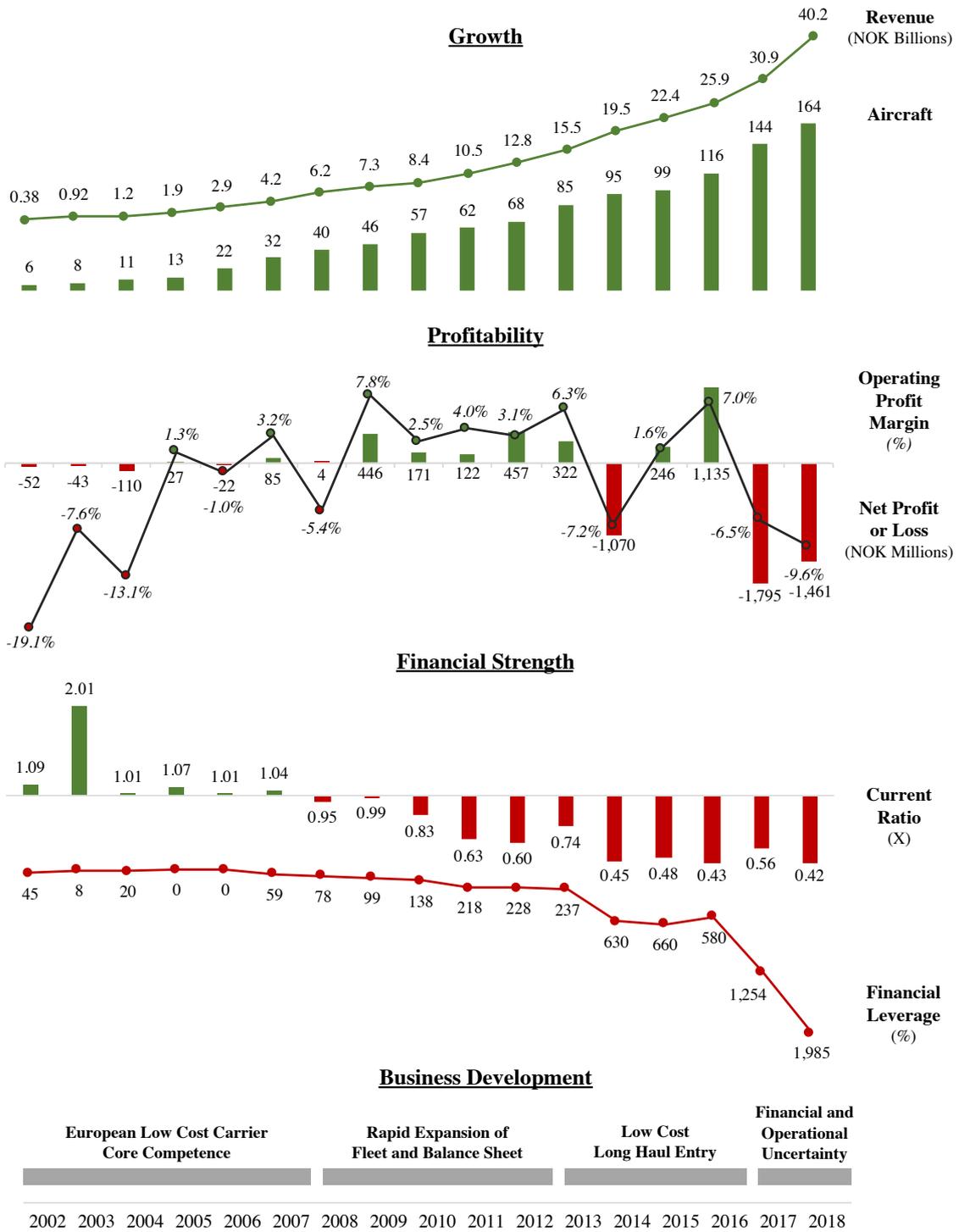


Figure 10: Norwegian Air Shuttle Growth, Profitability, and Financial Strength since Inception, own creation from Norwegian, February 2019, the company's annual reports and consolidated financial statements, and Bloomberg Professional Data Service



**Figure 11:** Norwegian Air Shuttle's Share Price Development 2003-Present, *Yahoo Finance*, 2019

### 3.1.1 1) 2002-2007: European Low-Cost Carrier Core Competence

Norwegian Air Shuttle ASA (Norwegian) was founded in 1993 and operated as a regional airline in cooperation with Braathens SAFE before the latter's purchase by SAS<sup>5</sup> in late 2001 (Flight International, 2007). As of 2002, Norwegian operated its own domestic scheduled services as a low-cost carrier with a fleet of Boeing 737-300s. Bjørn Kjos, born 1946, is Norwegian's co-founder, CEO, and largest shareholder. Norwegian became publicly-listed on the Oslo Stock Exchange in 2003. In 2004, it started a codeshare agreement with Swedish and Danish low-cost airlines FlyNordic and Sterling. 2005 was Norwegian's first profitable year of operations. The following year, it commenced its first trans-European flights with the establishment of its Polish subsidiary and base. This was followed by the establishment of a Swedish subsidiary and base and the purchase of 42 Boeing 737-800 aircraft in 2007. Norwegian's 2007 purchase of Swedish low-cost airline FlyNordic from Finnair PLC made it the largest low-cost airline in Scandinavia, a title it maintains at this writing (ATW News, 2007).

### 3.1.2 2) 2008-2012: Rapid Expansion of Fleet and Balance Sheet

2008 marked the delivery of Norwegian's first Boeing 737-800 Next Generation aircraft which reduced fuel consumption and emissions by more than 20% and increased passenger capacities by more than 25%. The company opened new bases in Denmark and Norway in

<sup>5</sup>Scandinavian Airlines System (SAS) is the flag carrier of Sweden, Norway, and Denmark

2008 as well. In October 2009, Norwegian announced intentions to offer transatlantic and transpacific flights, for which it took delivery of its first solely-owned Boeing 737-800. It added 30 more aircraft of this type to its fleet over the following two years. In 2010, Norwegian announced consideration of up to 15 more intercontinental destinations from Scandinavia, while in 2011, opened a new base in Finland, began flying to nine additional international destinations destinations, and was the first airline to offer free in-flight Wi-Fi on European routes (Kaspersen, 2010; Kaur, 2010). In January 2012, Norwegian announced the largest-ever agreement in European aviation history with its plans to add 122 more Boeing aircraft to its fleet (with options for 100 more), as well as 100 Airbus aircraft (with options for 50 more) (Ekroll, 2012). The order was worth 127 billion NOK at list prices, and Norwegian was able to obtain favorable prices given the order was made countercyclically to Europe's credit crisis (Reuters, 2012). Still, the financing was seen as very risky given the airline's then 2.3 billion NOK market capitalization (ibid). The development in Norwegian's fleet size and composition by version type from 2002 to 2012 inclusive is included in Figure 12 below.

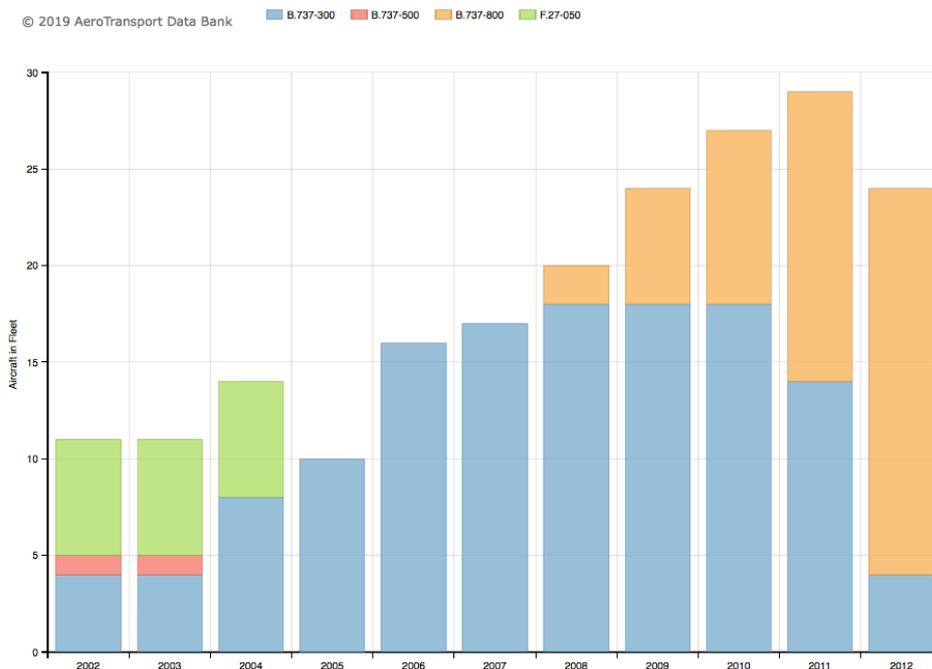


Figure 12: Norwegian's Fleet Size by Model, 2002-2012, *AeroTransport Data Bank, 2019*

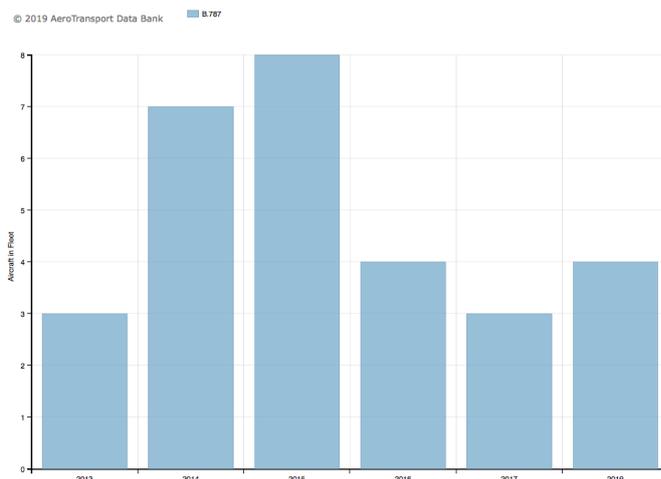
### 3.1.3 3) 2013-2016: Low-Cost Long-haul

In 2013, Norwegian continued to expand, within Europe and beyond. It launched new international routes in Spain, Portugal, France, Italy, and Croatia. In Spring 2013,

Norwegian launched its LCLH service on the new Dreamliner fleet from its new base at London's Gatwick airport. Norwegian's first transatlantic flight took place on May 30<sup>th</sup> 2013, operated between Oslo and a secondary airport called Stewart in New York. Norwegian's Northern Transatlantic (NT) business, defined for this thesis as two-way passenger routes between Europe and the US, is operated by three wholly-owned, fully-integrated subsidiaries: Norwegian Air International, Norwegian Long-Haul, and Norwegian Air UK. Norwegian does not report disaggregated financial information for its business segments, therefore these subsidiaries (hereafter jointly referred to as NTS) will be considered to comprise its NT business segment. Each subsidiary holds a unique Air Operator's Certificate (AOC), but shares branding and commercial functions with the parent. Refer to Figure 13 for a description of the subsidiaries comprising NTS and to Figures 14a-c for the development of NTS's fleet. The aircraft of these three subsidiaries represent more than 60% of Norwegian's total fleet.

Subsidiary Name	Country of Registration (Headquarters)	Established	Commenced Transatlantic	Countries Serviced	Operating Bases		Fleet Size
					EUR	US	
Norwegian Air International (NAI)	Ireland (Dublin)	February 2014	June 2017	<b>Europe, US</b>	11	2	66
Norwegian Long Haul AS (NLH)	Ireland (Norway)	January 2012	May 2013	<b>Europe, US, Asia</b>	6	3	21
Norwegian Air UK (NAU)	United Kingdom (London)	November 2015	March 2018 (took over LH from NAS)	Argentina, Brazil, Singapore, <b>US</b>	1: London Gatwick	0	13

**Figure 13:** Subsidiaries Comprising Norwegian Air Shuttle ASA's Transatlantic Business Segment, *own creation, fleet data from AeroTransport data bank, 2019*



**Figure 14a:** Norwegian Long-Haul Fleet Size by Model, 2012-2019, *AeroTransport Data Bank, 2019*

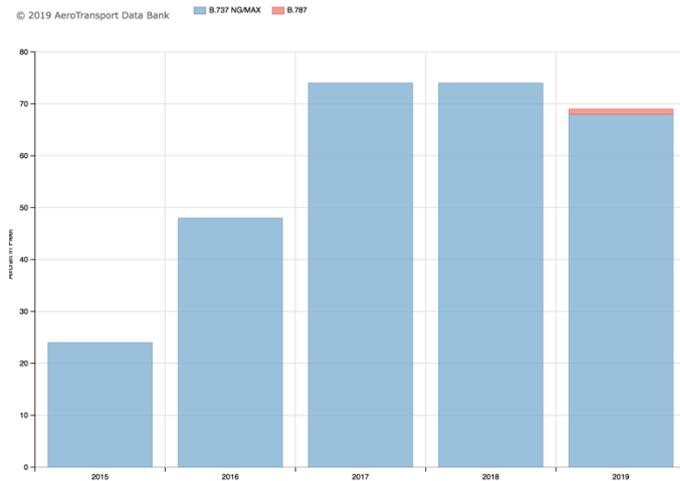


Figure 14b: Norwegian Air International Fleet Size by Model, 2015-2019, *AeroTransport Data Bank, 2019*

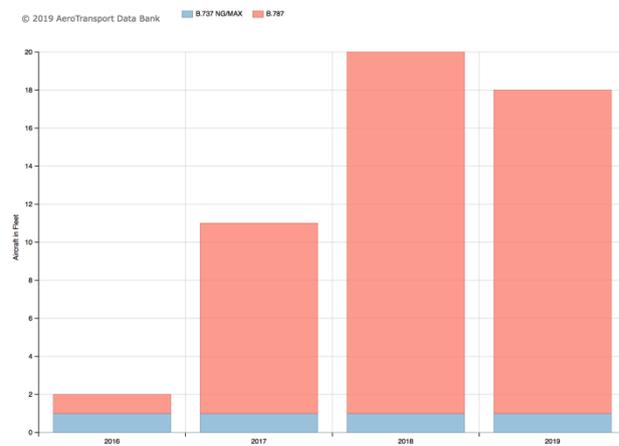


Figure 14c: Norwegian Air UK Fleet Size by Model, 2016-2019, *AeroTransport Data Bank, 2019*

Figure 14: NAI, NLH, and NAU's (NTS's) Fleet Size by Model, 2013-2019

Norwegian was also awarded “Best European Low-Cost Carrier” by the Skytrax World Airline Awards in 2013, the first of many awards which are summarized in Figure 15.

Award Title	Granting Organization	Number of Years Awarded
Best Low-Cost Airline in Europe	Skytrax World Airline Awards	6: 2013, 2014, 2015, 2016, 2017, 2018
Europe's Best Low-Cost Airline	Airline Ratings	2: 2014, 2015
Best in Europe, Best Inflight Connectivity and Communications	Apex Passenger Choice Awards	1: 2014 2: 2013, 2014
Best Low-Cost Airline in the World	Air Transport News Awards	1: 2014
Most Fuel-Efficient Airline on Transatlantic Routes	The International Council on Clean Transportation	2: 2015, 2018
World's Best Low-Cost Long Haul Airline	Skytrax World Airline Awards	4: 2015, 2016, 2017, 2018

Figure 15: Norwegian's Awards, 2013-Present, *own creation*

In 2015, Norwegian further expanded its transatlantic business. It launched four more routes, established a crew base at London's Gatwick airport, and signed an agreement to acquire 30 more Dreamliners. The following year, in 2016, Norwegian introduced a route between

Paris's Charles de Gaulle Airport and the US, added three more Dreamliners, and established a base in Rome, Italy.

### **3.1.4 4) 2017-Present: Financial and Operational Uncertainty**

#### **2017-2018: Peak Growth and Peak Financial Stress**

“Although it was burdened by higher fuel costs and cost related to Rolls Royce engine problems on its 787s (now resolved), [Norwegian's] track record points to more fundamental flaws in its model, particularly as its losses have coincided with a period of strong margins in the global industry. Its rapid expansion along with its new market entries has spread its management focus, weighed on its margins, and burdened it with ever-growing debt and worryingly low cash levels.” (CAPA, 2019).

NTS continued to expand through 2017 and 2018, and discussions of growth absent of concerns for profitability characterized Norwegian's fiscal 2016 and 2017 annual reports accordingly. While NTS's market share reached ever higher, its parent company saw the sharpest declines and worst performance in key financial metrics in its 17 year history; see Figure 16. The magnitude and severity of the losses and deterioration of financial position, given the aggressiveness of the strategy and estimates that Norwegian was running loss-leading flights indicate that the LCLH expansion and market share gains were a direct trade-off for the parent company's financial stability. Then again, the economist quotes “loss-making European holiday routes” catalyzed Norwegian's expansion to South America (Economist, 2019). The researcher was unable to gain access to the contribution of the short-haul versus long-haul segments of the business as they are not publicly-disclosed.

To finance its aggressive growth, Norwegian sold some of its holding in Bank Norwegian in June and December 2017, and engaged in the sale and leaseback of its owned aircraft (Fehrm, 2018). In spring 2017, it announced a second long-haul destination in Asia by flying between Singapore's Changi airport and Gatwick; these flights stopped this January. In June, Norwegian received its first Boeing 737 MAX and on its tailfin featured the founder of Laker Airways, a British independent carrier that credited with being the pioneer of LCLH across the Atlantic, having gone bankrupt in 1982. Norwegian is Europe's largest operator of the Boeing 737 MAX.

In May 2018, Norwegian rejected a purchase bid from International Airlines Group (IAG), parent company of British Airways, Iberia, and Aer Lingus with four times Norwegian's market share on NT routes (see Figures 19 and 20), on the basis that IAG “undervalued [Norwegian] and its prospects” (Norwegian, 2019) Later in 2018, Norwegian started to

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indicate its strategic shift from growth to profitability, likely prompted by capacity growth far outpacing demand indicating that no further capacity was needed, the aggravation of its operating losses from problems with the Trent 1000 Rolls Royce engines on its Boeing 787 Dreamliner planes, flight disruptions at Gatwick airport, the stranding of an aircraft in Iran, and its losses on fuel price hedging. In the last quarter of 2018, the situation became quite critical, with Norwegian newspaper Dagens Næringsliv reporting in late December that Norwegian was likely to face full financial collapse within a matter of days. Danske Bank analyst Martin Stenshall believed that the company's heavy debt owing to large aircraft acquisitions stretched the company's finances to the extent that it would violate its loan covenants by the new year, leading to bankruptcy (Simple Flying, 2018). As shown in its recently-released full-year results, Norwegian had a loss of 1.5 billion NOK for 2018 (Norwegian, 2019).

### **Year to Date: Restructuring, Rights Issue, Boeing Crisis**

In December, the media was saying that Norwegian had days to survive, in January Norwegian announced that it was restructuring and selling planes, in February it had an emergency rights issue. In March, Norwegian released fiscal 2018 results showing losses, suffered from the MAX 8 groundings, and its most comparable competitor and the only other independent LCLH in the NT market failed.

In its fiscal 2018 shareholder communication, Norwegian has indicated that it is curbing growth in the hopes of working towards profitability, as evidenced by the airline's announcement of restructuring measures in January. Measures have so far involved closing several crew bases and a possible revision of its aircraft order books including the cancellation of its entire Airbus A320neo order. Investors and the general public had increasingly thought that the company was overstretched, as evidenced by the more than 60% decline in Norwegian's share price since last year (Irish Times, 2019). February's emergency rights issue confirmed this. It was worth more than half of Norwegian's market capitalization (ibid). Many investors remain hopeful for a takeover, and there still may be one. In March, Norwegian was required to ground its 18 Boeing 737 MAX 8 aircraft following two fatal crashes with the same aircraft type in the past six months, further eroding progress towards becoming profitable in 2019. The planes are expected to remain grounded throughout the summer, Norwegian's most profitable season. While the groundings impact all carriers that operate the Boeing 737 MAX, Norwegian is disproportionately impacted by

the crisis given the significant proportion the MAX 8s account for in its fleet and its already fragile financial position. Norwegian's financial position as of the most recent quarter will be discussed in greater detail in the Financial Resources section of the Findings and Analysis Chapter.

Norwegian has followed a risky strategy<sup>6</sup> which left little margin of safety for the myriad of challenges that inevitably impact the industry at large, and its financial strategy has made it even more vulnerable, but it has also been the subject of an inordinate amount of bad luck.

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<sup>6</sup>On a periphery note, the LCLH model requires even higher utilization than short-haul LCCs, which is a strategy *itself* "fraught with risk" according to air transport consultant John Strickland, "If you constantly schedule minimum turnarounds, you risk delays. And, if you don't fulfil your schedule, there's a loss of reputation and credibility in the industry and with disgruntled passengers." This compounds the challenges of low-single digit (if even positive) margins and lower relative breakeven seat factors.

Fiscal Year Ended Dec. 31 <sup>st</sup>	Expansion			Growth (NOK 1,000)				Profitability (%)		Financial Stability (x)							
	NT Market Share (%)	Fleet Size Number of Aircraft Δ		Revenue Δ	%. Δ	Net Income Net Profit/-Loss	Cash Flow from Operations EBIT + Dep'n. & Am'n.	Operating Profit Margin EBIT to Net Income	Return on Assets Net Income to Total Assets	Earnings Coverage of Interest EBIT to Interest Expense	Cash Flow Coverage of Interest EBIT + Dep'n. & Am'n. to Interest Expense	(%)*					
		Financial Leverage Total Debt to Total Equity	Debt to Capitalization Total Debt to Total Capital									Current Ratio Current Assets to Current Liabilities					
First year of independence	Pre-Entry	European LCC Core Competence	2002	6		386 483		-51 860	-67 981	-19,09	-39,78	-71,36	-65,75	45	31	1,09	
			2003	8	33	922 424	139	-42 746	-60 010	-7,60	-11,47	-89,65	-76,74	8	7	2,01	
First profitable year	Pre-Entry	European LCC Core Competence	2004	11	38	1 210 100	31	-109 842	-139 557	-13,10	-22,40	-188,09	-165,55	0	0	1,01	
			2005	13	18	1 972 247	63	26 751	55 079	1,26	4,73	38,34	85,00	0	0	1,07	
			2006	22	69	2 941 400	49	-21 997	20 560	-1,04	-2,53	-50,10	33,76	0	0	1,01	
			2007	32	45	4 226 202	44	84 580	207 995	3,17	4,99	7,00	10,87	59	37	1,04	
Global Financial Crisis	Pre-Entry	European and Fleet Expansion	2008	40	25	6 226 413	47	3 944	-208 243	-5,43	0,14	-34,20	-21,08	78	44	0,95	
			2009	46	15	7 309 189	17	446 251	720 748	7,82	10,88	27,32	34,43	99	50	0,99	
			2010	57	24	8 406 339	15	170 884	396 876	2,50	2,94	5,23	9,88	138	58	0,83	
			2011	62	9	10 528 720	25	122 125	709 884	3,95	1,56	5,92	10,11	218	69	0,63	
			2012	68	10	12 841 191	22	456 646	788 696	3,14	4,37	3,39	6,64	228	70	0,60	
Entered LCLH end of May Oil Price Collapse	Post-Entry	LCLH Market Entry and Expansion	2013	85	25	15 511 218	21	321 564	1 499 483	6,25	2,41	3,78	5,84	237	70	0,74	
			2014	1	95	12	19 540 039	26	-1 069 763	-662 400	-7,22	-5,71	-3,15	-1,48	630	86	0,45
Legacy Carriers Introduced LC-LH?	Post-Entry	LCLH Market Entry and Expansion	2015	99	4	22 483 544	15	246 152	1 481 062	1,55	0,91	0,75	3,20	660	87	0,48	
			2016	116	17	25 950 554	15	1 135 263	3 116 211	7,01	3,27	2,65	4,54	580	85	0,43	
IAG launches LEVEL	Post-Entry	Financial & Operational Uncertainty	2017	4	144	24	30 948 263	19	-1 794 551	-597 037	-6,47	-4,42	-2,09	-0,62	1 254	93	0,56
			2018	7	164	14	40 265 600	30	-1 461 100	-2 183 000	-9,56	-2,94	-3,32	-1,88	1 985	95	0,42
Pre-Entry (2002-2012):			27			42,0		nmf	nmf	0,25	0,52	-20,58	-12,58	79	33	1,02	
Pre-Entry ex . 2002-2004:			27			-23,5		50,0	46,3	1,92	3,38	0,36	21,20	103	41	0,89	
Post-Entry (2013-2018):			14			21,0		-235,4	-207,8	-1,41	-1,08	-0,23	1,60	891	86	0,51	
			Compound Annual Growth Rate (%)		Compound Annual Growth Rate (%)				Average (%)		Average (X)		Average (%)		Average (X)		

Figure 16: Norwegian Air Shuttle Expansion, Growth, Profitability, and Financial Stability Since Inception, own creation from Norwegian's annual reports and investor presentations, Bloomberg Professional Services licensed by the Norwegian School of Economics, market share from ICCT reports 2014 & 2017

Alongside its modern fleet and geographic expansion and many accolades, Norwegian’s revenue and market share growth have been striking and unprecedented. However, not only has the company’s profitability failed to improve commensurately, but it has deteriorated over the most recent two fiscal years to reach the worst loss in the company’s history in fiscal 2018, alongside an exponential rise in financial gearing over the same period. The latter has further increased Norwegian’s risk profile as it pursues an aggressive growth strategy in possibly the most competitive corridor of an industry already particularly vulnerable to exogeneous events (Kremer, 2008). Figure 18 depicts the trends in Norwegian’s revenue and profitability for each fiscal year since it began independent operations as a low-cost carrier in 2002.

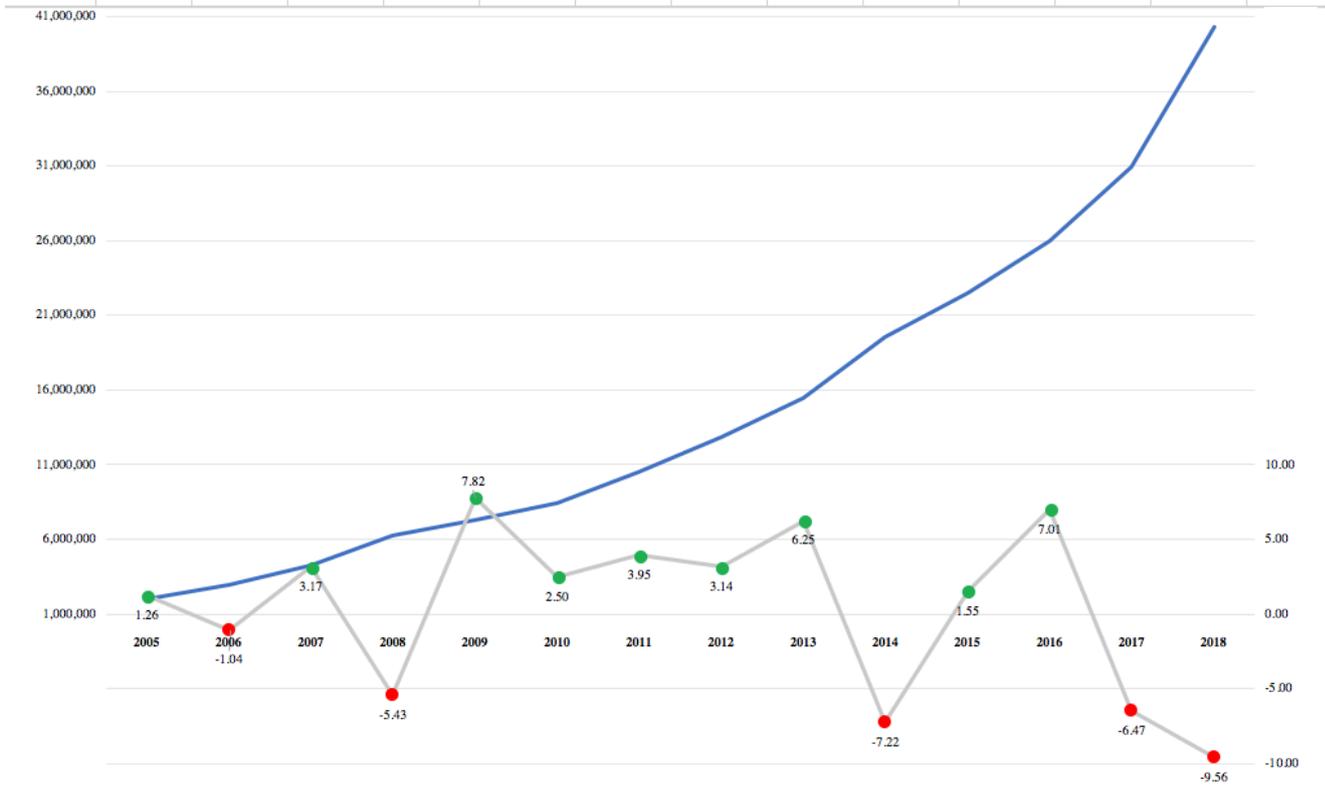


Figure 17: Norwegian’s Revenue (NOK, left axis) and Operating Profit Margin (% , right axis), Fiscal 2005-2018, own creation from Bloomberg data

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## 3.2 The Northern Transatlantic Commercial Air Transportation Market

### 3.2.1 Justification for Focus on Northern Transatlantic

The NT market is defined for the purpose of this thesis as non-stop commercial passenger flights between Europe and the US. These geographies cover the most significant portion of the global air transportation passenger market. By connecting the 2<sup>nd</sup> and 3<sup>rd</sup> largest individual air travel markets measured by passenger kilometers (SAS, 2019), they collectively represent over 60% of world traffic (EU Press Release, 2008). The transatlantic market is growing quickly and encompasses some of the most competitive routes worldwide, including the hugely trafficked London-New York corridor. The NT is the busiest oceanic airspace and international air transport market in the world (AOPA, 2019). Moreover, current technology is such that it is impractical for resource-constrained consumers to cross the Atlantic other than by flying. These factors combine to make the NT market the most impact-yielding point of inquiry.

Further, the International Council on Clean Transportation (ICCT)'s incisive and in-depth analysis of the fuel efficiency of the 20 carriers with the greatest capacity on such routes analyzes those between Europe and the US, as the US is the only market that requires domestic and international carriers report quarterly fuel burn and operations by aircraft type and market and publishes such data (ICCT, 2018, p.2).<sup>7</sup> The ICCT's findings are an especially relevant component of this thesis, as NTS's fuel-efficient fleet is a crucial resource and new generation aircraft have been cited as the main driver of NT LCLH resurgence (De Poret et al, 2015). Focusing on the Europe-US portion of the NT market specifically enables use of the ICCT's work. The latter has followed a rigorous methodology and been subjected to quality assurance and control procedures, thereby adding credibility to any conclusions drawn therefrom. Beyond this, the ICCT's analysis aggregates and curates data such as available seat kilometres (ASK), passenger load factor (load factor), and seating configuration that would be prohibitively resource-intensive for the researcher to collect. The

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<sup>7</sup>Other means of carbon calculation are available; however, they do not provide carrier or flight-specific comparisons and function to analyze carbon offsetting as opposed to fuel-efficiency (ICCT, 2018, p.2). Several internet-mediated carbon calculators exist, including from the International Civil Aviation Organization (ICAO), ClimateCare, and individual airlines themselves, and can be used to estimate fuel consumed and carbon dioxide emissions over origin-destination pairs for passengers and air freight (ICCT, 2018, p.2)

ICCT report also makes use of Airline Data's processed U.S. Department of Transportation's Bureau of Transportation Statistics data, Piano 5's aircraft performance and design software to model aircraft fuel burn, and FlightGlobal's Ascend Fleet data to which the researcher would not otherwise have access. This thesis is focused on NTS's internal capabilities; the ICCT's reports are a valuable resource for directly informing, as well as situating and contextualizing such an analysis.

### **3.2.2 Key Players in the Northern Transatlantic Passenger Market**

The top 20 largest airlines<sup>8</sup> by ASK capacity on non-stop flights between the US and Europe, as defined by ICAO, are included in Figures 19 and 20 below (ICCC, 2018). These 20 airlines are considered to span and represent the entire relevant market universe, as individual carriers' shares are as small as 1% of ASKs even within this selection. Almost 80% of the market is controlled by six legacy carriers, divided evenly between the US and Europe (these are shown in darker blue hues on Figure 19). The remaining ASKs are controlled by flag and other carriers with an average market share of 2.6% each, while NTS has 4%, and is the only carrier operating a pureplay "low-cost long-haul" business model<sup>9</sup>, and one of two independent<sup>10</sup> carriers in the top 20. NTS is the largest non-US carrier on Europe-New York routes after overtaking British Airways' passenger volumes in the 12 months to the end of July 2018 (Simple Flying, October 2018). IAG launched its own LCC, LEVEL, last November, to compete with NTS. LEVEL is structurally equivalent to NTS, but benefits from IAG's financial resources. LEVEL plans to triple its fleet over the next five years (ibid). Overall, joint-venture alliances,<sup>11</sup> that is those airlines with membership to Star Alliance, SkyTeam, and Oneworld, account for up to 96% of the sample's capacity as shown in Figure 20. As scale is a crucial component of ensuring operational sustainability and negotiating slot access, capacity size is a suitable proxy for competitive strength in the NT

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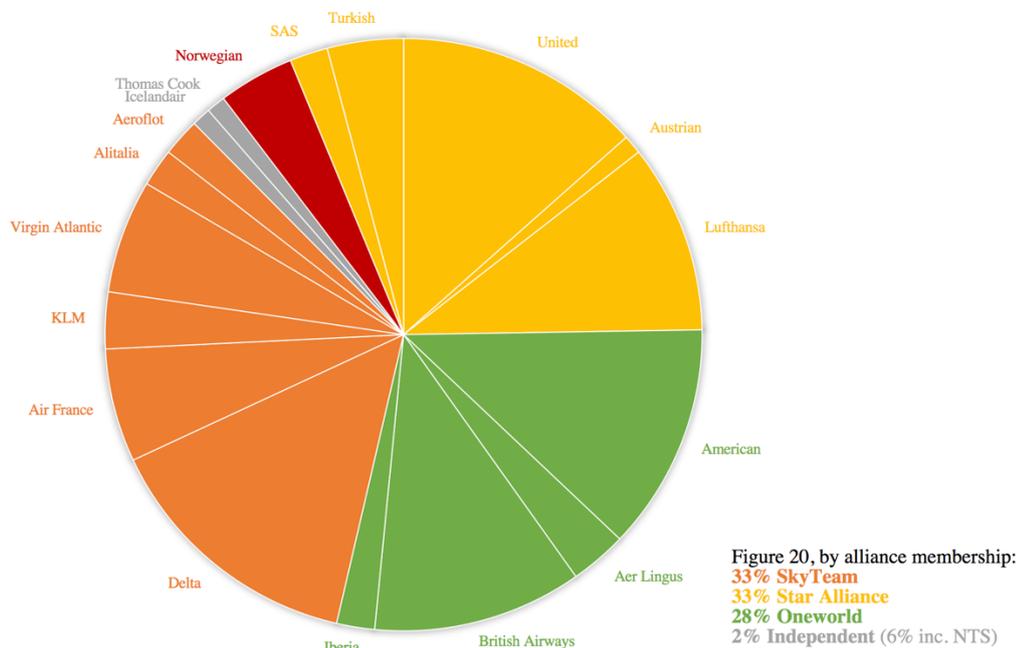
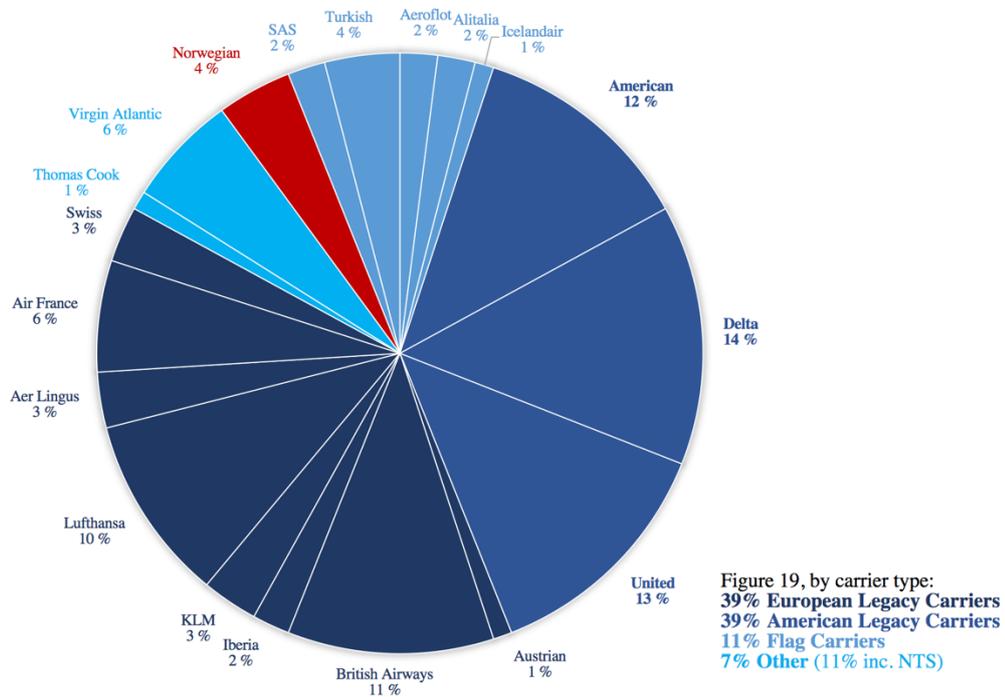
<sup>8</sup>There are 19 airlines included as of this writing, because WOW Air ceased operations in March

<sup>9</sup>Wow and Primera would have been direct competitors w this BM in the NT market but both have gone bankrupt in the last six months (October 2018 and March 2019 respectively)

<sup>10</sup>Independent in this instance refers to a lack of alliance membership (Star Alliance, Skyteam, Oneworld). Virgin Atlantic is sometimes viewed as independent, however its 33% ownership by Air France and KLM afford it Skyteam privileges and I have therefore not considered it as being fully independent.

<sup>11</sup>Immunised joint ventures allow airlines to essentially act as one in a market by, inter alia, coordinating fares and schedules and jointly marketing and selling flights, while sharing revenue and costs regardless of which airline operates a given route.

market. Further, the airlines included below have experienced similar passenger load factors<sup>12</sup>, or levels of utilization of available seat capacity, meaning that similar proportions of their capacities are converted to actual traffic (ICCT, 2018).



Figures 19 and 20: Northern Transatlantic Market Share by Passenger Capacity (ASKs) by Carrier Types and Alliance Membership, own creation from ICCT, 2018).

<sup>12</sup>Passenger load factors averaged 81%, with a range of 75-88% (BTS T-100 International Segment data qtd. in ICCT 2018, p.5)

As the world’s largest LCLH operator and the NT’s largest player that isn’t a legacy carrier or a joint venture partner thereof, NTS acts as a maverick in the NT market by pursuing aggressive growth with a P2P strategy and a newer, more cost-efficient fleet than its rivals (Markides, 1997). NTS’s LCLH P2P strategy involves offering low fares for its flights between smaller cities not serviced by its competitors engaging a hub-and-spoke model due to concerns of demand scarcity. This affords NTS greater flexibility in its route network and enables it to “create new markets;” Norwegian is pursuing what might be considered a blue ocean strategy.<sup>13</sup> Norwegian’s rapid capacity growth has made it one of the top six carriers by capacity on transatlantic routes as of this writing, as shown in Figure 21 (Telegraph, 2018).

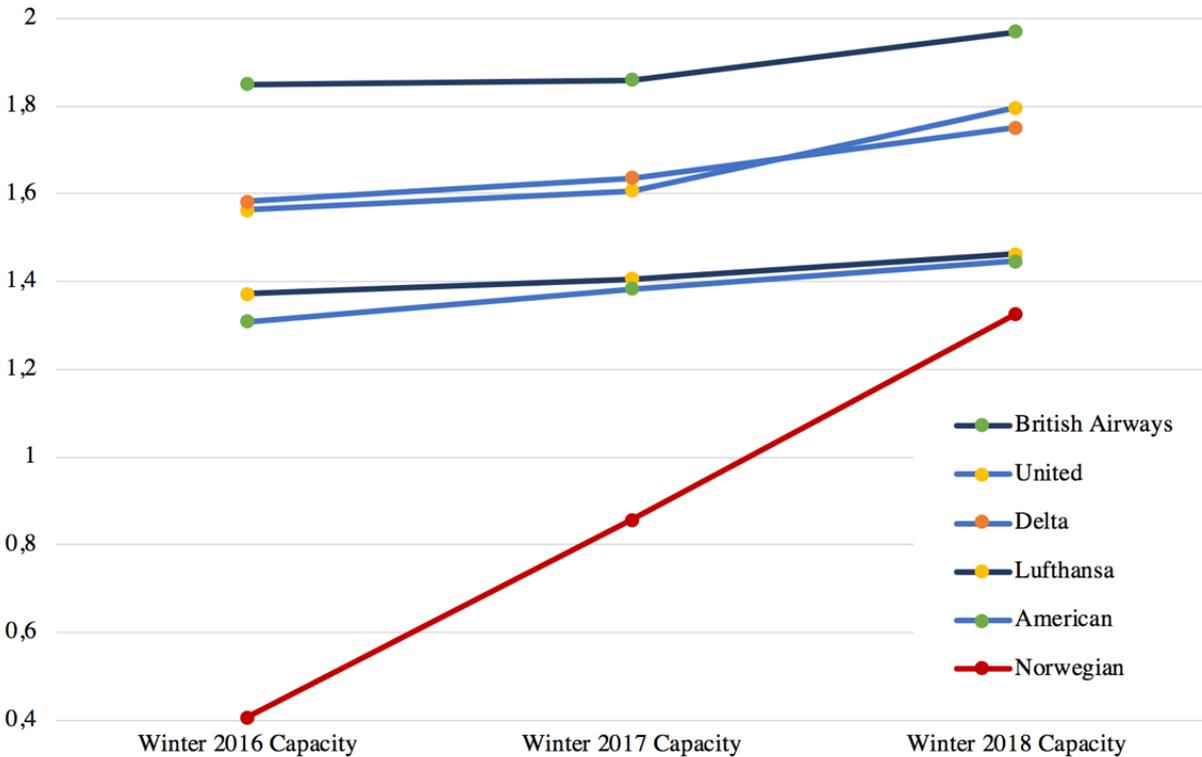


Figure 21: Growth of the Top 6 Carriers on Transatlantic Routes by Capacity (shown in millions) 2016-2018, own creation from Telegraph 2018 data

<sup>13</sup>A blue ocean strategy is the simultaneous pursuit of differentiation and low-cost to open up a new market space and create new demand. It is about creating and capturing uncontested market space, thereby making the competition irrelevant (Kim & Mauborgne, 2014).

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### 3.2.3 Low-Cost Long-Haul in the Northern Transatlantic Market

While LCC competition is common in both of the NT's domestic markets, the transferability of the low-cost model to the recently-liberalized transatlantic market remains unproven (Soyk et al, 2017). Most importantly, the model is exceptionally financially risky as breaking even is contingent on cost-efficient execution of multiple complex tasks in what is already a thin-margin and unforgiving industry marred with bankruptcies across greater stage lengths. Of the many carriers to pursue LCLH in the NT, none have survived as long as Norwegian operating independently with a pure model (Telegraph, 2018). Most failed in recessions, which Norwegian has yet to face as an LCLH carrier. Within the last six months alone, Primera and WOW Air have gone bankrupt. Southwest and Ryanair<sup>14</sup> demonstrated the ability of the low-cost model to disrupt legacy carriers and yield profitability as they were able to achieve scale, agility, and efficiency simultaneously: the complexity and discipline required for accomplishing this should not be underestimated. NT incumbents have launched LCLH daughter companies in the early 2000s and within the last year and a half; these attempts to profitably compete in the low-fare NT market have been unsuccessful on balance. Each of the three American legacy carriers shown to dominate the north transatlantic passenger market in Figures 19 and 20 have filed for bankruptcy as a result of low-fare competition before, but recovered by merging with other airlines.

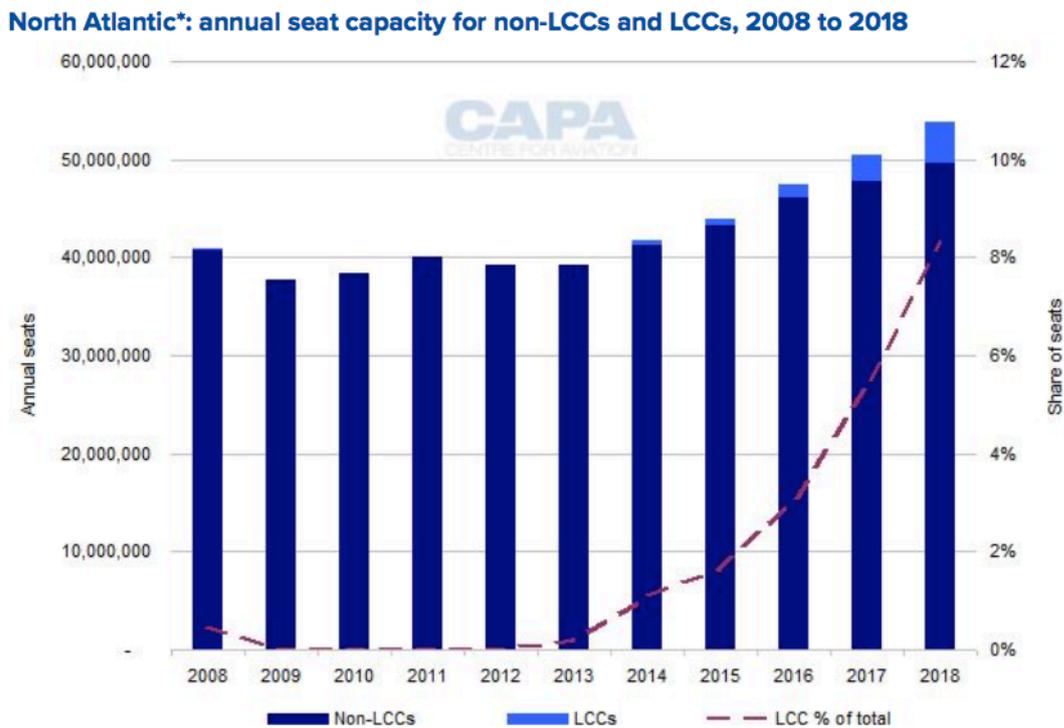
Further, the cost, price, and quality differentials between legacy carriers and their low-cost challengers are increasingly narrow (Hodge et al, 2017). The unbundling of services has now penetrated the industry, irrespective of airline business model. Low-cost operating efficiency best practices have largely been disseminated, although the advantages of secondary airport use and some benefits of the P2P model remain. Some structural differences in quality persist and the longevity of alliance-based airline loyalty programs may have locked-in consumers, and especially lucrative business travelers.

WOW and NTS are the most significant and recent examples of the expansion of LCLH services in the NT market, with year-over-year percentage growth on transatlantic services of 51% and 77% last year (ANNA, 2018). LCLH share, now contributed by Norwegian alone in the NT market, has grown from “0.2% in 2013 to 8% by summer 2018, higher than

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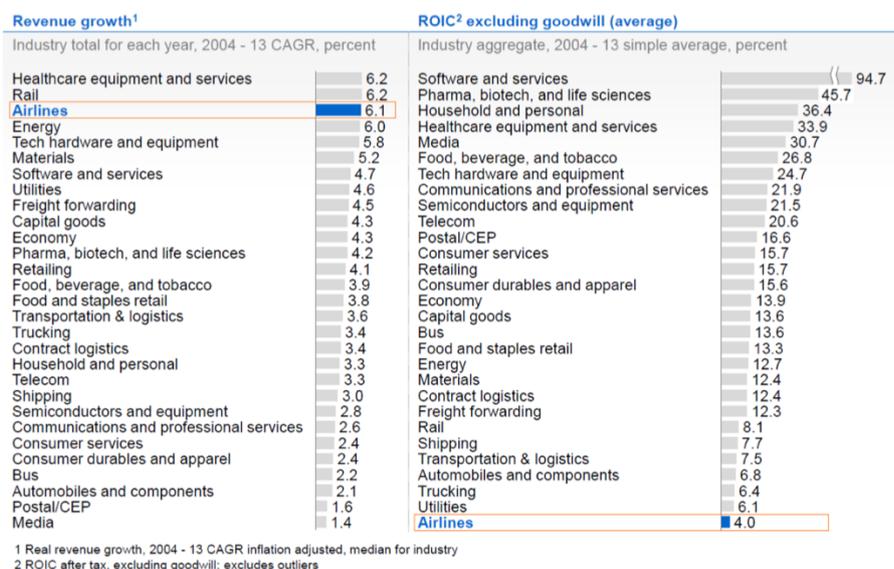
<sup>14</sup>Within Europe, carriers such as Ryanair, easyJet, and Wizz have up to ten times the profit margin of legacy competitors such as British Airways, Lufthansa, and Air France (Franke, 2007, p.24).

in any long-haul market from Europe” having gained share of passenger seat capacity from immunized JVs by exploiting the EU-US market liberalization and new generation aircraft (refer to Figure 22) (CAPA, 2018). The number of LCLH seats between Europe and North America increased nine-fold since the first full year following NTS’s entry, and LCLH carriers grew NT seat capacity by almost 60% in 2018 compared to non-LCLH growth of less than 4% and total market growth of 6.6% (CAPA, 2018). As IAG did with LEVEL, US LCCs are responding to NTS’s disruption. World Airways and JetBlue are expected to launch low-cost transatlantic flights this year.



**Figure 22:** North Atlantic Annual Seat Capacity by Carrier Type, 2008-2018, CAPA, 2018

### 3.2.4 Northern Transatlantic Market Characteristics



Source: McKinsey presentation to IATA

IATA Economics [www.iata.org/economics](http://www.iata.org/economics)

Figure 23: Airline Industry Revenue Growth and Return on Invested Capital, 2004-2013, *IATA Economics, 2018*

Industrywide, airlines face the challenges of high capital requirements and fixed costs, extreme seasonality,<sup>15</sup> reliance on business customers,<sup>16</sup> especial vulnerability to fuel price volatility and exogenous events impacting operations and demand. Airline operations themselves are highly complex, with high costs of failure. Moreover, unprofitable airlines, flag carriers<sup>17</sup> especially, often continue to operate because they provide vital services and are symbols of national pride. This results in perennial fragmentation, irrational competition, and overcapacity. Thus, even the most successful and profitable airlines are adversely affected by a lack of pricing power; it is hard to compete with rivals supported by governments that will let them lose money indefinitely.

<sup>15</sup>Most airlines subsidize a whole year of losses with summer sales, and some airlines operate in the summer only for this reason. Major airlines have been shown not to make money on economy transatlantic fares in the off-season.

<sup>16</sup>It is not uncommon for less than half of a flight's business customers to contribute to more than 80% of the flight's revenue or profits. On average, two thirds of airlines' revenue comes from passengers in first, business and premium economy classes which represent a minority of overall passengers.

<sup>17</sup>A flag carrier is a transportation company, such as an airline or shipping company, that, being locally registered in a given sovereign state, enjoys preferential rights or privileges accorded by the government for international operations. Flag airlines are international airlines that are subsidized or owned by the country in which they are registered.

These hypercompetitive dynamics make airlines one of the world's least profitable and most capital-intensive group of companies (IATA, 2018) despite high revenue growth, as illustrated in Figure 23. The global airline industry had an estimated \$31.7 billion cumulative losses between 2001 and 2010 (IATA, 2011), has never earned a real rate of return on its capital employed (The Economist, 2003), and has “destroyed shareholder value like few other industries” (Heracleous & Wirtz, 2014, p.151). The airline industry “remains subject to profound change, even after decades of growth and consolidation;” (Investopedia, 2019) as hundreds of airlines have failed over the years owing to financial constraints and inability to adapt to an “ever-changing business environment” (Simple Flying, 2018). Berkeley economist and commercial aviation expert Severin Borenstein believes that high taxes and fuel costs, often cited as main reasons for airline struggle, are secondary to fluctuations in demand, government policy and cost differentials between legacy airlines and LCCs. The chronic unprofitability and highly dynamic industry nature offers some explanation for why airlines and investors have traditionally focused on revenue and market share growth and given special weight to visionary leaders. The curious reality that being unprofitable or losing money is normalized, make the market dynamics extremely challenging for airline competitors, and very favourable for consumers.

Carriers operating in the NT face these industrywide challenges to a higher degree, as competitive rivalry is intensified due to the particular attributes identified in section 3.2.1. This rivalry was further escalated following the introduction of the US-EU Open Skies Agreement, which became effective in March 2008. The multilateral agreement liberalized the NT market by removing all restrictions on NT flights and represented the first time that European airlines could operate direct flights to the US from anywhere in Europe (EU Press Release Data, 2008; Kremer, 2008). While “eliminating government interference in the commercial decisions of air carriers” was a cornerstone of the Agreement, the NT market and airline industry more broadly remain irrational given the continued existence of flag carriers (OMT, 2015). International carriers have the added risks of geopolitical developments, exposure to currency risk, and incongruencies in countries' regulations and standards to contend with in their operations. The removal of market access barriers promoted competition and exerted further downward fare pressure to the industrywide challenges described above, again to the benefit of consumers.

These industry characteristics and market developments coincide with a “general preference in both public and private markets for growth over profitability,” unprecedented ease of access to capital, record-low interest rates, and history’s longest bull market - exceeding a decade in length as of this writing (S&P Dow Jones Indices, 2019). Against this background, firms must regulate their cash burn in pursuit of size and share even though “economic rent proxies such as firm size and market share are associated with lower mean reversion” of profitability in certain instances (Maury, 2018, p.100). Further, the fuel price is forecast to increase materially, the European market to consolidate, and  $\frac{3}{4}$  of economists predict a recession within the next two years (The Hill, 2019). These factors and the uncertainty present in the market environment at large combine to underwrite already risky strategic actions taken by many businesses, including notoriously risk-averse airline businesses.

As supported above, NTS is an opportune, interesting, and ongoing case to observe the strategic consideration of tensions of efficiency and agility, in pace with the exciting new frontiers of possibility afforded by advances in *physical* technology and in a dynamic environment. Firms’ capacity to orchestrate resources effectively and leverage dynamic capabilities informs their ability to exploit the full competitive potential of these technologies, as does their ability operate within normal business constraints through the use of ordinary capabilities.

## 4. Methodology

*This section describes the theory underpinning the ways in which research for this thesis was undertaken. The methodology section will explain the theoretical and philosophical assumptions upon which the research is based, as well as the implications of these for the research methods applied (Saunders et al, 2016). First, the framework for the collection and analysis of data to answer the research question and satisfy research objectives will be described in the Research Design subsection. This subsection will provide reasoned justification for the researcher's choice of data sources, collection methods, and analysis techniques. Next, the data collection and analysis procedures employed will be presented. The methodology section will conclude with a discussion of the quality of the research conducted and the study's ethical considerations.*

### 4.1 Research Design

The research design is defined as the overarching plan for answering the research questions (Saunders et al, 2016). This project is exploratory in nature, and a qualitative research design was used. The research is categorized as exploratory, as it was conducted with the objective of asking open questions and gaining insight into a current and thus yet to be researched phenomenon: Norwegian's transatlantic business developments as of the first quarter of 2019. An exploratory research design affords more flexibility than research conducted to satisfy a descriptive or explanatory purpose. Flexibility is especially important when conducting research pertaining to the airline industry, which is exceptionally complex and volatile. For example, the flexible research design allowed the researcher to include analysis of events that occurred as the project was underway, such as the Boeing 787 MAX groundings and the exit of Norwegian's most comparable competitor from the transatlantic market. The research was conducted through critically engaging with competitive strategy literature; learning from the expertise of airline industry analysts; and analysing Norwegian's own publications, with principal emphasis on the data contained in its annual reports, consolidated financial statements, and podcast series. Further, online news articles and industry reports counterbalance the company's self-publications and support the researcher building as accurate an understanding of Norwegian's history, resources, capabilities, and ambitions as possible so as to yield well-founded and contextualized findings. This thesis is a case study of the extent to which Norwegian has access to resources, ordinary capabilities,

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and dynamic capabilities that, when organized and orchestrated effectively, may yield favourable competitive implications. Case studies are “empirical inquiries that investigate contemporary phenomena in their real-life context” and thus ideally suited to pursuing the above stated research objective (Yin, 2009, p.18).

#### **4.1.1 Research Approach**

The study’s approach to theory development is chiefly deductive, but it also utilizes some inductive elements. Such an approach was selected on the basis that it provided researcher the ability to “develop a richer theoretical perspective than already exists in the literature” (Saunders et al, 2016, p.168). While there has been significant scholarly interest in such topics as DCs, the importance of innovation to aviation, and the economic sustainability of the LCLH business model, these concepts have yet to be considered together. Perhaps by virtue of the airline industry’s resource intensity being so striking and thus amply appreciated by research to date, recent analyses have surpassed resource-level analyses and highlighted, for example, the importance of continued business model innovation. The second-level type analysis that does exist however stops at ends-based discussions of innovation as opposed to engaging in more practical, means-based ones. This thesis argues resources and their orchestration are fundamental to an excellent assessment of a firm’s, and especially an airline firm’s, internal strengths and weaknesses. Thus, this thesis aims to apply theory to a novel context by analyzing a contemporary and unique business case using a newly-developed hybrid framework. The importance of understanding the context of the industry and the company is especially important here. The research design was accordingly chosen to allow for the collection of secondary data on an ongoing basis.

Elements of an abductive approach have been leveraged to compliment this thesis’s inductive theory development; inductive inferences have been developed and deductive inferences were tested iteratively throughout the research to develop richer theoretical understandings (Saunders et al, 2016). For example, quantitative secondary data was garnered to evaluate the subjective claims made by podcast interviewees. As well, recent strategy and innovation theory was used to focus the research and ensure that new findings could augment the most relevant prior insights (Tashakkori & Teddlie, 2010). The research setting was located deductively based on the case’s potential contributions to gaps in extant literature. The researcher inductively observed the data and “pattern-matched” to theory afterward.

“Finally, the findings from the data are later considered in relation to existing theories and frameworks from across current strategy literature. This pattern-matching adds established insights to the findings and greater validity to the research (Bourgeois & Eisenhardt, 1988; Yin, 1984). Research of this type typically starts with a ‘surprising fact’, and then builds theory to account for how this occurred (Saunders et al., 2016).” (Harlan, 2018, p.23)

The ‘surprising fact’ investigated in this thesis is Norwegian’s unprecedented success and survival in the low-cost transatlantic market as an independent carrier. Such a case is worth investigating as Norwegian’s continued survival may disprove prevalent critiques of the economic sustainability of the LCLH business model, and have implications for millions of consumers, not to mention the physical environment and transatlantic market more broadly.

### **4.1.2 Research Objective and Strategy**

The research strategy is the methodological link between the research philosophy and subsequent choice of data collection and analysis methods (Denzin & Lincoln, 2011). The selected research strategies include a single case study and archival and documentary research. The findings of this research are intended to aid practitioners, investors, and researchers with insights into how resources and capabilities can be combined, developed, and managed in relation to risk and uncertainty. The thesis is a qualitative study because it primarily uses and generates non-numerical data in the form of podcasts, media articles, and reports. Though the research makes use of numerical data such as financial disclosures and fuel efficiency metrics, these are sources of data and do not affect the design classification of the study as such.

Case study research is often used when there are indefinite boundaries between the case subject and its context, as is true for the company and the interplay of credit, politics, economics, operations, consumer demand, and international competition at present (Yin, 2014). This approach can be used to identify what is happening and why as well as potential the implications for action (Saunders et al, 2016). A holistic, single case study was used because Norwegian provides a unique lens through which to engage with the trade-off between agility and efficiency and other aspects of RO; it being the subject of substantial, and chiefly negative, media attention at present underlines the interest in and unconventional nature of its resource position. The importance of understanding context is heightened in a single case study because the conditions that enabled the unique phenomenon must be appreciated in order for the findings and analysis to have meaningful interpretations. In competitive strategy for example, unique historical conditions may preclude other firms from

enjoying comparable success from following the same strategies. Such historical conditions can be revealed and thus analyzed by ensuring a robust contextual understanding when conducting case study research. The strategies chosen allowed the researcher to capitalize on a wide range of available secondary data sources to build such a contextual understanding in a resource-efficient manner which facilitated findings being elaborated, enhanced, clarified, confirmed, illustrated, and linked. A significant amount of public information pertaining to Norwegian's operating history was collected to contextualize the study's investigation and findings. Using the above described strategies within a flexible research design ensured a robust understanding of the case context could be built and findings sought out and situated in relation to this (Saunders et al, 2016).

### **4.1.3 Data Collection**

Data has been collected from sources spanning different spheres, including academia, the company itself, the company's competitors, airline industry organizations, financial analysts, and mainstream media reports. "The use of multiple data sources strengthens the grounding of the insights discovered in the research" (Eisenhardt, 1989; Guba, 1981 qtd in Harlan, 2018, p.24). Although they may not be referenced in the research project, equity research reports and notes from five Norwegian investment management companies informed the direction of subsequent data collection and focus. All data collected in this research project can be classified as secondary in nature, because it was originally collected for other purposes. This data was "further analysed to provide additional or different knowledge, interpretations, and conclusions" in the thesis (Saunders et al, 2016, p.727).

Non-standardised data collection is particularly well-suited to the study of a business case whose development is ongoing as it allows for questions and procedures to emerge and evolve during a research process that is both naturalistic and interactive (Saunders et al, 2016). This research design uses both qualitative and quantitative data collection techniques and corresponding analytical procedures; it is thus classified as a mixed methods study. Within the mixed methods structure, qualitative and quantitative data sets were collected and compared to each other through a process called concurrent triangulation, which was implemented in multiple phases (Saunders et al, 2016, p.170-172). This yielded richer data than would be provided by a mono methods design and was shorter in timescale and more practical than would be a sequential mixed methods design. The multi-phase dimension

rendered dynamism and acknowledged the interactive and iterative characteristics of a mixed methods approach in which data collection and analysis phases inform subsequent ones.

### Secondary Data Sources

Relation to Norwegian	Secondary Data									
	Internal					External				
Type of Organization/Sphere	Company				Independent Non-Profit	Academia	Professional Data Service	Databases	Investment Professionals	News Media
Publishing Organization(s)	Norwegian				International Council on Clean Transportation	scholarly articles	Bloomberg	Reuters, AeroTransport Data Bank, ANNA, IATA, CAPA et cetera	unable to disclose	Financial Times, the Economist, Simple Flying, Reuters, et cetera
Secondary Data Source	Corporate Website	Annual Reports 2013-2017			Transatlantic Fuel Efficiency Rankings 2014 & 2017	free online access or access provided by	Bloomberg Terminal	free online access or access provided by Ivey Business School/the Norwegian School of Economics	equity research reports and notes	
Secondary Data Type	document; non-text	document; text	document; text	document	survey; continuous and regular, multiple source	document	multiple source; longitudinal			
Quantitative or Qualitative	Qualitative	Qualitative	Qualitative	Quantitative	Quantitative	Qualitative	Qualitative	Quantitative	Quantitative and Qualitative	
Description of the Data	10 Norwegian on air podcast episode recordings	website text	MD&A, body text	consolidated financial statements	fuel efficiency and operational metrics	company descriptions, background information	see reference list	financial ratios and company news	background information included in the Research Setting chapter and Findings and Analysis chapter	
<sup>1</sup> Saunders, Lewis, Thornill, 2015 qtd. in Saunders et al 2016, p.319-329;										
Document Secondary Data: data that endures physically and digitally; includes text and non-text materials										
Survey Secondary Data: existing data originally collected for some other purpose using a survey strategy; compiled censuses, continuous and regular surveys, ad hoc surveys (specific, one-off surveys)										
Multiple Source Secondary Data: compiled (entirely from document or survey secondary data, or from some combination of both) secondary data; longitudinal and snapshot										

Figure 24: Summary of Secondary Data Sources

This research uses multiple sources of secondary data, as summarized in the table above. This counteracts biases in data collection and analysis, assists in corroborating information, and ultimately strengthens findings through the convergence of material from multiple sources which provide measures of the same phenomena (Yin 1994 qtd in Darke et al, 1998). The study sought to further analyze a multitude of secondary data from a range of sources and glean uniquely robust insight therefrom (Bulmer et al. 2009 qtd in Saunders et al, 2016, p.316). Beyond the excellent resource-efficiency afforded by pursuing a secondary data analysis data collection research design (Vartanian 2011 qtd in Saunders et al 2016, p.330), much of the data used will have been garnered retroactively through the company’s annual publications, offering a further measure of control (Saunders et al 2016, p.200).

### Sample

Barnett (2004) advocates that sampling “makes possible higher overall accuracy than a census” as, inter alia, it enables researchers to collect more detailed information and allocate proportionally more time to ensuring data accuracy (qtd in Saunders et al, 2016, p.274). The sample of information chosen in this research aligns with the research question and objectives; the target of the research enquiry, or the ‘target population,’ is information pertaining to Norwegian’s NT business (Kevin 1999 qtd. in Saunders et al, 2016 p. 275). A purposive or judgemental non-probability sampling technique was used, and the researcher

exercised prudent subjective judgement to establish a logical relationship between the selection and the focus of the exploratory research (Saunders et al, 2016, p. 297 & 301).

Efforts were made to select a particularly informative case (Neuman 2005 qtd. in Saunders et al, p.301) through the use of theoretical sampling within the purposive non-probability technique. Theoretical sampling allowed the sample to be chosen so as to inform and satisfy the needs of the emerging theory and the evolving storyline (Saunders et al, 2016 p.303). Further, theoretical sampling teams with the aforementioned concurrent triangulation technique employed within the mixed methods approach.

The researcher continued to collect data until theoretical saturation or conceptual density was achieved (Saunders et al, 2016, p.297). Because there is such a wide amount of information available and the company is very heavily covered in Norwegian news especially, the research reviewed a selection of articles published between December 1<sup>st</sup>, 2018 and May 15<sup>th</sup>, 2019. Only those reports published in English were considered for the research, in order to limit both the universe of articles considered given time constraints and maximize the quality of the data considered given the potential for translation errors to cause misunderstandings. The researcher is not able to understand the Norwegian language. This language barrier has not been a major problem given the access to English versions of the podcast, and the fact that the company discloses all of its information in English.

## 4.2 Data Analysis

### 4.2.1 Data Coding

A code in the context of qualitative data analysis is a label with which concepts or values are tagged. “Coding” is the label Strauss and Corbin use to describe qualitative data analysis as it pertains to the discovery of concepts and their relationship to other concepts (1998, qtd in Wicks, 2010, p.2). Coding improves reliability because it ensures structure and agreement with regard to fundamental definitions, constructs, and themes. The way in which the podcast data transcriptions were coded ensured that the findings and concepts gleaned therefrom supported theoretical sensitivity (Saunders et al, 2016). This analysis comprised three stages of data coding: open or initial coding, axial coding, and selective or substantive coding. Cognitive or concept mapping also assisted the researcher in visualizing the various relationships and connections between the significant quantity of data between the axial and

substantive coding stages (Willment, 2010). First, the initial data analysis and coding allowed the researcher to determine which resources and capabilities and themes were best substantiated across the universe of podcast episodes, and which topics the company chose to avoid or mediate accordingly. The second phase was focused, and allowed for “an analytic and explanatory organization of the coded data” (Charmaz, 2014 qtd in Harlan, 2018, p. 29).

The data categories applied to the podcast transcription data resulted from both pre-established focus areas, and were drawn from the data itself, known as “in vivo” (Farquhar, 2012, p.94). The coding went through several iterations as the researcher increased familiarity with the data and observed interconnections between “in vivo” categories, thus exemplifying Eisenhart and Graebner’s (2007) concept of recursive cycling among case data. The researcher feels that the above processes ensure that the data transcriptions are traceable, reliable, and complete (Farquhar, 2012, p.91). Farquhar suggests including an “audit trail” or account of the steps taken in conducting all the stages of the data collection and analysis (2012, p.91). The entire data collection and coding process was conducted manually, and is outlined below.

**Preparation:** Each podcast was listened to in its entirety before any notes were taken. A “front sheet” (Farquhar, 2012, p.92) was created that included the basic information about each episode as provided on Norwegian’s website, and a key word or phrase was marked in bold for each episode:

Norwegian On Air Podcast				
Hosted by Stine Klund (Investor Relations Manager) and Helen Løken (Head of Internal Communications)				
Episode	Title	Guests	Description	Date
1	<b>CEO Bjørn Kjos</b>	Bjørn Kjos	CEO Bjørn Kjos is our first guest, and we discuss important topics for him and Norwegian.	December 4 <sup>th</sup> , '17
2	<b>Revenue Management Director</b>	Magnus Maursund	The guest in this podcast is Revenue Management Director Magnus Maursund, who gives us an introduction to revenue management. We also touch upon the recent change in estimates for 2018, the changes in the Management Group and other news.	January 5 <sup>th</sup> , '18
3	<b>Vice-President Network Strategy</b>	Matthew Wood	The main topic in this episode is route development, and our guest is VP Network Strategy Matthew Wood. For those of you who are interested in bilateral traffic rights, we recommend the following link: <a href="http://www.wto.org/assp/">www.wto.org/assp/</a>	February 6 <sup>th</sup> , '18
4	<b>Fuel</b>	Stig Patey (Fuel Savings Manager), Simon Mueller (Fuel Manager)	This episode is dedicated to the theme of fuel, with focus on both the impact on cost and the environment. A large part of the fuel bill is outside our control, but which parts can be affected the company? To shed light on this topic, we have for the first time brought in two guests, both Fuel Manager Simon Mueller and Fuel Savings Manager and pilot Stig Patey.	March 12 <sup>th</sup> , '18
5	<b>Cargo Manager</b>	Trine Nygaard	In this fifth episode of Norwegian - On Air we dive deeper into Norwegian's cargo business. Cargo Manager in Norwegian Cargo, Trine Nygaard, shares the great potential of increasing the revenue from our air freight operations through an even closer collaboration especially with our Network and Revenue Department.	April 9 <sup>th</sup> , '18
6	<b>Norwegian's Growth Benefits Local Economies and Creates New Jobs</b>	Sveinung Fjose (Menon Economics)	What is the total value generated by foreign tourists travelling with Norwegian to Scandinavia? A new report finds that in 2017, foreign passengers arriving on a Norwegian flight to visit Norway, Sweden and Denmark contributed to create the basis for 40,000 jobs in the tourism industry. In Scandinavia alone, this has resulted in 2.6 billion euro in additional spending, boosting the local economies and creating new jobs. In this latest episode of Norwegian - On Air: Sveinung Fjose, partner in Menon Economics and one of the authors of the report shares more about the ripple effects from our operation and how creating value not only is important in generating new jobs, but also creates value for the society as a whole.	April 24 <sup>th</sup> , '18
7	<b>CFO Geir Karlsen</b>	Geir Karlsen	What does Norwegian's CFO, Geir Karlsen, have to say about the <b>performance, financial position and the outlook</b> for the company? In this episode, Geir takes a longer view than the quarterly updates, talks about financing of the aircraft order and how the fleet represents significant assets and gives the flexibility needed to realize the company's global growth strategy. Specifically, he talks about the importance of a continuous fleet renewal to always operate modern and fuel-efficient aircraft. He also shares his reflections on the option to divest up to 140 aircraft, either by leasing or selling to other companies. Lastly, he explains that the growth now will start to abate and what is needed to turn growth into a sustainable profitability. Link to the video we mention in the episode: <a href="http://www.youtube.com/watch?v=iNDYBt9e_U&amp;app=desktop">www.youtube.com/watch?v=iNDYBt9e_U&amp;app=desktop</a>	June 14 <sup>th</sup> , '18
8	<b>Airport Slots</b>	Sebastian Pelissier (Head of Strategic Capacity and Slot Policy)	The airport slots Norwegian holds has a big impact on our passengers and for the company. Airport slots have been sought-after since the 1960s, when airports began to fill up. How is the system for allocating slots at constrained airports? According to the trade body, International Air Transport Association's (IATA) "slot allocation guidelines", the slots from last season can be kept as long as it has been used at least 80% of the designated time. How is this practiced and how can delays impact whether an airline can hold on to their slots or not? What is really the value of a slot at a constrained airport like Paris, LGW or JFK? And most importantly: How does Norwegian work to shape future policy for slots allocation to make sure competition stays fair.	August 22 <sup>nd</sup> , '18
Bonus	Special Edition: People Survey Norwegian	Stine Klund (Investor Relations Manager)	Welcome to an extra edition of Norwegian - On Air. We've spoken about fuel, slots and how we set our prices, but this time we'll be talking about <b>what it's like to work for Norwegian</b> based on the feedback we received from our <b>colleagues in the Nordics</b> .	September 17 <sup>th</sup> , '18
9	<b>Equity Analysts from Pareto and Carnegie</b>	Preben Rasch-Olsen (Carnegie), Kenneth Sivertsen (Pareto)	In this episode of Norwegian - On Air, we have spoken to two experienced equity analysts, Preben Rasch-Olsen, Carnegie and Kenneth Sivertsen, Pareto - both following Norwegian closely. We would like to highlight that the analysts' views are not the company's.	October 2 <sup>nd</sup> , '18

Figure 25: Front Sheet

**Transcription:** Each podcast was listened to a second time, and transcribed concurrently. In Saunders et al’s chapter on analysing qualitative data, the authors outline alternative methods of qualitative data transcription (2016). After careful review of each, the researcher transcribed only those sections of the document data in the form of audio recordings (podcasts) that were relevant to the research (data sampling). This represented an efficient use of resources available for the study; no time was sacrificed to research, test, or familiarise the researcher with transcription machine or software, and no financial expenses were incurred. After the podcast data was transcribed, “line by line coding was performed to help create an analytical skeleton” (Harlan, 2018, p.30). The transcription was done on a separate document to facilitate reference to the “front sheet” later in the process. Where direct quotes were altered, square brackets were used to indicate the changes. After each episode was transcribed, the podcasts were listened to again, and corrections were made. This allowed the researcher to gain even greater familiarity with the data.

**Open/Initial Coding:** This stage of coding represented the “initial interpretive process by which raw research data [were] first systematically analyzed and categorized” (Price, 2010, p.3) Each paragraph’s main topic was distilled into one or two words and recorded under that episode in the table below. This can be viewed as descriptive and pattern coding methods as the central themes are summarized, and findings patterns in the data are used as a basis for coding. In the open coding stage, “concepts, the most basic unit of analysis, [were] identified from [...] words, or phrases in the data, [...] given conceptual labels or identifiers, and [...] grouped together to form categories and subcategories [...] Rather than reducing information, open coding organize[d] it into meaningful categories.” (Price, 2010). The initial coding conducted for this research is depicted below:

Figure 26: Initial Coding

Farquhar recommends keeping a code book to ensure consistency in coding (2012, p.95).

The code book created for this research is included below:

code book to ensure consistency in coding - Farquhar p.95													
											5 years since first transatlantic flight, rejected IAG purchase bid		
notable events	sold shares in Bank Norwegia...			fiscal 2016 results									
month	November	December	January	February	March	April	May	June	July	August	September	October	November
year	2017												
podcast episode	1	2	3	4	5	6	7	8	9	10			
episode keyword	General	Revenue	Routes	Fuel	Cargo	Economic Benefit	Financials	Airport Slots	Employee Feedback	Future Outlook			
key themes (level one coding)	low cost strategy	oil prices	route selection	costs	department cooperation		fuel hedging	airport slots	satisfaction				
	multiple AOCs	transatlantic capacity	LH complementarity	uncertainty	lean organization	economic benefit	leverage	location is regulated, democratic	motivation	leverage			
	P2P model	European consolidation	P2P model	modern aircraft	trust	job creation	capital intensity	competition w legacy carriers	reputation	growth			
	growth, scale, costs	fare pricing	LCLH strategy	fuel efficiency	department cooperation	tourism	growth	relatively high slot turnover		profitability			
	Siberian flyover rights	LCLH strategy	consumer behaviour	use of data	seasonality	transatlantic growth	divesting	slot trading		costs			
	LCLH strategy	ancillary revenue	LCLH business model	efficiency	issues on transatlantic	flyover rights	*	European consolidation		modern aircraft			
	European consolidation	consumer behaviour	modern aircraft	jet fuel		growth "net growth will not be as high"	"we have reached a j	Brexit		efficiency			
	risk	use of data	low cost strategy	fuel hedging			fleet age	AOCs		load factor			
	Brexit		fare pricing	route planning (routes)			low cost of capital			fare pricing			
			use of data	use of data			IFRS impact on BS			market share "7% in transatlantic"			
			risk	routing			profitability			scale			
			challenge of going East	optimization (operational)			slowed route dev't			OTP			
			multiple AOCs	differentials			OTP (LH OTP)			variation			
			Brexit	jet streams			route planning/optimization			volatility			
			German + UK government's regulations and offsetting				admission of what needs to be worked on			European consolidation			
			recognition of difficulty				recognition of difficulty						
							reputation						
							AOCs						
							efficiency						

Figure 27: Initial Code Book

**Axial Coding:** The second stage involved “relating categories to their subcategories” and “reassembling or disaggregating data in a way that draws attention to the relationships between and within categories” (Wicks, 2010, p.2). Wicks states that open coding produces many concepts that can subsequently be grouped into categories and that axial coding’s attempt to relate these categories “allows for the emergence of novel relationships that may have previously gone unnoticed” (ibid). In this research, axial coding revealed the importance of *managing* Norwegian’s modern fleet, as well as the importance of employee engagement. Both concepts were not prevalent in the literature review or mainstream media – likely as a result of them being somewhat omnipresent and developed over time – not “newsworthy” per sé, but very important nonetheless. The axial coding conducted for this research is depicted below:

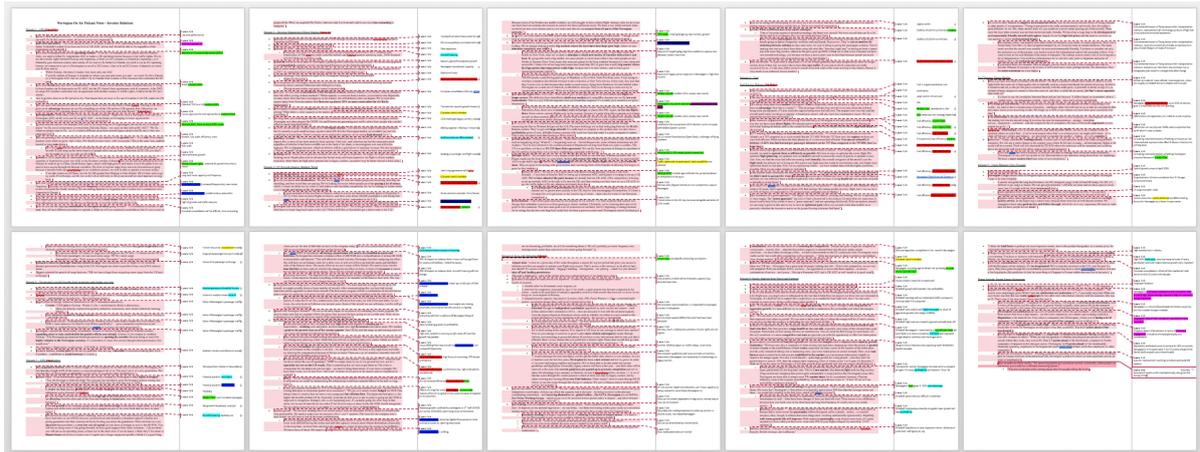


Figure 28: Axial Coding

Following axial coding, the code book was updated, simplified, and the codes were related to the categories contained in the new hybrid framework presented at the end of the theory chapter (Figure 8):

Resources				Capabilities			
Financial	Physical	Human	Organizational	Zero Level/Resource Orchestration	Dynamic		
					Sensing	Seizing	Shifting
Financial leverage	Multiple AOCs	Customer-centric mindset	Staff interoperability	Aircraft utilization	Route assessment/ad ditions	LCLH market entry to create new market	Route optimization
Aircraft financing facilities	Point to Point model/ Network/global connectivity	Traffic rights and network teams' sales capabilities	Employee satisfaction, motivation, engagement	Use of data (revenue maximization, fare pricing, route selection, weather data project)			Aircraft divestment/fleet renewal strategy
Ancillary revenue programs	Siberian flyover rights	Quality service and trust	Employee view of brand/reputation	Jet stream management			
Cost base	Modern fleet/fuel efficiency	Cooperation		Fuel price hedging			
Contribution to Norwegian economy	Gatwick slots/hub			On time performance execution			
Profitability	Airport slots			Flight optimization			

- Low cost performance/model
- Growth

Figure 29: Initial Coding

Cognitive mapping was used after axial coding to concentrate and visually represent the relationships identified:



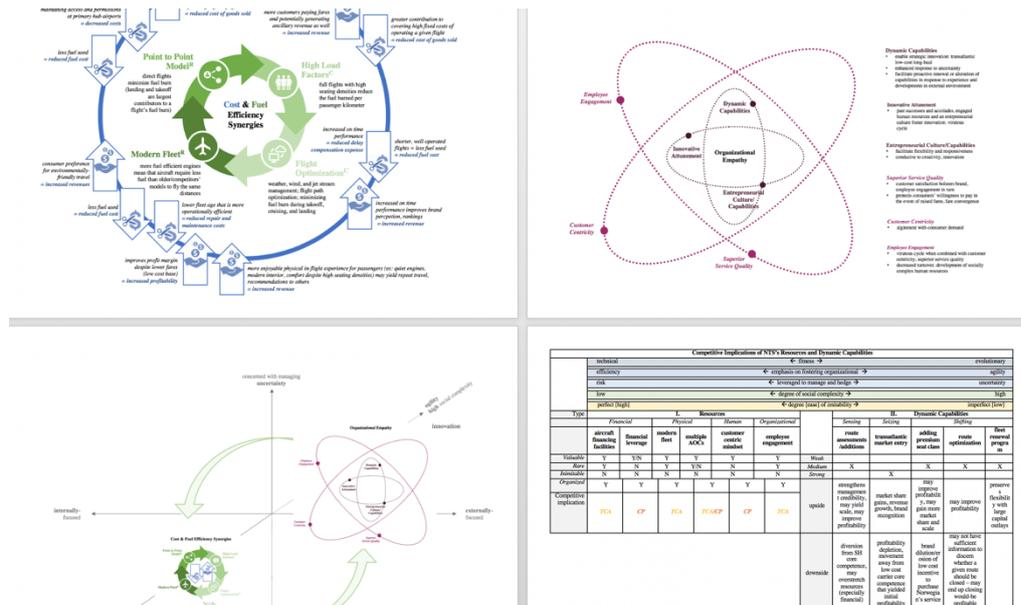


Figure 31: Substantive Coding

### 4.3 Research Quality

This research meets standard criteria of quality and rigour for business case study research. This subsection will provide a coherent argument for this in terms of the principal characteristics of the classical approaches to research quality: construct and internal validity; reliability; and generalizability.

#### 4.3.1 Validity

##### Construct Validity

Construct validity refers to the extent to which the study investigates what it claims to investigate (Farquhar 2012, p.101). There are two ways to claim a degree of construct validity in case study research: triangulation, and establishing a clear chain of evidence (ibid). Using a number of data sources to minimize bias must be used in tandem with an evidence chain that guides the reader from research question to conclusion (Remenyi et al. 199; Yin, 2009 qtd in Farquhar, 2012, p.101). Using multiple data sources has accomplished the former, while the historic background outlined in the Research Setting chapter addresses the latter.

## **Internal Validity**

Internal validity is defined as the presence of causal relationships between variables and results, but the concept has the broader aim of persuading the reader that findings are based on critical investigation of the data (Farquhar, 2012, p.101). This might be accomplished by providing detail about data analysis, as has been done in the above section of this chapter (Patton 1999 qtd in Farquhar, 2012, p.102).

### **4.3.2 Reliability**

The idea of reliability provides a means for assessing whether the evidence put forth in a research project is consistent and stable (Remenyi et al. 1998, qtd in Farquhar 2012, p.102). Transparency and replication considerations can be achieved through crafting a well-referenced and coherent research design. To establish transparency, the researcher has made an effort to present information about the research accessibly to the reader, such as in the Data Source and Data Analysis sections above. This tabular format also enhances the research's transferability and confirmability, two elements of research quality about which further detail will be provided below.

### **4.3.3 Generalizability**

Also known as external validity, generalizability asserts that "theories must be shown to account for phenomena not only in the setting in which they were studied, but elsewhere" as well (Gibbert & Ruigrok, 2010 qtd in Farquhar, 2012 p.103). Applied to case study research, the question becomes, "On the basis of our researched case(s), what can be said about non-researched cases?" (Swanborn, 2010, p.66 qtd in Farquhar et al, 2012, p.103). Farquhar (2012) argues that the "standard interpretation of generalizability (statistical)" is "not applicable to case research where the emphasis is often on studying the phenomenon in its context," and Yin claims that the "analogy to samples and universes is incorrect when dealing with case studies" (Farquhar, 2012, p.103; Yin, 2009, p.43). These assertions are even weightier given this research is comprised of a single case. Yin proposes that analytic generalization be the goal case study research; findings should be generalized to other theory as opposed to a population. Within the Theory chapter, the researcher has reviewed extant RBV, DC, and RO literature, which serves to aid the reader in connecting the study's findings to significant theory to make analytical generalizations, thus bolstering research quality. Flyvberg (2006) supports the concept of analytical generalizability and highlights

the importance of single case examples to theory development, for example through acting as evidence for theory falsification (qtd in Farquhar 2012, p.104). Overarchingly, case study research that focuses on complex and context-specific inquiry and is by that virtue not suitable grounds for statistical generalizability and other forms of research quality are assigned greater weight accordingly.

### **Transferability**

The researcher has made every effort to bound the research explicitly within management theory and submit the case of Norwegian's transatlantic business as a means of advancing said theory by connecting it to a practical, timely, and unique example of a firm operating in a hypercompetitive environment in which profitability and environmental sustainability have unique alignment potential through use of technologically advanced resources (aircraft) (Remenyi et al, 1998 qtd. in Farquhar, 2012, p.106). Combined with the provision of extensive background information in a process of "thick description" that enables readers to form their own conclusions, this bolsters the research's trustworthiness (Creswell, 2007 qtd in Farquhar, 2012, p.106).

### **Confirmability**

The use of multiple data sources and types helps ensure that the research is not "overly influenced by personal values or theoretical inclinations" (Bryman, 2001 qtd in Farquhar 2012, p.108). As well, the researcher has included an admission of beliefs and assumptions and strove to detail and mitigate the limitations in the research methods and analysis.

### **4.3.4 Ethical Considerations**

The researcher has exercised best judgement to ensure that the research design does not subject Norwegian to the risk of embarrassment, pain, harm or any other material disadvantage and will yield valid data (Saunders et al, 2016). All data used in the project is secondary in nature, meaning that it has already impacted share prices and public perception before inclusion in the study. The only data which is not publicly available are the financial ratios obtained from the Bloomberg Professional Service, which requires an institutional membership. However, these same ratios are possible to calculate from the respective companies' publicly-available annual reports, located online. As they were offered as educational resources only, the equity research reports and memos were not made reference

to explicitly in the research, nor were the names of any associated investment analysts or companies. The study's findings should not be used as a basis for investment decisions. The researcher does not own or plan to purchase shares of Norwegian, nor any airline company in the foreseeable future.

## 5. Findings and Analysis

*This chapter presents and analyzes the findings of the research in answering the question, “To what extent does Norwegian have the resources and capabilities required to cultivate a sustainable competitive advantage?” The findings chapter is organized into two sections. The first is concerned with assessing Norwegian’s technical fitness: it comprises an assessment of the attributes of Norwegian’s most important resources and capabilities. The second section evaluates the strength of Norwegian’s dynamic capabilities, which are key drivers of the organization’s evolutionary fitness. A summary of the findings is described and depicted below alongside a table outlining the sections and subsections that informed them. Each subsection includes secondary data in the form of illustrative quotes from the podcast interviews, relevant excerpts from the company’s publications, external data to substantiate or contextualize a resource attribute, or a combination of these. In the subsequent Discussion and Conclusion Chapter, this analysis is reconciled with contemporary literature.*

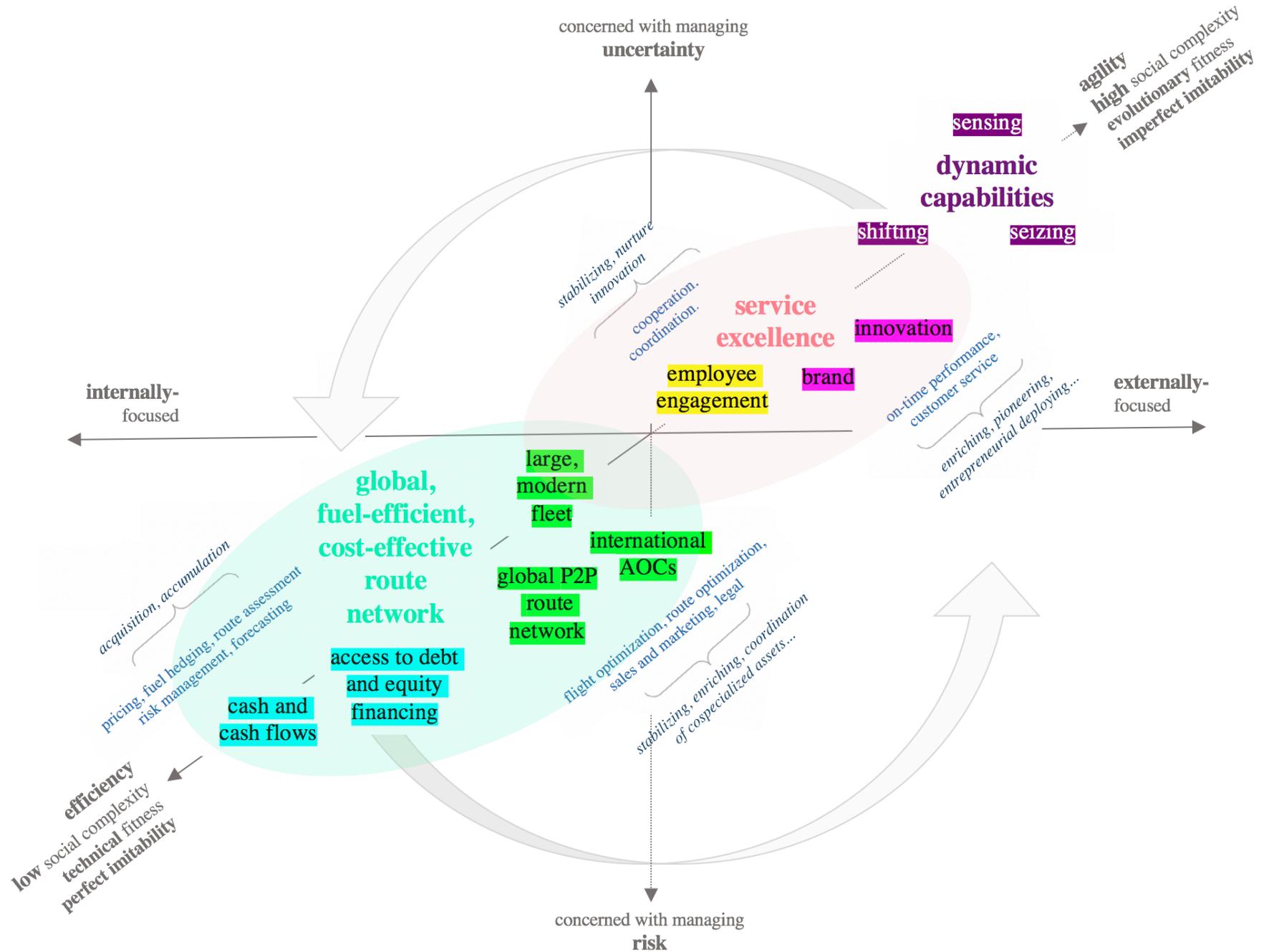
The findings and analysis determine that realizing the potential synergies between fuel efficiency and profitability; achieving economies of scale, scope, and even first-mover advantages from its global low-cost low-fare network; and continuing to orchestrate socially-complex assets and processes such as employee engagement, innovation, and organizational dynamism may enable Norwegian to cultivate a sustainable competitive advantage, provided it ensures sufficient financial resources to continue operations. Norwegian’s ability to transcend competitive parity is contingent on successful deployment of zero-level capabilities not limited to the use of data to maximize efficiency, the use of hedging to manage risk, and financial discipline to ensure viability. Further, the durability of any competitive advantages achieved are concretized through the orchestration of key resources in tandem with the engagement of dynamic capabilities: integrating resources to form capabilities, “bundling,” and the continued renewal and transformation of them, “shifting,” especially. These findings are represented visually on the key determinants of firm-level performance integrative framework, revisited from the Theory Chapter.

## Competitive Implications of Norwegian's Resources and Dynamic Capabilities

### I. Tangible Resources and Organizational Capabilities

### II. Dynamic Capabilities

		Technical/Tangible Resources				Organizational Capabilities			Managerial Capabilities				
Type		Financial	Physical			Human Resources	Organizational Resources		Sensing	Seizing	Shifting		
Most Significant of Norwegian's		cash and cash equivalents	large, modern fleet	inter-national AOCs	global P2P route network	employee engagement	brand	innovation	LCLH business model viability	transatlantic market entry	premium fare addition	route optimization	fleet restructuring
Resource Attributes	Missing	Y	N	N	N	N	N	N	Weak		X		
	Valuable	Y	Y	Y	Y	Y	Y	Y	Medium	X		X	X
	Rare	-	Y	Y	Y	N	Y	Y	Strong		X		
	Inimitable	N	N	N	N	N	Y	Y					
	Organized	-	Y	Y	Y	Y	Y	Y					
Zero-Level Capabilities Engaged		pricing, fuel hedging, route assessment, risk management, forecasting	flight optimization, route optimization, sales and marketing, legal			cooperation, coordination, trust	on-time performance, customer service						
Method of Resource Orchestration		acquisition, accumulation	stabilizing, enriching, coordination of cospecialized assets, resource advantage and market opportunity deploying strategies			stabilizing, nurture innovation	enriching, pioneering, entrepreneurial deploying strategy						
Competitive Implication		temporary competitive disadvantage	TCA/SCA	CP/TCA	TCA/SCA	competitive parity	sustainable competitive advantage						
					temporary competitive advantage								



# 5.1 Part 1) Technical Fitness: Resources and Capabilities

## 5.2 Financial Resources

The financial resource with the greatest bearing on Norwegian’s competitive position is its cash and cash equivalents, hereafter referred to as its “cash” or “cash position.” Norwegian’s cash position acts as a partial reflection of the efficiency and sustainability of its operations, and determines its ability to meet its obligations. Likewise, the company’s cash position governs its access to financing. Strong cash positions are especially important to insulate airline companies from the capital intensity, seasonality, cyclicity, and vulnerability to fuel price variations they face. In the first quarter of this year, Norwegian has improved its cash position by 1.92 billion NOK, to 3.15 billion NOK. This was driven by net contributions of -221 million, +2.46 billion, and -986 million from its operating, investing, and financing activities, respectively. The restructuring of Norwegian’s fleet comprised the vast majority of the first quarter cash improvement, given that the company posted net losses and that principal repayments more than offset the 2.9 billion NOK contribution of the preferential rights issue. The company has 62 billion NOK net debt<sup>18</sup> and a book equity covenant of 1.5 billion NOK.

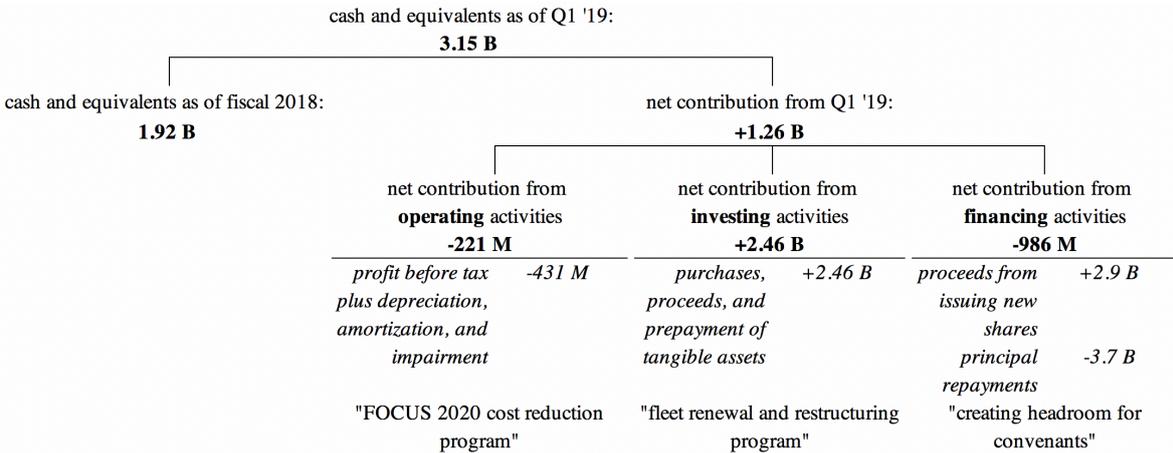


Figure 32: Norwegian’s cash position as of the first quarter of 2019 (NOK), own creation from the company’s first quarter report and presentations

<sup>18</sup>Total short-term and long-term debts of 13.01 and 51.76 billion NOK, respectively, as of Norwegian’s condensed consolidated statement of financial position, less 3.15 billion NOK cash and equivalents from the condensed consolidated statement of cash flow, both from Norwegian’s report for the first quarter 2019 released April 25<sup>th</sup> 2019, p.9-10

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### **5.2.1 Internally-Generated Financial Resources: Cash from Operating and Investing Activities**

Although Norwegian has grown revenue at more than a 33% compound annual rate since 2002, the company has failed to generate sustainable cash flows. Its emergency rights issue earlier this year evidences how cash constrained the company has become following its huge capital outlays for planes as it expanded. Norwegian's share price has declined by about "60% since last April as investors have become increasingly concerned about the company's cash flow" (Forbes, 2019). The question fundamental to Norwegian's ability to cultivate a sustainable competitive advantage is the duration for which its operating losses will endure and can be endured by those providing it with the equity required for operations in the absence of internally-generated financial resources. Accordingly, Norwegian's decision makers, and investors and creditors, need to assess the extent to which Norwegian's recent unprofitability is attributable to residual growth-related expenses or those incurred through bad luck, and therefore likely to be temporary. Or, is it reflective of Norwegian's lack of immunity to the challenges of operating as a LCLH carrier in the NT market without institutional support. If the LCLH business model presents a structural cash flow drain, even despite Norwegian's fleet advantages, any competitive edge enjoyed thus far cannot be considered sustainable.

#### **Eliminating Operating Losses to Achieve Profitability: Norwegian's Post-Growth Cost Savings and Capital Expenditure Reductions**

In order to capitalize on the market position and scale built up over the past years, Norwegian needs to focus on saving costs, reducing capital expenditures, and strengthening its balance sheet. The key ways through which Norwegian hopes to achieve profitability are its FOCUS 2019 and fleet renewal and restructuring programs. The company hopes to achieve 2 billion NOK worth of cost reduction and operational improvements by fiscal year end, and to reduce its capital expenditures by the same amount. It is important to note that these initiatives and progress along them to date, while impressive, originate from low initial levels and do not guarantee long-term financial stability if achieved. It will be important to gauge if and how much of any cost reductions flow through to the bottom line via margin improvement and whether the customer experience is negatively impacted.

Goal	Cost Reduction and Operational Improvement -2 B NOK	Capital Expenditure Reduction -2.1 B USD																		
Means for achievement	<ul style="list-style-type: none"> <li>• FOCUS 2019 2 billion NOK cost reduction program</li> <li>• On time performance project</li> <li>• Route network optimization</li> <li>• Rolls Royce compensation agreement</li> </ul>	<ul style="list-style-type: none"> <li>• Aircraft divestment/[restructuring of fleet order], including a fleet joint venture with an unnamed partner that is expected to take over cash obligations on its large aircraft order book</li> <li>• Postponement of aircraft deliveries</li> </ul>																		
Timeline	January-December 2019	January 2019-December 2020																		
Progress as of Q1 2019	<ul style="list-style-type: none"> <li>• 467 million NOK cost reduction (goal was 400 million)</li> <li>• improved on time performance by 8.2 percentage points</li> </ul>	<ul style="list-style-type: none"> <li>• sold and delivered two A320neo aircraft with a cash effect of USD 26 million</li> <li>• postponed delivery of 12 737 MAXs and four A321LRs, reducing 2019 capex by USD 200 million</li> <li>• [Contracted sales of 15 aircraft with delivery in 2019 with a total cash effect of approximately USD 170 million and consider further aircraft sales]</li> </ul> <p>→ Capital expenditures</p> <p>→ Postponed aircraft deliveries in Q1 and Q2 to create financial headroom and move capex commitments of USD 2.1 billion from 2019 and 2020</p> <table border="1"> <thead> <tr> <th colspan="3">Capital commitments (all aircraft incl PDP)</th> </tr> <tr> <th></th> <th>2019</th> <th>2020</th> </tr> </thead> <tbody> <tr> <td>Total contractual commitments</td> <td>USD 1.7 billion (previous estimate: USD 2.0 bn)</td> <td>USD 1.2 billion (previous estimate: USD 2.4 bn)</td> </tr> <tr> <td>Boeing 737 MAX</td> <td>16</td> <td>8</td> </tr> <tr> <td>Boeing 787-9</td> <td>5</td> <td>5</td> </tr> <tr> <td>Airbus 320X21</td> <td>1</td> <td>4</td> </tr> </tbody> </table>	Capital commitments (all aircraft incl PDP)				2019	2020	Total contractual commitments	USD 1.7 billion (previous estimate: USD 2.0 bn)	USD 1.2 billion (previous estimate: USD 2.4 bn)	Boeing 737 MAX	16	8	Boeing 787-9	5	5	Airbus 320X21	1	4
Capital commitments (all aircraft incl PDP)																				
	2019	2020																		
Total contractual commitments	USD 1.7 billion (previous estimate: USD 2.0 bn)	USD 1.2 billion (previous estimate: USD 2.4 bn)																		
Boeing 737 MAX	16	8																		
Boeing 787-9	5	5																		
Airbus 320X21	1	4																		
quantitative impact	-467 million NOK	-226 million USD																		

**Figure 33:** Norwegian's Profitability Improvement Initiatives, *own creation based on, inter alia, Norwegian, 2019a, Norwegian, 2019b, Bloomberg, 2018*

One year ago, Norwegian announced its shift from a focus on growth to one on profitability:

“In the previous year or two, we have had very high costs with regards to ramping up the organization [...] training crew and pilots, we have made very high investments into those areas. We have reached a peak in the growth story as of the current quarter. [...] We are now heading into a six-month period in which we should make very good profits and the ramp-up and training costs will now come off compared to the previous quarters. We need to make sure we execute [...]; the focus for the company now is winter [2018-2019].”

*Norwegian's Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

Norwegian's CFO went on to say that the company would not be incurring as many growth-related costs and would instead be focusing more on streamlining the organization, improving on-time performance and reducing compensation because of delays, and route optimization:

“There are a set of initiatives internally that will now benefit profitability going forward.”

The company's major initiative is its FOCUS 2019 operational improvement program, under which Norwegian has experienced reductions in all cost elements except fuel and improved punctuality by 8.2% on a year-over-year basis to achieve 467 million of its 2 billion NOK

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cost reduction goal by year-end (Norwegian, April 2019). Mr. Karlson defined route optimization as shifting passenger capacity from less to more profitable routes, increasing frequencies on profitable routes, and implied that the company would stop flying routes that prove to be unprofitable. However, he did not specify any criteria or timelines against which route profitability would be evaluated:

“We will be changing the routes more than we have done before [...] Especially on the long-haul, we have been opening many, many new routes. It takes time for a route to be profitable. We have many of those. We expect to learn from the routes we have opened. You will see that, if the routes are not becoming profitable, we will do something about it. We will probably put more frequency into existing routes rather than open more new routes going forward.”

*Norwegian’s Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

Since the company indicated this shift from a growth to a profitability focus, it has shown net losses that amount to almost twice its net profits to date.<sup>19</sup> It is difficult to attribute how much of these losses are owing to luck, strategic decisions, or a combination thereof. However, the company has faced an inordinate amount of bad luck related to its Boeing fleet. Persistent engine issues and delivery delays of its aircraft, flight groundings at Gatwick, and most recently the Boeing 737 MAX 8 groundings, which are ongoing as of this writing, have adversely impacted Norwegian within the last six months (Bloomberg, 2018). The financial impact of Norwegian’s forced grounding of 18 MAX 8 planes amounted to about 500 million NOK per the company’s first quarter earnings release, an estimated loss of \$21 per passenger that travelled with Norwegian in the first three months of 2019 (Norwegian, April 2019, p.25; The Independent qtd. in Fast Company, 2019).

“Due to the uncertainty related to the MAX grounding, the company sees increased risk related to the target of a positive net profit in 2019.”

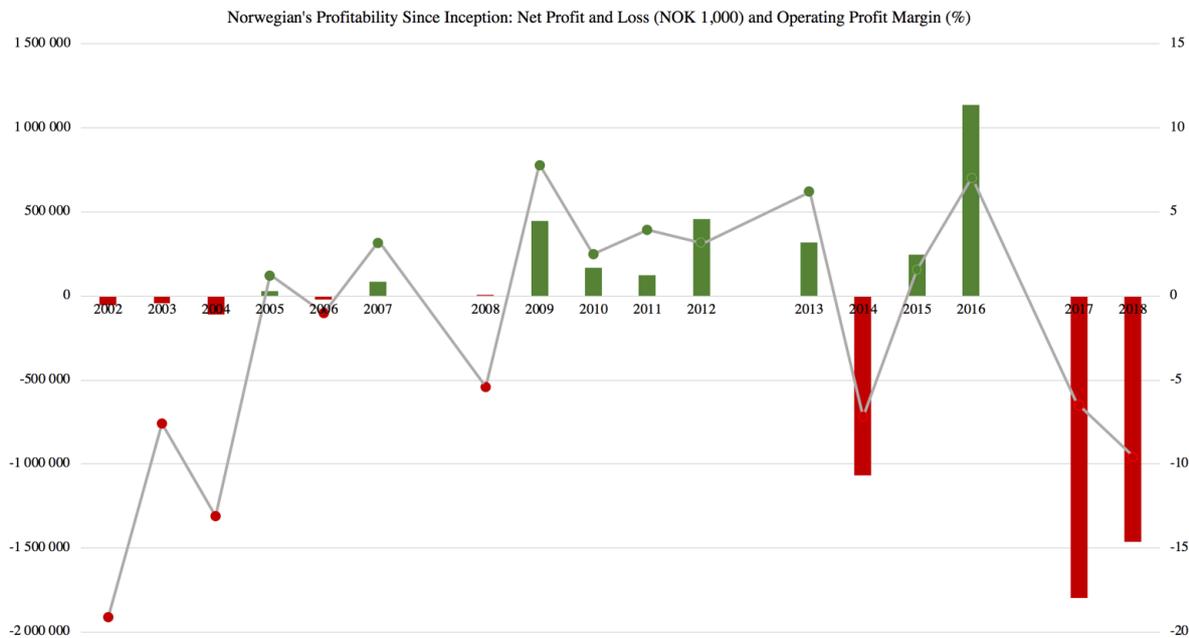
*Norwegian Air Shuttle First Quarter Investor Presentation, April 25<sup>th</sup> 2019 p.23*

Might Norwegian have achieved profitability in the first quarter of 2019, all else equal? It is reasonable to assume, on the basis of Mr. Karlson’s comments and the significantly lower average operating profit margin and asset efficiency ratios for the post-long-haul market entry period, that NTS is at least exacerbating losses that would otherwise be experienced. For perspective, it took three years for Norwegian to earn a profit after it began operating (as shown in Figure 34 below), and the equity analysts on the podcast referenced EasyJet’s similar slow start. These are both short-haul examples; however, there are no comparable

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<sup>19</sup>2017 and 2018 losses amounted to 3.25 billion NOK, while net profit for 2002-2016 inclusive was 1.72 billion NOK

LCLHs to observe in reference to Norwegian's recent and rapid expansion. Although, that itself says something: no independent carrier has yet to survive as long as Norwegian in the NT market. Discerning whether the company is on the precipice of bankruptcy or unprecedented success is now the challenge. While its losses are greater in both a relative and absolute sense versus when it first entered the short-haul market, given the sheer scale of its expansion they are perhaps proportionate, even before its bad luck is factored in. While company showed continued year-over-year passenger and revenue growth of 9% and 14%, and reduced unit costs by 5% – although from high levels owing to expansionary investments – it retained a negative operating profit (EBIT) margin of -18.3% (Norwegian, 2019c, p.2). This compares to a -31.8% margin for the same period last year, and a -9.6% margin for fiscal 2018 (ibid); an improvement, however not to the point of reaching the “very good profits” Mr. Karlson forecasted.



**Figure 34:** Norwegian's Profitability Since Inception, *own creation from Bloomberg Professional Service data*

The consensus among advocates of Norwegian's transatlantic growth strategy is that the company's investments will yield scale and thus profitability this year or next:

“Norwegian has been able to attract some 7% market share for its transatlantic business. That has definitely come at the expense of profitability, but once growth now slows, in '19 and '20 we will see profitability starting to increase.”  
*Equity Analyst, October 2<sup>nd</sup>, 2018*

Achieving near-term profitability is contingent on Norwegian's execution of operational improvements in line with FOCUS2019 and its fleet restructuring program while maintaining high load factors despite the MAX 8 groundings. The company's ability to

contract wet leases and increase utilization to ensure that its services are covered through the summer, its most profitable period by far, will be crucial (Norwegian, 2019b, p.25).

### Long-Term: Sustainability of Low Unit Costs

Further, there is the question of the extent to which Norwegian is equipped to operate the LCLH model for the long-term. More directly, do its unit costs equip it to charge low fares profitably, how do they compare to those of its competitors, and how likely are any cost advantages to be imitated and competed away – say, if competitors were to purchase equally or more fuel-efficient, modern aircraft?

Bernstein research termed Norwegian “not a long-haul low-cost airline, but a long-haul low-fare one” (Economist, 2019). Applying the low-cost model to long-haul routes involves filling planes to capacity and collecting ancillary revenues to offset loss-making fares (ibid). These economics make LCLH carriers very dependent on high load factors, which may be difficult to achieve, especially as capacity is increased, as economic conditions fluctuate, and as seasons change. LCLH carriers thus need to minimize unit costs to increase their chances of a profit margin despite lower loads. The development of Norwegian’s unit costs including and excluding fuel over the last decade are included in Figure 35 below. As shown, Norwegian has reduced its unit costs since entering the long-haul market in 2013. Though not dramatic, these improvements should be given weight given the pace and magnitude of expansion that they occurred alongside. Parallel unit cost and margin decreases suggest that pricing may have been a factor driving poor business results.

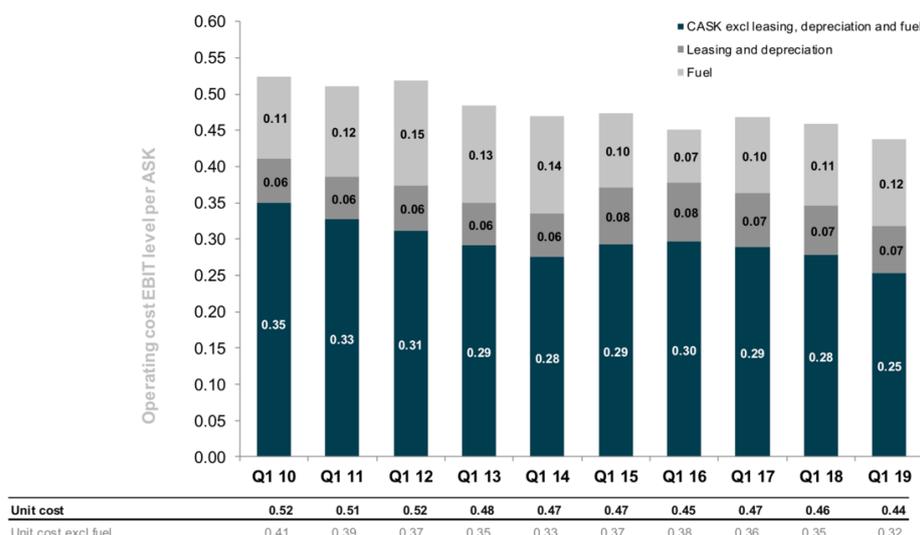


Figure 35: Norwegian’s unit costs including and excluding fuel, first quarter of 2010 to first quarter of 2019 inclusive, *Norwegian 2019b*

The largest single driver of airlines' operational and overall costs are those related to fuel. Thus, having a fuel-efficient fleet yields significant cost advantages. In Norwegian's case, a fuel-efficient fleet enables it to charge lower fares than competitors, in theory retain a satisfactory profit margin once expansionary costs normalize, and stimulate new demand from those who previously could not afford to fly across the transatlantic:

"Fuel is easily the largest operational cost of any airline. For Norwegian, it constituted 24% of our operational costs in 2017. [...] The advantage of brand new aircraft is not only about the airframe being more aerodynamic, it's also about the engines being more fuel efficient. The engines burn less fuel, and the aircraft itself needs less thrust to operate. A brand-new aircraft will also have less maintenance issues. We can operate the aircraft more efficiently."

*Norwegian's Fuel Savings Manager, Stig Patey, March 12<sup>th</sup>, 2018*

"We always brag about how modern Norwegian's fleet is. Especially when the oil price is high, we say that we have an advantage."

*Norwegian's Investor Relations Manager, Stine Klund, March 12<sup>th</sup>, 2018*

"[...] we have a very young and fuel-efficient fleet. The higher the fuel price is, the higher the benefits of that will be."

*Norwegian's Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

"New aircraft give us the opportunity to fly much lower cost flights on longer sectors. We definitely have identified a whole new market with using the Max, because we can fly low-cost transatlantic. [...] Because of the cost base, we will be able to do this quite competitively."

*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

"The fleet provides a huge benefit on the cost side, especially once some of the extraordinary costs disappear. Particularly on fuel saving [...] We know that [Norwegian's] fleet allows it to typically spend about 20% less than the average carrier [...], but also on maintenance. You can keep the fleet flying for more hours. All this will contribute to a more competitive cost base and provide you with the opportunity to offer low ticket prices but still make a decent margin [...]"

*Equity Analyst, October 2<sup>nd</sup>, 2018*

Norwegian's LCLH strategy is tightly linked to its fuel-efficient fleet. This said, fuel efficiency and the related minimization of operational costs transcends fleet technology itself:

"To produce at low cost, we need good utilization of all the aircraft and also all of our staff. To fly the correct routes, of course, is also very important."

*Norwegian's Chief Executive Office, Bjørn Kjos, December 4<sup>th</sup>, 2017*

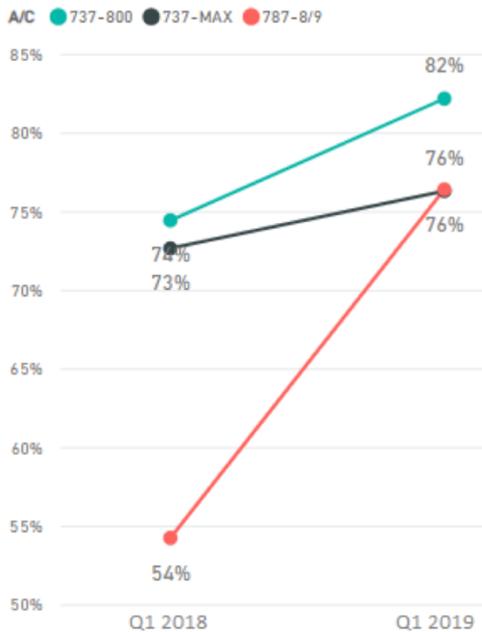
"With improved punctuality, costs should come down. It's quite expensive to have what [Norwegian has] now: more than 25% of [its] flights delayed [by more than 15-59 minutes]."

*Equity Analyst, October 2<sup>nd</sup>, 2018*

"[On-Time-Performance] is a major issue for us; it's in general too low, and it's especially too low on the long-haul routes. That is something that we have to get better at. The costs to compensate for the delays are just too high [...] It's not done overnight. We have direct costs, but we also have "soft costs" in terms of our peers in the market and our reputation [...]"

*Norwegian's Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

Norwegian has since improved OTP by 8.2 percentage points overall, and by 22 percentage points on its long-haul operations, as shown in Figure 36. This constitutes seven consecutive months of positive punctuality development. It has also improved its long arrival delays by 43% despite a 13% increase in flights operated as shown in Figure 37 (Norwegian, 2019b).



**Figure 36:** Long Arrival Delays (>3 hours) in the First Quarter of 2019 vs. the First Quarter of 2018 by Aircraft Type

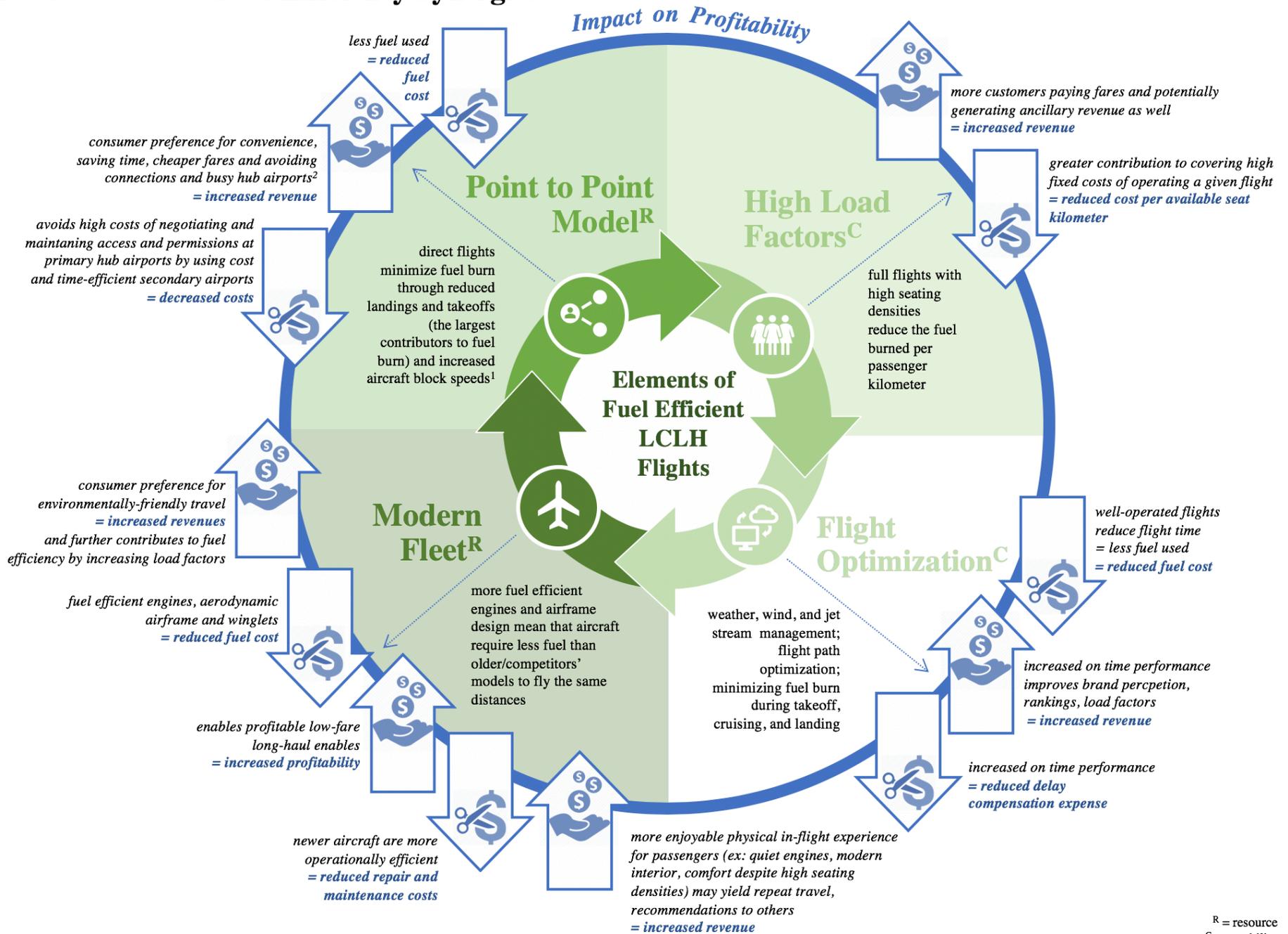


**Figure 37:** Departure On-Time-Performance in the First Quarter of 2019 vs. the First Quarter of 2018 by Aircraft Type

In the case of airlines, fuel-efficiency and cost-efficiency are virtually synonymous. Fuel-efficient aircraft and the operational capabilities enabling their most efficient use can have a material impact on profitability, especially for LCLH airlines to which low unit costs are crucial. The potential synergies of low-cost and fuel-efficient operations on transatlantic routes are summarized below in Figure 38. If Norwegian is able to realize these synergies, a SCA is likely to result. Fuel-efficient aircraft are costly to obtain and take time to be delivered but are not perfectly imitable by virtue of being fixed, physical assets. Rather, the orchestration of the interlinked and mutually-reinforcing processes enabling superior fuel efficiency is costlier to initiate. It requires coordination and is worked towards and perfected over time; as Mr.Karlsen mentions, process-oriented goals like OTP are complex and “not done overnight.” While not necessarily forming the basis of SCA themselves, other cost areas such as supply chain optimization and efficient personnel management are also components of ensuring sustainably low unit costs and contributing to profitability in Norwegian’s future.

Next page: **Figure 38:** Norwegian’s Potential Cost and Fuel Efficiency Synergies, *own creation*

# Potential Cost & Fuel Efficiency Synergies



<sup>R</sup> = resource  
<sup>C</sup> = capability

<sup>1</sup>aircraft block speed is the average speed at which an aircraft covers a specific distance on a gate to gate basis  
<sup>2</sup>Even when full-service airline frequent flyer programmes and superior quality of service are taken into account, there is still strong evidence that passengers prefer direct non-stop options (Heathrow Airport analysis, 2013 and Koppelman et al, 2008) and so downward pressure on LCCs' fares is not expected to be significant, especially if the passenger comfort features of the B787 are considered to mitigate the other typical service inconveniences of travelling by LCC" (De Poret et al, 2015, p.278)

Load factors may represent the highest degree of replication difficulty among the elements of fuel efficiency and low-cost competitive advantage outlined above. While the other elements are costly to imitate – aircraft are huge capital expenditures, switching to or successfully operating a P2P is operationally complex and necessitates resource-intensive learning effects to optimize routes, flight optimization requires precise coordination and technical finesse – these resources and capabilities ultimately pertain to technical efficiency and fitness. Given their relative lack of social complexity, and ability to be purchased in supply markets, systematic imitation, while difficult, is possible. Load factors, contrastingly, are contingent on the interplay of customer service and loyalty, pricing and business model decisions, and branding and innovation. Ability to sustain high load factors may be the determining factor of outperformance within the low-cost approach, if and when cost and fuel efficiency synergies are realized by Norwegian or its competitors. For example, Moreira et al (2011) concluded that LCLH “could become sustainable only if an 85% load factor was achieved as opposed to a 77% load factor for legacy carriers” (qtd in De Poret et al, 2015, p.273).

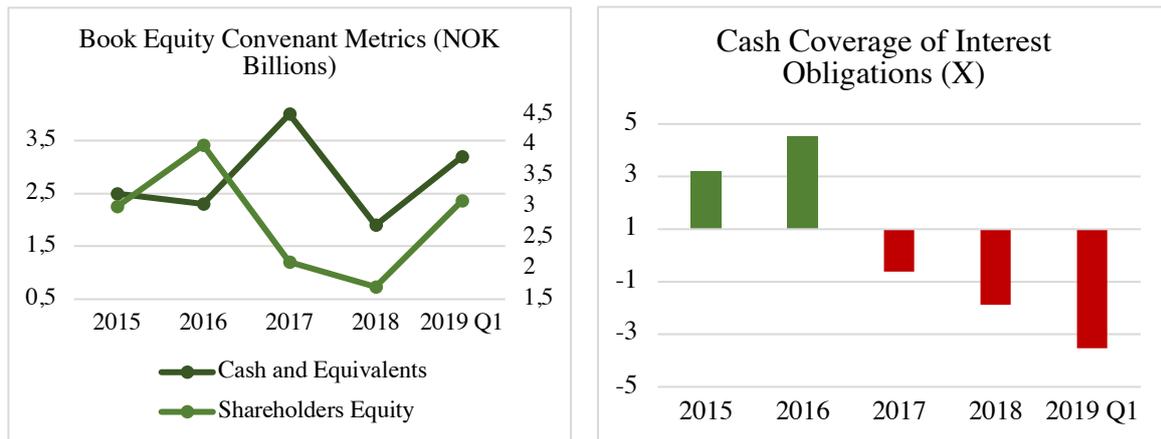
While Figure 38 highlights the potential synergies between fuel-efficient LCLH flights and profitability, realizing them is contingent on execution of many complex processes simultaneously. The correlation and interdependencies between costs and fuel efficiency elements further mean that failure to execute may result in the inverse effects. And, even if all synergies were to be realized, offering low fares retains Norwegian’s vulnerability to high costs when seasonality and fuel price effects reap adverse impacts. Beyond this, recall that market-based supply advantages such as cost advantages “often represent low durability, while demand advantages especially coupled with economies of scale can lead to strong barriers for competitors” (Maury, 2018, p.101). Additionally, Norwegian’s particular cost advantage sought is vulnerable to process replication; “the cost gap between low-cost carriers and traditional network operators shrunk [by a factor of 50% between 2008 and 2015], indicative of a flattened cost curve” (Hodge et al, 2017, p.13). Technological change may benefit operating efficiency, but “competition erodes returns on new capital expenditure” (ibid, p.14). Continued investment in fuel-efficient aircraft have lowered the cost to carry passengers, but this benefit has been passed along to them owing to the industry’s low entry barriers (ibid, p.15). Warren Buffett commented on this economic reality in his 1985 shareholder letter:

“[...] reduced costs became the baseline for reduced prices industrywide. Viewed individually, each company’s capital investment decision appeared cost-effective and rational; viewed collectively, the decisions neutralized each other and were irrational (just as happens when each person watching a parade decides he can see a little better if he stands on tiptoes).”

### **5.2.2 Externally-Won Financial Resources: Cash from Financing Activities**

Norwegian’s rights issue was “equivalent to just over half of the airline's equity value, a sizeable sum and an admission of the cash-strapped airline's predicament” (Forbes, 2019). Over the past two years and in the last year especially, profitability has not materialized and Norwegian has struggled to meet its debt obligations. Norwegian’s extremely high financial leverage increases its already-high vulnerability to internal operational challenges and exogenous shocks. Norwegian’s extremely narrow financial margin of safety threatens but may also be a necessary component of enabling its achievement of a scale-led SCA in a capital-intensive business. However, this threshold must be carefully managed; failure to comply with the minimum equity capital requirement of its debt covenants by eliminating large operating losses or developing access to new sources of equity financing would be fatal. Norwegian came dangerously close to breaching its equity covenant last quarter, and its rapid exhaustion of the cash resources it just raised may leave investors unwilling to offer more funding, especially now that future value creation will be divided between a greater number of shares. Norwegian’s colossal amount of debt means that it is subjected to high interest payments, and its relatively low cash reserves may render it unable to service its debt, forced to sell more planes, or declare bankruptcy.

Failure to generate a profit can be tolerated for as long as investor patience endures, provided that the company remains able to honor its commitments and mitigate liquidity risk. As it has not been able to generate sufficient cashflows from operations, Norwegian has obtained financing from banks and public investors, meaning that it is required to, at a minimum, make its interest payments and uphold its book equity covenants. Norwegian must maintain a book equity value higher than 1.5 billion kroner and more than 500 million kroner of liquidity to comply with its bond covenants. As well, Nordic bank lender DNB ASA provides Norwegian with a 1 billion-kroner revolving credit facility on which there is no financial covenant (Bloomberg, 2018). The company’s shareholders’ equity and cash positions are charted against these requirements in Figure 39 below, as is its ability to pay its interest obligations. As shown, Norwegian has been unable to meet its interest obligations



**Figure 39:** Norwegian's Ability to Meet its Interest Obligations and Book Equity Covenants, *own creation*

for three of the past five years and its interest coverage hasn't met Ben Graham's "5 times coverage" benchmark since it entered the long-haul market. While it has satisfied the terms of its covenants, its fiscal 2018 results showed that it was close to missing its 1.5 billion book equity requirement, as it had 1.68 billion NOK of total stockholder equity at fiscal year-end. Norwegian's fully-underwritten 3 billion NOK preferential rights issue, completed in March, has "create[d] headroom" and "increased financial flexibility", albeit from a position with very little of either (Norwegian, 2019b, p.2)

Given the dilutive impact the rights issue had on existing shareholders, it is unlikely that Norwegian would be able to use this funding option again in the near-term, again emphasizing the importance of achieving profitability now that it has exited the growth phase.

"The latest financing facilities we have done have been on an AFIC structure: pension funds and insurance companies support a facility and giving guarantees and then commercial banks funding you under the guarantees. These facilities are very attractive because there is a very low-cost of capital and you have a leverage as such in the 80-85%. You will see us doing more of this going forward, we have great support from those structures [...] I think it's a good thing when you see the mix of debt that we have in the company today. We are very comfortable that we will be able to secure financing on good terms going forward."

*Norwegian's Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

Norwegian's CFO exhibits confidence in the above quote, however as recently as December 2018 newspaper Dagens Næringsliv reported that Norwegian was pending sale of as many as 140 aircraft<sup>20</sup> to boost its capital reserves. Danske Bank, days before Christmas, claimed that

<sup>20</sup>Norwegian's fleet consists of around 170 aircraft as of May 2019 (Norwegian, 2019)

Norwegian was days away from collapse<sup>21</sup> because of its liquidity position, but Norwegian recovered by refinancing one of its Dreamliners with a positive cash effect of 275 million NOK. It has received two new Dreamliners in 2019 financed through sale-leaseback transactions supported by export credit agencies in the United States and European Union. Arctic Aviation Assets DAC (AAA) handles aircraft financing, leasing and ownership for Norwegian. AAA leases aircraft to both Norwegian's own operations and external airlines (Norwegian 2018 annual report).

Even for an airline and even after its recent rights issue Norwegian has a very weak balance sheet. Norwegian's financial position deteriorated in pace with its expansion, which spanned more than two-thirds of its operating history. The development of Norwegian's current ratio and financial leverage ratio are shown alongside its expansion timeline in Figure 40 below. Even post-rights issue, Norwegian's leverage ratio has worsened to more than 2,000% owing mostly to a 29 million NOK increase in lease liabilities in the first quarter as per the transition in accounting standards to IFRS 16 (Norwegian 2019c, p.9 & p.15). The rights issue doubled Norwegian's equity base, however its total borrowings also doubled. Norwegian marginally improved its current ratio in the first quarter of this year, to a still-low 0.48X from 0.42 (ibid).

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<sup>21</sup>Such mediation may create self-fulfilling prophecies in which passengers avoid booking with airlines in financial difficulty

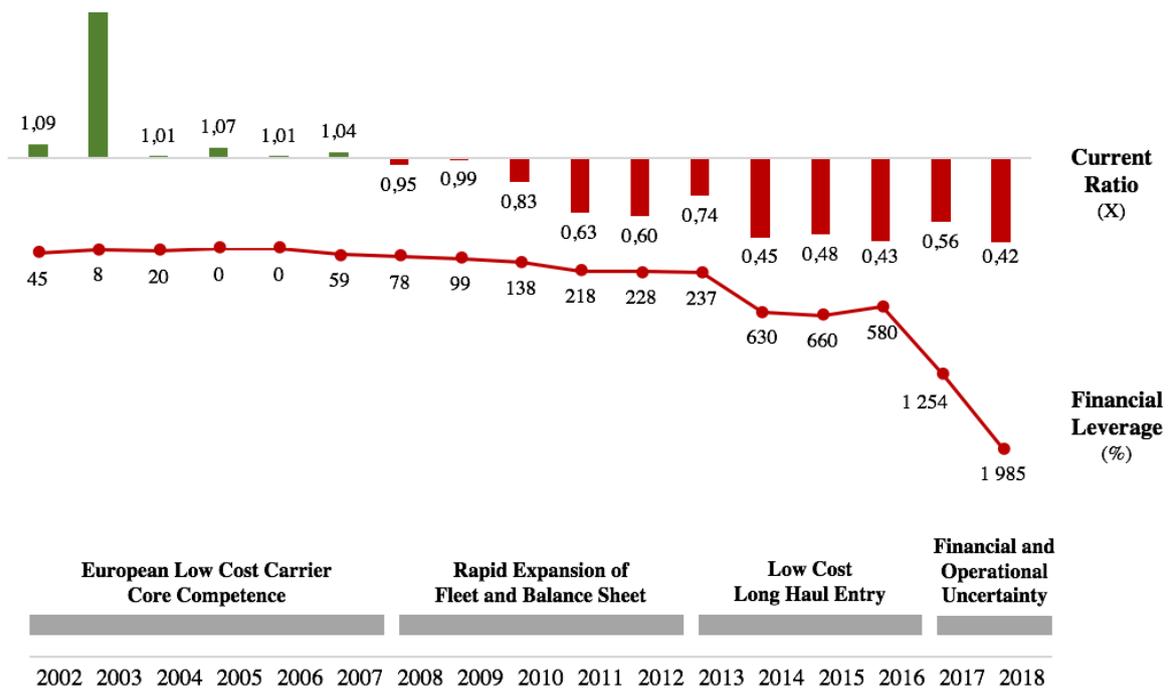


Figure 40: Norwegian's balance sheet development alongside expansion, *own creation*

Norwegian's high debt ratios may broach lenders' limits for extending further credit. However, the company and its history have indicated that it may have strong relationships that may enable it to obtain further credit despite this. Nonetheless, especially in absence of solidified cashflows, such high gearing is ill-advised.

Norwegian's financial position and lack of profitability may have already caused it to fail if it were not an airline company. As mentioned in the Research Setting Chapter, the airline industry is unique in that it is common for unprofitable airlines to continue to fly. Norwegian provides employment, contributes to Nordic tourism, and enables a whole new segment of passengers to travel - all of which benefit the broader economy. It also represents an important source of future value for the Norwegian government, creditors, and investors. While airlines provide value, mostly to customers and somewhat to governments given that taxes require profits, Norwegian's ability to survive has been solely due to investors' willingness to tolerate losses and cash drains. Sentiment towards loss toleration can be fragile and fleeting. Norwegian has exhausted goodwill alongside financial resources, and delivery on its promise of profitability is crucial to its survival within the next year.

"Each euro spent in the aviation sector generates triple the amount for the overall economy. For every new job created in aviation, three more are created elsewhere."  
*Sveinung Fjose, Menon Economics Consultant, April 24<sup>th</sup>, 2018*

Mr. Fjose appraised Norwegian's contribution to the Norwegian economy to amount to 17,000 jobs and about 16 billion NOK in tourist turnover. As well, Norwegian currently has 44%, 24%, 19%, and 17% market share at Oslo, Stockholm, Copenhagen, and Helsinki's key airports, representing a significant amount of traffic to be forgone and filled by competitors if it were to be rendered financially unviable (Norwegian 2019b, p.5).

Not to mention, the opening of the Siberian corridor for flyover would be "highly valuable to the Norwegian economy" and Norwegian is also positioned to take advantage if such rights were granted. Mr. Fjose estimates that Norwegian's pre-clearance and flight rights for the Siberian corridor would generate at least 11 billion NOK and 18,000 jobs. Further, creditors and investors would rather be paid eventually versus not at all.

These factors combine to form risky conditions that, as shown by Norwegian's survival this far, do not result in a company ceasing to operate as they might under other economic circumstances.

### **5.2.3 Zero-Level Capabilities Engaged to Extract Value from Financial Resources**

Scenario planning, risk management, fuel hedging, pricing, route assessment, forecasting are all examples of capabilities that can help ensure that Norwegian builds a stronger financial position.

### **5.2.4 Orchestration of Financial Resources:**

Structuring resource orchestration capabilities, especially acquisition and accumulation are important in this stage of Norwegian's business lifecycle. The company needs to ensure that it builds up its retained earnings through profitable operations so as to strengthen its balance sheet by way of internally-generated financial resources.

To reiterate, while Norwegian's precarious financial position may be requisite or a product of its expansion strategy and the environment in which it operates, failure to obtain scale may render it bankrupt. At the current point in time, Norwegian's lack of financial resources, both in a comparative and absolute sense, result in a *temporary competitive disadvantage* as they may prevent the company from retaining control of its valuable aircraft fleet, or ensuring sufficient capital to operate as a going concern. Fortunately, financial resources are easily acquired in supply markets, and Norwegian has already proven itself to be an

attractive acquisition target (Barney and Hesterly, 2015, p.100; Norwegian, 2018). On the other hand, Norwegian's strained finances are emblematic of the high risk taken in pursuit of outperformance in the transatlantic market and may well as such be considered a *potential competitive advantage*. Given their value or lack thereof cannot be determined a priori, in addition to the fact that it is contingent on other aspects of resource orchestration, it is difficult to ascertain the competitive implications of Norwegian's financial resources in isolation.

## 5.3 Physical Resources

The research has identified three physical resources to constitute the greatest importance to Norwegian's competitive position: its modern fleet, global point to point route network, and multiple air operator's certificates. The relative importance of each asset is reflected by the size of the icon associated with it in Figure 41 below. In the figure, the green italicized phrases represent the key advantages of each asset, the red the inverse. Each resource will be evaluated in turn, followed by a discussion of their greater value when combined via capabilities and orchestration.

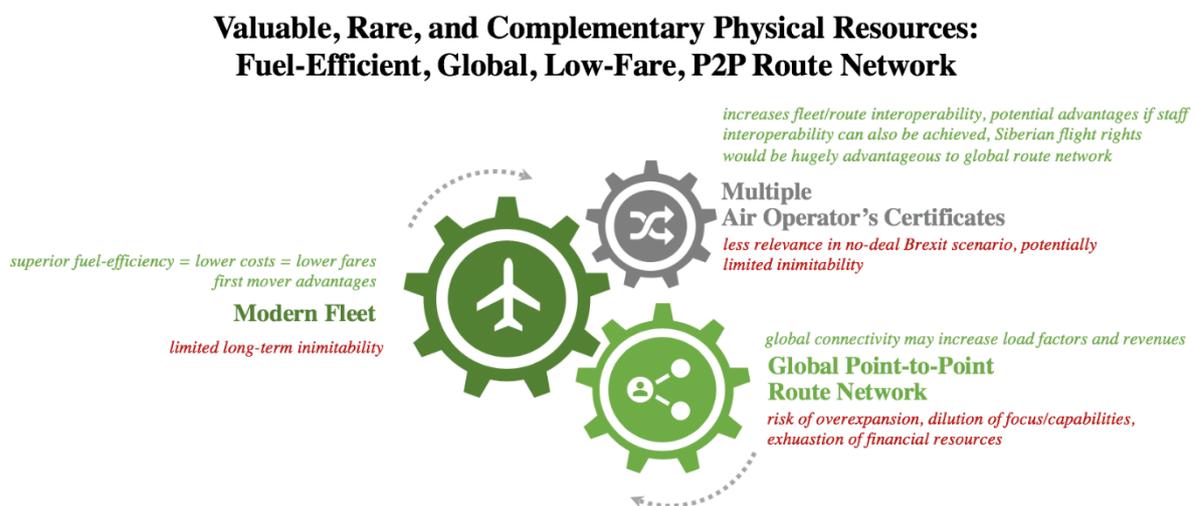


Figure 41: Norwegian's most important physical resources, *own creation*

### 5.3.1 Fuel-Efficient, Modern, Long-Haul Aircraft Fleet

"[...] the only revenue-generating asset of the company is its aircraft fleet, which is employed flexibly across the entire operation and irrespective of geographic location."  
*Norwegian's report for the first quarter of 2019, April 2019, p.14*

As shown in Figure 42 below, Norwegian's modern aircraft fleet is significantly more fuel-efficient than the aircraft used by its competitors. The International Council on Clean Transportation found that aircraft fuel burn was the greatest contributor to fuel efficiency for transatlantic airlines, explaining almost 40% of the variation across carriers (iv, 2018).

"It's much more fuel-efficient to cross the Atlantic on a 787 compared to an older model like the 747-400. With the 737 fleet now, the engines we have are very fuel efficient. When we have the Max phased in, it's even more fuel efficient. You can see a benefit of between 15-20% less fuel burned per passenger kilometre on the 737 Max compared to the 737-800; that's a huge leap."  
*Norwegian's Fuel Savings Manager, Stig Patey, March 12<sup>th</sup>, 2018*

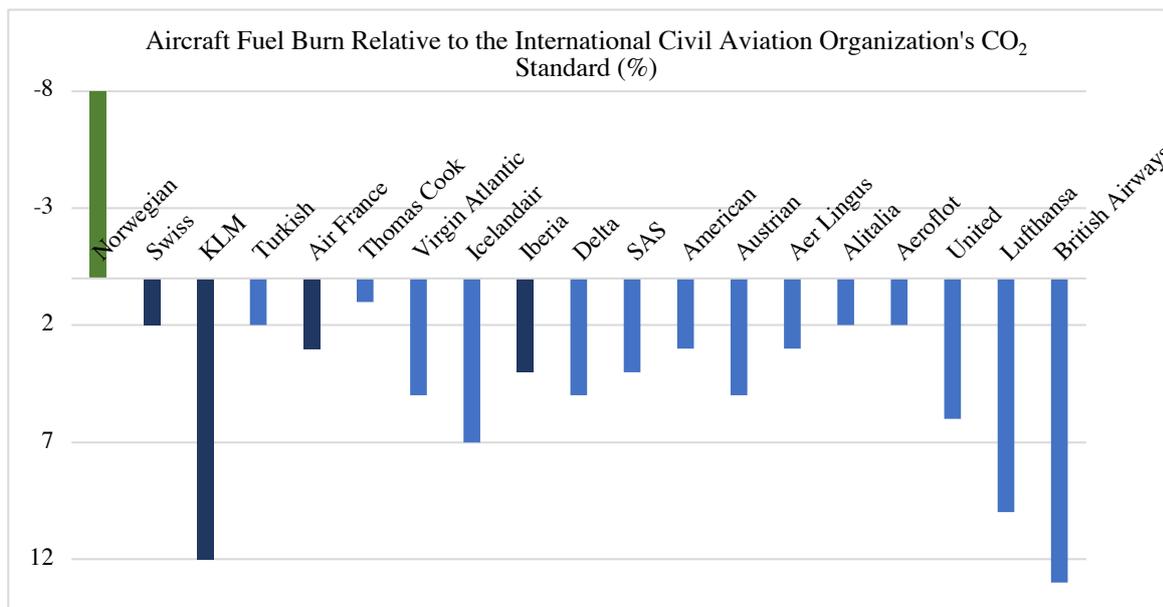


Figure 42: Aircraft fuel burn relative to the International Civil Aviation Organization's CO<sub>2</sub> standard (%), own creation from ICCT 2018

While aircraft has the most material impact on airlines' overall fuel efficiency, business model and strategic decisions such as seating density, premium seating share, network structure also contribute. Further, pricing and marketing decisions impact load factors, which are an important component of the fuel burned per passenger kilometer. Airlines' ability to optimize the use of fuel from a flight operations standpoint, while a common goal despite fleet types, is an element of overall fuel efficiency. The combined impact of all of these elements is modelled by fuel efficiency per passenger kilometer in the first column of Figure 43 below, and selected metrics are compared thereafter. As shown, Norwegian has one of the highest seating densities, lowest freight shares of total payload, and lowest premium seating shares. It has the lowest fleet age; its aircraft are almost 70% younger than its average transatlantic competitor. Combined with its capabilities to be mentioned, these make Norwegian the most fuel-efficient transatlantic competitor by a wide margin. However, De Poret et al (2015) found that the improved fuel efficiency of the new B787 aircraft "did not

do enough; however, to increase margins substantially especially when there are significant changes in fuel price and load factors” (281). The authors’ scenario analysis findings underscore the importance of using fuel price hedging to manage known risk, continuing Norwegian’s strong customer service to maintain high load factors, and leveraging capabilities to ensure operational efficiency.

	<b>Overall Fuel Efficiency</b> <i>passenger kilometres per litre of fuel</i>	<b>Relative Aircraft Fuel Burn<sup>B</sup></b> <i>average margin of aircraft to the ICAO’s CO<sub>2</sub> standard (%)</i>	<b>Seating Density</b> <i>passenger seats per m<sup>2</sup> of reference geometric factor<sup>C</sup></i>	<b>Average Passenger Load Factor</b> <i>aircraft capacity utilization (%)</i>	<b>Freight Share</b> <i>of total payload tonne-kilometre (%)</i>	<b>Most Prevalent Aircraft</b> <i>A = Airbus, B = Boeing</i>	<b>Average Fleet Age<sup>E</sup></b> <i>(years)</i>	<b>Premium Seating Share<sup>D</sup></b> <i>(%)</i>
<b>Norwegian</b>	<b>44</b>	<b>-8</b>	1,36	<b>85</b>	7	B 787-8	<b>3,6</b>	9
Swiss	37	2	0,89	81	34	A A330-300	9,6	22
KLM	36	12	0,91	88	32	B 747-400	11,5	10
Turkish	35	2	1,01	83	25	B 777-300ER	6,8	12
Air France	35	3	0,92	88	20	B 777-300ER	13,4	14
Thomas Cook	35	1	1,34	88	2	A A330-200	11,1	15
Virgin Atlantic	35	5	0,99	78	30	B 787-9	9,6	11
Icelandair	34	7	1,37	83	7	B 757-200	18,8	11
Iberia	34	4	1,08	82	20	A A330-300	10,2	12
Delta	34	5	1,08	83	18	B 767-300ER	15,8	13
SAS	34	4	0,96	75	31	A A330-300	10,7	15
American	33	3	1,01	77	25	B 777-200ER	10,8	13
Austrian	33	5	1,1	79	21	B 767-300ER	14,9	12
Aer Lingus	33	3	1,19	83	9	A A330-300	13,6	9
Alitalia	33	2	1,04	85	19	A A330-200	7,0	8
Aeroflot	33	2	1,09	83	12	B 777-300ER	4,4	10
United	31	6	1,02	75	21	B 767-300ER	15,1	15
Lufthansa	30	10	0,87	82	24	A A340-600	12,0	18
British Airways	27	13	0,75	82	23	B 747-400	13,5	25
<i>Industry Average or Total</i>	<i>34</i>	<i>5</i>	<i>1,01</i>	<i>81 %</i>	<i>21</i>		<i>11,2</i>	<i>14</i>

<sup>A</sup>The International Council on Clean Transportation’s Rankings of the World’s Top 20 Most Fuel-Efficient Airlines on Transatlantic Routes

<sup>B</sup>ICAO = The United Nations International Civil Aviation Organization, the ICAO’s CO<sub>2</sub> emission standards are an internationally agreed upon measure of comparing aircraft efficiency. The ICAO standard for the average transatlantic aircraft was 8% in 2014, and 5% in 2017. Negative values indicate the use of more fuel-efficient fleet

<sup>C</sup>Reference Geometric Factor is a measure designed by the ICAO to approximate the pressurized floor area of an aircraft

<sup>D</sup>Premium (first and business class) seats are 1.8-2.7 times as carbon-intensive as economy seats on average (Bofinger & Strand, 2013)

<sup>E</sup>Per airline fleet age information compiled by AirFleets, accessed March 2019; Norwegian’s average fleet age is a simple average of NLH (3.3), NAI (4.0), and NAUK (0.8)

**Figure 43:** Fuel efficiency per passenger kilometer for transatlantic competitors and selected components thereof, *own creation from the sources cited above*

Norwegian’s fuel managers detail the importance of Norwegian’s capabilities to its fuel efficiency through the examples of flight optimization, route optimization, and the use of weather and wind data to improve decision making. These considerations are also factored in to the cost and fuel efficiency synergies outlined in Figure 38 in the first part of the financial resources section.

“Even though we have very efficient aircraft, we need to operate them as efficiently as possible. We look at ways to optimize the entire flight [...]; flight planning, [...] how we land the aircraft to ensure the centre of gravity is optimal to save fuel. Also, we find the most fuel-efficient routing: both laterally (the overall navigation of the aircraft) and the flight level (the altitude we’re flying at). We used to use flight data that could be several hours old, and flights were optimized based on that data.

Now, we are optimizing further...we have weather data with the highest precision possible. Then we can make changes in real-time." [...] short routes would be the most fuel-efficient if we didn't need to account for wind. Jet streams can cross up to 300kms per hour: if we can catch some of these as tailwind, we can definitely have a shorter flight time. Also, when we have a strong headwind, we can look vertically or laterally to avoid those."

*Norwegian's Fuel Savings Manager, Stig Patey, March 12<sup>th</sup>, 2018*

"[Near-term stricter regulation of airlines' emissions under the EU trading scheme] will affect the whole industry; all airlines will need to manage their emissions more efficiently. [Norwegian] is very well set-up due to [its] fleet and due to our emissions being lower from the beginning. We have a more modern fleet [...]."

*Norwegian's Fuel Manager, Simon Mueller, March 12<sup>th</sup>, 2018*

Norwegian is likely to retain much of the advantages associated with having a low fleet age even if competitor airlines also purchase modern aircraft. This is because having a lower fleet age than competitors initially means that if Norwegian follows through on its goal of further reducing its fleet age through divesting older aircraft and purchasing the newest and most advanced aircraft, it will maintain the youngest fleet age for quite some time given the long lead times associated with purchasing aircraft which is, practically, even longer given the infeasibility of competitors renewing their entire fleets at once. Competition might come from a new airline, but such an entrant may lack the other assets and potential scale that Norwegian leverages alongside its young fleet. Thus, Norwegian's fleet affords it cost and first-mover advantages even before it is considered in conjunction with complementary resources, and may be a source of SCA in and of itself.

While the fleet is very valuable, the aforementioned lack and inadequacy of financial resources, which to a large extent result from obtaining the fleet, may hurt the overall company's position irrespective of the most excellent command of other resources. Before the Boeing 787 MAX 8 groundings, this may not have been as significant of a concern, because Norwegian retained the option to divest said aircraft if its need for liquidity dictated. However, Norwegian is now facing more pressure: financially, given that it has stated to investors that profitability would have been reached by this quarter, and to operate replacement aircraft or re-route passengers (Simple Flying, March 2019). Fleet homogeneity enhances operational efficiency and reduces costs. However, as shown, the same may make the company vulnerable to one manufacturer's complications. The potential for manufacturer discounts for new aircraft types must be weighed against the initial risk of "lower reliability on service entry due to engineering teething problems, which were very evident on the B787s with battery problems grounding the global fleet for three months in early 2013" (De Poret et al, 2015, p.274).

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### 5.3.2 Route Network: Global, Low Fare, Point-to-Point

As is characteristic of low-cost carriers, Norwegian operates a P2P route network. Its geographic breadth and size, as approximated by the number of aircraft in its long-haul fleet, is rare among LCLH carriers, which are themselves comparatively rare on long-haul routes. Ryanair and EasyJet's scale and dexterity have enabled them to succeed where others have failed with the low-cost and P2P network model on short-haul routes. Maintaining a low fare pricing strategy, Norwegian aspires to replicate these characteristics by building a large, globally-connected network that appropriates the P2P model's flexibility on long-haul routes.

Carriers pursuing LCLH models and the P2P networks that service them, while expanding significantly in number, scale, and region, constitute a minority of airlines (CAPA, March 2018). Worldwide, there are 17 LCLH brands operated by 14 airlines under 21 AOCs from 17 countries, as shown in Figure 44 (ibid). Of these, four fly between the United States and Europe; each with less than 1% share of the market, save for Norwegian with 7% (CAPA, March 2018; ICCT, 2018; Norwegian, 2018, own calculations). Norwegian's fleet is the second-largest among LCLH carriers worldwide, and the largest among LCLH carriers servicing the US-Europe market (CAPA, 2018). Norwegian engages this fleet on routes to more continents than any LCC or LCLH airline worldwide, as shown in Figure 45. Norwegian's P2P network serves more than 60 intercontinental routes at present (Norwegian, 2019b).

### The World's Low-Cost Long-Haul Airlines by Brand, Parentage, Age, and Fleet Size 2018

Country	Airline	Affiliation or Parentage	Launch Year	Fleet Size	Europe-United States Routes?
		<b>AirAsia</b>		<b>30</b>	
Malaysia	AirAsia X		2007	22	N
Thailand	Thai AirAsia X		2014	6	
Indonesia	Indonesia AirAsia X		2014	2	
		<b>Norwegian</b>		<b>26</b>	
Norway	Norwegian Air Shuttle		2013	5	Y
Ireland	Norwegian Air International		2014	8	
United Kingdom	Norwegian Air UK		2017	13	
Canada	Air Canada rouge	Air Canada	2013	25	N
		<b>Singapore Airlines</b>		<b>20</b>	
Singapore	Scoot		2012	16	N
Thailand	NokScoot		2015	4	
Australia	Jetstar	Qantas	2006	11	N
Philippines	Cebu Pacific	Cebu Pacific	2013	8	N
China	Beijing Capital	Hainan Airlines	2015	8	N
Germany	<b>Eurowings</b>	<b>Lufthansa</b>	<b>2015</b>	<b>7</b>	<b>Y</b>
		<b>Lion</b>		<b>6</b>	
Indonesia	Lion Air		2015	3	N
Thailand	Thai Lion Air		2017	3	
Canada	WestJet	WestJet	2015	4	N*
South Korea	Jin Air	Korean Air	2014	4	N
Brazil	Azul	Azul	2014	4	N
France	<b>French Bee</b>	<b>N/A</b>	<b>2016</b>	<b>2</b>	<b>Y</b>
Spain	<b>Level</b>	<b>IAG</b>	<b>2017</b>	<b>2</b>	<b>Y</b>

\*plans to start this year

Figure 44: LCLH carriers worldwide, own creation based on data from CAPA, 2018 and from the airlines' respective websites, accessed in May 2019

Airline	Continents		SKYTRAX World's Best...Airline (2018)	
	Rank	Continents Serviced as of May 2019	LCLH	Low-Cost
Norwegian	4	Asia, Europe*, North America, South America	1	2
AirAsia	3	Asia*, North America, Oceania	NR	1
Jetstar Airways	3	Asia, North America, Oceania (Australia Pacific*)	2	4
AirAsia X	3	Asia, Oceania, North America	3	5
Scoot	3	Asia, Europe, North America (Hawaii)	4	10
PAL Express	3	Asia*, Europe, North America	NR	16
Air Canada rouge	3	North America*, Europe, South America	5	18
IndiGo	2	Asia*, Europe	NR	7
Eurowings	2	Europe*, North America	NR	9
Jet2.com	2	Europe*, North America	NR	14
EasyJet	1	Europe*	NR	3
WestJet	1	North America*	NR	6
Southwest Airlines	1	North America*	NR	8
Ryanair	1	Europe*	NR	11
JetStar Asia	1	Asia*	NR	12
Peach	1	Asia*	NR	13
Vueling Airlines	1	Europe*	NR	15
Citilink	1	Asia*	NR	17
West Air	1	Asia*	NR	19
Nok Air	1	Asia*	NR	20

*\*= ranked as one of the best low-cost airlines in this region by SKYTRAX in 2018, "Europe" includes Northern Africa and the Near East for the purposes of this chart; "NR" means not ranked, either because the carrier does not operate long-haul routes (most cases), or was not included as one of the top 5 LCLH carriers per SKYTRAX's 2018 rankings; this chart does not include continents flown to by the airlines above in association with their alliance membership airline partners*

Figure 45: Continents serviced by low-cost carriers worldwide, own creation from SKYTRAX's 2018 rankings and information from the airlines' respective websites, accessed in May 2019

In addition to the manifold cost and fuel efficiency advantages of the P2P model outlined in Figure 38, this method of organizing Norwegian's broad-reaching, low-fare network can offer advantages relative to its competitors operating hub and spoke models provided that adequate feeder traffic is attained. On the demand side, the P2P model may contribute to increased revenues and load factors by attracting customers that prefer direct flights or are comfortable self-hubbing. The P2P model's lack of flight interdependence means that delays may not cause passengers to miss connections, or Norwegian to miss its OTP targets, both of which may in turn bolster the company's reputation, passenger retention; and thereby load factors, fuel efficiency, and profitability once again. If well-executed, the P2P model can offer a balance of efficiency and agility. Efficiency comes from the time, fuel, and cost savings of operating uninterrupted services, often augmented through use of secondary airports; avoiding circuitous routings; foregoing resources spent on administrating connecting flights; and circumventing any risk of bottlenecks caused by dependency on hub airports. Agility arises from the latter and from the ease of flight optimization; without a hub, new route additions are virtually unlimited, affording flexibility and testing in route

selection. This helps manage downside risk because, even by leveraging data, it is difficult to predict and ensure sufficient and sustained demand between destination pairs. Complementarily, the use of route pairs facilitates superior ease of route eliminations because there are no connecting passengers needing to be rerouted. Conversely, Norwegian's incumbent competitors have long benefited from the economies of scale inherent to hub and spoke organizations. Hubs make fewer flights required to serve the network, enabling high frequencies; and concentrate passengers flows, enabling high load factors. Carriers operating hub and spoke models may also be able to use distance-specific aircraft and operate flights that would not be profitable through a P2P structure, potentially earning them greater reach. Practically, most airlines use some hybrid of the two models but lie at different points along the connectivity spectrum.

“We fly out of everywhere to everywhere [...] wherever people want to fly [...] it's a totally different setup from normal legacy carriers that fly out of their one particular hub.”  
*Norwegian's Chief Executive Office, Bjørn Kjos, December 4<sup>th</sup>, 2017*

“We look at our whole network when we build our new route choices and try and make sure that we can connect from all parts of the Norwegian network. The Nordics are smaller markets, we will struggle to have a direct flight. Instead, what we do is use our short-haul connections into London to connect for those particular routes [...] Though we do look at connections, our preference on a lot of our routes is to find really big markets with lots of room to grow [...] where the fares have been kept quite high, where we can stimulate completely new traffic [...] from a new section of traveller with a lower cost base; [...] we cause people to travel more [...]”  
*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

“Fuel efficiency at Norwegian is not only about the new aircraft, it's also that we have more direct flights. We operate point-to-point without having to go via any hub. Having an additional landing definitely adds to the overall fuel burn.”  
*Norwegian's Fuel Savings Manager, Stig Patey, March 12<sup>th</sup>, 2018*

“We actually have a very unique model that I think no one else has. Whereas an airline like Air France might just fly from Paris to somewhere, we try and connect the whole world. To do that, we need multiple AOCs to get traffic rights. It can be very challenging, but we have a great traffic rights team and a great network team.”  
*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

### **5.3.3 International Air Operators' Certificates**

An Air Operator's Certificate (AOC) is an operational and technical approval issued by a country's Civil Aviation Authority which grants the holder the right to conduct commercial flights. As of this writing, Norwegian holds five AOCs, as shown in Figure 46 below. Multiple AOCs are necessary for global breadth. It is reasonable to assume that carriers do not expend resources on obtaining AOCs if they do not fly to those relevant countries, and that Norwegian's greater number of continents serviced is therefore also reflective of its greater number of AOCs. Mr. Wood's statement quoted directly above also suggests that

multiple AOCs may be rare among carriers as they are challenging to obtain. At airports in which demand for infrastructure exceeds the supply thereof, airlines also require airport slots, take-off and landing permissions, in addition to the relevant AOC in order to operate flights.

<u>Wholly-Owned Subsidiary</u>	<u>Air Operator's Certificate</u>
Norwegian Air Norway	Norwegian
Norwegian Air Shuttle	Norwegian
Norwegian Air International	Irish
Norwegian United Kingdom	United Kingdom
Norwegian Air Argentina	Argentinian

Figure 46: Norwegian's AOCs, *company website, accessed April 2019*

In addition to enabling its service of a global, low-fare network, having multiple AOCs equips Norwegian to manage external risks, a timely example being the political uncertainty pertaining to the United Kingdom's planned separation from the European Union:

"We are quite well-positioned [for Brexit] relative to our peers since we have several AOCs"  
*Norwegian's Head of Investor Relations, Stine Klund, December 4<sup>th</sup>, 2017*

"Having a UK AOC gives us an advantage because we can fly everything out of the UK and be a UK operator also. Otherwise, we could've used our EU operating license out of Ireland for a few years, but not after Brexit."  
*Norwegian's Chief Executive Office, Bjørn Kjos, December 4<sup>th</sup>, 2017*

"We are in a very good place with Brexit coming [because we have a UK AOC already]...if you look at EasyJet: they're setting up a European AOC, and Ryanair is looking to set up a UK AOC. We've been ahead of the pack because we already had our UK AOC. [The competition] is having to set up multiple AOCs to be able to fly into the UK, and then making sure they have set up a UK AOC to get the traffic rights to fly out, whereas we already have that."  
*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

"The EU slot regulation in the UK is a statutory instrument. European law would be taken into UK law...Norwegian has a great team of people looking into this...From a slot perspective, we are very well prepared. With our multiple AOCs, we have...the opportunity to move and share capacity...to ensure continuation of service...and access...Having a European AOC and a UK AOC as well stands us in good stead"  
*Norwegian's Head of Strategic Capacity and Slot Policy, Sebastian Pelissier, August 22<sup>nd</sup>, 2018*

Having multiple AOCs also positions Norwegian well to capitalize on future opportunities that may be parlayed into sustainable competitive advantages. Two examples include the possibility of obtaining Siberian flyover permissions the and possibility of achieving interoperability of staff.

"Right now, only a Norwegian crew can fly a Norwegian AOC, an EU crew can fly on a EU AOC...in the future we're hoping to obtain approval for interoperability, and will need to use exactly the same procedures"  
*Norwegian's Chief Executive Office, Bjørn Kjos, December 4<sup>th</sup>, 2017*

### 5.3.4 Zero-Level Capabilities Engaged to Extract Value from Physical Resources

In order to realize the potential synergies between the elements of fuel-efficient LCLH flights and profitability, as well as between Norwegian's fleet, network, and AOCs, flight optimization, route optimization, sales and marketing, and legal zero-level capabilities must be engaged.

### 5.3.5 Orchestration of Physical Resources

Once Norwegian's resources are mobilized through the use of capabilities, effective orchestration may reinforce or lead to more favorable competitive outcomes. With regard to Norwegian's physical resources, the processes of resource management which have the greatest potential to augment the firm's overall competitive position are components of the bundling and configuration and deployment processes. Bundling processes, especially *stabilizing* its existing route network by making incremental improvements to flight frequencies and city pairings, and *enriching* its intercontinental connectivity by upgrading its aircraft and timeliness. In terms of configuration and deployment, the *coordination of its cospecialized physical assets*, chiefly its route network and AOCs, and ensuring sufficient liquidity and solvency so that it can reap continued benefits from the *resource advantage and market opportunity deploying strategies* it has already engaged would stand to benefit Norwegian greatly.

Norwegian's fleet, P2P route network, and international AOCs are each inherently valuable and have modest barriers to their imitation. Depending on competitors' ease of purchasing or leasing expensive, modern, fuel-efficient fleets; building and maintaining strong route networks; and obtaining multiple AOCs, these resources result in competitive parity or a temporary competitive advantage for Norwegian. Taken together, however, these three key physical resources form a fuel-efficient, global route network that may yield economies of scale and scope, which could further reduce Norwegian's unit costs of operating, thus strengthening the economic moat protecting this source of competitive advantage. The questions of rarity and costliness to imitate are satisfied, while the question of value remains to be proven via profitability. Importantly, configuration capabilities as well as financial resources are necessary to mobilize the value-premium-yielding integration of these assets. DCs are required to best discern the point at which scale has been reached at the individual

route and broader network levels. Sensing and shifting capabilities are needed to perceive when expansion should yield to route optimization to avoid decreasing marginal returns, potential diseconomies of scale and scope, or overexpansion which could strain or exhaust the company's financial resources.

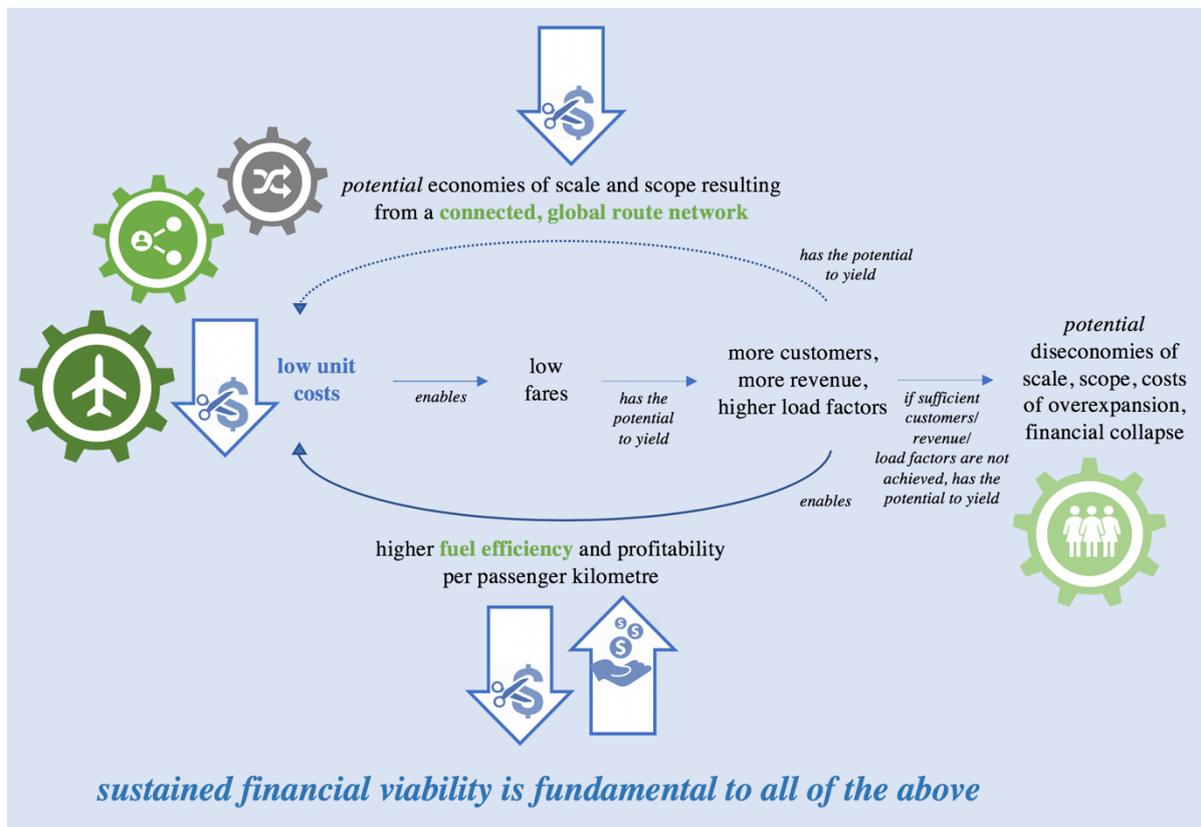


Figure 47: Potential virtuous cycle and scale benefits from Norwegian's physical resources, *own creation*

## 5.4 Organizational Capabilities

Norwegian's expert orchestration of its human and organizational resources has yielded the valuable organizational capability of *service excellence*. Norwegian's employee engagement, brand strength, innovative in-flight experience and connectivity offerings, and creative marketing efforts have created realized synergies. Outstanding customer service and superb innovation processes are organizational capabilities in and of themselves, but form an even greater "service excellence" capability when combined. Given that its component resources and capabilities are embedded in unique routines and practices that have evolved and accumulated over time, and that strong managerial capabilities have been engaged to orchestrate these, the service excellence organizational capability poses high costs to imitation. It proves even more valuable when combined with the fuel efficiency and superior

in-flight experience enabled by Norwegian's Dreamliners on its low-cost globally-connected routes. Firms with cost advantage as their *sole* economic moat (SCA) source had the lowest median forecast return of Morningstar Equity Research's global coverage universe of moat-rated companies (Hodge et al, 2017, p.18). Therefore, if Norwegian is able to implement the unconventional dual strategy of "differentiation through service excellence and innovation *together* with simultaneous cost leadership," (Heracleous & Wirtz, 2014, p.151) it would be likely to enjoy a SCA as a result. This idea confirms the findings of Low and Lee's (2014) resource-based study of over 100 airlines spanning more than two decades which found that intangible resources are the most valuable resources at the global industry level and further that "the ability to provide adequate service levels at reasonable cost is the cornerstone of a successful airline" (p.30).

## 5.5 Human Resources

Norwegian's human resources play a fundamental role in its pursuit of cost-effective service excellence, and CEO and founder Bjørn Kjos is an integral such resource. He is synonymous with the Norwegian brand and has influenced the organization's culture and subsequent results profoundly. An emergent theme in the podcast and other data was Norwegian's ability to improve organizational performance as a result of engaged employees. Thus, the research has deemed Norwegian's employee engagement, with customers (high quality customer service), with each other (cooperation, motivation, and satisfaction), and with external stakeholders (governments and partners) its most valuable human resource.

"The results were surprisingly good. When I saw the satisfaction and motivation [score], I was really surprised. What was even better was that this was really really high for the cabin crew who interact directly with the customer [...] one of the best scores I have seen this year. [...] Reputation is the main driver [of this high score]. Very often in companies like [Norwegian], where you're facing a lot of customers, it is important that [its employees] are really proud of the company [they]'re working in."  
*Anova Consultant, September 17<sup>th</sup> 2018*

Employee engagement is likely to yield positive experiences for and relationships with Norwegian's stakeholders which may improve its brand reputation and create a virtuous cycle. A strong brand may attract stakeholders, while a good experience may retain these stakeholders; this is very important for a topline- and load-factor focused business like Norwegian. Further, there exists a complementarity between Norwegian's business model and being engaged with, able to relate to, and understand learn from its customers that makes employee engagement even more important than at other airlines. Employees from all

levels are engaged and empathetic with customers' realities which makes the company's brand feel personable and resonate with consumers. This is exemplified in the excerpts below:

“When there is more capacity in the market, it means that there will be lower prices for customers, which is a good thing.”

*Norwegian's Revenue Management Director, Magnus Maursaud, January 5<sup>th</sup> 2018*

“It is all about the consumer at the end of the day”

*Norwegian's Head of Strategic Capacity and Slot Policy, Sebastian Pelissier, August 22<sup>nd</sup>, 2018*

Mr. Maursaud and Mr. Pelissier subtly and perhaps even instinctively reinforce the linkage between Norwegian's low-fare model and consumers' desires by framing their responses in relation to customers' interests as opposed to the company's own or those of the industry in general. This emotional intelligence is valuable in all levels of employment within Norwegian. Strategic direction is guided by understanding customer needs, while daily operations involve flight crew ensuring the best possible travel experience for customers. Norwegian's teams need to have the enthusiasm and focus to successfully appeal to governments, sales partners, and other external players. They also need to be engaged to cooperate across functional areas and foster an entrepreneurial culture conducive to innovation.

“It can be very challenging [to obtain multiple AOCs], but we have a great traffic rights team and a great network team. They are good at discussing with governments and convincing them of the benefits of allowing Norwegian to grow in their markets.”

*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

“Our staff are very good...we are able to sell well based on our high-quality service. In the beginning it wasn't easy, because there were lots of well-known carriers. We managed to have very good service and follow-through, which for us is very important...We need to make sure we have people we can trust [...] [Our department] ha[s] very good cooperation with Network and Revenue departments within Norwegian”

*Norwegian's Caro Manager, Trine Nygaard, April 9<sup>th</sup>, 2018*

Further, employee engagement is a socially complex phenomena bearing high costs to imitation by virtue of its embeddedness in complex networks and wide diffusion across people, locations and processes. For example employee engagement also bolsters talent acquisition and retention. This is true for many companies, but is especially important when operating as an independent carrier and with a low-cost model under which staff are less frequently unionized, often earlier in their careers, and required to serve multiple roles to increase efficiency and flexibility, which is needed to turn potential competitive advantages like the staff interoperability mentioned above, into SCAs.

“[Norwegian’s] engagement was really high...when your employees answer the question of whether they would like to work for Norwegian in two years’ time, they scored 87. That is 17 points ahead of the benchmark.”

*Senior Engagement Manager Consultant at Anova, September 17<sup>th</sup> 2018*

“When we ask the question of whether [employees] are proud to tell other people where they work, they scored 80. That is 7 points ahead of the benchmark, compared to Nordic companies. Compared to the transport sector, [Norwegian is] 12 points ahead [of the benchmark]. Generally speaking, employees in Norwegian are much more proud of their work than employees in other companies.”

*Senior Engagement Manager Consultant at Anova, September 17<sup>th</sup> 2018*

Norwegian’s employee engagement transcends organizational hierarchies, is socially complex, immensely valuable, and likely to be especially rare among carriers focused on reducing costs. This may ensconce the favorable competitive implications arising from its physical and financial resources.

### **Socially Complex Human and Organizational Resources are Mutually-Reinforcing and Entrench Advantages of Technical Assets**



Figure 47: Norwegian’s Most Important Human and Organizational Resources, *own creation*

## 5.6 Organizational Resources

Norwegian’s positive brand perception and its innovativeness are its most important organizational resources.

### 5.6.1 Brand

Norwegian’s brand is viewed favorably by its employees as referenced in the previous section, by consumers as evidenced by the awards in Figure 48 below, by the Norwegian government due to its positive impact on the Norwegian economy, and by its competitors in the broader market as demonstrated by IAG and Lufthansa’s acquisition interests. The latter

two are especially important given their ability to provide sources of financing that may ensure Norwegian's full competitive potential is realized and sustained.

Award Title	Granting Organization	Number of: Years Awarded
<b>Best Low-Cost Airline in Europe</b>	<b>Skytrax World Airline Awards</b>	<b>7: 2013, 2014, 2015, 2016, 2017, 2018, 2019</b>
Europe's Best Low-Cost Airline	Airline Ratings	2: 2014, 2015
Best in Europe, Best Inflight Connectivity and Communications	Apex Passenger Choice Awards	1: 2014 2: 2013, 2014
Best Low-Cost Airline in the World	Air Transport News Awards	1: 2014
Most Fuel-Efficient Airline on Transatlantic Routes	The International Council on Clean Transportation	2: 2015, 2018
<b>World's Best Low-Cost Long-Haul Airline</b>	<b>Skytrax World Airline Awards</b>	<b>4: 2015, 2016, 2017, 2018</b>
Best value for money	Skyscanner	1: 2014
Most Innovative Company in Norway	Innovasjonsmagasinet	1: 2018
Best Overall Passenger Experience Low Cost Carrier in Europe	Passenger Choice Awards	1: 2018
Four-star rating	Passenger Choice Awards	1: 2018

Figure 48: Norwegian's Awards, 2013-Present, *own creation*

“[it is] not a surprise for us that IAG is interested in Norwegian, the fact that they bought 4.6% of the shares is a surprise perhaps to all of us. The way I see it, it's only good news. The fact that they see Norwegian as attractive is good news for us and for other shareholders.”  
*Norwegian's Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

## 5.6.2 Innovation: In-Flight Entertainment and Connectivity, and Innovative Co-Marketing

In addition to its strategic innovation in entering the long-haul market as an independent low-cost carrier, Norwegian has leveraged its employee engagement to innovate in the areas of in-flight entertainment and connectivity and in how it markets itself.

### In-Flight Entertainment and Connectivity

In contrast to its successful low-cost European peers EasyJet and Ryanair who have committed to “de-bundling” the “frills” by offering no in-flight entertainment (Ryanair went as far as forgoing an in-flight magazine and printing its safety information on the seatbacks instead of physical cards to save weight), Norwegian's in-flight entertainment system is award-winning. Not only does it *have* in-flight entertainment as a LCC, its inflight connectivity and communications innovations have won it awards in competition with its legacy and flag competitors that offer premium services from the Airline Passenger Experience Association<sup>22</sup>, including: Best Overall in Europe, Low-Cost Carrier (2019); Best

<sup>22</sup>The Airline Passenger Experience Association (APEX) is the only non-profit membership trade organization comprised of the world's leading airlines, industry suppliers, major media groups and related aviation industry leaders dedicated to elevating the passenger experience for more than 80% of global passengers, while driving

Wi-Fi in Europe (2018); Best in Region: Europe (2015, 2014); Best Inflight Publication (John White Publication Award) (2015, 2014); Best Inflight Connectivity & Communications (2014, 2013, 2012).

Norwegian has free Wi-Fi, video on demand, and live TV news on most flights within Europe (Norwegian, 2019). It won awards for its interactive three-dimensional map and entertainment system, available on all long-haul destinations flown by the 787 Dreamliner. Norwegian's customers can purchase snacks and drinks directly from the touch screens at their seat; this is both entertaining for them and an important source of ancillary revenue for Norwegian.

As well, Norwegian will become the first LCLH carrier to introduce Wi-Fi on-board intercontinental flights as of this year (Simple Flying, January 2019). The company will offer a free, "basic" service to all passengers for the duration of their flight and a "premium" package for purchase that includes a large bandwidth, which is unavailable on some competitors' in-flight connectivity offerings. A survey of almost 10,000 passengers demonstrates the importance of Wi-Fi for driving passenger loyalty among airlines, with two thirds of customers considering Wi-Fi a key element when deciding which airline with which to travel, and Wi-Fi was being ranked as the fourth most important overall factor in airline choice (Simple Flying, 2019). (Simple Flying, August 2018). 90% of business passengers said that they would "definitely make use of Wi-Fi if it were to be offered," and 83% percent of them indicated that they would be likely to rebook with an airline if Wi-Fi were available on the flight (ibid, Simple Flying, 2019). There are currently only seven airlines worldwide in addition to Norwegian that offer free on-board connectivity: Emirates, Qatar Airways, JetBlue Airways, Turkish Airlines, Air China, China Eastern, and Nok Air. Of these, Turkish is the only airline with which Norwegian currently competes on NT routes. British Airways has also announced plans to include free Wi-Fi on its long-haul flights, but only has three aircraft equipped with the necessary technology at present (Simple Flying, 2018). Combined with the comfort of its modern fleet, and the superior customer service provided by its engaged staff, Norwegian's innovations in in-flight entertainment and connectivity may induce customers, and importantly potentially valuable business

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industry initiatives and desired regulations. It is a network of the world's leading airlines, suppliers and related companies committed to elevating the level of the airline passenger experience.

customers, to switch from its legacy competitors who are charging higher fares for an increasingly narrow difference in flight experience.

“We’re continuously improving the in-flight customer experience and we’re delighted to be the first airline offering free Wi-Fi for the full duration of long-haul flights. From being the first European airline to launch free Wi-Fi on all short-haul flights followed by free live television, Norwegian’s rollout of high-quality inflight broadband services will offer business and leisure travellers even greater value at affordable fares.”

*Norwegian’s Vice President of Business Development, Boris Bubresko, January 9<sup>th</sup> 2019 (Simple Flying, 2019)*

Being the first airline to launch these services further confirms their focus on the customer experience, builds its brand, and strengthens its reputation for innovation.

### **Creative Co-Marketing**

Norwegian has also taken an innovative approach to marketing itself as an independent carrier that does not have an association with any of the three major airline alliances. It has engaged in a partnership with Avinor, the Norwegian Ministry of Transportation’s civil airport operation company, and the Norwegian government’s organization for innovation, tourism, and development, Innovation Norway (Avinor, 2015). The latter’s partnership with Disney, creator of the hugely successful Norwegian-inspired animated film *Frozen*, drew media attention and increased travel to Norway from North America by a record 31% during 2014 (ibid).

“It’s important to think big and look to ride cultural waves. But you don’t have to do it alone. Partners can help provide insight, relationships, new capabilities – and share risk. By working together and pooling resources, we not only captured more market share for Norwegian, but in fact grew the overall size of the market to Norway.”

*Hege Vibeke Barnes, Director of Innovation Norway’s New York City Office and Visit Norway North America, 2015, qtd in Avinor, 2015*

“Norwegian’s non-stop flights between the US and Norway have been very well received by travellers on both sides of the Atlantic. Our affordable fares have enabled scores of Americans to experience Norway and Europe. There is no doubt that our partnership has increased the public’s awareness about Norway as a wonderful destination and Norwegian as the airline that will get you there comfortably and affordably.”

*Lasse Sandaker Nielsen, Vice President Corporate Communications 2015, qtd in Avinor, 2015*

### **5.6.3 Zero-Level Capabilities Engaged to Extract Value from Organizational Capabilities**

Zero-level capabilities including but not limited to cooperation, coordination, and trust are important to realize the potential of Norwegian’s human and organizational resources. OTP,

which is of particular importance to maintaining Norwegian's brand strength reputational resources, is helped in turn by the aforementioned capabilities.

#### **5.6.4 Orchestration of Organizational Capabilities**

Norwegian's key organizational resources, its strong brand and innovative capabilities, benefit primarily from the engagement of enriching, pioneering; entrepreneurial deploying, and nurture innovation resource orchestration capabilities endowed to them. Stabilizing is of value to its engaged employees, its key human resource, given that this resource is already strong and the focus should be on upholding these high motivation scores as discerned by the Anova consultant.

Norwegian's innovative approach to service as a LCC and marketing as an independent have won it various awards, and increased passenger traffic year over year. However, it can have the best fleet, most engaged employees, and most innovative ideas but if it has over expanded with too weak a balance sheet and a fundamentally-flawed business model, these other resources advantages may not be able to be realized.

Realizing the potential synergies between fuel efficiency and profitability; achieving economies of scale, scope, and even first-mover advantages from its global low-cost low-fare network; and continuing to orchestrate socially-complex assets and processes such as innovation and employee engagement may enable Norwegian to cultivate a SCA, provided it ensures sufficient financial resources to continue operations.

### **5.7 Findings and Analysis Part 2) Evolutionary Fitness: Dynamic Capabilities**

*The resources in the first section of the findings chapter were analyzed against goals of **technical** fitness, efficiency, customer retention and revenue generation. This second section evaluates Norwegian's dynamic capabilities. As depicted by their position in the upper right quadrant of the Key Determinants of Firm-Level Performance Integrative Framework, dynamic capabilities transcend such operational aims. Rather, their cultivation of continual improvement processes ensures **evolutionary** fitness by equipping the organization to combat broader concerns of obsolescence and disruption, or to pioneer frontiers. The most important elements of dynamic capabilities as they pertain to airline companies is their*

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*potential to foster innovation and agility. Pervasive industrywide failures underscore that airlines' ability to successfully hedge against high risk or deep uncertainty is hugely challenging. Hedging both may be prohibitively difficult, yet the same may be critical to sustained outperformance.*

Norwegian has continually maximized risk exposure in pursuit of a high evolutionary payoff, as driven by CEO Bjørn Kjos. Now that the world's fastest-growing airline has exited the period of rapid and extensive expansion for which it sacrificed basic resources, the question of the payoff of these risky investments is called to the forefront. The credibility of ex-ante estimates of said implications are aided greatly by a robust understanding of the strength of the dynamic capabilities underpinning the decisions that contributed to them. And, while Norwegian's risk-taking has thus far paid off in a number of ways, the following should be appreciated:

“[...] dynamic capabilities can decrease firm performance. [...] they require extensive management and are more complex to use. The resulting difficulties and associated costs may not have a commensurate increase in performance since dynamic capabilities have a high chance of failure, may lead to unnecessary change, and change the firm extensively. [...] the greater the change a firm attempts to implement, the greater the risk of failure (Cyert & March, 1963; Leonard-Barton, 1992)” (Drnevich & Kriauciunas, 2011, p.258).

### **5.7.1 Seizing the Opportunity to Act as a Strategic Innovator: Transatlantic Market Expansion**

Norwegian possesses *seizing* dynamic capabilities which enable it to “achieve congruence with customer needs and technological business opportunities” (Teece 2014, p.332). Customer needs for affordable travel in a market dominated by high-fare legacy carriers were met with low fares, and the technological opportunities afforded by advanced aircraft were capitalized on through acquisition of the transatlantic's newest fleet.

“I met some people on our Dublin to New York route who were just going for the long weekend because it is now cheap and accessible. I think a lot of our long-haul routes have done that. We've gone into a really big market where the flag carriers have kept prices really high, [...], and we have given [passengers] another option.”

*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

Norwegian incurred significant costs to mobilize the necessary resources to seize these two significant opportunities, and now needs to prove it can capture value from having done so (Teece et al, 2016, p.18). This is contingent on overcoming the risk of overexpansion to reap scale advantages, translating any of these into improved profitability in the near-term, and guarding itself against price competition in the longer-term.

“We are growing a lot, so that means that we have to be very cautious of the growth itself – it’s a risk. If we cannot produce more when we grow, that’s risky. We should produce more, with less. It’s very, very difficult because you need the same set-up, more or less, whether you fly 20 aircraft or 120 aircraft. If you ramp-up the same amount of people when you go from [a fleet size of] 20-120, you don’t get the scale out of it, you only get the risk.”

*Norwegian’s Chief Executive Office, Bjørn Kjos, December 4<sup>th</sup>, 2017*

Accordingly, Norwegian’s ability to reap the benefits of scale versus risk is presented below. Figures 49-50a show the development of Norwegian’s unit costs excluding fuel alongside the number of aircraft in its fleet from the comparable quarter in the year before it entered the long-haul market until the most recent quarter.

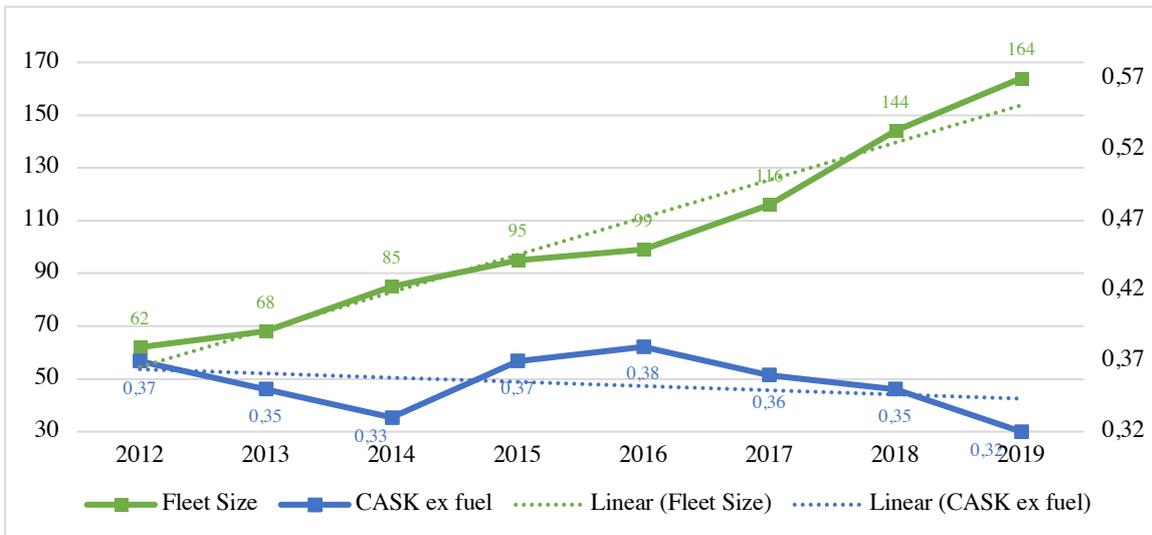


Figure 49: Norwegian’s operating cost EBIT level per available seat kilometer excluding fuel compared to its fleet size, first quarter 2012-first quarter 2019, *own creation from Bloomberg Professional Service data*

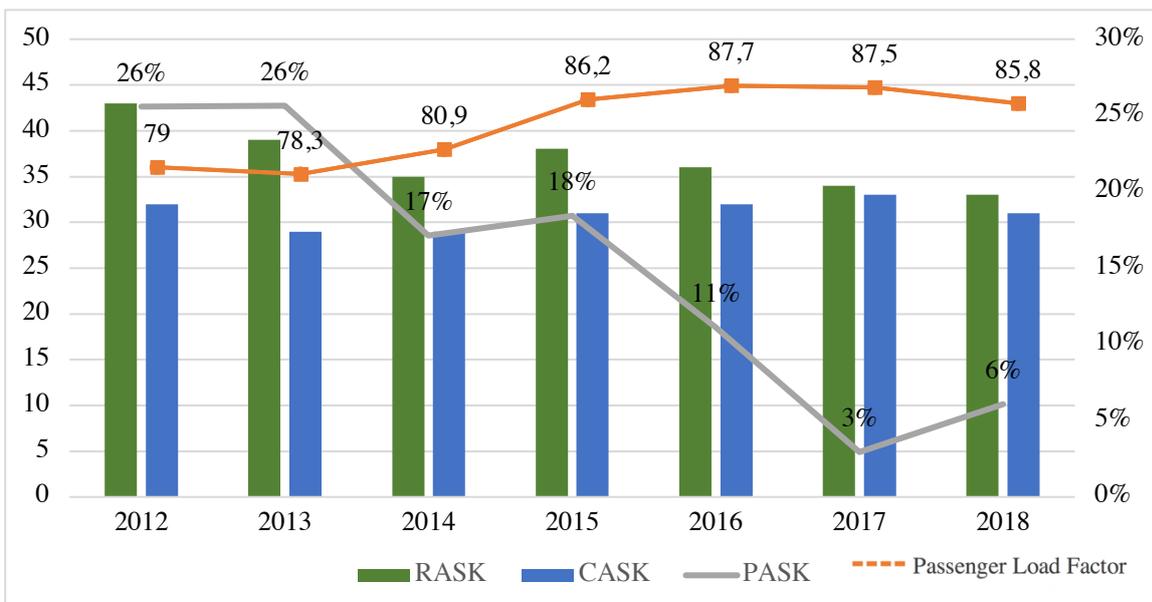


Figure 50: Norwegian’s consolidated cost per available seat kilometre excluding fuel (CASK), passenger revenue per available seat kilometre (RASK), profitability per available seat kilometre (RASK-CASK =PASK), and passenger load factor, *own creation from Bloomberg Professional Service data*

Fiscal Year	Norwegian			American			Delta			British Airways			IAG			Air France		
	RASK	CASK	PASK	RASK	CASK	PASK	RASK	CASK	PASK	RASK	CASK	PASK	RASK	CASK	PASK	RASK	CASK	PASK
2012	43	32	11	13	4	9	14	6	8	6	4	2	7	5	2	7	7	0
2013	39	29	10	14	6	8	14	6	8	6	4	2	7	5	2	7	6	0
2014	35	29	6	14	6	8	15	6	8	6	4	2	7	5	2	7	6	1
2015	38	31	7	13	6	7	14	6	8	6	4	2	7	5	2	7	6	1
2016	36	32	4	13	7	6	13	7	7	6	4	2	7	5	2	7	6	0
2017	34	33	1	14	7	7	14	7	7				7	5	2	7	7	0
2018	33	31	2	14	7	7	15	7	8				7	5	2	7	6	0
Average Passenger Load Factor (%)	84			82			85			81			81			86		
Average PASK	6			8			8			2			2			0		

Figure 50a: CASK, RASK, PASK, and Load Factor comparison between Norwegian and selected transatlantic competitors pre-and post-Norwegian's market entry, *own creation from Bloomberg Professional Service*

As mentioned, events beyond Norwegian's control have negatively impacted its profitability over the past year and a half. However, operating with a greater margin of safety may have enabled the company to become profitable by now despite these. Only time will reveal whether seizing the opportunity to act as a strategic innovator in the transatlantic market demonstrated strong, weak, or nonexistent seizing dynamic capabilities in relation to value capture, as visibility on any unit cost reductions will improve now that growth-related costs have "come off."

Norwegian's seizing of the opportunity to disrupt the US-Europe passenger market has enabled it to gain share from incumbent rivals, and is likely a main factor in, among others, the US's first LCLH, World Airways', planned entry this year. The strength of Norwegian's seizing capabilities will be revealed by the sustainability of this market share growth despite new entrants and pricing pressure exerted by incumbents. Conversely, if inferior, Norwegian's seizing capabilities may exacerbate its liquidity risk, especially following a price war, which could prove fatal for Norwegian, or at least NTS. Further, if evaluated from the perspective of their means for effectuating agility, Norwegian's seizing capabilities can neither be characterized as especially weak or strong as of yet: agility may be won through scale or lost through financial paralysis. To be touched on in the shifting section, Norwegian, with its fleet, has maintained contractual flexibility with its outsourced manufacturing, the latter of which is not rare in the industry. On the other hand, it has virtually no organizational slack, although this should improve this in the current post-expansion period. McGrath and MacMillan (2000) claimed that SCA could best be achieved through seizing ever-new waves of strategic initiative in hypercompetitive markets such as aviation. It remains to be seen whether the transatlantic wave will close out or surge forward for Norwegian.

### 5.7.2 *Sensing that This Time is Different*<sup>23</sup>: Low Fare Transatlantic Business Model

The extent to which Norwegian possesses strong *sensing* dynamic capabilities determines its accuracy in sacrificing technical and operational efficiency to capitalize on opportunities that have a greater net benefit. Specifically, did it accurately sense the opportune time in history to pursue transatlantic LCLH as an independent carrier, and how accurately will it be able to sense future changes necessary to ensure the benefits of its entry are maintained. Recall from the Theory Chapter that, in the airline industry's conditions of strong environmental dynamism, "doing the right things is more important than doing things right" (Teece et al, 2016, p.15). Norwegian is the longest surviving example of an independently-executed LCLH strategy on transatlantic routes to date, likely given claims of its infeasibility until now, offered by industry experience and academia alike. However, aircraft technology and consumers' comfort level using technology are definitely different "this time." The impact of these changes, however, must have advantages sufficient to offset the especial challenges of operating with a LCLH model.

In response to the question of why LCLH is feasible across the transatlantic for Norwegian now, Mr. Wood answered:

"One of the main reasons is aircraft technology: the brand-new aircraft. We have aircraft that can fly a lot further and be a lot cheaper, then we can stimulate lower fares. Next, the whole marketplace has changed. People are not linked or limited to airlines now. You've got people going on [price comparison websites such as] Kayak, Skyscanner. They're not as sensitive [to switching between airlines] as they once were. All you're doing is giving the passengers a choice. You're making sure that you don't have these crazy old rules like "Saturday night stay" or having to book a return trip with some flag carriers, otherwise the price goes up 400%. I think we're able to do it because we have new aircraft technology, and because we have a much easier way to distribute because people are much more comfortable with using technology to buy their flights."

*Norwegian's Vice-President of Route Network Strategy, Matthew Wood, February 6<sup>th</sup>, 2018*

While not mentioned in the podcast interviews, Mr. Kjos echoes the sentiment about the impact of the internet on Norwegian's business:

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<sup>23</sup>This heading references the book with the same name. Authored by two economics professors, the title references the fact that every few decades, the economy's major players develop bulletproof confidence in the efficiency of markets and the health of the economy. "This-time-is-different syndrome's," unrealistic optimism afflicted bankers, investors and policy makers before the 1930s Great Depression, the 1980s Third World debt crisis, the 1990s Asian and Latin American meltdowns, and the major 2008-2009 global downturn. Conditions differed, but the same mindset – a dangerous mix of hubris, euphoria and amnesia – led to each of these collapses. In each case, decision makers adopted beliefs that defied economic history.

<https://www.economist.com/media/pdf/this-time-is-different-reinhart-e.pdf>

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“[Freddie Laker] might have had a chance if the digital world had existed, but he had to rely on the travel agents, which strangled him. Now you Google and you find the cheap tickets.”  
*Norwegian’s Chief Executive Office, Bjørn Kjos, 2014, quoted in the Guardian Newspaper*

Mr. Wood, Mr. Kjos nor any of the other interviewees mentioned the lack of financial resilience to recessions, fuel price increases, and predatory price responses, or the difficulties of overexpansion relative to demand with the P2P network model that caused transatlantic LCLH’s not limited to Laker, Zoom, Icelandic, Primera and most recently in March WOW Air to fail. This quote from WOW months before filing for bankruptcy parallels Norwegian’s current rhetoric: “WOW Air is now restructuring and simplifying its operations to return to its roots as a profitable low-cost airline” (Telegraph, 2018). WOW being a private company means that its financial position prior to failure cannot be compared to Norwegian’s, however Norwegian’s customer service far exceeds that which had been offered by WOW. WOW was second after Norwegian in the ICCT’s NT fuel efficiency rankings for last year, which serves as empirical evidence of the economic principle that cost advantages in isolation cannot sustain a competitive advantage.

If Norwegian’s *sensing* dynamic capabilities are strong, it may reap first-mover advantages. This may occur, as the company is already the longest surviving with the model as an independent to date. Per Norwegian’s huge revenue and market share success, the transatlantic market has now more low-fare long-haul seats than ever before (Telegraph, 2019). Norwegian’s customer service and attractive new aircraft offer some insurance against the case of passengers switching to lower fares, but “IAG, Air France, and Lufthansa can afford to make a little less money; Norwegian can’t” (ibid). Successful LCC Air Asia was unable to make its long-haul routes profitable and cut them after four years, Norwegian has been unprofitable for three (likely going on four) of five long-haul years at present; whether it is on the precipice of profitability or not is unknown. Per contra, if inferior, Norwegian’s *seizing* capabilities may have hugely negative competitive implications. Sacrificing technical and operational efficiency to capitalize on an expansion opportunity that has a net negative benefit may leave its managerial resources overstretched and the company undercapitalized of its own cause. Operating as efficiently as possible on the threshold of risk and uncertainty requires the sensing of unknown futures. If Norwegian correctly sensed that NT LCLH was the play, its decision to act as a strategic innovator may compensate for the fact that it had imperfect resources to do so.

### 5.7.3 *Shifting*: Is Norwegian Lean Enough to Build-Measure-and-Learn?

Norwegian possesses *shifting* dynamic capabilities which enable it to reorient its prospects in promising ways. The company has stated aims to engage its shifting capabilities in four main ways:

route optimization;

“[...] we have less new aircraft coming into production going forward. This means that we can focus more on existing route planning. I don’t think that you will see us opening many new routes [...] we would rather do more frequency on routes that we already know give us good returns.”

“We will be changing the routes more than we have done before in order to fly less on the destinations we know to be difficult during the winter and shift that capacity towards more leisure destinations.”

“We expect to learn from the routes we have opened. You will see that, if the routes are not becoming profitable, we will do something about it.”

*Norwegian’s Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

Shifting capabilities’ mode of agility attainability is building through learning. This aligns well with the route flexibility afforded by using a P2P network model.

the renewal and restructuring of its fleet;

“We have said that we might divest up to 140 aircraft, we might actually divest a lower number of aircraft. [...] we have had several interested parties approach us about these aircraft. The divestment program will be a combination of aircraft that we plan to renew by replacing with newer aircraft, and we are considering doing something with the order book. [...] This could be a straight sale, it could also be spinning off into some kind of leasing structures to third parties. It looks like it will be a combination; time will show how many we will divest and when [...]”

*Norwegian’s Chief Financial Officer, Geir Karlson, June 14<sup>th</sup> 2018*

Maintaining the ability to shift alongside internal and external developments because of its fleet divestment program also benefits its low fleet age and may help hedge liquidity risk.

and, changing its fare structure;

“We have recently introduced differentiated pricing for seat selection on certain routes. We will expand this to most of our route network fairly quickly. Until now, seat selection has had the same price point regardless of whether it had been a middle seat at the back of the plane, or an emergency exit seat with extra legroom. We’re changing that now, which we believe will be a good driver of ancillary revenue. We also introduced a ‘bid-for-upgrade’ program last year, for passengers on the long-haul routes, which has been very successful.”

*Norwegian’s Revenue Management Director, Magnus Maursaud, January 5<sup>th</sup> 2018*

Norwegian has also since added a Premium Economy fare option for its transatlantic travelers, which is its version of business class, and is moving some of its routes to primary airports (Simple Flying, April 2019). This suggests that it is not tied to the low *fare* long-

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haul concept indefinitely, and may be able to improve its profitability as a result of its ability to renew its business model. However, with seating density being a key contributor to fuel efficiency and cost minimization on a per passenger basis, the company must make sure that it obtains high load factors for these seats to justify sacrificing the space and their higher cost of servicing (De Poret et al, 2015). When coupled with being one of the first carriers to offer free Wi-Fi on long-haul flights, and the first on LCLH flights, offering a premium cabin may help the company win over some valuable economically-minded business customers. If said customers enjoy their experience, they may be retained, but the loyalty erosion resultant of internet price comparison sites and consumers technological literacy mentioned in the sensing section may not apply to business passengers. Such executives are typically older, may have their credit cards linked to other airlines' loyalty programs already, may have corporate partnerships that dictate the airlines with which they fly, and may be less technologically savvy.

If Norwegian's *shifting* dynamic capabilities are strong, it may accomplish continued business model innovation, which Mitchell and Cole (2003) argue to be the only way to sustain a competitive advantage. Parallel to its engaged employees' ability to respond to changing stakeholder needs, strong shifting capabilities may enable Norwegian to respond to an ever-evolving and uncertain business environment and nurture a SCA. If or when it has established its network and achieved scale, Norwegian can continue to incremental versus radical innovation (Ettlie et al, 2003). For example, "pioneering bundling may capture new and novel knowledge from several sources to create a capability for radical innovation, which is then leveraged with an entrepreneurial strategy" (Sirmon et al, 2011, p.1397). Norwegian could even shift its business model entirely and pivot into another industry, or this could happen more gradually over time. Many successful businesses have survived and thrived because they were able to adapt: American Express, Berkshire Hathaway, Novo Nordisk to name but a few. Whereas if Norwegian's shifting dynamic capabilities are weak, either inherently or because other decisions or structural constraints render it too inflexible to carry them out, shifting may neither be possible or impactful. As well, shifting may sacrifice potentially valuable work in progress or existing core competencies. Strong shifting and sensing capabilities should be engaged in parallel to reduce these likelihoods.

Striking the balance between managing risk and uncertainty is both hugely important and hugely difficult. Too much dynamism may exhaust resources and, ironically, preclude

evolutionary existence, let alone fitness. This evaluation of Norwegian's DCs arrives at the conclusion that, while they have so far been strong enough to compensate for a lack of more quotidian resources and capabilities, in the longer-term, the company's seizing, sensing, and shifting capabilities need to be scaled such that technical fitness is prioritized; this is the ability to know "when and how much" that Teece et al reference (2016, p.14). Having strong DCs would indicate that Norwegian will also know when to sacrifice agility for efficiency. While seizing capabilities were most important for its expansionary phase, shifting now takes the stage when the company needs to be sure that it can (re)build the technical fitness it sacrificed. Too much shifting an inherent risk. Constant change may diminish potential compounding of experiential knowledge, thwart excellence rooted in learning curve economies, and disqualify differentiation sourced from specialized excellence. Strong DCs perhaps furnish companies like Norwegian with the perceptivity to pursue proven strategies in situations of predictable unpredictability, and the discipline and restraint to maintain simplicity in such conditions. Simplicity in turn licenses the chief precondition of dynamism: flexibility.

If Norwegian *can* strike the right balance, it may be indicative of future propensity to exhibit disciplined DC allocation and continually innovate its business model, thus cultivating a SCA.

## 6. Discussion and Conclusion

*This closing chapter presents the analytical discussion of the previous section's empirical findings in relation to existing literature. The competitive implications of the attributes of the resources Norwegian currently controls and the strength of the organization's dynamic capabilities are compared to broader academic and practical discussions of innovation and SCA in the airline industry and beyond. The research's analysis of a single company's internal abilities contributes to and benefits from drawing parallels and highlighting contradictions between these other insights. Notwithstanding the value of its contributions, the study incorporates certain limitations. These are detailed, then the thesis concludes with practical implications recommendations for future research.*

### 6.1 Relation of Findings to Contemporary Literature and Practice

For ease of reference, the research investigated the extent to which Norwegian possesses the resources and capabilities required to cultivate a sustainable competitive advantage. By creating and leveraging an integrated framework to conduct a nuanced internal analysis of a unique and ongoing case of strategic innovation, this study provided the first in-depth means for investigating the efficiency and agility trade-off in the context of a capital-intensive firm. Focusing on an innovative airline company's ability to achieve agility in line with the tenets of the lean methodology under circumstances in which irreversibilities *do* pose costly challenges (Teece et al, 2016, p.26) tests the methodology's general applicability. At present, Norwegian must manage the results of having put its ordinary and dynamic capabilities in conflict if it is to ensure organizational sustainability. The research found that, conditional on sustained liquidity and solvency, engaging zero-level and dynamic capabilities to realize synergies between fuel efficiency and profitability; achieve economies of scale, scope, and even first-mover advantages from its global low-cost low-fare point-to-point network; and maintain socially-complex assets and processes such as employee engagement, innovation, and organizational dynamism may enable Norwegian to cultivate a sustainable competitive advantage. A key concern going forward is Norwegian's ability to maintain its high service quality despite its ambitious cost cutting goals for 2019. Norwegian's broader future success rests on its ability to manage risk and uncertainty. The strength of its capabilities and resource orchestration determine the adequacy of this ability.

### 6.1.1 Relation of Findings and Analysis to Resources and Capabilities Literature

The case of Norwegian confirms the enduring relevance of the RBV, especially the importance of tangible resources and technical ones in particular. As the RBV has been improved upon through the contribution of more nuanced and prescriptive elements, notably RO and DCs as highlighted in this thesis, discussions of tangible resources have been succeeded by these newer concepts, many of which acknowledge their importance, but have faded to more token discussions as of late. Thus, the case of Norwegian serves to revitalize more basic discussions of resource importance.

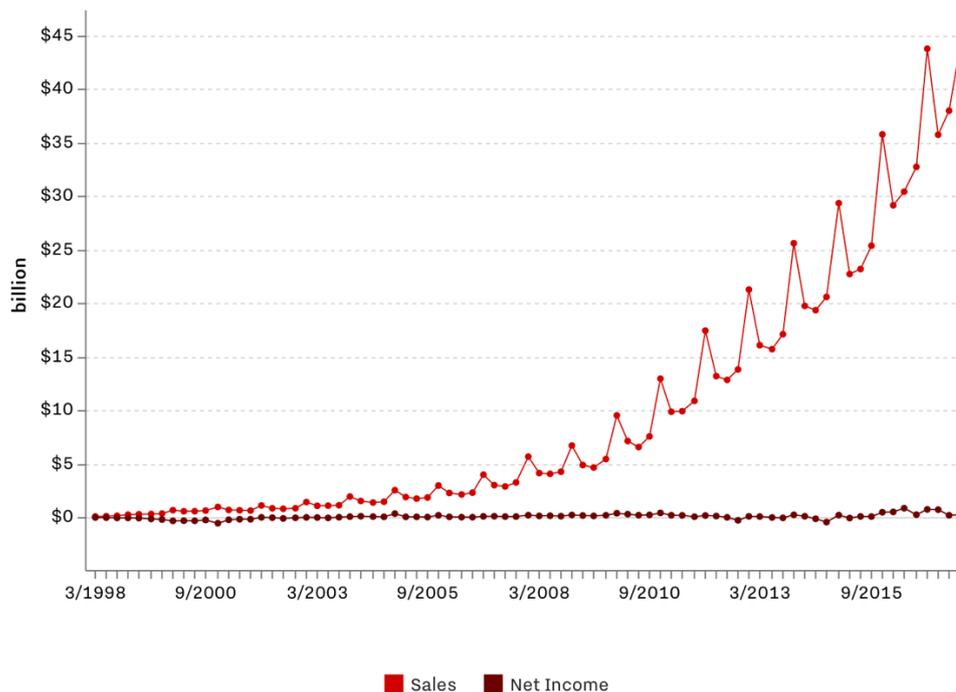
Norwegian is an interesting case to investigate because it relies on public funding rapid to take advantage of technological developments in *physical* (aircraft) technology, in an era in which unprecedented amounts of private funding flows to firms to take advantage of technological developments in *digital* technologies. In both cases, many of these firms have impressive user bases and sales growth but are posting significant losses,<sup>24</sup> offering services at deep discounts to “supercharge revenue growth,” and justifying their actions through espousal of the “Silicon Valley doctrine of ‘blitzscaling’ in order to conquer ‘winner takes all markets’” (Economist, 2019a). Also, in both cases, the economic sustainability of these firms’ underlying business models is in question. The viability of many of these business models is unproven and firms pursuing scale at all costs further stand to have their agility constrained through regulation, economic downturn, or a shift in investor sentiment.

Three fundamental shifts have led to the normalization of these business practices. First, the digitization of commerce via cloud computing, smartphones, and social media facilitated expeditious global distribution, marketing, and growth; second, the low interest rate environment; and third, the huge success of a minority of tech firms such as Facebook, Google, Alibaba and Tencent following asset-light expansion and benefiting from global network effects has prompted companies in various industries to attempt to extrapolate the success of this ideology, and exhaust billions of dollars of funding in so doing (Economist, 2019a). The world’s most valuable public company represents the kingpin of such thinking.

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<sup>24</sup>“To see profitlessness as rampant as today’s you have to go back to the peak of the dotcom boom in 2000. [...] Amazon, which before and after its IPO was seen as a particularly profit-averse company had cumulative losses of \$3bn between 1995 and 2002. Uber lost almost \$4bn just last year, excluding exceptional items” (Economist, 2019a)

Amazon, with a current market capitalization of \$893 billion, is also notoriously unprofitable (Bloomberg, 2019; Economist, 2019a; Forbes, 2017). Bjørn Kjos’s vision and storytelling, almost evocative of Jeff Bezos’s, have buoyed Norwegian through its most recent bout of unprofitability and expansion and similarly afforded it cheap capital. However, Amazon’s unprofitability was more of a strategic decision, and the company did not burn cash or have large operating losses (see Figure 52). Amazon, Uber, and Norwegian’s profit sacrifices have influenced the broader economic environment to the benefit of consumers.



**Figure 52:** Amazon’s Quarterly Revenue and Net Income from 1998-2017 inclusive to be viewed in reference to Figure 18, *FactSet Research Systems database, 2018*

Charismatic 72-year-old Kjos’ retirement,<sup>25</sup> competitors’ aggressive response, and the next economic correction are impending and potentially dire challenges to Norwegian’s success given its financial precarity. The unique competitive pressures of the airline industry coupled with the especially narrow margins of the LCLH model may mean that Norwegian’s attempt to “move fast and break ‘things’” may include its covenants. Kjos, for example, emphasizes the importance of the digitization of commerce, especially online travel sites and fare comparison tools, as an enabling factor for Norwegian’s expansion, and emphasizes Norwegian’s growing passenger and revenue numbers and global network. The problem

<sup>25</sup>Bjørn Kjos has indicated plans to retire within the next two years. “I am deep in overtime. I should have retired a long time ago. There is a time for everything, but it’s perhaps not only my decision,” Bjørn Kjos told Norwegian broadcaster NRK earlier this year. Norwegian’s board says it has a succession plan underway.

with Norwegian's attempt to mimic the success of this minority of network-effect-led tech company success is that Norwegian's business is the exact inverse of asset-light; it sells a commodity product offering none of the lock-in and network factors that lead, for example, Facebook to thrive; and, its key advantages (its fleet and customer service) are somewhat contestable. Therefore, its losses may be structural, versus growth- or "blitzscaling"-related and temporary, as a result of failing to give due consideration to the quotidian importance of technical resources such as cash flows.

“The goal for Lyft and Uber—and for all of the entrepreneurs being urged to blitzscale—should be to make their companies more sustainable, not just more explosive.’ [On the other hand,] what value is there in a sustainable business model that gets outcompeted by a blitzscaler?” (Economist, 2019b)

Further, most of the tech companies' business models have yet to be validated. De Poret et al (2015) investigated the economic viability of the LCLH business model in the transatlantic market through an in-depth industry-validated cost and revenue assessment of operations using best-in-class aircraft technology, the Boeing 787. The authors' main findings are twofold. First, ongoing operating profit for transatlantic LCLH carriers is very sensitive to demand and fuel price variations despite the use of new, highly efficient Boeing 787s (De Poret et al, 2015, p.272). Second, LCLH carriers pursuing demand-focused network strategies can ensure financial viabilities through the creation of higher seating densities, higher cargo revenue, and ancillary revenue (ibid). Therefore, Norwegian's business model may be structurally sustainable, though not easy to execute, but the significant risks it has taken to "blitzscale," especially the debt incurred, may provide an even higher hurdle rate.

### **6.1.2 Relation of Findings and Analysis to Resource Orchestration Literature**

A key theme in the podcast data was the informants' emphasis of Norwegian's strategic shift from expansion to profitability, reflective of the company's transition from the growth to maturity, or perhaps decline, life cycle stages. Accordingly, Sirmon et al's extension of resource-based theory through their research on RO at various stages of firm maturity is most pertinent to a discussion of these findings. The authors assert that firms' competitive advantages are temporary, as a result of firms' dynamic environments and their different lifecycle stages (2011, p.1400). RO efforts as growth slows require management to focus on "increasing the efficiency of current operations and innovating to create new areas of growth" (Miller & Friesen, 1984 qtd. in Sirmon et al, 2011, p.1400, emphasis added) or to focus on resource conservation if the organization faces decline. Given the impact of recent

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exogeneous events and the recency of the shift, it is difficult to discern whether Norwegian is in the maturity or decline stage at present. As the equity research analysts interviewed suggested, this will likely become clearer at the end of this fiscal year or shortly thereafter.

While a growing firm “often requires the accumulation of debt or external equity to sustain it,” (p.1401) which was definitely the case for Norwegian’s expansion, in the maturity or decline stages, importance shifts to management’s orchestration of the resources or capabilities it was able to secure with said financing. These assets should form the basis for managers’ pursuit of “efficiency in its existing operations” in its exploitation efforts (p.1402) or to “identify and divest resources” (p.1403) to ensure that their accumulation managerial capabilities do not eclipse other managerial capabilities. In the maturity stage, Sirmon et al advocate for continued innovation.

Neither the podcast data or more recent earnings reports suggested efforts were being made by Norwegian to innovate in parallel with a return to profitability. More so, the respondents’ focus seemed to be on reaping the benefits from their growth and that alone, which may indicate Norwegian is in the decline stage and “must conserve resources in order to survive” (p.1403). Norwegian’s fleet divestment supports its categorization in the decline stage as opposed to maturity; the authors state that this is often required in organizational decline. Again though, the authors emphasize the importance of “new innovation efforts” even in decline (p.1403), echoing Abell’s (1999) recommendation that firms maintain both short- and long-term planning horizons in an iterative relationship with each other and balance financial and strategic controls, and similarly Teece’s (2014) support for concurrent cultivation of technical and evolutionary fitness, and Teece et al’s (2016) counsel to balance risk and uncertainty, efficiency and agility.

The thesis’s findings suggest that, given its comparative lack of financial resources, Norwegian may have insufficient organizational slack, especially financial resources, to continue to innovate as it attempts to regain profitability. As a result, it may sacrifice the favourable implications of the resources it does have for failure to maintain proactive innovation. Norwegian’s aggressive pursuit of innovation may have precluded it from continued innovation required to maintain the competitive position afforded by the former. Finally, acquisition is cited as a fruitful avenue for recovery from decline, which supports the conclusion the researcher made in the financial resources section of the Findings and Analysis Chapter (Morrow et al, 2007 qtd in Sirmon et al, 2011, p.1403).

On a higher level, Sirmon's et al's seminal work on resource orchestration, despite its integrative disposition, does not recognize the possibility of dual strategies (Heracleous & Wirtz, 2014, p.151). Given Porter's (1980, 1985) argument that dual strategies would be impossible to achieve or sustain over time given the "contradictory investments and organizational processes" they necessitate (qtd in Heracleous & Wirtz, 2014, p.151), it follows that Sirmon and Hitt (2009) highlight that each strategy "required different types and levels of resources" (qtd in Sirmon et al, 2011, p.1398).

However, literature has shown that Porter's generic strategies may be viewed as dimensions of strategic positioning (Miller & Dess, 1993); and that differentiation and low-cost strategies can even be successfully combined (Miller & Friesen, 1986, qtd in Heracleous & Wirtz, 2014, p.151). Realizing these dual strategies requires ambidextrous capabilities which, like the asset orchestration framework resource orchestration encompasses, are derived from DCs (Heracleous and Wirtz, 1986 p.152; Adner & Helfat, 2003). Thus, given that they share the common element of DCs, are both concerned with how managers can make decisions best conducive to achieving a SCA, and that each involve integration of complementary concepts anteriorly siloed, and that each emphasize balancing parallel processes of innovation and efficiency, make uniting them seamless and worthwhile. In the same way that RO explores how managers might orchestrate their resources and capabilities, it might explore how managers might orchestrate their strategies through the former; Heracleous & Wirtz (2014) in fact highlight the current gap in knowledge relating to how organizations can realize dual generic strategies within the same organizational setup. This gap might be closed through application of the dynamic managerial capabilities discussed in RO theorizing (p.153); arguably, RO would be requisite of if not a key factor in firms' ability to pursue a dual strategy. Effectively, it is managerial capabilities related to orchestration of these "contradictory" and "different" resources that would make the execution multiple strategies in parallel possible.

Such innovative combinations of existing concepts would better reflect complex realities, echoing the way that innovative combinations of resources can better equip organizations to compete in complex environments. If Norwegian is able to execute a dual strategy of cost-effective service excellence through its use of dynamic capabilities, it might provide an initial grounds for exploration of this idea.

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### 6.1.3 Relation of Findings and Analysis to Dynamic Capabilities Literature

The thesis's findings support Teece et al (2016)'s claim that DCs are the key determinants of firms' "capacity to innovate, adapt to change, and create change that is favourable to customers and unfavourable to competitors" (p.18) in the "unforgiving and hypercompetitive environment" in which they operate (Heracleous & Wirtz, 2014, p.151). Indeed, Norwegian's sensing, seizing, and shifting capabilities have enabled it to enjoy impressive market share and revenue gains in the transatlantic market. However, it remains to be proven the extent to which Norwegian will serve as an example of a firm with or without dynamic capabilities that was or was not able to achieve evolutionary fitness.

By virtue of being defined as ongoing processes and capabilities, can only the firms that survive or exist at present be deemed to have ever had DCs? For example, would it be possible for external circumstances to outweigh the impact of DCs or are DCs themselves revealed only in or borne as a product of such conditions? This tension highlights an aspect of DCs that may require more case evidence to substantiate as it seems somewhat imprecise in the literature as present, especially given the relative newness of the concept.

Further, it seems that the simple, downside-protecting logic of steadfast specialization to achieve SCA may not be "dead," even in dynamic environments. Its underappreciation may make it even more fertile grounds for outperformance. Ryanair is one of the world's most profitable airlines; the discipline it has exhibited in maintaining simplicity and honing a core competence as a short-haul LCC have been central to its sustained success in a tumultuous industry.

More broadly, the difficulty and rarity of achieving a SCA should be re-emphasized:

"Wiggins and Ruefli (2002) find that only a small minority of firms consistently outperform their competitors and usually only for a limited time. Similarly, Polson and Scott (2012) report that at the most about 2% (or 1,076 of 53,038) firms in their sample covering over 45 years exhibit statistically significant sustained superior performance over 5 years or more." (Maury, 2018, p.102).

Norwegian faces a significant chain of conditional probabilities if it is to engineer a SCA, however it has defied the odds before; *maybe* this time *is* different.

## 6.2 Limitations of the Research

The study has several limitations. Most significantly, by virtue of investigating a single case in a unique context, the generalizability of insights gleaned from the analysis is low. Another key limitation is the fact that the majority of the data collected is from the company's own publications, making the research susceptible to attribution bias and exaggeration; Norwegian, of course, wishes to portray itself in a positive light, and may not report its weaknesses with perfect omniscience or objectivity. As well, the company does not report disaggregated financial data for its geographic or business segments, which meant that imperfect proxy data, from subsidiaries or the parent company, were sometimes used as the basis for analysis. The researcher's inability to understand the Norwegian language also poses a limitation, as many media articles written in Norwegian were not read, and it was evident that the first language of the podcast interviewees was not English. Had it been possible to analyze the Norwegian versions of the interviews, the insights gleaned therefrom may have provided greater depth and breadth to the findings and their subsequent analysis.

The research is also limited by the time constraints under which it was carried out; more time may have enabled the researcher to analyze more literature and data and better substantiate findings. Access to a research assistant or form of transcription and coding software would have reduced the burden of podcast transcription and coding and afforded a greater allocation of time towards analyzing the findings.

The timing of the study being so close to the company's indication that it would focus on profitability and the event of the MAX groundings made it difficult to discern the impact of the former in isolation from the latter, as well as the durability of any positive outcomes associated with the profitability focus. The age of the podcast data, while it offers the benefit of enabling current progress towards some goals stated by the interviewees to be evaluated, means that the same interviewees may have since changed their opinions about the issues they were asked about up to almost a year ago.

The research was also limited by the researcher's access to data, especially that from Centre for Aviation and contained in industry reports that required paid memberships, and from executives at Norwegian as was the initial data source pursued for the research. Not being able to reference the analysts' reports that were reviewed in the research process meant that certain opinions and graphic representations that would add value and credibility to the

research had to be omitted in order to respect the intellectual property of the analysts and their firms. Finally, there is the risk of researcher's own bias influencing the ways in which the data was collected and represented, with limits the study's consistency.

### 6.3 Recommendations for Future Research

A clear complement to this thesis would be an in-depth analysis of the external conditions in which Norwegian competes. Future research might use semi-structured interviews to obtain clarity on the contribution of each business segment or geography to Norwegian's overall profitability. In-depth analyses of any of the key resources, capabilities, or dynamic capabilities evaluated in the Findings Chapter might extend, challenge, or confirm the findings of this research, as would the identification and analysis of other meaningful resources and capabilities. As well, a study conducted if and when Norwegian reports fiscal 2019 and 2020 results might analyze its progress towards the goal of achieving and sustaining profitability and which resources and capabilities contributed most to the result.

It would also be interesting to investigate the applicability of tenets of the lean methodology to other capital intensive industries in which the economics are more rational. As well, findings from a thesis investigating the sustainability of competitive and financial success resulting from disruption via strategic innovation may help develop the nascent field. Finally, future research might consider how the broader goal of reducing the negative environmental impact of air transportation might best be accomplished.

### 6.4 Practical Implications of the Research

Some implications can be drawn from the research. First, Norwegian's strong and continued revenue growth is reflective of demand for low-fare travel. This suggests that, if Norwegian can uphold its quality customer service and achieve profitability, it may be able to achieve a SCA in the market it (re-)created. On the other hand, competitors have also taken notice of this trend and may be able to capitalize on it if Norwegian were to fail, or if they collude to cause it to. The transatlantic LCLH carriers most likely to succeed in the long-term are perhaps the daughter companies of legacy carriers, such as Lufthansa's Eurowings, Air France's Joon, KLM's Transavia, and IAG's LEVEL which may be better positioned to sustain low fares than Norwegian.

New entrants would be advised to take lessons from the very recent failures of other independent carriers that attempted to compete in the northern transatlantic market, WOW and Primera, and appreciate that Norwegian's capabilities are embedded and have been developed over a period of almost three decades. Potential entrants should also give weight to the fact that some degree of Norwegian's success is conditioned by an era of easy access to capital, low fuel prices, and relative economic prosperity, none of which can last indefinitely.

On a broader level, perhaps the case of Norwegian, in addition to being cautionary, can inspire other firms to adopt methodologies from other disciplines and pay greater attention to the often underappreciated importance of managing uncertainty, transcending efficiency in favour of agility, and continued business model innovation. In the same way that Norwegian's entrepreneurialism, un-conventionalism, and risk appetite have benefited consumers and the environment by creating an affordable and more environmentally-sustainable means of transatlantic travel, perhaps other firms may be galvanized to engage in "sustainable business model innovation" and contribute to a better future (Jørgensen & Pedersen, 2018).

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