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GROWTH OPPORTUNITIES FOR AN ALPINE SKI RESORT IN NORWAY

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Abstract

This paper explores growth opportunities for an Alpine ski resort in Norway, examining potential investments in infrastructure, market expansion, and diversification of services. The financial implications of capital expenditure (CapEx) and operational expenditure (OpEx) are considered with digitalization alongside their projected impact on the resort's profitability. An analysis of the Norwegian ski industry and trends in global tourism is presented to provide a comprehensive understanding of growth potential. The findings of this study will provide guidance to resort stakeholders seeking to capitalize on emerging market opportunities and improve financial performance.

Keywords: Alpine Ski Resort, Digitalization, Market Growth

1. Introduction

Norway has a rich history of winter sports and a strong tourism industry centered around its numerous ski resorts. With the growth of the global tourism industry and the increasing popularity of alpine skiing, Norwegian resorts have an opportunity to expand their offerings and attract more visitors (Müller, 2019). This paper aims to analyze the potential growth opportunities, focusing on infrastructure investment, market expansion, and diversification of services. The financial implications of CapEx and OpEx are considered to provide a comprehensive analysis (Ross, 2022). Infrastructure improvements, such as ski lift upgrades, trail expansions, and snowmaking facilities, can enhance the visitor experience and increase resort capacity (Vanat, 2020). These investments typically require significant CapEx but can lead to increased revenue through higher visitor numbers and longer stays. For example, the Hemsedal Ski Resort in Norway invested heavily in infrastructure improvements, leading to increased visitor numbers and a higher market share (Dannevig, 2021).

Sirdal Skisenter is a popular ski resort in Norway, consisting of the former Tjørhomfjellet and Alsheia ski areas (Frick, 2003). The resort has undergone significant transformation and growth in recent years, making strategic investments in infrastructure, marketing, and service diversification. Digitalization is an important factor in this. Sirdal municipality is rural with 1 person per km², and therefore establishing and growth of a ski resort is vital for enabling people to live in the area. This case report aims to examine the initiatives undertaken by (Sirdal Skisenter, 2023) and assess their impact on visitor numbers and revenue generation. The author was co-gründer

of Tjørhomfjellet and is present COB of Sirdal Skisenter. The hands-on experience provides an insight into the growth process that is important for understanding the growth process in a rural area. The motivation for the paper was the COM3 project (COM3, 2023) that visited the resort. This became an opportunity to document experiences and present activities, and to view them in a broader context.

The paper starts with an analysis of Norwegian Ski industry, proceeds with the case of Sirdal Skisenter, and then look at digitalization, market expansion and financial based upon the case.

2. Analysis of the Norwegian Ski Industry: Trends, challenges, and opportunities

Norway has a rich skiing heritage, with the sport deeply rooted in its culture and history. The Norwegian ski industry has experienced significant growth over the years, driven by the country's exceptional snow conditions, breathtaking landscapes, and modern ski infrastructure. This chapter provides an in-depth analysis of the Norwegian ski industry, exploring the key trends, challenges, and opportunities that shape this dynamic sector (Malasevska, 2018).

Norway is home to numerous ski resorts, ranging from small, family-oriented facilities to world-class destinations such as Hemsedal, Trysil, and Geilo. These resorts offer a diverse array of skiing experiences, catering to skiers of all levels and preferences.

The Norwegian ski industry attracts both domestic and international visitors, with skiers from neighboring countries such as Sweden, Denmark, and Finland comprising a significant portion of the international market. Additionally, Norway has seen a steady increase in visitors from other European countries, North America, and Asia, driven by its reputation for exceptional snow conditions and stunning natural beauty (Dannevig *et al*, 2021).

2.1. Trends

The adoption of digital technologies has become increasingly prevalent in the Norwegian ski industry, with resorts leveraging online booking systems, mobile applications, and data-driven marketing strategies to enhance visitor experiences and streamline operations.

Sustainability has emerged as a key priority for the Norwegian ski industry, with resorts seeking to minimize their environmental impact and promote responsible tourism practices. Initiatives such as renewable energy projects, waste management programs, and eco-friendly infrastructure investments reflect this commitment to sustainability (Zach, Schnitzer and Falk, 2021).

The Norwegian ski industry has sought to diversify its offerings in response to changing visitor preferences and market dynamics. This has led to the development of summer activities, such as mountain biking, hiking, and adventure sports, as well as the integration of wellness and cultural experiences into the resort experience.

2.2. Challenges

Climate change poses a significant challenge for the Norwegian ski industry, with rising temperatures and changing snow patterns threatening the long-term viability of ski resorts. To mitigate these impacts, resorts are investing in snowmaking technology and exploring alternative revenue streams (Demiroglu, Dannevig and Aall, 2018).

The Norwegian ski industry faces intense competition from other European ski destinations, such as the Alps, which offer larger ski areas and more diverse amenities. To remain competitive, Norwegian resorts must continue to innovate and differentiate themselves in the global market (Müller, 2019).

2.3. Opportunities

Advancements in technology offer numerous opportunities for the Norwegian ski industry to enhance visitor experiences, optimize operations, and develop new revenue streams. This

includes the implementation of smart resort technologies, such as real-time information systems and advanced snow management solutions (Malasevska 2018).

The Norwegian ski industry has the potential to attract new visitor segments by targeting emerging markets and promoting its unique offerings, such as exceptional snow conditions, world-class cross-country skiing, and unparalleled natural beauty.

The Norwegian ski industry has experienced significant growth in recent years, driven by its unique assets and commitment to innovation. While challenges such as climate change and competition pose threats to the sector's long-term viability, there are ample opportunities for continued success through the adoption of digital technologies, diversification of offerings, and expansion (Tjørve, Lien, and Flognfeldt, 2018).

3. Trends in global tourism

The global tourism industry has experienced remarkable growth and transformation over the past few decades. Driven by technological advancements, changing consumer preferences, and evolving market dynamics, the sector continues to adapt and innovate in response to these shifting forces (Khan *et al*, 2021).

As environmental concerns and the impact of tourism on local communities gain greater attention, sustainable and responsible tourism practices are becoming increasingly important. Travelers are seeking experiences that minimize their ecological footprint, promote cultural preservation, and contribute to local economies (Scott *et al*, 2020). In response, the industry is adopting more sustainable practices, such as eco-friendly accommodations, responsible waste management, and the promotion of local products and services (Liu *et al*, 2019).

There is a growing demand for authentic and experiential travel experiences that allow tourists to immerse themselves in the culture and environment of their chosen destination. This trend has led to the rise of cultural and adventure tourism, culinary experiences, and community-based tourism initiatives. Travelers are increasingly prioritizing unique, personalized experiences over traditional mass tourism offerings (Zach, Schnitzer and Falk, 2021).

Technology continues to play a pivotal role in shaping the global tourism industry, influencing every aspect of the travel experience from planning and booking to in-destination experiences. Online booking platforms, mobile applications, virtual reality, and artificial intelligence are transforming the way travelers research, plan, and engage with their chosen destinations. This digitalization offers opportunities for greater personalization, efficiency, and convenience throughout the travel process (Höpken *et al.* 2019).

The health and wellness tourism segment has experienced significant growth in recent years, driven by an increased focus on well-being and a desire to maintain a healthy lifestyle while traveling. This trend has led to the development of wellness retreats, spa resorts, and active travel experiences, catering to tourists seeking relaxation, rejuvenation, and physical activity during their vacations.

As the global tourism industry continues to grow, overtourism has become a pressing concern for popular destinations. Overcrowding, environmental degradation, and negative impacts on local communities have led to an increased focus on destination management and the development of strategies to disperse tourists, promote off-peak travel, and encourage visits to lesser-known destinations (Erschbamer, Innerhofer and Pechlaner, 2018).

The global tourism industry is characterized by continuous evolution and transformation, driven by emerging trends and changing market dynamics. As the sector navigates these shifts, it is essential for industry stakeholders to remain adaptable, innovative, and responsive to traveler needs and preferences. By embracing sustainable practices, leveraging technology, and offering authentic, immersive experiences, the global tourism industry can continue to thrive and contribute positively to economic development, cultural exchange, and global understanding.

4. Case Sirdal Skisenter

The Tjørhomfjellet and Ålsheia ski areas in Norway were independent ski resorts before being merged into Sirdal Skisenter in 2010 (Sirdal, 2023). The resorts decided to merge to capitalize on

their combined resources, improve their offerings, and attract a larger number of visitors. Ålsheia had 60 years of business and was struggling after several bankruptcies and restarts. Tjørhomfjellet was started by its property owners in 2004 and is still owned and managed by the local farms (Frick, 2003). Most of the present customers live within 2 hours by car from the ski resort.

Sirdal Skisenter has made significant investments in infrastructure improvements since the start of Tjørhomfjellet. These investments include the installation of modern ski lifts, the expansion of ski trails, and the development of snowmaking facilities. These improvements have enhanced the visitor experience, allowing for shorter wait times, increased capacity, and more reliable snow conditions (Vanat, 2020). The resort's focus on infrastructure improvements has resulted in higher visitor numbers and longer stays, leading to increased revenue generation. The COVID pandemic experiences accelerated the digitalization which enabled better access control regarding capacity. And after COVID the online booking of access cards continued. The reason is that unlimited access gives good income on the best days but provides a bad user experience due to long waiting lines. By limiting access to capacity even if demand is higher, the user experience is better, and customers return another day which will be more profitable in the long run.

To increase its market reach and attract new customer segments, Sirdal Skisenter implemented targeted marketing campaigns, focusing on both domestic and international tourists. The resort also established partnerships with travel agencies and tour operators, offering attractive package deals to boost visitor numbers. These marketing efforts have been successful in raising the resort's visibility and attracting a diverse range of visitors, resulting in higher occupancy rates and revenue growth (Faullant, Matzler and Füller, 2008).

Recognizing the importance of diversifying its offerings, Sirdal Skisenter expanded its range of services beyond skiing (Sirdal, 2023). The resort has developed various non-skiing activities, including hiking trails, canoes, wellness facilities as summer swimming, and cultural experiences as waterfall exploration. This diversification has made the resort a more attractive destination for a broader range of visitors, leading to increased visitor numbers during both peak and off-peak seasons.

The transformation and growth of Sirdal Skisenter provide valuable insights for other ski resorts looking to expand and improve their offerings. By strategically investing in infrastructure improvements, implementing targeted marketing initiatives, and diversifying services, Sirdal Skisenter has successfully increased visitor numbers and generated higher revenue. Other ski resorts can learn from the successful integration and expansion of Tjørhomfjellet and Ålsheia, leveraging these insights to enhance their own growth strategies and improve their competitive position in the market.

5. Digitalization of ski resorts

Digitalization has transformed various industries, and the alpine ski resort sector is no exception. The integration of digital technologies into resort operations has the potential to improve visitor experiences, streamline management processes, and increase revenue generation (Kohle, 2017).

5.1. Opportunities for digitalization in alpine ski resorts

Online booking systems have revolutionized the way guests reserve accommodation, ski passes, and equipment rentals. By offering a user-friendly platform, ski resorts can streamline the reservation process, reduce administrative workload, and provide guests with real-time availability information.

Mobile applications can enhance visitor experiences by offering features such as interactive trail maps, real-time weather updates, and ski school bookings. These applications can also collect user data, enabling ski resorts to personalize their marketing efforts and tailor their offerings to individual preferences (Höpken *et al.* 2010).

Social media platforms offer ski resorts the opportunity to engage with their target audience and showcase their offerings through visually appealing content. By leveraging social media, resorts can increase their online presence, attract new visitors, and foster customer loyalty (Sirdal, 2023).

Digital technologies can be integrated into ski resort infrastructure, such as RFID-enabled ski passes and smart ski lifts. These technologies can improve visitor experiences by reducing wait times and providing data-driven insights for resort management.

5.2. Challenges of digitalization in alpine ski resorts

The implementation of digital technologies can be expensive, particularly for smaller resorts with limited budgets. Ski resorts need to carefully consider the return on investment (ROI) of digitalization initiatives to ensure long-term financial viability.

Digitalization can increase the risk of data breaches and cyberattacks, as sensitive customer information is collected and stored electronically. Ski resorts need to invest in robust cybersecurity measures to protect customer data and maintain trust.

The integration of digital technologies may require ski resort staff to develop new skills and expertise. Resorts must invest in employee training and development to ensure their workforce can effectively utilize and manage digital tools (Kohle, 2017).

Digitalization presents both opportunities and challenges for alpine ski resorts. By leveraging digital technologies such as online booking systems, mobile applications, and social media marketing, resorts can enhance visitor experiences, streamline operations, and drive revenue growth. However, they must also navigate financial constraints, data security concerns, and technological skill gaps to fully capitalize on the potential of digitalization. By addressing these challenges, alpine ski resorts can successfully embrace digital transformation and secure their position in a competitive and rapidly evolving market.

6. Market expansion

Expanding the market reach of the resort can be achieved through targeted marketing campaigns, partnerships with travel agencies, and offering package deals. This strategy can increase resort visibility and attract new customer segments, resulting in higher occupancy rates and greater revenue (Tjørve, Lien, and Flognfeldt, 2018). A successful example of market expansion is the Trysil Ski Resort, which focused on attracting international tourists through targeted marketing efforts (Vanat, 2020). This is problematic in Sirdal due to a lack of public transport.

Adding non-skiing activities and services, such as wellness facilities, restaurants, and cultural experiences, can create a more comprehensive and attractive tourist destination. This diversification can lead to higher visitor numbers during both peak and off-peak seasons, increasing overall revenue (Vanat, 2020). The Lillehammer Ski Resort, for example, has invested in a variety of non-skiing services, resulting in year-round visitor interest and a broader customer base.

Alpine ski resorts have traditionally focused on winter sports and activities. However, there is growing recognition of the potential to capitalize on the summer season by offering a diverse range of activities that cater to different visitor interests. Alpine ski resorts offer an ideal terrain for mountain biking, with many resorts investing in the development of dedicated trails and bike parks. Mountain biking can attract a broad range of visitors, from families to experienced cyclists, generating revenue through bike rentals, trail access fees, and associated services (e.g., guiding, coaching) (Born, 2022).

Hiking and trail running are popular summer activities in alpine ski resorts, with many resorts offering well-maintained trail networks, guided tours, and themed routes (e.g., nature, history, or culture). These activities can attract a wide range of visitors, from casual walkers to dedicated long-distance hikers and trail runners.

Alpine ski resorts can leverage their natural settings to offer a range of adventure sports, such as zip-lining, rock climbing, paragliding, and white-water rafting. These activities can attract thrill-seekers and provide additional revenue streams for the resort (Sirdal, 2023).

Wellness tourism has gained popularity in recent years, and alpine ski resorts can capitalize on this trend by offering wellness retreats, spa facilities, and fitness programs. These offerings can attract visitors seeking relaxation, rejuvenation, and personal development in a stunning natural setting.

Hosting cultural events and festivals can be an effective way for alpine ski resorts to attract visitors during the summer months. These events can range from music and arts festivals to culinary events and traditional celebrations, providing unique experiences for visitors and generating revenue for the resort and local businesses.

Alpine ski resorts can capitalize on the potential of summer tourism by offering a diverse range of activities that cater to different visitor interests. By investing in infrastructure and marketing efforts to promote summer activities such as mountain biking, hiking, adventure sports, wellness retreats, and cultural events, alpine ski resorts can attract visitors and generate revenue during the traditionally quieter summer months. This off-season diversification can enhance the overall sustainability and competitiveness of ski resorts, ensuring their long-term success in a rapidly evolving tourism market (Faullant, Matzler and Füller, 2008).

7. Financial

An analysis of CapEx and OpEx is essential to understanding the financial implications of growth opportunities. Infrastructure investments generally require high CapEx but can lead to long-term revenue growth. Market expansion and diversification strategies may require a combination of CapEx and OpEx, depending on the scale and nature of the projects (Ross, 2022). It is crucial for resort stakeholders to carefully consider the financial implications of growth strategies and assess the potential return on investment (ROI) to ensure long-term profitability. Growth opportunities in alpine ski resorts often involve significant financial commitments, with varying levels of CapEx and OpEx required depending on the strategy pursued. The financial implications of growth opportunities are important, including infrastructure investments, market expansion, and diversification strategies, with a focus on understanding the potential ROI and long-term profitability of such initiatives (Moreno-Gené *et al.* 2020).

7.1. Infrastructure Investments

Infrastructure investments, such as ski lifts, snowmaking facilities, and trail expansion, typically require substantial upfront capital expenditures. These investments can be financed through various means, including equity, debt, or a combination of both. (Goncalves, 2013)

Operating expenses related to infrastructure investments may include maintenance, staffing, and utility costs. While these expenses can be significant, efficient management and cost control measures can help to minimize the impact on the resort's bottom line.

Infrastructure investments can lead to long-term revenue growth by enhancing the visitor experience and increasing the resort's capacity. However, the ROI will depend on factors such as visitor demand, pricing strategies, and the ability to effectively manage operating expenses. For a ski resort the infrastructure investments are obvious CapEx, but there will always be minor expenses that management need to evaluate if they should be part of the CapEx or taken immediately as OpEx.

7.2. Market expansion and diversification strategies

Market expansion and diversification strategies may require a combination of CapEx and OpEx, depending on the specific projects pursued. For example, investments in new accommodations, facilities, or attractions will require capital expenditures, while marketing initiatives and employee training may involve operating expenses.

Operating expenses related to market expansion and diversification strategies may include marketing costs, employee wages, and maintenance expenses. To maximize the effectiveness of these strategies, it is essential for resorts to carefully manage and allocate resources, ensuring that expenses are directed toward initiatives with the greatest potential ROI.

The financial outcomes of market expansion and diversification strategies will depend on factors such as the effectiveness of marketing efforts, visitor demand for new offerings, and the ability to manage operating expenses. Successful strategies can lead to increased visitor numbers, higher revenues, and enhanced long-term profitability (Zach, Schnitzer and Falk, 2021).

Understanding the financial implications of growth opportunities is essential for alpine ski resort stakeholders seeking to maximize the potential ROI and ensure long-term profitability. By carefully analyzing the CapEx and OpEx implications of infrastructure investments, market expansion, and diversification strategies, resort operators and investors can make informed decisions about the most appropriate growth initiatives to pursue. This analysis will ultimately contribute to the sustainability and competitiveness of alpine ski resorts in an evolving tourism market

The digitalization of alpine ski resorts has the potential to significantly impact revenue and profit possibilities. By leveraging digital technologies, resorts can enhance visitor experiences, streamline operations, and expand market reach. This includes the implementation of online booking systems, mobile applications for real-time information, and data-driven marketing strategies to attract new customers. Additionally, digitalization enables the development of innovative revenue streams, such as dynamic pricing and targeted promotions. While the initial investment in digital infrastructure may be substantial, the long-term benefits include increased revenue, reduced operational costs, and improved profitability for alpine ski resorts (Faullant, Matzler and Füller, 2008).

8. Conclusion

This discussion has covered various aspects of growth opportunities for Alpine ski resorts in Norway, with a focus on summer activities, financial implications, and the impact of digitalization. By diversifying their offerings to include summer activities such as mountain biking, hiking, adventure sports, wellness retreats, and cultural events, alpine ski resorts can capitalize on the potential of off-season tourism and generate additional revenue streams. An analysis of CapEx and OpEx is essential for understanding the financial implications of growth strategies and assessing the potential return on investment to ensure long-term profitability.

The digitalization of alpine ski resorts presents numerous opportunities to enhance visitor experiences, streamline operations, and expand market reach. Implementing digital technologies such as online booking systems, mobile applications, and data-driven marketing strategies can result in innovative revenue streams, increased revenue, reduced operational costs, and improved profitability. An important issue is to improve the balance between demand and capacity both to reduce OpEx and improve customer experience. The Sirdal Skisenter case shows that digitalization can enhance the operations to benefit owners, staff, and customers. An upside for the municipality is that a well-functioning ski resort creates employment in a rural area. And having both winter and summer activities enable full year employment. A challenge is the lack of public transport due to the area being rural, and this limits the access of international customers. Another issue is having to compete with the petroleum industry in the Stavanger area for people to employ, and a consequence is that a large part of the staff is coming from abroad.

By considering the financial implications of growth opportunities, embracing digital transformation, and offering a diverse range of activities that cater to different visitor interests, alpine ski resorts can enhance their overall sustainability and competitiveness in a rapidly evolving tourism market. This comprehensive approach will ultimately contribute to the long-term success of alpine ski resorts in Norway and beyond.

Future research should investigate how changes in market and user preferences due to climate changes might have inpact on development options. One might expect higher cost for customers both at the skisenter and in transportation to the location. This can reduce the number of customers but also increase the use of locations close to home.

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