

QATAR UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

EXAMINING THE MONOPOLISTIC BEHAVIOR ON THE DAIRY  
INDUSTRY CONSUMERS, ECONOMY AND SOCIETY IN QATAR

BY

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## ABSTRACT

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Title: Examining The Monopolies Behavior On The Dairy Industry Consumers, Economy and Society In Qatar

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The current research study attempts to assess the monopolistic behaviour in the Qatari dairy industry. The key research problem revolves around assessing how the monopolistic tendencies possibly influence the consumer welfare, social well-being, and economic dynamics, including aspects like product quality, pricing, accessibility, and broader implications on the national economy. The research aim is to understand how consumer welfare in the chosen sector could be enhanced by understand the impact of monopolistic practices on dairy consumer satisfaction. To achieve the research aim, the researcher conducted survey with 102 dairy customers, and managers of 6 local Qatari dairy companies. The analysis highlighted mixed insights, suggesting that monopolistic behaviors manifest in the dairy industry. The prevailing tendencies does not significantly influence consumer welfare, as some respondents showed dissatisfaction, while, some seemed satisfied with the product quality and pricing despite firms showing monopolistic behavior. The analysis further suggested that the consumer satisfaction in Qatari dairy industry derives significant influence from product diversity, quality, and consumption frequency. The consumers' demographic characteristics play no role in shaping perceptions towards quality, accessibility, affordability, and consumption frequency. The company data analysis suggested that overall, Qatari local dairy companies recognize the emerging opportunities, but exhibit varying degrees of optimism regarding the market potential.

Based on overall analysis, the study concludes that the strategic distribution, adaptability, and innovation are critical for Qatari local dairy companies to thrive in the market. The government needs to take more measures to encourage the fair competition. However, despite the monopolistic tendencies, the market is still showing an overall positive outlook with some room for improvement. Qatari local companies need to invest on more effective marketing strategies to build their brands and meet the consumers' evolving dairy industry.

## DEDICATION

*“I would want to express my thankfulness to God for his unceasing inspiration and direction during this undertaking. I sincerely appreciate my family's unwavering support during this endeavour. I want to express my sincere gratitude to my supervisor for all of his help and advice, which was helpful in finishing this project “*

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## CHAPTER 1: INTRODUCTION

This chapter presents the introduction to the chosen research problem. The research background is discussed, and the research problem is outlined by evaluating its theoretical and practical significance. The chapter also outlines the study purpose, and presents research objectives, scopes, and limitations. At the end, the chapter presents the overall organization of the thesis.

### **1.1. Background and Context**

Monopolies exert significant impact on the nations' economic and social well-being. A monopoly denotes a market structure that is largely dominated by a single seller. Whereas, monopolistic tendencies denote the practices/behaviors in the market that exhibit the characteristics of gaining market dominance, and limiting competition (Nikaido, 2015). In context of Qatar- a rapidly growing nation in the gulf region, the concerns regarding the existence of monopolies have arisen, particularly in the dairy industry. Taking an overview of Qatari dairy industry, the sector is playing an important role in the national economic development. Qatari dairy product market is expected to grow by 6.58% rate from 2023 to 2028. Currently, it is worth \$708.12 million, and is likely to raise to \$973.83 million by 2028 (Mordor Intelligence, 2023). Despite the government's efforts to diversify the economy, Qatar still heavily depends on its oil and gas sector to support the economic growth (EIA, 2023).

The analysis of dairy industry suggests that the existence of monopolies in dairy industry have positive as well as negative consequences. In dairy product sector, the monopoly was already present before the blockade, but the industry's monopolistic tendencies have further intensified as a direct response of the 2017 blockade led by Egypt, Bahrain, UAE, and Saudi

Arabia (France 24, 2019). The Qatari government's constant push for the self-sufficiency brought a significant decline in the dairy product imports. Although, this monopoly created self-sufficiency, but it limited the competition, leading to lesser choices and higher prices of the dairy products (Doha News, 2023).

When left unchecked, monopolies can distort the market dynamics, stifle the competition, and negatively affect the consumers by elevating the prices, diminishing the innovation, and limiting the variety for customers. For instance, a recent news article- Doha News (2023) considered monopoly as a major reason for the shortage of dairy food products in Qatar. Considering the consequences of monopolies for economy and society, this research study evaluates how monopolistic tendencies in Qatari dairy industry possibly influence the competitive dynamics, consumer welfare, and economic and social well-being. By focusing on dairy industry, the research objective is to offer valuable insights into how monopolistic practices could influence various facets of Qatari society. The study judges the monopolistic behavior in the Qatari dairy industry based on the consumers' perceptions towards prices, quality, and variety that are possibly influenced by the limited competition. The monopolistic behavior is also assessed by exploring the Qatari dairy firm managers' perceptions towards monopolistic behavior, self-sufficiency, and market dominance.

## **1.2. Research Questions**

- To what extent do monopolistic behaviors manifest in Qatar's dairy industry?
- How do monopolies influence consumer welfare, including pricing, product quality, and accessibility?
- What are the economic ramifications of monopolies in dairy sector on Qatar's economy?

- What are the social implications of monopolies, including their role in access to essential goods, and the overall well-being of Qatar's population?

### **1.3. Research Objectives**

The purpose of this research study is to investigate the presence and consequences of the monopolistic behavior in the Qatari dairy industry. The overall aim is to shed light on how these monopolistic tendencies influence the consumer welfare, economic dynamics, and broader social well-being, offering valuable insights for theoretical understanding and practical policy-making in view of Qatari government's economic diversification efforts. To achieve this main objective, the thesis considered the following objectives:

- To evaluate the monopolistic behaviors that manifest in dairy industry.
- Explore the impact of monopolies influence on consumer welfare, including pricing, product quality, and accessibility
- Analyze the economic ramifications of monopolies in these sectors on Qatar's economy.
- Analyze the social implications of monopolies, including their role in access to essential goods, and the overall well-being of Qatar's population.

### **1.4. Significance of the Study**

This research study has both- theoretical and practical significance. On theoretical grounds, the study makes valuable contribution in the literature by empirically investigating the social and economic consequences of monopolies in context of Qatari dairy food industry. The proposed findings extend to ongoing debate on how monopolies possibly harm the economy and society. Other than theoretical significance, the study also has practical significance. The survey findings provide valuable insights about how monopolistic tendencies in dairy industry are influencing

consumers and economy. Local dairy companies can review the findings to better understand the consumers' preferences and unmet needs. Government and other relevant authorities can get insights into how they can control or breakdown the monopoly to avoid the negative economic and social consequences. Understanding the impact of monopolies on Qatari society and economy is of paramount importance for several reasons:

Qatar is currently actively engaged in economic diversification efforts, and a competitive market is important to attract the investments and nurture economic growth. According to Doha News (2023), monopolies are having direct and tangible repercussions on the daily lives of customers through elevated prices and diminished product options, increasing the practical significance of this research topic. Moreover, the findings of this study can serve as an advisory tool for Qatari policymakers, guiding potential regulations or reforms in these sectors.

### **1.5. Scope and Limitations**

The research scope encompasses an in-depth evaluation of the monopolistic behavior in the Qatari dairy industry. The research focuses on understanding how monopolies influence the product quality, accessibility, pricing, and overall economy and society of Qatar. However, the study is limited by the data availability constraints. The market conditions are highly dynamic, whereas, this study is cross-sectional in nature, which means the offered results could quickly become obsolete.

### **1.6. Organization of the Thesis**

The thesis is organized in five chapters. First chapter presents the introduction to the chosen research problem. Second chapter presents the detailed review of literature. Third chapter presents the detailed methodological plan. Fourth chapter presents the results, which are

interpreted and discussed in light of literature. Fifth chapter concludes the discussion and presents direction for further research.

## CHAPTER 2: LITERATURE REVIEW

The purpose of doing this literature review is to understand how monopolies in the dairy industry influence the economy and consumers. The literature review is written by adopting the funnel approach. First, the general impact of monopoly on the world is assessed. The next section evaluates the effect of monopoly on Asia. Afterward, the literature review focuses on the Middle Eastern region. The second last section evaluates the monopolies in GCC countries. Lastly, the review focuses on the monopolies in the Qatari oil and dairy industry.

### **2.1. Monopolies in the world**

Monopoly could be defined as the power to set prices and exclude competitors (Fisher, 1997). The monopoly concept dates back to the ancient times, and its historical references can be found in the Xenophon and Aristotle's work, which discussed the negative effect of monopoly for the economy and society (Finley, 1970). However, the impact of monopoly on the economy and society in modern times derives significant influence from the Adam Smith's work of 'Wealth of Nations'. Smith (1776) criticized monopolistic business practices and advocated free market competition (Smith, 1776, as cited in Keppler, 2010).

As the world progressed, governments around the world started acting to break the monopolies. However, despite taking measures to encourage competition, monopolies are still prevalent in various sectors, and it negatively affects the world economy. For instance, Bilbiie et al. (2019) argued that monopolies reduce the economic efficiency by setting higher prices while producing less than what could be produced in a competitive market. It directly affects the consumers who are compelled to pay more for fewer goods/services. Moreover, monopolies could stifle the innovation. Chu et al. (2012) commented that monopoly creation through patents



can encourage horizontal innovation but stifle vertical innovation. It means that the effect of monopoly on the economy and society is context-specific. Horizontal innovation refers the new product/service development in the same industry, while, vertical innovation refers the improvement in the production or supply chain processes to improve the output (Gil & Figueiredo, 2013).

If policymakers aim at encouraging the vertical innovation, they must discourage the monopoly and encourage free competition for broader social welfare. However, if the purpose is to encourage the horizontal innovation, then in such cases, the monopoly can benefit society more than free competition (Chu et al. 2012). In an agreement with Chu et al. (2012), Macher and Richman (2008) mentioned that monopolies create their own costs. However, the trade-off between costs associated with monopolies and the benefits of investment coordination within integrated industrial hierarchies needs to be carefully assessed. In this context, the world trade organization (WTO) plays an important role in breaking the monopolies by providing a platform on which the member countries establish the trade rules to encourage the fair competition. The WTO framework guides the policy makers to trade-off the vertical and horizontal innovation to ensure the broader social welfare (Saggi, 2016).

Recently, many countries around the world have concluded that the cost of monopoly governance models tends to outweigh the benefits. Therefore, structural reforms are being introduced to encourage the competition. New reforms are breaking down the contractual and horizontal hierarchical structures to encourage competition at the horizontal level (Macher & Richman, 2008). Monopolies can adversely affect the income distribution. A recent study by Feldman et al. (2021) discussed how monopolies create regional income disparities and

exacerbate income inequality around the world. The monopoly extracts excessive profits from consumers, widening the income gap in society (Feldman et al. 2021).

The literature further informs that monopolies distort resource allocation. A previous study by Harberger (1995) explored how monopolistic firms lead towards inefficient resource allocation, harming the economy and affecting social welfare. Based on the analysis of multiple industries, Harberger (1995) highlighted a list of monopolistic practices that lead to inefficient resource allocation, including- patent suppression, basing points, market sharing, price leadership, and identical pricing. These findings are based on an analysis of multiple industries.

A recent study by Kwon and Kim (2021) found that the market power of the monopoly can negatively affect the consumer welfare, and concluded that the government must regulate the monopolistic power as it can lead to lower output, higher prices, and reduced quality, which directly affect the consumer welfare. A competitive and more efficient market can protect the consumer welfare, and therefore, government intervention is needed to discourage and break the monopolies. A more recent study by Ahmad (2022) also found the negative implications of monopolies in the food sector for the poor household consumers in developing countries, suggesting that the monopolistic tendencies in the food sector causes more harm than good, particularly in the low-income, developing and under-developed countries.

Herkenhoff and Raveendranathan (2020) also analyzed the effect of monopolies on society to understand who bears the cost of monopoly. However, disagreeing with the Kwon and Kim (2021) and Ahmad (2022), Herkenhoff and Raveendranathan (2020) found a positive effect on the welfare of particularly low-income households as the credit card industry moved from the free competition to oligopoly. Both these studies suggest that the monopolies share a complex

relationship with the consumer welfare, and to better understand its implications, a context specific research is needed.

The specific focus on the food industry suggests that this industry has a profound susceptibility to the negative impact of monopoly power. The global food industry is susceptible to monopolistic food practices, as monopolies in this industry can cause food insecurity. The food monopoly can extend across the whole supply chain, affecting farmers, suppliers and distributors. It can also raise concerns over food quality and safety as monopolistic firms may prioritize their profit over quality and safety. Moreover, it can limit the food choices available to consumers (Woodall & Shannon, 2018). The unique characteristics of this industry highlight the importance of regulating the monopolistic power to maintain the economic equilibrium.

After getting a general understanding of how monopolies influence the economy and consumers in the world, the next section specifically focuses on the Asian region.

## **2.2. Monopolies in Asia**

Although monopolies exist in various parts of the world, however, the implications and dynamics of monopolies in the Asian region present a unique set of challenges. Being a diverse continent with wide-ranging economies, this economic diversity influences how monopolies affect the region. In the Asian region, state-owned enterprises are widely prevalent in various sectors (Morck et al. 2008). The SOEs are particularly prevalent in the transportation, telecom, and energy sectors. The oligopolistic or monopolistic position of state-owned enterprises grants the government control over the strategic resources, serving the national interests (Morck et al. 2008). However, authors like Wisuttisak et al. (2021), Williams (2014), Ahmed and Bhatti

(2019) contend that these monopolies also create resource inefficiencies, which negatively affect the consumers.

Many monopolies in the Asian region emerge due to regulatory oversight, and their benefits and costs have drawn a lot of debate. Taking an example, Telekom Malaysia Berhad has monopolistic power, and its impact on the economy is still debated heavily. While the monopoly has improved the country's telecom infrastructure (Wisuttisak et al. 2021). However, it has also stifled the innovation by discouraging the competition. However, the private operators are now slowly gaining the market share to reduce the monopolistic power of Telekom Malaysia Berhad (Wisuttisak et al. 2021). Another example that is more relevant to the current research context is given by Bangladeshi food industry (Salim, 2008). The empirical analysis by Salim (2008) revealed that despite introducing the economic policy reforms, the monopolistic market structure of Bangladeshi food industry has still not changed. The empirical findings of Salim (2008) revealed that Bangladeshi government can enhance the rate of capacity realization by breaking down the monopolistic structure and encouraging the competition among large food manufacturing firms.

Asian governments tend to balance the need for intervention to prevent monopolies with the desire to encourage competition in the market. Attaining the intricate balance is important to ensure that the monopolistic practices do not harm economic growth (Williams, 2014). Taking another recent example from the Asian region, Wang (2020) studied how monopolies in the agriculture industry in the Asian region change with changing legal framework. Wang (2020) conducted research in the East Asian region and found that in China and Taiwan, the monopoly in edamame production adapted according to changing technological and legal environment. Initially, the monopoly exploited the natural resources, and later, the monopoly shifted towards

using the intellectual property rights and technology to maintain control over edamame production. The study highlights the flexibility of monopolies in response to the evolving regulatory landscape to maintain resource control (Wang, 2020).

Russia provides another example of how monopolies could harm the consumers. Research by Tsygankova (2012) discussed the Gazprom's export monopoly on natural gas and found that this monopolistic structure harms the consumers. The study suggested that the government should allow the independent producers to export gas. It may affect the Gazprom's export profit. However, it can drive the industry's overall profitability, which could potentially benefit the Russian economy. Adding to the complexity, Tsygankova (2012) further argued that the benefits of breaking down the monopolistic structure may not reach the individual customers. Therefore, a careful cost-benefit analysis is needed to understand how monopoly possibly influences the economy and society.

Ahmed and Bhatti (2019) present another example of monopoly in the energy sector and its impact on the Asian region. Ahmed and Bhatti (2019) discussed how state-owned energy industries in the Asian countries having monopolistic structure tend to set the price above marginal cost and earn profits. Such monopolies are characterized by high costs, resource wastage, lack of investment in research and development, high circular debt, unreliable energy supply, deficient maintenance, and corruption (Ahmed & Bhatti, 2019). However, a previous research by Nagayama (2009) argued that currently, there is no clear consensus among the economists, policymakers and researchers about the reform types needed to ensure the consumer welfare in the energy sector, highlighting that breaking the monopolistic structure in the energy sector involves complex regulatory challenges.

In the current era, the growing dominance of China and the USA in the Asian markets raises concerns over the monopolistic practices. The Chinese and American companies have immense market power, and their growing dominance in different industries challenges local start-up firms. It has promoted the regulatory discussions about how this market dominance can be controlled to stimulate the innovation and entrepreneurship (Subramanian, 2011; Chen et al., 2020; Cheng, 2023).

To sum up, monopolistic practices in the Asian region derive influence from multifaceted factors, like-evolving regulatory environment, diverse economic structures, and a complex interaction of regulatory and competitive forces. Although the monopolies have some common characteristics, like- price manipulation, and stifled innovation due to low competition, but monopolies in the Asian region are actively shaped by the state-owned enterprises that seek control over strategic resources to protect the national interests (Williams, 2014). It is important to strike the right balance between government interventions, promote competition to ensure consumer welfare and stimulate innovation and economic growth.

After understanding how monopolies influence the Asian region, the next section now discusses the prevalence of monopolies in the Middle Eastern region.

### **2.3.Monopolies in Middle East**

Saif (2008) explored how monopoly in the food industry is creating the food price crisis in the Arab countries within the Middle Eastern region. Saif (2008) stressed over the need to shift the government policies to address the food sector problems. Due to monopolistic practices, the food sector is in crisis. The monopolistic practices in the food sector can stifle the innovation,

inflate prices, reduce competition, which may ultimately cause the crisis by impeding market efficiency and limiting the choices available to consumers (Ortega et al. 2012).

Governments need to offer incentives like easy loans and tax breaks to expand the social safety net and break down the monopolistic forces that are responsible for the food crisis. This research study was conducted almost 15 years ago. Recent literature suggests that most of the Middle Eastern countries are still struggling with the monopoly. For example, Arafeh and Sukarieh (2023) discussed how Lebanon's food sector is struggling with the monopolistic practices, which have caused the nationwide food security problem. According to Arafeh and Sukarieh (2023), Lebanon's food crisis could be strongly connected to the country's economic system, which is largely characterized by monopoly capitalism. The monopoly and power concentration in the Lebanese food sector have intensified the food crisis. The food market is dominated by only a few players who manipulate the prices, exploit the labor, and are responsible for the environmental degradation. The oligopolistic control of the food chain has directly affected the consumer by inflating the prices, limiting accessibility, and lowering the food quality. Moreover, these monopolistic practices are deepening the economic inequalities, affecting the overall Lebanese economy (Arafeh & Sukarieh, 2023).

In Middle Eastern region, food industry has the unique dynamics. Middle Eastern region has a challenging agriculture climate. The countries struggle with the water scarcity and harsh, arid climate. The governments tend to have monopolistic control over the food industry, which mainly relies on the government subsidies and imports. The monopolistic control is exercised over food distribution to ensure the food security. However, such control also affects the food prices and accessibility (Ayeb & Bush, 2019). It is important to note that such government control and intervention may discourage the competition and increase sector's monopolistic

tendencies, however, such monopolistic control differs from private monopolies, as usually these control measures are taken for broader consumer welfare. But despite its intent and purpose, the scholars still express the divided opinions about how such control influence the consumer welfare over the long-run (Devereux et al. 1996). So, it is important for government to carefully exercise the control measures by considering both- short and long-term consumer welfare.

Considering the importance of food sector, it is important to revisit the monopolistic structure and evaluate how sustainability and stability in this sector could be ensured for economic and social welfare.

After analyzing how monopolies influence the food industry in the Middle-Eastern region, next section now specifically focuses on the GCC region:

#### **2.4.Monopolies in GCC countries**

Alike other world regions, monopolies in the GCC countries exert a significant impact on the consumers' well-being and nations' economies. Examination of how monopolistic practices influence economy and society in this region highlights the complex interplay of the global market influence, consumer effects, government revenue, and economic dependency (Callen et al. 2014). Food is an important industry in GCC that is facing a unique set of challenges. The limited arable land, excessive dependence on the imports, and harsh arid climate are some key GCC food industry challenges (Hassen & El Bilali, 2019). The monopoly controls the food import and distribution, which discourages the competition and limits the consumers' choice. Although a strong monopolistic control can ensure the stability and supply chain consistency, but it significantly limits the affordability of even essential commodities, affecting started recognizing the significance of supplier diversification and are taking the initiatives to reduce the



dependence on the oil industry and encourage the local agriculture. They are investing on the emerging technologies to support the agriculture operations (Al-Jayyousi et al., 2023). However, breaking the monopolistic structure to accelerate the innovation involves complex regulatory challenges. Taking a real world example, Almarai is a prominent Saudi Arabian dairy and food industry that holds significant market share, and can be considered a monopolistic firm due to extensive influence that discourages the competition, limiting the choices for consumers (Mohamad & Asfour, 2020).

To sum up, the monopolistic practices inflate prices and limit food choices and are one of the reasons behind the food insecurity issue in the GCC region. The monopolistic control is stifling the innovation. The monopolies in food sector exert significant effects on the national economies and consumers' daily lives. It is important to diversify the practices to ensure the long-term stability and safeguard the consumer welfare.

After evaluating the monopolies in the GCC countries, the next section discusses the monopolies in the Qatari dairy food industry.

## **2.5. Monopolies in Qatar in food industry.**

Alike other GCC countries, monopolies are also present in major industries of Qatar. Abu Basher et al. (2013) explored the challenges faced by the Qatari economy due to monopolistic control in the food industry. Based on data covering the 2005-2010 time period, Abu Basher et al. (2013) found that highly concentrated supply origins and commodities being sole-sourced increase the supply risks. This concentration also limits the consumers' choices and increases the food prices. The monopolistic control also creates inefficiencies in the shipping practices, which further contribute to the cost escalation. Monopolistic influence can affect Qatar's economy

through price destabilization. However, Ben Hassen et al. (2020) found that the monopoly in the Qatari food industry allowed the Qatari government to exercise strict control during the pandemic. Ben Hassen et al. (2020) further contended that the monopolistic practices benefited the customers by discouraging unnecessary price hikes.

An example of a monopolistic firm in food industry in Qatar include Baladna. According to Allagui (2021), Baladna holds quasi-monopoly in the Qatar as it exerts an excessive pressure on the Qatari dairy market. Gemechu (2021) also expressed concerns over the Baladna cream cheese that excessively dominates the supermarket shelves, showing the company's monopolistic tendencies in dairy industry. Although some studies are available that discuss the monopolies in Qatar, not enough research is available in the specific context of Qatar to understand how monopolies are harming the dairy food sector in the post-pandemic world. Considering the current situation of Qatar, the identified literature gap sets the direction for future researchers. The study analyzes how monopolies are influencing the dairy industry of Qatar by impacting consumers, society, and economy.

## CHAPTER 3: METHODOLOGY

### **3.1.Introduction to the Methodology**

This chapter presents the research methodology. All key methodological components are explained and justified, and their alignment with proposed research question is discussed. The mixed methodological design, with a combination of inductive-deductive approach and pragmatism philosophy, is adopted to assess the impact of monopolies on Qatar's dairy industry.

### **3.2.Research Design**

This study adopts mixed method descriptive research design to analyze the impact of monopolies in the dairy industry and resulting damages in Qatar. Mixed methodology is adopted because it allows the researcher to provide a comprehensive understanding of the complex issues that surround the monopolies and their consequences in the chosen critical sector (Malina et al. 2011). Quantitative data collection enabled the researcher to evaluate consumer behavior trends, offering a broader overview of the extent of monopolistic practices in dairy industry. Qualitative data collection enabled the researcher to explore the nuanced aspects of complex monopolistic behavior, such as supply chain dynamics, market manipulation, and impact on the consumers and local businesses (Hossain, 2012). The context-specific, in-depth qualitative insights offer a deeper understanding of the socio-economic consequences with monopolies in chosen sector.

The main difference between qualitative and quantitative data is that the qualitative data did not restrict the respondents' response to a few options, while quantitative data gave respondents only a few set of options to choose from, and express their opinions. The combination of quantitative and qualitative methods offers a holistic approach to studying the influence of monopolies, ultimately offering a nuanced and well-rounded perspective that could

inform the regulators, senior management, policymakers, and industry stakeholders about the issues at hand (Malina et al. 2011).

The descriptive research design is adopted because it enabled the researcher to offer an accurate and detailed account of the current state of monopolies in Qatar. Descriptive design is well-suited as it guides the researcher to focus on 'what', 'why', and 'how' related questions surrounding the chosen research phenomena without establishing the causality (Bryman & Bell, 2015). By adopting the descriptive design, the study provides a comprehensive picture of the current market conditions, which serves as the basis for policy development and further research in chosen sectors. The resulting insights from descriptive mixed method design augment the existing body of knowledge on monopolies in Qatar and provide policymakers with actionable recommendations to promote competition and bolster economic well-being within the nation (Christensen et al. 2011).

Mixed method design derives support from pragmatism philosophically, which grants the needed methodological freedom to researchers and imposes no rigid restrictions about how data needs to be collected and analyzed. Instead, pragmatism guides the researcher to choose whatever methods suit the research questions (Lincoln et al. 2011). In current case, researcher proposed both- quantitative and qualitative research questions.

For instance, **first** research question- *'to what extent do monopolistic behaviors manifest in Qatar's dairy industry?'* is quantitative in nature, as it requires the researcher to measure and assess the prevalence of monopolistic behaviors. The quantitative approach allowed the systematic data collection that can offer a broader understanding of the extent of monopolistic practices in chosen industry.

**Second** research question- "How do monopolies influence consumer welfare, including pricing, product quality, and accessibility?" requires both- quantitative and qualitative data collection. The quantitative data is needed about product quality and pricing trends (from consumers' perspective). It also required analysis of market factors (like market reach and availability). The quantitative data collection requires an objective assessment of chosen research problem. Qualitatively, it required gathering in-depth insights from companies and consumers to understand their experiences and perceptions towards pricing, quality and accessibility in monopoly-dominated markets. This qualitative approach uncovered subjective and nuanced aspects of customer welfare.

**Third** research question- "What are the economic ramifications of monopolies in these sectors on Qatar's economy" is primarily qualitative, as it requires the researcher to analyze the influence of monopolies on spending patterns etc. in dairy products sectors. The statistical analysis provides insights into monopolies and relevant economic indicators.

Lastly, **fourth** research question- "What are the social implications of monopolies, including their role in access to essential goods, and the overall well-being of Qatar's population?" is both- qualitative and quantitative in nature. The researcher collected some macro-environmental data to assess the affordability, while qualitative data is collected by exploring the customers and company managers' perspective on monopolies (how it affects their lives/business and overall well-being).

Overall, the proposed research questions require a mixed-method approach, encompassing qualitative and quantitative insights to understand the complexity of issue at hand. In connection with pragmatism philosophy and descriptive mixed methodological design, the

study applies deductive approach (Cooper & Schindler, 2014). The adoption of deductive approach for logical reasoning led this study to develop following testable hypotheses:

H1: Perceived consumption frequency influences the customer satisfaction

H1.1: Perceived consumption frequency varies based on age

H1.2: Perceived consumption frequency varies based on gender

H2: Perceived affordability influences the customer satisfaction

H2.1: Perceived affordability varies based on age

H2.2: Perceived affordability varies based on gender

H3: Product pricing influences the customer satisfaction

H3.1: Product pricing varies based on age

H3.2: Product pricing varies based on gender

H4: Perceived diversity (variety) influences the customer satisfaction

H4.1: Perceived diversity varies based on age

H4.2: Perceived diversity varies based on gender

Above hypotheses are tested by collecting quantitative data through surveys with Qatari industry customers and companies. Although the deductive logic enhanced the findings' reliability and allowed the researcher to produce generalizable and precise results, but it also inhibited the divergent thinking. Impact of monopolies on economy is complex and requires in-depth evaluation and contextual understanding. Therefore, the study combined the deductive approach with inductive reasoning to get the enriched understanding beyond a purely deductive approach (Creswell, 2013). The inductive approach enabled the researcher to explore the insights from perceptions and experiences of individuals and businesses possibly affected by monopolies in Qatari dairy industry. The hybrid approach ensured a well-rounded and holistic investigation,

aligned with philosophical underpinning of pragmatism and complexity of research questions (Bryman & Bell, 2015).

Further details about how quantitative and qualitative data is collected from different sources are given in next section.

### **3.3.Data Collection**

As mentioned before, the mixed methodological design is adopted for this research. Mixed method can be implemented by adopting sequential exploratory, sequential explanatory or concurrent data collection designs. The current study adopts concurrent research design, which means the quantitative and qualitative data is simultaneously collected (Zikmund et al. 2013).

#### ***3.3.1. Data sources.***

There are two key data sources- consumers and company managers in dairy industry. The consumers act as quantitative data source as they share their perceptions and experiences by filling out the questionnaires and participating in the open-ended surveys. Managers of Qatari dairy industry are another data source, sharing their insights into how monopolistic practices affect the consumer market and overall economy.

#### ***3.3.2. Target population and sampling***

The target population includes two sets- customers of Qatari dairy product companies and middle managers of companies from dairy industry. Middle managers are specifically targeted as they can be easily contacted and can share well-informed insights as they have knowledge at both- strategic and operational levels. To collect quantitative data, convenience sampling

technique is adopted while contacting customers. Non-random convenience sampling allowed the researcher to contact customers who are easily accessible through online mediums.

Whereas a combination of convenience and snowball sampling techniques are adopted when targeting company managers (Zikmund et al., 2013). Convenience sampling technique is applied by contacting the organizations where researcher has personal contacts. Snowball sampling technique is combined by requesting the responding individuals to forward the questionnaire to other managers who have in-depth knowledge of monopolistic practices and their consequences for Qatari economy (Hossain, 2012).

Following criteria is followed to conduct survey with managers:

- Manager must hold middle-level managerial positions in any Qatari dairy industry.
- Manager must have in-depth knowledge of the monopolistic practices in chosen sector.
- Manager must be involved in both- strategic decision-making and operational aspects to share a detailed perspective.

Considering the time constraints and access limitations, researcher conducted survey with 102 customers and five company managers from dairy industry. As qualitative data collection is time intensive, so within available time, the researcher was able to collect data from only 5 company managers.

### ***3.3.3. Data collection instruments.***

The quantitative survey data is collected by developing an online close-ended questionnaire that carried some open-ended questions. Two separate questionnaires are developed, one for customers and other for managers (both attached in the appendix).



### ***3.3.4. Overall procedure.***

The overall procedure of quantitative and qualitative data collection is summarized in following points:

- Conducted survey with customers by sharing survey questionnaire through social media
- Conducted survey with managers in Qatari dairy product companies
- Completed quantitative data collection process and prepared data files for analysis.

## **3.4.Data Analysis**

### ***3.4.1. Data preprocessing.***

The collected quantitative data was pre-processed by identifying the missing values, computing and transforming the variables, identifying and removing outliers, and making all other adjustments needed to prepare the dataset for analysis. The qualitative data was pre-processed by correcting possible mistakes, reducing the data, and then cleaning the data file (Bryman & Bell, 2015).

### ***3.4.2. Data analysis techniques.***

The quantitative data is analyzed by using SPSS. First, descriptive statistics, including mean and standard deviation values, are interpreted. The percentage analysis is conducted to understand overall data patterns. The mean comparison tests (independent sample t-test and 1-way ANOVA) are conducted. The Pearson correlation test is run to assess the possible association between monopolistic practices and their economic and social impacts, and the relationship is further confirmed by running the multiple linear regression test. Qualitative data is descriptively analyzed and presented under the pre-identified themes.

### 3.4.3. Alignment with proposed research questions.

Following table explains the alignment between analysis techniques and proposed research questions:

Research questions	Data analysis techniques
1. To what extent do monopolistic behaviors manifest in Qatar's dairy industry?	<ul style="list-style-type: none"> <li>• Mean values and percentage analysis to understand prevalence of monopolistic behaviors</li> </ul>
2. How do monopolies influence consumer welfare, including pricing, product quality, and accessibility?	<ul style="list-style-type: none"> <li>• Mean values to understand overall perceptions towards product quality and pricing trends (from consumers' perspective) and analysis of market factors (like market reach and availability)</li> <li>• Insights from survey with company managers and consumers to understand their experiences and perceptions towards pricing, quality and accessibility in monopoly-dominated markets</li> </ul>
3. What are the economic ramifications of monopolies in these sectors on Qatar's economy?	<ul style="list-style-type: none"> <li>• Economic data through surveys and reports</li> <li>• In-depth insights from consumers/companies to understand economic ramifications based on their experiences</li> </ul>
4. What are the social implications of monopolies, including their role in access to essential goods, and the overall well-being of Qatar's population?	<ul style="list-style-type: none"> <li>• Quantitative data analysis, analysis of mean values to understand social implications</li> <li>• Qualitative data to explore managers and consumers' perspective on monopolies</li> </ul>

Table 1. Alignment between research questions and data analysis techniques

### 3.5. Ethical Considerations

During data collection and analysis, all ethical research principles are met. All participants were well aware of the research purpose before accepting the invitation. The participation remained completely free, and no undue pressure was exerted to accept the survey invitation. Survey participants' identity was kept anonymized, and data remained confidential so that it could only be used for the intended purpose. During data collection, researcher adopted a respectable and professional attitude and avoided imposing her own opinions to get results that

confirmed personal dispositions. Instead, a neutral and unbiased attitude was adopted to understand the social and economic impact of monopoly in chosen sectors (Bell & Bryman, 2015).

### **3.6. Validity, Reliability and Trustworthiness**

Validity of survey questionnaire is enhanced by using a simple language to make questions (ensuring face validity) and collecting the quantitative data from large sample size (to ensure external validity). Reliability of the questionnaire is assessed by conducting a small pilot research, whose purpose was to identify possible issues in wording, clarity, or response options (Creswell, 2013). Trustworthiness of findings was further enhanced by applying the triangulation technique. The researcher compared the quantitative survey results with open-ended responses and literature findings, which enhanced the confidence over proposed conclusion (Saunders, 2013).

## CHAPTER 4: DATA PRESENTATION AND ANALYSIS

This chapter presents the primary and secondary research results. The primary research is undertaken by conducting survey with consumers and companies, while secondary research is conducted by reviewing the companies' websites.

### 4.1.Descriptive Analysis- Consumer Survey Results

First, the consumer survey data is descriptively analyzed by conducting the mean value and percentage analysis:

#### 4.1.1. Demographic characteristics.

The survey was conducted with 102 respondents, out of which a majority were 35 to 44 years old. The age distribution is given in following graph:

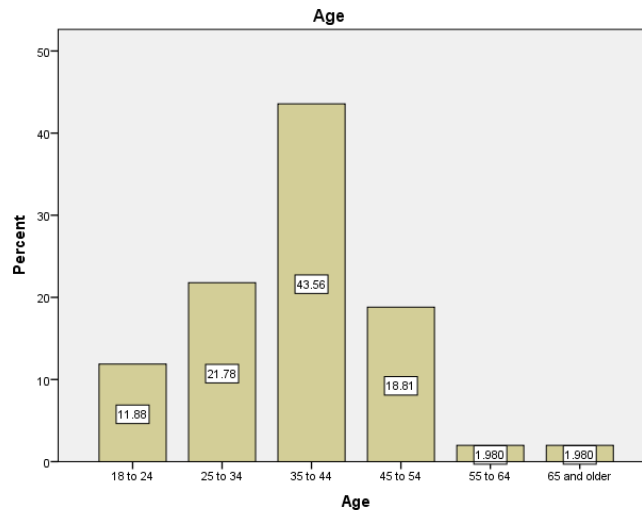


Figure 1. Age distribution

The graph shows that 44% (approx.) respondents are 35 to 44 years' old, followed by 22% that are 25 to 34 years' old, and 19% that are 45 to 54 years' old. Around 12% are 18 to 24 years' old, and only 4 percent (around) are 55 and older. It means most participants are young to middle aged.

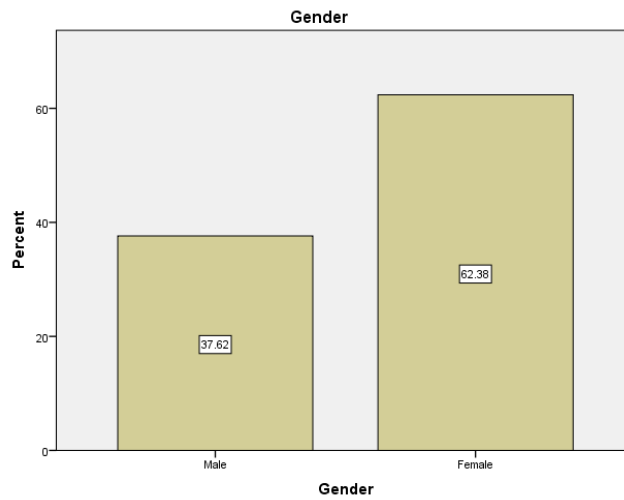


Figure 2. Gender distribution

The gender distribution shows that out of 102, around 38% are males, and 62% are females.

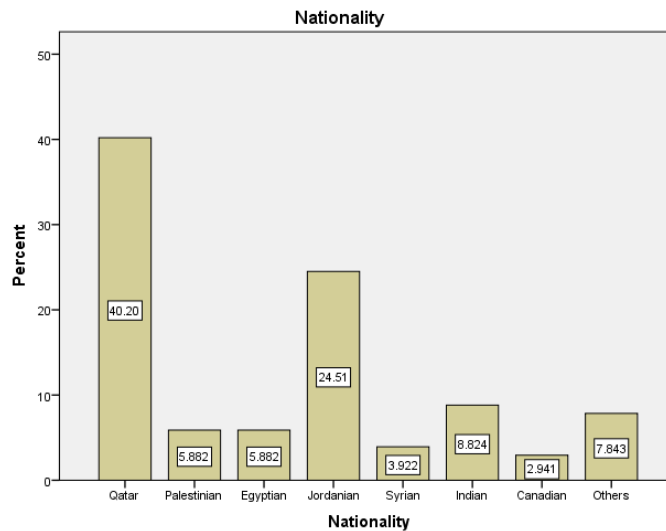


Figure 3. Nationality distribution

The nationality distribution (as shown in above graph) shows around 40% participants are Qatar national, followed by 24.5% who are Jordanian, and 8.8% Indian. Palestinian and Egyptian- both are around 6% each. Syrians made around 4% of total population, Canadians made around 3 percent. Around 8% respondents mentioned others category, including- Oman, Bahrian, Sri Lanka, UK, Sudan, Algeria, and Spain.

#### 4.1.2. Consumption of local dairy products.

Participants were asked whether they consume local dairy products in Qatar, and response is summarized in following graph:

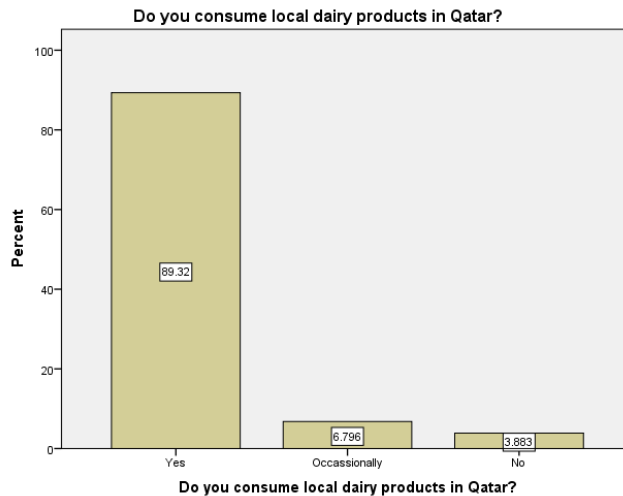


Figure 4. Local dairy product consumption

Around 89% of respondents said they consumed local dairy products in Qatar, around 7% mentioned they occasionally use local dairy products, and around 4% said they do not use local dairy products.

#### ***4.1.3. Diversity of local dairy products.***

Participants were also asked to rate the diversity of the local dairy products available in the market.



Figure 5- Diversity of the local dairy products

The analysis showed that around 27% rated excellent, 47% mentioned good, around 13.5% mentioned fair, and around 12.6% mentioned poor. The mean value is 1.15, suggesting on average, participants consider local dairy products diversity to be 'good'.

#### ***4.1.4. Pricing comparison of local and imported products.***

Participants were asked to share their perceptions of the pricing of local dairy products compared to imported ones. The response is summarized below:

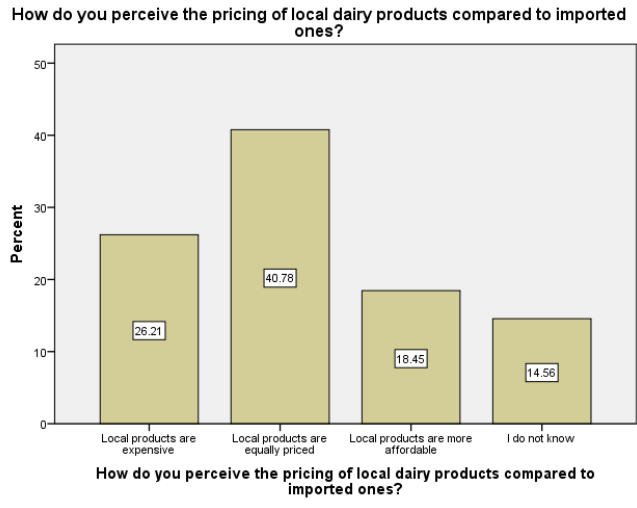


Figure 6- Pricing of local dairy products

A majority of respondents (41%) considered local products to be equally priced, and 26% considered local products more expensive. Around 18.5% considered local products more affordable, and 14.6% mentioned they do not know.

**4.1.5. Perceived affordability.**

Participants were asked to share whether they consider local dairy products to be affordable. The analysis is summarized below:





Figure 7- Perceived affordability

The graph shows that around 51% considered prices to be affordable, 38% considered sometimes affordable, while, 12% do not consider local product prices to be affordable.

**4.1.6. Overall satisfaction with local dairy products.**

Participants were asked to share their overall satisfaction with quality of local dairy products.



Figure 8- Satisfaction with local dairy products

The response suggests that a majority of the respondents (53%) are satisfied, followed by 22% that are neutral, and 15% are very satisfied. Around 9% are dissatisfied, and 1% are highly dissatisfied.

**4.1.7. Most frequently consumed dairy products.**

The participants were asked to mention the dairy products that customers consume the most on daily basis. Participants were allowed to mark more than one items.

The response is summarized into following graph:

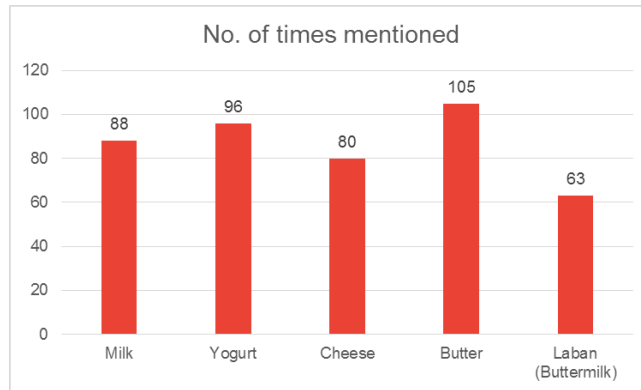


Figure 9. Dairy product consumption frequency

The response analysis suggests that butter was most frequently mentioned (105 times), followed by yogurt (96 times), milk (88 times), cheese (80 times), and Laban (buttermilk) (63 times). Others' category was only mentioned twice, out of which one participant mentioned ice-cream yogurt, while another mentioned dessert.

**4.1.8. Products difficult to find in the market.**

Out of 102 respondents, 77 mentioned they face no difficulty in finding any dairy product in the market, while remaining 25 respondents mentioned various products. The response is summarized in following graph:

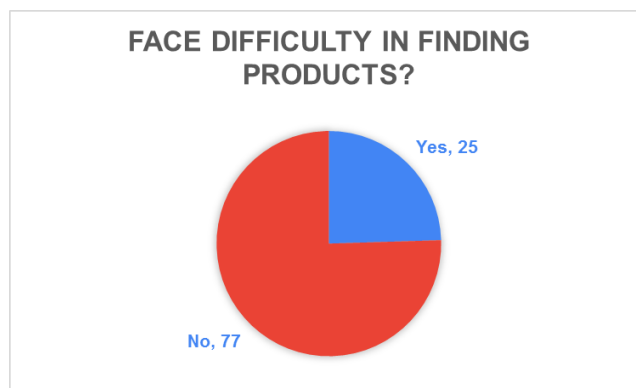


Figure 10- Difficult accessibility

The products that are difficult to find mainly include- English dairy products, mascarpone cheese, all type of dairy free- with protein, Alwajba, butter, local Coffee mate / local coffee, local Butter, milk, Halloumi cheese, old white cheese, Rawaa, Puck, Al Marai, Cottage cheese, Ghadeer Laban and yogurt. One respondent mentioned that it's not about products rather than diversity of brands and suppliers.

After analyzing the descriptive statistics, the researcher now presents the inferential statistics to evaluate the cause and effect relationship between independent and dependent variables:

#### 4.2. Inferential tests- consumer survey results

The inferential test results start with comparing the mean values based on age and gender:

##### 4.2.1. Age based comparison.

The age-based comparison is conducted for three variables- consumption of local dairy products, perceived affordability, and perceived satisfaction with the local dairy products.

		Descriptive		
		N	Mean	Std. Deviation
Consumption frequency	25-34	12	1.167	.3892
	35-44	23	1.091	.2942
	45-54	45	1.091	.3620
	55-64	19	1.316	.7493
	65 and older	2	1.500	.7071
	Total	101	1.149	.4558
Affordability	25-34	12	1.500	.5222
	35-44	23	1.545	.6710
	45-54	45	1.500	.6988
	55-64	19	1.895	.8093

	65 and older	2	2.000	.0005
	Total	101	1.604	.6940
	25-34	12	2.167	1.3371
	35-44	23	2.409	.7964
Satisfaction	45-54	45	2.136	.8238
	55-64	18	2.611	.6978
	65 and older	2	2.000	.0000
	Total	100	2.290	.8680

Table 2. Mean values age based comparison

The consumption frequency varies based on the age, as consumption frequency is comparatively lower for age group 55 to 64 years (1.316 showing responses falling between ‘yes’ to ‘occasionally’), and age group (65 and older, with 1.5 mean value) than younger age groups who earn value close to 1 (showing yes, means higher consumption frequency).

With respect to affordability, the mean values gradually increase with increasing age groups, showing the local dairy products are perceived less affordable for older customers than younger customers. The mean comparison for satisfaction shows that the customers aged 25 to 34 appear more satisfied (2.167) than other age groups other than 65 and older. However, as 65 and older group has only two entries, so they can be ignored due to low sample size. The response pattern in case of satisfaction is unclear.

It is important to note that the identified mean values are insufficient to confirm whether the noted mean differences are significant. For this purpose, ANOVA table can be referred.

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Consumption frequency	Between Groups	1.046	5	.209	1.007	.418
	Within Groups	19.726	95	.208		
	Total	20.772	100			
Affordability	Between Groups	2.914	5	.583	1.224	.304
	Within Groups	45.244	95	.476		

Satisfaction	Total	48.158	100			
	Between Groups	3.646	5	.729	.966	.443
	Within Groups	70.944	94	.755		
	Total	74.590	99			

Table 3. ANOVA mean comparison test

ANOVA table shows that the mean differences noted in all three cases fail to attain the statistical significance. In case of consumption frequency, the corresponding values  $F(5, 95) = 1.007$ ,  $p = .418$  show no significant difference on consumption frequency of customers from different age groups. The affordability results  $F(5, 95) = 1.224$ ,  $p = .304$  show that customers of all age groups view local dairy products affordability in the same manner. The satisfaction score further confirms  $F(5, 94) = .966$ ,  $p = .443$  that the satisfaction of customers from different age groups is almost same.

These findings imply that the monopolistic behavior of the local dairy industry in Qatar does not significantly influence the consumer welfare across different age groups. However, the perceived lower affordability by older customers reflect a potential area needing improvement.

#### 4.2.2. Gender based comparison.

Now, gender-based comparison is conducted for consumption frequency, affordability, and satisfaction:

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Consumption frequency	Male	38	1.053	.2263	.0367
	Female	63	1.206	.5435	.0685
Affordability	Male	38	1.500	.6877	.1116
	Female	63	1.683	.6915	.0871
Satisfaction	Male	38	2.158	.7893	.1280
	Female	62	2.387	.8936	.1135

Table 4- Gender based comparison

The table shows that in all three cases, the mean values for the males are lower than females. Here, lower mean values reflect higher consumption frequency, more affordability, and higher satisfaction. It can be said that the Qatari male dairy product customers consume dairy products more frequently, consider these products more affordable, and appear to be more satisfied. However, simple mean values are insufficient to confirm whether noted mean differences are significant or not. For this purpose, t-test results are referred:

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference
Consumption frequency	Equal variances assumed	12.670	.001	-1.656	99	.101	-.1537
	Equal variances not assumed			-1.978	90.263	.051	-.1537
Affordability	Equal variances assumed	.000	.982	-1.288	99	.201	-.1825
	Equal variances not assumed			-1.290	78.475	.201	-.1825
Satisfaction	Equal variances assumed	1.571	.213	-1.300	98	.197	-.2292
	Equal variances not assumed			-1.340	85.834	.184	-.2292

Table 5. Independent sample t-test results

With equal variances not assumed ( $F=12.670$ ,  $p=0.001$ ) for consumption frequency, the corresponding results ( $t=-1.978$ ,  $p=.051$ ) show the noted mean differences based on gender are not significant. With equal variances assumed ( $F=.000$ ,  $p=.982$ ) for perceived affordability, the corresponding results ( $t=-1.288$ ,  $p=.201$ ) show that noted mean differences based on gender are not significant. With equal variances assumed ( $F=1.571$ ,  $p=.213$ ) for satisfaction, the findings ( $t=-1.300$ ,  $p=.197$ ) show that both gender groups show almost same satisfaction level with negligible mean differences.

Overall, the findings show that the business practices of the local dairy Qatari companies do not significantly influence the consumer welfare across different gender groups.

#### 4.2.3. Pearson correlation output.

After analyzing the mean differences, the correlation between selected variables is checked, and output is shared below:

	Mean	Std. Deviation	N
Consumption frequency	1.146	.4517	103
Product diversity	2.117	.9528	103
Pricing	2.214	.9966	103
Affordability	1.612	.6893	103
Satisfaction	2.284	.8603	102

Table 6. Variable mean values

The mean values show that overall, the dairy products are frequently consumed (1.146), the product diversity is deemed good, the pricing is considered to be almost equally priced (2.21), products are generally considered somehow affordable (1.61), and customers are satisfied to a fair extent (2.28).

		Consumption frequency	Product diversity	Pricing	Affordability	Satisfaction
Consumption frequency	Pearson Correlation	1	.165	.126	.120	.286**
	Sig. (2-tailed)		.095	.204	.226	.004
	N	103	103	103	103	102
Product diversity	Pearson Correlation	.165	1	.015	.010	.668**
	Sig. (2-tailed)	.095		.882	.921	.000
	N	103	103	103	103	102
Pricing	Pearson Correlation	.126	.015	1	-.306**	.066
	Sig. (2-tailed)	.204	.882		.002	.510
	N	103	103	103	103	102
Affordability	Pearson Correlation	.120	.010	-.306**	1	.147

	Sig. (2-tailed)	.226	.921	.002		.141
	N	103	103	103	103	102
	Pearson	.286**	.668**	.066	.147	1
	Correlation					
Satisfaction	Sig. (2-tailed)	.004	.000	.510	.141	
	N	102	102	102	102	102

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 7. Pearson correlation output

The Pearson Correlation table shows that the consumption frequency shared significant positive correlation with the satisfaction ( $r=.286$ ,  $p=.004$ ), the product diversity shares strong positive correlation ( $r=.668$ ,  $p<0.005$ ), while pricing ( $r=0.066$ ,  $p=.510$ ) and affordability ( $r=.147$ ,  $p=.141$ ) share no significant correlation with the satisfaction. These findings imply that the consumer satisfaction derives strong influence by the product diversity and consumption frequency, suggesting that despite monopolistic tendencies, the local dairy firms effectively meet the consumers' needs through diverse products, driving their consumption frequency. It can be an outcome of the monopolistic control, where affordability and product prices are less competitive factors. Therefore, although, the industry may show monopolistic behavior, but product diversity and consumption frequency attempt to mitigate the monopolistic tendencies' influence on the consumer welfare (reflected in satisfaction).

The correlation output shows the nature and strength of correlation between identified variables. Next section runs the multiple linear regression test to check the individual impact of variables (consumption frequency, pricing, affordability, and diversity/variety) on the outcome variable (satisfaction).

#### ***4.2.4. Multiple linear regression test.***

The multiple linear regression test results are shared below:



Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.705 <sup>a</sup>	.497	.476	.6226

a. Predictors: (Constant), Affordability, Product Diversity, Consumption frequency, Pricing

Table 8. Model summary

The model summary table shows that the overall correlation between collective independent variables is strong positive ( $R=.705$ ) on the satisfaction, and collectively, all independent variables explains 47.6% variance in the satisfaction.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.152	4	9.288	23.960	.000 <sup>b</sup>
	Residual	37.602	97	.388		
	Total	74.755	101			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Affordability, Product Diversity, Consumption frequency, Pricing

Table 9. ANOVA regression output

The ANOVA table shows that with corresponding values of  $F(4, 97) = 23.960$ ,  $p < 0.0005$ , the independent variables (affordability, product diversity, consumption frequency, and pricing) collectively share a significant relationship with consumers' satisfaction with local dairy products.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.245	.302		.813	.418
	Consumption frequency	.308	.155	.148	1.991	.049
	Product diversity	.573	.066	.637	8.695	.000
	Pricing	.072	.066	.084	1.088	.279
	Affordability	.201	.096	.158	2.080	.040

a. Dependent Variable: Satisfaction

Table 10. Regression coefficient table

The regression co-efficient table shows that on individual level, all variables except pricing share a significant relationship with satisfaction, with corresponding values of consumption frequency (t=.1991, p=0.049), product diversity (t=.8695, p<0.0005), pricing (t=1.088, p=.279), and affordability (t=2.080, p=.040). The beta values can be used to develop following regression equation:

$$\text{Satisfaction} = .245 + \text{consumption frequency (.308)} + \text{product diversity (.573)} + \text{pricing (.072)} + \text{affordability (.201)}.$$

The equation shows that the change in the product diversity brings the most change in satisfaction, followed by consumption frequency, affordability, and then pricing. The equation can be interpreted as:

A 1 unit change in the consumption frequency can bring corresponding .308 unit change in satisfaction, 1 unit change in product diversity can bring corresponding .573 unit change in the satisfaction, 1 unit change in the pricing can bring corresponding .072 unit change in the satisfaction, and similarly, 1 unit change in the affordability can bring .201 unit change in the satisfaction. The results show that the product diversity/variety is the most important variable that determines the customer satisfaction, reflecting the need to encourage competition and break monopoly to increase product variety.

#### **4.2.5. Hypotheses test results.**

The inferential test results can be based to approve or disapprove following hypotheses:

Hypotheses	Results
H1: Perceived consumption frequency influences the customer satisfaction	Accepted based on regression and correlation results.

H1.1: Perceived consumption frequency varies based on age	Rejected (no significant differences noted)
H1.2: Perceived consumption frequency varies based on gender	Rejected (no significant differences noted)
H2: Perceived affordability influences the customer satisfaction	Accepted based on regression and correlation results.
H2.1: Perceived affordability varies based on age	Rejected (no significant differences noted)
H2.2: Perceived affordability varies based on gender	Rejected (no significant differences noted)
H3: Product pricing influences the customer satisfaction	Rejected based on regression and correlation results.
H3.1: Product pricing varies based on age	Rejected (no significant differences noted)
H3.2: Product pricing varies based on gender	Rejected (no significant differences noted)
H4: Perceived diversity influences the customer satisfaction	Accepted based on regression and correlation results.
H4.1: Perceived diversity varies based on age	Rejected (no significant differences noted)
H4.2: Perceived diversity varies based on gender	Rejected (no significant differences noted)

Table 11. Hypotheses test summary

The hypotheses table (table 11) suggests that the consumers frequently consume the local dairy products, and consumers with higher consumption frequency tend to be more satisfied. However, the consumption frequency does not vary with age and gender, showing consumption patterns do not depend on the consumers' demographic characteristics. Other than consumption frequency, the perceived affordability also influences customer satisfaction, showing customers who find local dairy products affordable tend to be satisfied, and this perceived affordability

does not vary based on consumers' gender and age. Product pricing comparison with the foreign dairy brands shares no significant influence on the satisfaction, and neither the perceptions towards pricing vary based on age and gender. Perceived product diversity is another important predictor of customer satisfaction, though, these perceptions do not vary based on age and gender. The overall analysis suggests that the customers' demographic characteristics do not play any significant role in shaping their perceptions towards product diversity, affordability, and consumption behavior. Overall, the study highlights the significance of addressing the affordability, and increasing the product variety and diversity to drive the customer satisfaction in Qatari industry.

After presenting the quantitative survey findings, next section now analyses the qualitative response from open-ended questions:

### 4.3. Qualitative Data Analysis- Customer Survey

#### 4.3.1. Perceived quality concerns.

Perceived quality concerns	No issues	Various quality issues
Response	87	15

Table 12. Perceived quality concerns

Various quality concerns	Issues	Summary
Poor cheese quality	5	The taste is very bad compared to imported ones, particularly about all cheese from Baladna and specifically the Haloumi Cheese, the Cheese taste needs improvement, and smell on Cheese is disliked.

Milk quality	3	Occasionally, the milk is spoiled even if it is not expired and was kept well in the refrigerator. The color of the lactose free milk keeps changing; it is not white all the time, where in some cases it comes in light brown. The long-life milk sometimes tastes like water.
Varying taste and quality of dairy products	7	The price does not justify quality and quantity. The taste keeps changing (possibly due to change of some ingredients), the quality is also unstable as at often product starts good and then reduces quality over time. One participant even mentioned that the local dairy products trigger stomach and colonial pain compared to other non-local brands.

Table 12. Various quality concerns- summary

Participants were asked to mention any perceived quality concerns they face while using local products. The results show that around 87 of 102 participants mentioned they face no issue, while 15 participant mentioned various quality related concerns. For instance, 5 out of 15 participants mentioned the poor cheese quality and its high price as the reason of dissatisfaction. One participant mentioned:

*“Quality not but the taste is very bad compared to imported ones. Here mainly I am talking about all cheese from Baladna and specifically the Haloumi Cheese”*

Out of remaining, three participants expressed concerns over the quality of milk. As one participant said the milk tastes like water, and another complained that milk was spoiled twice even though it was not expired. Another participant said:

*“The color of the lactose free milk keeps changing; it is not white all the time, where in some cases it comes in light brown”*

Remaining participants complained that the taste keeps changing with time, and quality does not remain stable. One participant even mentioned that:

*“Despite the unsatisfactory taste, the quality of the products triggers stomach and colonial pain compared to other non-local brands”.*

Overall, the quality related concerns are mainly due to varying taste of dairy products, and sub-standard quality of milk and cheese.

#### **4.3.2. Perceived challenges and concerns.**

Perceived challenges/concerns	Frequency	Summary
Price	26	Recent price increase made many customers think if the charged price actually justifies the offered quality
Quality	20	Quality was second most frequently mentioned concern, as customers were concerned over addition of too many preservatives, making products not 100% natural.

Availability	11	The availability of some items like flavored and low-fat Greek Yogurt, and high-end products like spreadable and specialty cheese was the key concern
Lack of variety	9	Lack of variety was also commonly mentioned, as customers have to visit multiple branches to get the desired items due to limited variety at one company
Monopoly causing price hike	3	Need for having more companies to encourage the competition was highlighted

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Table 13. Perceived challenges and concerns

The customers were also asked to mention any challenges they face in the local dairy industry in Qatar. Price was mentioned 26 times, showing it is the biggest concern of participants, followed by quality that was mentioned 20 times, and availability that was mentioned 11 times. The lack of variety was mentioned 9 times, and 3 participants directly mentioned the monopoly as the core reason for lack of variety and high prices. Two participants mentioned the taste as the core challenge.

Here are some comments expressing the concerns over price, quality, variety, and availability:

*“I believe the quality and availability are much enhanced compared to previous years. However, the pricing might be on the higher end and increasing. Mainly due to Monopoly and inflation”*

The participants expressed concerns over the consistent price rise, and considered quality to be lower than the prices charged. While commenting on quality, one participant mentioned that that products have *“too many preservatives, not natural 100%”*.

Another participant mentioned the limited variety of high-end items (e.g., specialty cheese and spreadable cheese) as the challenge. *“Availability of certain products such as flavored Greek yogurt. In addition to sometimes the same product quality changes from time to time”*.

The overall analysis suggests that price and quality are two big concerns, followed by limited variety and availability.

#### ***4.3.3. Overall opinions towards local dairy products.***

Overall opinions	No.	Summary
Satisfaction with local dairy products	36	Many participants showed satisfaction by expressing that buying local products satisfies their basic needs, the quality is improving with time, government is taking steps to improve quality of local products, and it is good as a community to support buying local products. However, the expressed satisfaction was mostly limited to meeting only basic needs.
Mixed response	12	The mixed response was shown by sharing that although quality is improving, but better alternatives are also available in the market, and that more improvement in the local products is needed to effectively compete the international brands.
Dissatisfaction with various aspects	54	Mostly, the dissatisfaction was expressed with the product quality, followed by improving taste, and bringing more options to satisfy different tastes

Table 14- Overall opinions towards local dairy products



Around 36 participants expressed their satisfaction with the local dairy products by commenting that the local dairy products are getting better with time in terms of quality, and are more affordable too. Like, one participant mentioned: *“IT’s improved and much better than 5 years ago”*.

Another participant mentioned that: *“It’s great and as community we should support and always buy local products”*. This comment shows the customers’ love for local products due to perceived sense of community.

Around 12 respondents shared mixed opinions. Like, one participant mentioned that: *“It the best dairy product in the word especially dandy for Laban and Baladna for milk, but they need to improve cheese, the taste of puck in cheese better than local cheese”*

While another commented that:

*“Not the best product but not the worst at the same time”*

While, remaining participants expressed dissatisfaction with the local products, and preferred the imported products over local ones due to taste and quality. Like, one participant mentioned that:

*“I think imported products are better in terms of nutritional values”*

Expressing the dissatisfaction, another participant said that *“It satisfies my basic needs, but it doesn’t satisfy me in terms of variety, quality and availability”*.

Many participants who were not completely satisfied with local products made suggestions. Like, one participant said:

*“Can be improved and need to bring more options and more brands to satisfy different tastes”*

Other participants recommended local brands to improve the quality and taste, and bring more options to serve the diverse tastes of customers. Next question asked the participants to share more recommendations to the local brands about how they can improve their quality.

#### ***4.3.4. Recommendations for local dairy brands.***

Respondents shared different recommendations. Like, many customers recommended the local brands to increase the variety and taste of cheese, and develop more dairy products by increasing their variety. Local brands were also recommended to make flavored yogurt, and improve the quality of Greek yogurt. Many respondents highlighted the need to set an appropriate price for the dairy products, and increase variety of specialty dairy products.

One customer mentioned

*“Nutrition facts are not accurate, this is one of the main reasons people shift to imported products. Another thing is that the quality of the ingredients is not as good as what other non-local brands are offering”*

While, another customer said that”

*“If they (local brands) don’t improve the quality of the product to at least overcome the market monopoly and give consumers the choice to choose”*

The local brands were recommended to compare the quality with products in other country and agreement of consumer. One customer recommended the government to:

*“Encourage more local businesses in this area to grow. Also, prepare by the responsible organization high standard for better quality”.*

Considering the price related concerns of customers, local brands were suggested to reprice all products to be affordable for low- income people. One participant made an important recommendation about tailoring the products according to customers’ unique needs by saying that:

*“May be an additional note would be trying to satisfy the different cultural needs. Hence, having multiple tastes for different countries’ cultures. I understand that this might not be that much plausible due to mass production but it could be a success for a few numbers of select products and market fit”*

Overall, the recommendations are mainly about improving the quality, taste and variety, while reducing the price at the same time, and it requires the government to breakdown the monopoly and encourage competition.

After presenting and analyzing the survey findings from Qatari dairy customers, next section now analyzes the company data by presenting the primary and secondary research results.

#### **4.4. Company data**

#### ***4.4.1. Basic company overview.***

Baladna is a Qatari local agricultural company. Established in 2014, the company offers wide-ranging products from milk, Laban, yogurt, cheese, fresh cream, desserts, non-dairy items like meat and juices, to fertilizers. It is one of the largest local dairy producer, meeting needs of more than 95 percent of the customers (Baladna, 2023). Rawa is another leading local Qatari dairy production company that was established in 2015. The company offers various dairy products. Its most popular product is the Yogurt made of fruits and four grains. The company has achieved 100 percent self-sufficiency in the dairy production (Rawa, 2023). Dandy was founded in 1973, and is known as a popular local dairy brand. The company offers wide-ranging products, including- ice creams, juices, and dairy items. The dairy range includes- laban, yogurt, ayran, labneh, cream, and flavored milk and laban. Although, information about exact market share is not available, but the company is considered the market leader in the dairy industry (Mordor Intelligence, 2023).

Al-Maha Dairy was established in 2015 as a local Qatari dairy company. The company specializes in the fresh organic cow milk, sweets, and juices. The exact market share information of Al-Maha is not known, but it is one of the renowned brands in Qatari dairy product market (Al-Maha Dairy, 2023). Ghadeer dairy company is a 100 percent Qatari owned, and one of the oldest dairy companies in Qatar. The company was established in 1986, and is considered the country's first fully-integrated company. Ghadeer offers wide-ranging juices and dairy products, including- yoghurt, laban, milk, and different juices (Ghadeer Dairy Company, 2023). Alwajba Dairy Company is a local (Qatari) dairy food producer, offering products ranging- milk, juice, laban, cheese, stirred and Greek yogurt, and butter (Alwajba Dairy, 2023).

#### ***4.4.2. Monopolistic tendencies in dairy industry.***

The strategic partnership between Qatari leading dairy producer- Baladna and global giant- The Bel Group reflects Baladna's dominance in the market, which could discourage the competition. However, the partnership may offer more high quality and diverse products in a more sustainable way. Despite the monopolistic behavior, this partnership could enhance the consumer choices in Qatari dairy industry (Baladna, 2023). Alwajba Dairy's official website shares the company's strong commitment to quality, taste, health, and sustainability. The company's drive to achieve the market dominance hints monopolistic tendencies, but its commitment to offer best value to customers suggests that despite monopolistic tendencies, consumer welfare is still a key consideration in company's business operations (Alwajba, 2023).

Ghadeer- being the only fully integrated dairy Qatari company controls over the entire supply chain, from farms to the production and distribution, which grants full control over the operations. However, the company's commitment to the continuous development and quality along with the passion to invest on the emerging technologies and meeting the growing demand in a sustainable manner reflects its focus on national interests and consumer welfare (Ghadeer, 2023). While, Ghadeer's strong market dominance may indicate the monopolistic behavior, but it appears to contribute to the national food security, which is a positive finding. Alike Baladna, Alwajba, and Ghadeer, Al Maha dairy food company also exhibits monopolistic tendencies as it aims for self-sufficiency in the dairy production. Its market dominance limits the competition, but the impact on consumer welfare remains minimal since company actively invests on the state-of-art technologies, and contribute to the food sustainability, which aligns with the Qatar's 2030 national vision (Al-Maha, 2023).

The official websites of Qatar's major dairy companies highlight some common themes, including- focus on product variety, sustainability, quality, and innovation. These could be the possible reasons why survey findings showed an overall customer satisfaction despite the industry showing monopolistic behavior. A letter from Ministry of Commerce and competition department further indicated that noting the monopolistic tendencies, Qatari government has developed legal and institutional mechanisms to counter the monopolistic business practices under 2006 law no. (19), and mitigate the negative effect of the demand-supply mechanisms. As per law, any anti-competitive practice is subject to the legal scrutiny. These laws pressurize the WOQOD to avoid engaging in the practices that disrupt the demand-supply functions that may harm the consumer welfare.

After presenting the secondary data findings, next section now analyzes the primary data gathered from Qatari dairy companies.

#### ***4.4.3. Company survey data.***

##### ***4.4.3.1. Prevailing competition.***

Other than collecting data from the customers, the researcher also collected data from the six companies. The purpose was to evaluate the local market dynamics from their perspective. The perceptions towards prevailing competition were explored. The analysis indicated that the five out of six companies considered local competition to be moderate, whereas, one company considered competition to be high (as depicted in following graph):

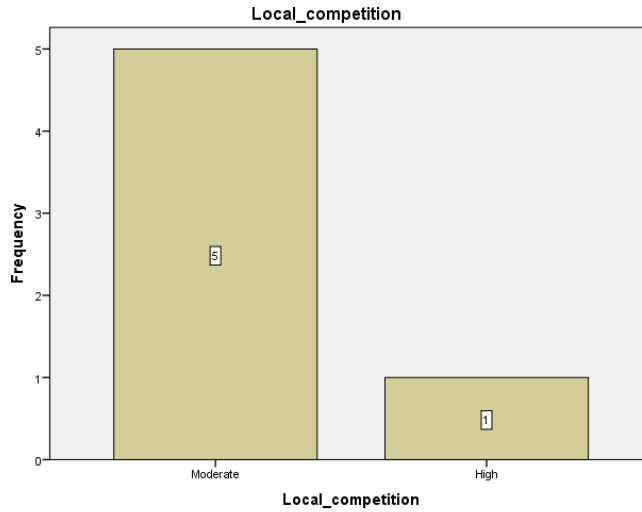


Figure 11. Prevailing competition

#### 4.4.3.2. *Specialization.*

Participants were asked to mention whether they specialize in any specific dairy products or product lines. Five out of six companies agreed that they make specialized products while one company mentioned they do not specialize in any product:

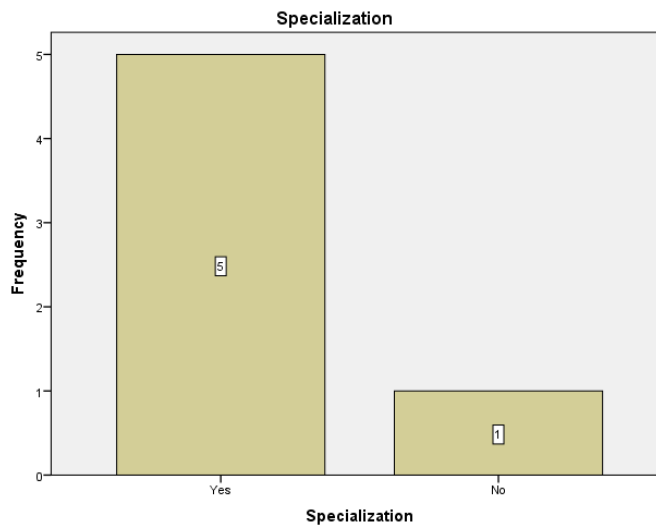


Figure 12. Specialization

**4.4.3.3. New product introduction frequency.**

Analysis further reveals that half of the companies (3 out of 6) frequently introduce new products/new product variants to meet the market demand, while, remaining companies express mixed response where one company very frequently introduces new products, one company occasionally introduces new products, and one company regularly introduces new products.

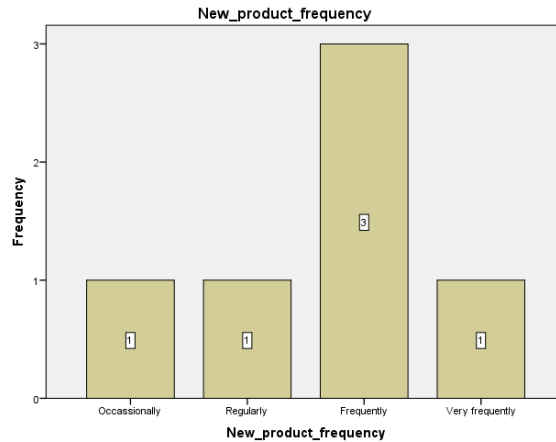


Figure 13. New product introduction frequency

**4.4.3.4. Competitive strategies.**

The management of targeted companies was also asked to mention the strategies they employ to stay competitive in the local dairy market. A mixed response was received, as three out of six companies mentioned product differentiation as the key competitive strategy, two companies mentioned innovation, and one company mentioned marketing and promotion as the key strategy to enhance the competitive positioning in the market.



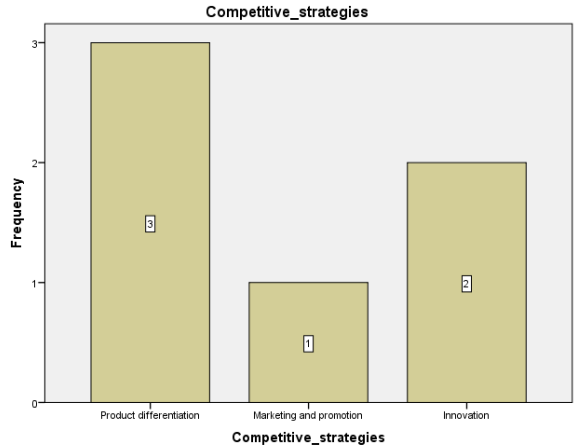


Figure 14. Competitive strategies

#### 4.4.3.5. Distribution and sales channels.

Other than asking about the competition, the management of targeted companies was asked to share their perceptions about distribution and sales channels. The analysis revealed that four out of six companies strongly agreed that their distribution channels are effective, one company showed simple agreement, while, one company showed a neutral response, indicating the room for improvement.

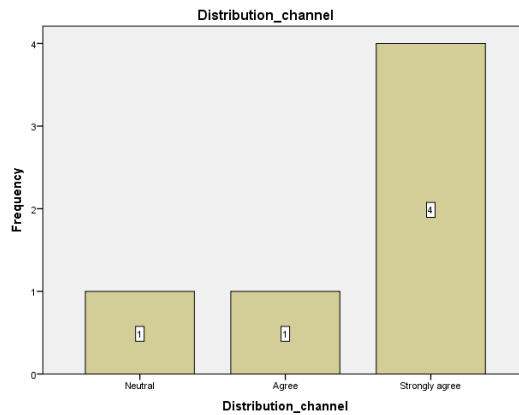


Figure 15. Distribution and sales channels

#### 4.4.3.6. Exclusive distribution contracts.

Participants were also asked about any exclusive distribution contracts they possibly have with specific partners or retailers in Qatar. The analysis indicated that four out of six companies strongly agree that they have exclusive distribution contracts in place, whereas, two companies strongly disagreed, showing no exclusive distribution contracts.

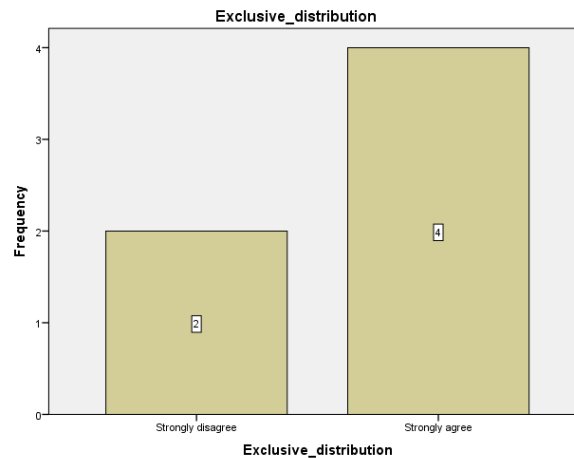


Figure 16. Exclusive distribution contracts

#### 4.4.3.7. Sales and marketing approach.

The participants were also asked whether their sales and marketing approach effectively reaches a wider audience in Qatar. The response analysis showed that an overwhelming majority (5 out of 6) strongly agreed that their marketing and sales approach targets wider audience, while 1 showed a simple agreement, showing a possible room for improvement.

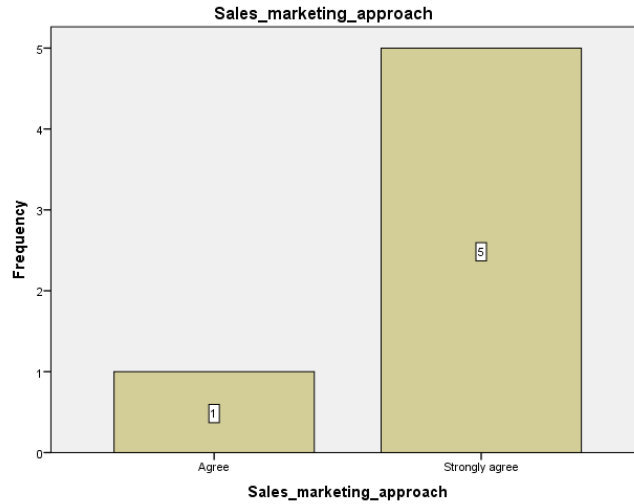


Figure 17. Sales and marketing approach

**4.4.3.8. Perceived challenges and opportunities.**

In the last section of survey, the participants were asked to mention the challenges and opportunities they face while operating in the local dairy food market. The response analysis suggests that five out of six respondents mentioned that the challenges and opportunities exert a moderate impact on the companies’ decisions, while one company mentioned the existing challenges/opportunities are only minor, showing external environment (both- positive and negative factors) have only minimal to moderate impact on business operations.

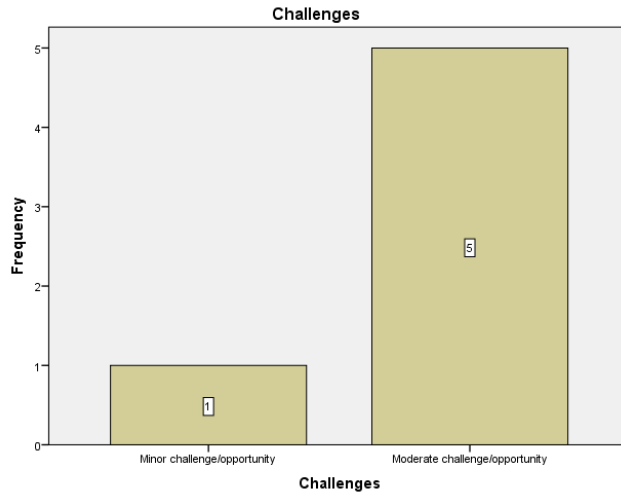


Figure 18. Perceived challenges and opportunities

With respect to government regulations, the analysis shows a mixed response, where two out of six companies considered the impact of government regulations on business operations moderate, and two considered this impact to be significant. One respondent considered the impact to be minor, and one considered it major. On average, the response shows the impact of government regulations is moderate to significant.

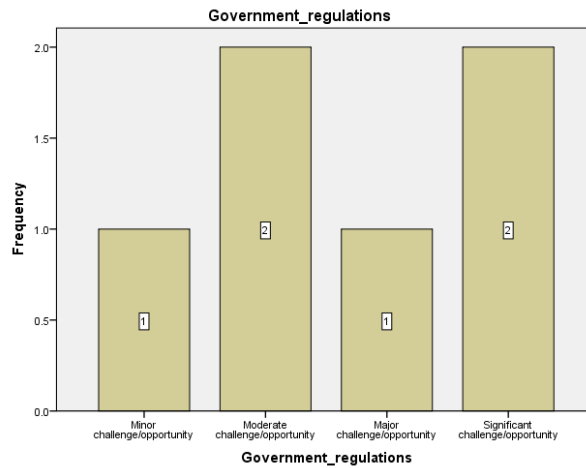


Figure 19. Government regulations

Lastly, the participants were asked whether they see emerging opportunities or trends in the Qatari dairy market that their company plans to explore. The response analysis suggests that

three out of six respondents mentioned that significant opportunities are available in the market, two mentioned that the opportunities are only moderate, while one mentioned the opportunities are only minor.

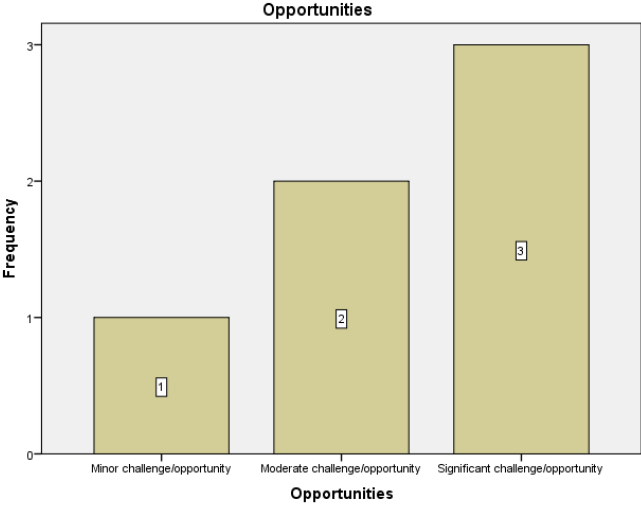


Figure 20. Opportunities

**4.4.3.9. Overall analysis.**

The overall analysis indicates the varying perceptions of the local competition, highlighting the need for dairy product companies to develop an in-depth understanding of the competitive landscape. The existing players are adopting strategies like innovation and product differentiation to secure the competitive positioning in the market. As half of the companies frequently introduce new variants, it shows the critical importance of innovation and adaptability to survive in Qatari local dairy product industry. The response is mixed towards the distribution channel effectiveness, showing the significant of assessing and optimizing the distribution strategies.

Companies should also aim to enhance the distribution efficiency to leverage the market opportunities. The mixed to positive perceptions about the influence of government regulations on business operations indicate the need to closely monitor and adapt to the changes in regulatory environment. It is important to strike the balance between business flexibility and compliance to navigate the environmental challenges. As majority participants acknowledged the opportunities, it paints a positive outlook of the industry, and companies should actively leverage the emerging trends to remain competitive in the dairy food market. Companies agreed that they have effective marketing strategies in place, which could be leveraged to strengthen the brand positioning and broaden the market reach.

After presenting both- primary and secondary data from customers and managers, the next section now analyzes the overall survey findings in light of literature to answer each research question.

#### **4.5. Discussion in light of literature**

Based on the primary and secondary results, the researcher found the clear indications of the monopolistic behavior in the dairy sector of Qatar. The industry is dominated by a few key players, including- Baladna, Alwajba, Rawa, Ghadeer, and Al Maha. These firms exhibit the characteristics of control and dominance over the market, which reflects in their strategic partnerships and focus on attaining the self-sufficiency. Answering the second research question, the analysis suggested that the prevailing monopolistic tendencies exert a weak influence on consumer welfare, including the product pricing, diversity, quality, and accessibility. The

customers shared mixed sentiments, as many customers seemed satisfied, but some shared concerns over product quality and pricing.

Some respondents even expressed the dissatisfaction with product quality (particularly cheese). Even though, the quantitative mean value analysis suggested monopolistic tendencies exert no significant influence on consumer welfare, as customers seemed overall satisfied with the quality and variety, but the analysis of open-ended responses indicated that the monopolistic tendencies do affect the consumer welfare by raising quality and accessibility concerns. The pricing concerns are though less prevalent, which means the monopoly exerts more influence on product variety, and quality than price. The literature also suggests that limited variety could be a direct consequence of monopoly (Abu Basher et al. 2013).

With respect to the economic ramifications, the monopolies in the Qatari dairy industry, the analysis suggests that the limited competition is impeding the innovation, influencing the consumer choices (as evident in the analysis of open-ended responses). However, disagreeing to the literature (like Abu Basher et al. 2013), the limited competition in the dairy industry does not cause price hike. A similar assertion was made by (Ben Hassen et al. 2020), who considered monopolistic influence to be insignificant on price hikes in presence of strict government control. Moreover, the strategic partnerships and continuing commitment to the sustainability and quality protect the consumer welfare and contribute to the economy. It supports the Ben Hassen et al.'s (2020) assertion that monopolies can positively contribute to the economy and society as well. In terms of social ramifications, the analysis highlights mixed insights.

On positive side, the local dairy firms actively invest on the sustainability to serve the national interests, and their business objectives also share an alignment with the Qatar's 2030

vision. However, on flip side, the concerns over quality could possibly influence the consumer health, and limited product variety can raise accessibility concerns.

The overall analysis could be based to present following practical implications:

#### **4.6. Practical implications**

- Qatari dairy companies should focus on increasing the product diversity by introducing new flavors, variants, and dairy product types to enhance the satisfaction.
- The companies must carefully listen to, and address the consumers' concerns about the product quality by investing on the quality control measures. The consistency in the taste and quality must be ensured, and specific concerns over milk and cheese should be addressed.
- The Qatari government should play more active role to promote the fair competition by implementing the policies that discourage anti-competitive practices, encouraging new entrants, and revisiting the regulations to ensure consumer welfare.
- Companies may also engage in the consumer education campaigns to communicate their commitment to quality and sustainability, contributing to the changing perceptions and increasing consumers' confidence over local products.
- Continuous investment on the innovative marketing and communication strategies is needed to improve the market position and build the brand image.
- More collaboration and partnership opportunities should be explored to create the synergic effect, accelerating innovation, and protecting the consumer welfare by promoting the industry competitiveness.



- The government and industry players must collaborate with each other to ensure product availability through improved distribution channels, ultimately contributing to the national vision of consumer welfare and sustainability.

#### **4.7. Chapter summary**

To sum up, the analysis of collected data confirms the prevalence of monopolistic tendencies in the Qatari dairy industry, and mixed insights emerge about how the monopolistic tendencies influence the consumer welfare on economic and social grounds. Overall, the analysis noted that although the monopolistic tendencies influence consumer welfare both positively and negatively, Qatari local dairy customers' satisfaction largely depends on the diversity and quality than pricing.

After presenting and discussing the data, next chapter now concludes the discussion by presenting a detailed summary of results.

## CHAPTER 5: CONCLUSION

This chapter presents the summary of findings and draws an overall conclusion for each research question. The chapter also discusses the contribution to the knowledge, and presents practical implications of the proposed results. At the end, the chapter presents the limitations of the study, and makes some suggestions for future research.

### **5.1. Summary of the Study**

Monopolistic tendencies in the Qatari dairy industry are garnering attention. This research study investigated the presence and consequences of the monopolistic behavior in the Qatari dairy industry. Based on the survey with 102 Qatari local dairy customers and 6 company managers, the study answered four research questions. First research question was to understand the extent to which monopolistic behaviors manifest in Qatar's dairy products sector. Based on findings, the study concludes that the Qatari dairy industry does exhibit some monopolistic tendencies, which reflect in the presence of only a limited number of firms, and their drive to attain the self-sufficiency. The local dairy customers and companies- both discussed the monopolistic tendencies of the dairy sector. However, the mixed insights emerged with respect to the impact of monopolistic tendencies on the consumer welfare, including- pricing, product quality and accessibility.

In connection with this, the second research question was to understand how monopolies influence consumer welfare, including pricing, product quality, and accessibility. Based on quantitative and qualitative survey data, the researcher found that the prevailing monopolistic tendencies have a nuanced influence on the consumer welfare. While, the quantitative survey data suggested a weak impact, the qualitative open-ended responses unveiled the concerns over

the accessibility and product quality, leading to dissatisfaction. This dissatisfaction and mixed opinions towards the price, quality, availability, and variety suggests that the monopolistic forces may exert an impact on the consumer welfare. The pricing concerns are though less pronounced, the consumers are more concerned about the taste, quality, and variety.

Third research question was to evaluate what are the economic ramifications of monopolies in dairy sector on Qatar's economy, while fourth question was to analyze the social implications of monopolies, including their role in access to essential goods, and the overall well-being of Qatar's population. Based on overall data, the study concludes that the economic ramifications of the monopolies in Qatari dairy industry reflect in the limited competition impeding the innovation, which results in limited consumer choices (as evident in open-ended responses). However, the companies tend to mitigate this negative impact by investing on the strategic partnerships, latest technologies, and sustainability commitments. The monopoly seems to exert no significant impact on the pricing, and also has minimal influence on the consumer spending (as consumers spend frequently on dairy products-as evident in survey results). On social front, the local dairy businesses share an alignment with the Qatar' 2030 vision, and are investing actively on the sustainability. But, limited variety and quality concerns could raise accessibility issues, and affect consumer health.

Overall, the consumer satisfaction in the Qatari local dairy industry is influenced by consumption frequency, product diversity, and product affordability, while consumers' demographic characteristics play no important role in the shaping their opinions towards product characteristics, or their satisfaction with the local dairy products.

After presenting the results summary, the next section explains the contribution to the knowledge (both- theoretical and practical).

## **5.2. Contributions to Knowledge**

The study contributes to the existing knowledge by extending the on-going debate on how monopolistic tendencies can possibly influence the consumer welfare. The study provides context specific empirical evidence to highlight the factors that positively or negatively influence the customer satisfaction in a market that shows monopolistic tendencies. The research also adds to the literature by exploring the challenges and opportunities that Qatari local dairy firms have while operating in the monopolistic market. The proposed insights could be used by multiple stakeholders to get valuable insights. For instance, the local dairy consumers can review the findings to understand the overall consumption trends. The local dairy companies can find the results useful to understand how they can strengthen the market presence by better understanding the consumer behavior, and adapting their marketing and business strategies accordingly. Qatari government and policy makers can also review the results to understand how prevailing monopoly is influencing the consumer welfare, and how the negative impact can be tackled by revisiting the existing regulations. The proposed findings are applicable to whole dairy sector in the Qatar, as the data has been collected from all dairy food firms currently operating in Qatar. Moreover, as consumer data has been collected from a diverse sample, so findings are applicable to Qatari dairy consumers in general. But, it is important to note that the sample size is small (considering the huge population), which can somehow weaken the findings' generalizability for all Qatari dairy consumers.

After explaining the contribution to theoretical and practical knowledge, next section now outlines the key research limitations.

## **5.4. Limitations of the Study**

The study has certain limitations. The sample size is limited, which could possibly affect the generalizability of proposed results. The management's perspective is under-represented, as only limited data could be collected in available time. No enough qualitative data could be collected, as researcher only collected qualitative data through open-ended questions. No in-depth interviews were conducted. The researcher quantitatively analyzed the influence of only a limited set of variables (like consumption frequency, diversity, and affordability) to evaluate the satisfaction. The addition of more variables could have enhanced the prediction power of model, providing a broader understanding of research problem. Lastly, the findings hold specific applicability for only dairy firms in Qatar, as data has only been collected from local Qatari dairy industry.

### **5.5. Suggestions for Future Research**

Future researchers may consider collecting data from a large set to enhance the generalizability, and collect qualitative data by conducting in-depth interviews. Another possible future research area could be collecting more data from the companies' management to enhance their representativeness. This study only focused on dairy industry. Future researchers may consider collecting primary data from dairy sector, and conduct comparison to highlight how monopolies influence the consumer welfare in different sectors. Future studies may consider adding more consumer behavior variables (like product sustainability, marketing and branding etc.) to enhance the model's predicting power. Lastly, future studies may also consider taking perspective from multiple stakeholders (like customers, company managers, and policy makers) to understand the positive and negative influence of monopolistic tendencies on the consumer welfare

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## APPENDICES A:

### **Consumer Survey: Local Dairy Products in Qatar**

Dear respondent,

Thank you for participating in this survey. Your insights are valuable and will contribute to understanding consumer perspectives on local dairy products in Qatar. Please take a few moments to answer the following questions.

#### **Section 1: Demographics**

1. Age:

- Under 18 (1)
- 18-24 (2)
- 25-34 (3)
- 35-44 (4)
- 45-54 (5)
- 55-64 (6)
- 65 or older (7)

2. Gender:

- Male (1)
- Female (2)
- Prefer not to say
- Other (please specify)

3. Nationality:

- Qatar (1)
- Palestinian (2)
- Egyptian (3)
- Jordanian (4)
- Syrian (5)
- Indian (6)
- Canada (7)

- Others (8), including- Oman, Bahrain, Sri Lanka, UK, Sudan, Algeria, Spain

## **Section 2: Dairy Product Preferences**

4. Do you consume local dairy products in Qatar?
  - Yes (1)
  - Occasionally (2)
  - No (3)
5. What types of local dairy products do you usually consume? (Select all that apply)
  - Milk (1) (88 times)
  - Yogurt (2) (96 times)
  - Cheese (3) (80 times)
  - Butter (4) (105 times)
  - Laban (Buttermilk) (5) (63 times)
  - Other (please specify) (deserts, ice cream yogurt).

## **Section 3: Product Diversity and Availability**

6. How would you rate the diversity of local dairy products available in Qatar?
  - Excellent (1)
  - Good (2)
  - Fair (3)
  - Poor (4)
  - Not Applicable (5)
7. Are there any specific local dairy products that you find difficult to find in the market?  
Please specify.

## **Section 4: Pricing and Affordability**

8. How do you perceive the pricing of local dairy products compared to imported ones?
  - Local products are more expensive (1)
  - Local products are equally priced (2)
  - Local products are more affordable (3)
  - I don't know (4)
9. Are the prices of local dairy products in Qatar affordable for your budget?

- Yes
- Sometimes
- No

### **Section 5: Product Quality**

10. How satisfied are you with the quality of local dairy products in Qatar?

- Very satisfied (1)
- Satisfied (2)
- Neutral (3)
- Dissatisfied (4)
- Very dissatisfied (5)

11. Have you ever encountered quality issues with local dairy products? If yes, please describe. (1- reasons, 2- no challenge)

### **Section 6: Challenges and Concerns**

12. What challenges, if any, do you see in the local dairy industry in Qatar? (e.g., quality, availability, pricing)

### **Section 7: Final Thoughts**

13. Overall, what is your opinion of local dairy products in Qatar?

Please feel free to provide any additional comments or suggestions related to local dairy products in Qatar:

Thank you for participating in this survey. Your feedback is greatly appreciated and will be used for research purposes only.

Sincerely,

## APPENDICES B:

### Survey Questionnaire: Dairy Company Competition and Operations

Dear [Company Name],

We are conducting a research study on the dairy industry in Qatar, and your valuable insights will greatly contribute to our research. Your responses will remain confidential and used solely for research purposes.

#### Section 1: Company Information

**1. Company Name:**

1. 2. Contact Person:
2. Position:
3. Contact Email:
4. Contact Phone Number:

#### Section 2: Competition and Production

1. How do you perceive the level of competition among local dairy companies in Qatar?
  - a. Low
  - b. Moderate
  - c. High
2. Are there specific product lines or dairy products that your company specializes in?
  - a. Yes
  - b. No
3. How frequently does your company introduce new dairy products or variations to meet market demand?
  - a. Rarely
  - b. Occasionally
  - c. Regularly
  - d. Frequently
  - e. Very Frequently
4. What strategies does your company employ to stay competitive in the local dairy market?
  - a. Cost Leadership



- b. Product Differentiation
- c. Market Expansion
- d. Marketing and Promotion
- e. Innovation
- f. Other (Please Specify): \_\_\_\_\_

### **Section 3: Distribution and Sales**

Please rate the following statements on a scale from 1 to 5, where 1 is "Strongly Disagree" and 5 is "Strongly Agree":

1. Our company's distribution channels for dairy products are effective.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree
2. We have exclusive distribution contracts with specific retailers or partners in Qatar.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree
3. Our sales and marketing approach effectively reach a wider audience in Qatar.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree

### **Section 4: Challenges and Opportunities**

Please rate the following statements on a scale from 1 to 5, where 1 is "Not a Challenge/Opportunity" and 5 is "Significant Challenge/Opportunity":

1. Challenges or obstacles in the local dairy industry significantly impact our operations.
  - Not a Challenge/Opportunity
  - Minor Challenge/Opportunity
  - Moderate Challenge/Opportunity
  - Major Challenge/Opportunity
  - Significant Challenge/Opportunity
2. Government regulations or policies have a significant impact on our operations.
  - Not a Challenge/Opportunity
  - Minor Challenge/Opportunity
  - Moderate Challenge/Opportunity
  - Major Challenge/Opportunity
  - Significant Challenge/Opportunity
3. We see emerging opportunities or trends in the Qatari dairy market that our company plans to explore.
  - Not a Challenge/Opportunity
  - Minor Challenge/Opportunity
  - Moderate Challenge/Opportunity
  - Major Challenge/Opportunity
  - Significant Challenge/Opportunity

Participants can select the appropriate response for each question to indicate their perception, company practices, and strategies related to competition and production in the local dairy market in Qatar.